

Statistics and analyses

# Risk Outlook

10

October 2015



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PER LE SOCIETÀ E LA BORSA

The Risk Outlook analyses the current economic situation and the trends in financial markets in order to identify the main risks affecting the achievement of Consob's institutional objectives.

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## La congiuntura e i rischi

Nel corso del 2015 i principali indici azionari delle economie avanzate hanno mostrato un andamento discontinuo. Nell'area euro le tensioni connesse alla rinnovata crisi greca e al rallentamento dell'economia cinese hanno determinato, a partire dalla seconda metà dell'anno, cali generalizzati dei corsi azionari che hanno annullato i guadagni dei primi mesi. I mercati azionari hanno inoltre sperimentato un aumento della volatilità e dei volumi negoziati, a fronte di un peggioramento della liquidità e di una intensificazione dei fenomeni di *herding behaviour*, in particolare con riferimento ai titoli del settore bancario. Nello stesso periodo, la politica monetaria della BCE ha comportato un ulteriore appiattimento delle curve dei rendimenti dei titoli di Stato dei paesi dell'Eurozona, portando i tassi a lungo termine dei principali paesi dell'eurozona su valori negativi o prossimi allo zero. Hanno altresì raggiunto valori negativi anche i tassi di interesse sul mercato interbancario ed è cresciuto l'utilizzo da parte delle banche della *deposit facility* presso la BCE. Sui mercati obbligazionari, anche per effetto dell'eccesso di liquidità, il differenziale tra i rendimenti dei titoli di debito con diverso merito di credito rimane contenuto, segnalando una perdurante propensione al *search-for-yield* da parte degli investitori.

L'impatto di tassi di interesse negativi sull'economia reale è nel complesso incerto. Nel breve termine, oltre a migliorare la sostenibilità del debito pubblico, essi possono stimolare la ripresa economica favorendo il calo del costo del capitale di debito, il credito bancario al settore privato e il ricorso al mercato obbligazionario da parte delle imprese. Tali effetti, tuttavia, non sono ancora apprezzabili nell'area euro poiché, nonostante il miglioramento delle condizioni di accesso al credito bancario, gli impieghi delle banche verso le società non finanziarie continuano a ridursi nei paesi periferici, principalmente a causa di debolezze strutturali del sistema bancario e di requisiti prudenziali sempre più stringenti. Inoltre, le emissioni obbligazionarie da parte delle società non finanziarie restano stabili, nonostante le favorevoli condizioni di mercato. Nel lungo periodo, a fronte di persistenti pressioni deflazionistiche derivanti dal calo del prezzo delle materie prime e da possibili shock esterni all'area euro, tassi di interesse negativi possono risultare distorsivi, incentivando un'eccessiva assunzione di rischio con riflessi negativi sull'allocazione delle risorse, la stabilità del sistema finanziario e la tutela degli investitori.

In questo contesto, l'area euro rimane esposta a diversi rischi al ribasso. Oltre alla debolezza dell'attività economica, le crescenti vulnerabilità dei mercati emergenti potrebbero avere ripercussioni sui paesi dell'Eurozona attraverso canali di trasmissione diretti, quali legami finanziari e reali, e indiretti, quali la fiducia e le aspettative. Finora il contagio verso i mercati finanziari dell'area euro è apparso circoscritto, così come sono risultati contenuti l'interscambio commerciale e le esposizioni finanziarie. Tuttavia, il rallentamento delle economie emergenti, deprimendo ulteriormente i prezzi delle *commodities*, rende più concreto il rischio di un processo deflazionistico nell'area euro.

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Le incertezze e i rischi associati a un'attività economica debole, tassi di interessi negativi, bassa inflazione e persistente contrazione dei prestiti bancari nei paesi periferici dell'Eurozona, evidenziano la necessità di ulteriori interventi di politica economica a completamento delle iniziative di politica monetaria. Come sottolineato nel Risk outlook n. 9, lo sviluppo di un mercato unico dei capitali in Europa (*Capital Markets Union* – CMU), rappresenta un'iniziativa cruciale a sostegno della crescita economica. Lo sviluppo di fonti alternative al credito bancario favorirebbe, in particolar modo, le piccole e medie imprese tradizionalmente in difficoltà nell'accesso ai mercati dei capitali.

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## Trends and risks

During 2015, stock prices in advanced countries have retraced back to early year values, mainly because of external shocks given by renewed fears of a Greek default and concerns on the systemic impact of the deceleration of China's economic growth. In the euro area, these shocks thwarted the benign market climate spurred by the ECB quantitative easing (QE) and by the expectations of a sustained recovery. Increased external turbulences raised volatility and trading volumes in equity markets, worsened liquidity conditions and increased perception of extreme events. Herding behavior in the Eurozone equity markets rose and information efficiency of equity prices decreased, especially in the banking sector. The ECB expansionary stimulus is having a significant impact on sovereign bond markets. Yield curves have enormously flattened and even long rates are now negative in core euro area countries. Negative rates on the interbank market may be causing some of the liquidity to ebb back to the ECB as the deposit facility is again increasing. Ample liquidity on fixed income markets keeps tightening bond spreads, with the reduced differences across rating categories signaling an increased investors' search-for-yield.

This unprecedented environment might positively impact real and financial variables in the short term, while posing risks in the long term. In the short run, besides benefiting public debt sustainability, negative interest rates might fuel recovery by boosting bank lending and corporate bond issuance and by lowering corporate funding costs. However, despite the ongoing easing in credit standards, bank loans to non-financial companies keep declining in peripheral countries, mainly because of the persistent structural weakness of the banking sector and the increased demand of regulatory capital. On the other hand, activity on corporate bond primary markets remains substantially stable and firms are not apparently yet exploiting the favourable market conditions. In the long run, a persistent environment of negative rates, coupled with deflationary pressures coming from low commodity prices and subdued activity in emerging countries, may introduce distortions into market participants' incentives, and cause excessive risk taking or resource misallocation, with possible detriment to financial stability and investors' protection.

Therefore, the overall the impact of a negative interest rate environment is highly uncertain. Moreover, the euro area financial markets remain exposed to the downside risks of a weak and uneven recovery as well as to emerging markets vulnerabilities, which could spillover indirectly through confidence channels and directly through trade and financial linkages. So far indirect spillovers seem to have only temporarily fueled financial contagion across advanced economies. As for direct effects, the Eurozone is currently suffering a deflationary process driven also by the turn in commodity cycle partially triggered by emerging countries' decelerating growth, whilst trade and financial exposures appear to be limited compared with those of the US and Japan.

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Uncertainties and risks posed by the current environment of weak economic growth, negative long rates, low inflation, and impairment of the bank lending channel claim for additional policy actions. As discussed in Risk outlook n. 9, the development of a single European capital market, as recently advocated by the European Commission's Action Plan on Capital Markets Union (CMU), represents a key policy initiative to sustain economic growth by complementing banks as a source of financing. A properly envisaged CMU would especially benefit SMEs, which are historically penalized by restricted access to capital markets.

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## Equity markets

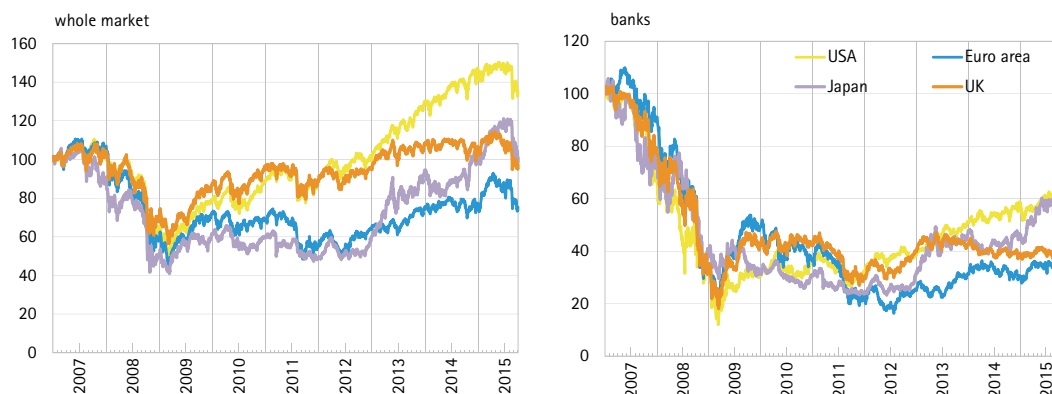
During 2015, advanced countries stock indexes have retraced back to early year values, mainly driven by Greece's bailout and concerns about China's economy slowing faster than anticipated. In the euro area, emerging markets' turmoil and uncertainties about the economic outlook have thwarted the benign market climate spurred by the ECB's QE launched in January (Figures 1.1 and 1.2). Adverse trends in emerging equity markets reflect rising downside risks to the outlook of their economies. Commodity-exporting countries such as Brazil and Russia are increasingly exposed to a declining commodity price environment, while decelerating growth prospects are among the main factors hitting China (Figure 1.3). Increased turbulence in global stock markets have raised volatility (which in the euro area peaked to its highest since 2011 sovereign debt crisis) and trading volumes, especially in China where they reached unprecedented levels (Figures 1.4 and 1.5). Trading volumes for the main Eurozone have experienced only a moderate increase in France and Germany, while remaining substantially stable in Italy and Spain (Figure 1.6). Along with equity markets' downturn, since April 2015 liquidity conditions have deteriorated both in the Eurozone and Italy (Figure 1.7). However spillovers from Greece and emerging markets turbulence seem to have only temporarily fueled financial contagion in the Eurozone, vis-à-vis the heightened degree of integration of euro area stock markets, showing an increasingly homogeneous sensitivity to common shocks across countries, after the decoupling between core and peripheral economies experienced in the aftermath of the sovereign debt crisis (Figures 1.8 and 1.9). Notwithstanding the limited systemic implications of recent financial markets' turmoil, risk aversion and investors' perception of extreme events have risen as well as herding behaviour. In particular this phenomenon showed up in banks' stocks on the renewed Greek tensions, widening further the gap with non-financials. Consistently informational efficiency worsened in the banking sector (Figures 1.10 and 1.11). At the end of the third quarter, short term expectations on euro area stock returns result improved on average with respect to March 2015, even if they tend to be more dispersed, while remaining substantially stable in Italy (Figure 1.12). Over the same period, misalignment between stock prices and fundamentals has been increasingly tightening in the Italian banking sector for the first time since the second half of 2013. Instead, Spanish banks seem to remain largely undervalued, both against E/P and risk premia and against the business cycle. For French and German banks some evidence of under- or overvaluation emerges only against the business cycle (Figure 1.13). Market prices of euro area non-financial firms seem overvalued against the business cycle in Italy, France and Germany. In Italy, overvaluation is supported also by theoretical values based on E/P and risk premia. Such misalignment might reflect positive expectations about Italian non-financial companies perspectives, since their profit vulnerabilities are reducing in 2015. Overall, market prices seem now more in line with fundamentals than they were during the large undervaluation episode over the 2009 financial crisis (Figure 1.14).

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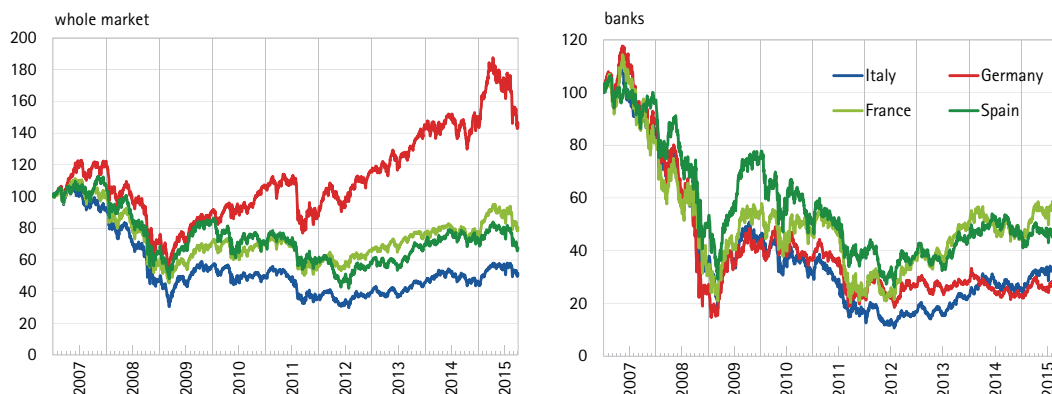
During 2015, advanced countries stock indexes have retraced back to early year values, mainly driven by Greece's bailout and concerns about China's economy slowing faster than anticipated. In the euro area, emerging markets' turmoil and uncertainties about the economic outlook thwarted the benign market climate spurred by the ECB's QE launched in January.

**Figure 1.1 – Advanced countries stock index prices**  
(daily data; 01/01/2007 – 30/09/2015; 01/01/2007 = 100)



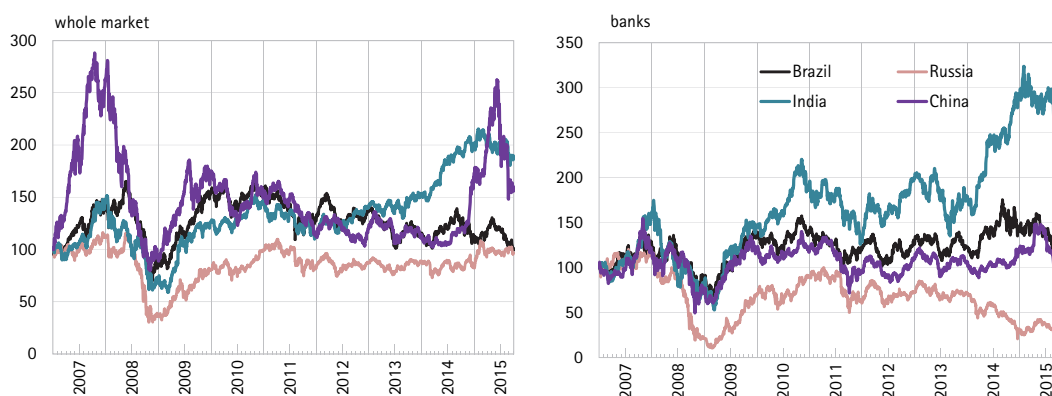
Source: Thomson Reuters Datastream. Stock indexes represented in the left graph are: S&P500 (USA), Nikkei 225 (Japan), Ftse100 (UK), Euro Stoxx 50 (euro area). Stock indexes represented in the right graph are: S&P500 Banks, Euro Stoxx Banks, Japan Ftse Banks and UK Ftse Banks.

**Figure 1.2 – Stock indexes of the main Eurozone countries**  
(daily data; 01/01/2007 – 30/09/2015; 01/01/2007 = 100)



Source: Thomson Reuters Datastream. Stock indexes represented in the left graph are: Ftse Mib (Italy), Cac40 (France), Ibex35 (Spain), Dax30 (Germany). Stock indexes represented in the right graph are domestic Ftse Banks indexes.

**Figure 1.3 – BRIC stock indexes**  
(daily data; 01/01/2007 – 30/09/2015; 01/01/2007 = 100)



Source: Thomson Reuters Datastream. Stock indexes represented in the left graph are: Bovespa (Brazil), Micex (Russia), Sensex (India), Shanghai Schenzen 300 CSI (China). Stock indexes represented in the right graph are Ftse Banks indexes.

Adverse trends in emerging equity markets reflect rising downside risks to the outlook of their economies. Commodity-exporting countries such as Brazil and Russia are increasingly exposed to a declining commodity price environment, while decelerating growth prospects are among the main factors hitting China.



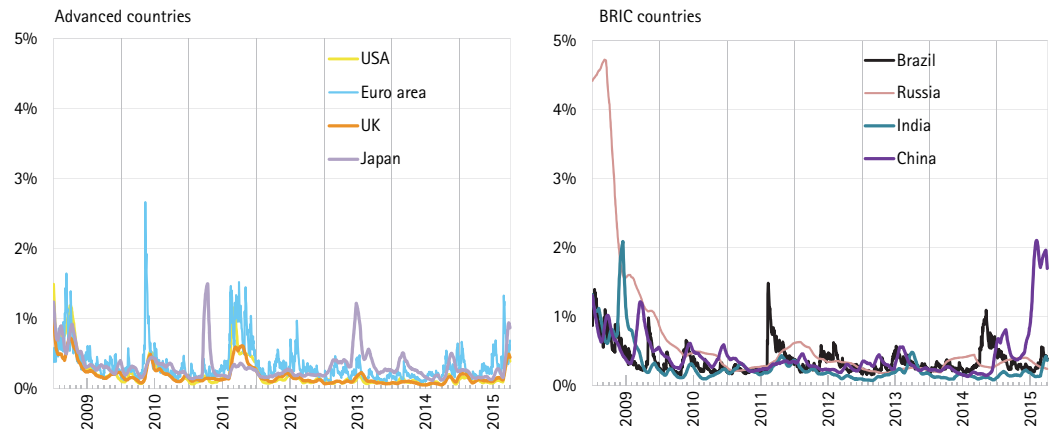
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Increased turbulence in global stock markets have raised volatility (which in the euro area peaked to its highest since 2011 sovereign debt crisis) ...

... and trading volumes, especially in China where they reached unprecedented levels.

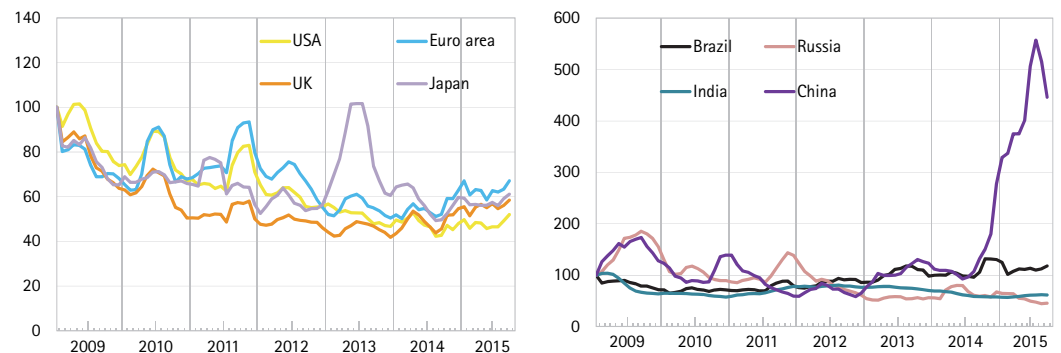
Data on trading volumes for the main Eurozone countries over 2015 show a moderate increase in France and Germany and a substantial stability in Italy and Spain.

**Figure 1.4 – Stock index historical volatilities**  
 (daily data; 01/01/2009 - 30/09/2015; annualized volatilities in percentage terms; 1-month moving average)



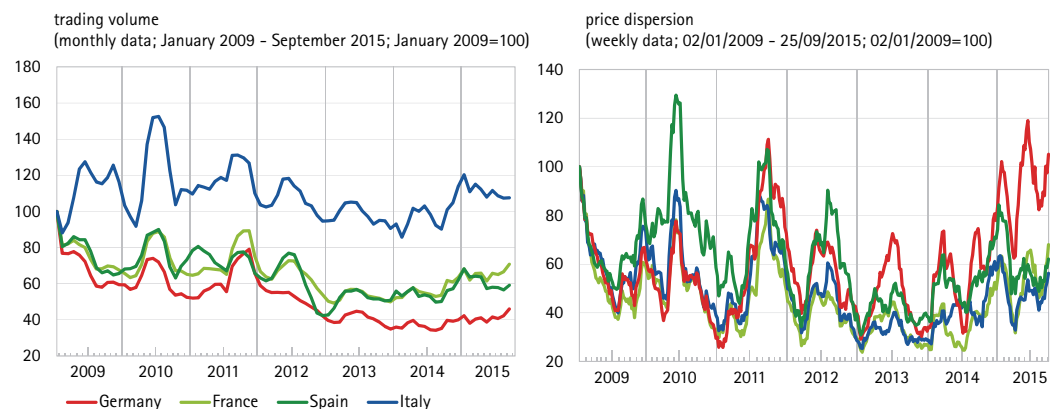
Source: calculations on Thomson Reuters Datastream data. Stock indexes represented in the left graph are: S&P500 (USA), Nikkei 225 (Japan), Ftse 100 (UK), Euro Stoxx 50 (euro area). Stock indexes represented in the right graph are: Bovespa (Brazil), Micex (Russia), Sensex (India), Shanghai Schenzen 300 CSI (China). Historical volatilities are estimated by applying multivariate Garch models.

**Figure 1.5 – Trading volume**  
 (monthly data; 4-month moving average; January 2009 – September 2015)



Source: calculations on Thomson Reuters Datastream data. Trading volume is deflated on the basis of stock index prices. The sample includes S&P500 (USA), Nikkei 225 (Japan), Ftse 100 (UK), Euro Stoxx 50 (euro area), Bovespa (Brazil), Micex (Russia), Sensex (India), Shanghai Schenzen 300 CSI (China) stock indexes.

**Figure 1.6 – Trading volume and price dispersion in the euro area**



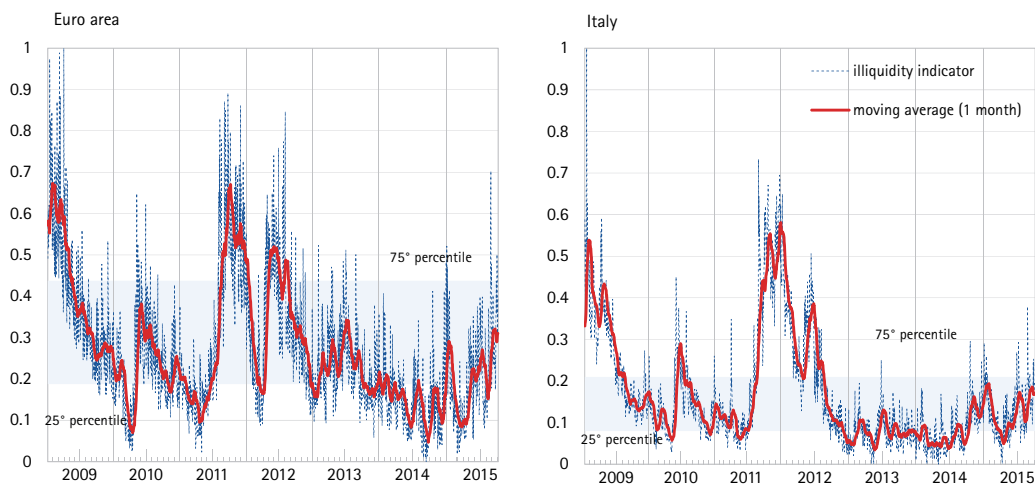
Source: calculations on Thomson Reuters Datastream data. Trading volume is deflated on the basis of stock index prices. The sample includes Ftse Mib (Italy), Cac40 (France), Ibex35 (Spain), Dax30 (Germany). Price dispersion is computed as the difference between the highest intraday price and the lowest intraday price.

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Along with equity markets' downturn, since April 2015 liquidity conditions have deteriorated both in the Eurozone and Italy.

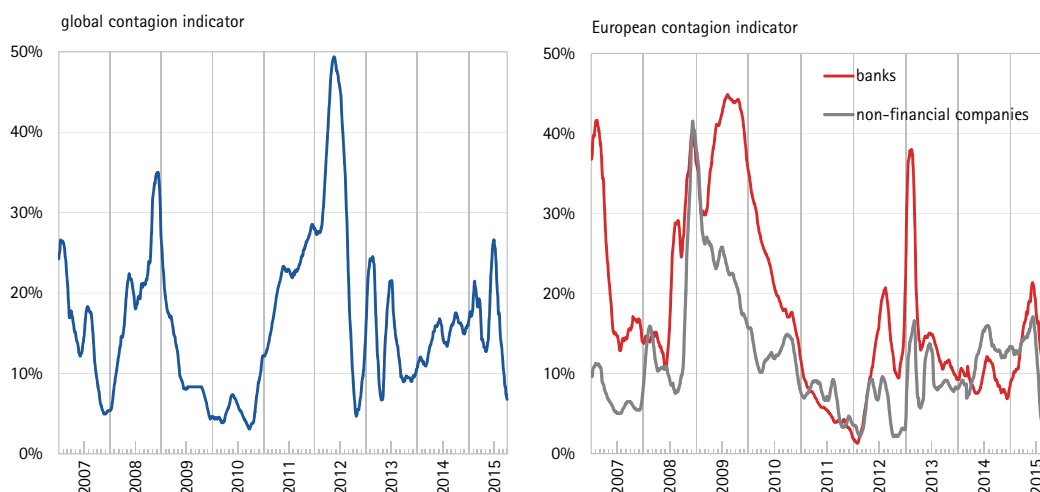
**Figure 1.7 – Stock market illiquidity in the euro area**  
(daily data; 01/01/2009 - 30/09/2015)



Source: calculations on Thomson Reuters Datastream data. The illiquidity indicator is the principal component estimated on illiquidity and volatility measures applied on Euro Stoxx 50 (euro area) and Ftse Mib (Italy) stock indexes: price impact (Amihud, 2002), bid-ask spread, implied volatility and historical volatility (range based estimator). The indicator is rescaled between zero (= high liquidity) and one (= low liquidity). The first and the third quartile of liquidity indicator sample distribution are reported.

Spillovers from Greece and emerging markets turbulence have only temporarily fueled financial contagion in the third quarter of 2015.

**Figure 1.8 – Stock index price contagion indicator**  
(percentage values; daily data; 01/01/2007 - 30/09/2015; 2-month moving average)

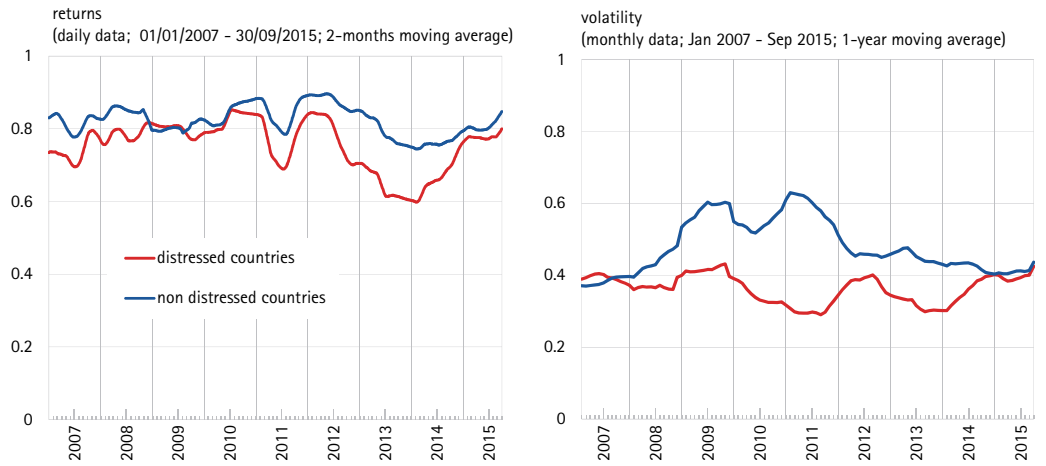


Source: calculations on Thomson Reuters Datastream data. On the left graph contagion is measured on the following stock index return time series: Merval (Argentina), Bovespa (Brazil), Micex (Russia), Sensex (India), Shenzhen SE (China), MSCI Turkey, S&P500 (USA), Euro Stoxx 50 (euro area), Ftse 100 (UK) and Topix (Japan). On the right graph contagion is measured on UK, Germany, France, Italy, Spain, Greece, Portugal, Ireland, Netherlands, Austria and Finland MSCI stock index return time series. For the methodology see Consob Working paper no. 72, 2012.

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In 2015 Eurozone stock markets have become more integrated as signaled by the increasingly homogeneous sensitivity to common shocks across countries, after the decoupling between core and peripheral economies in the aftermath of the sovereign debt crisis.

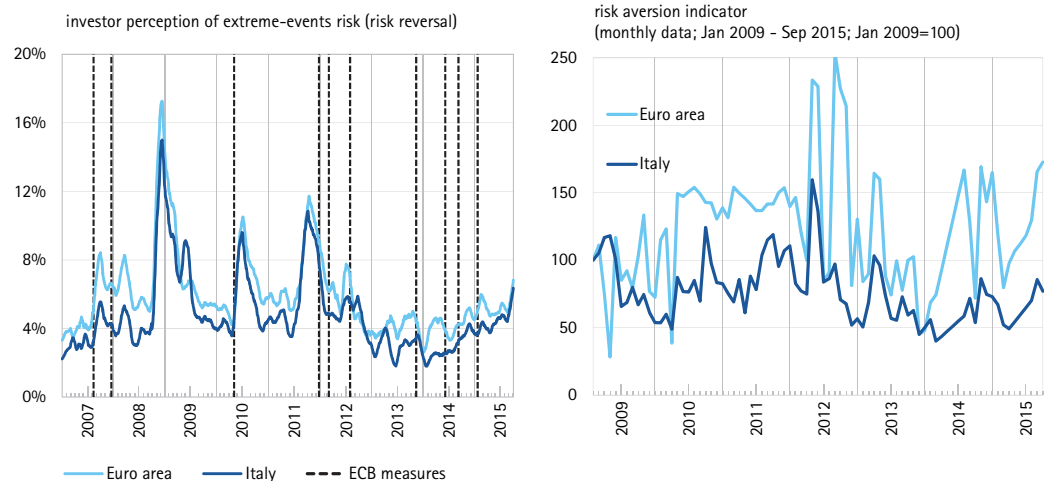
Figure 1.9 – Euro area stock market level of sensitivity to common shocks



Source: calculations on Thomson Reuters Datastream data. Left graph represents the explanatory power of common factor equity portfolio (see ECB- Financial integration in Europe, 2014), which is the average R-square of the following regression:  $return\_index_{i,t} = \alpha_{i,t} + \beta_{i,t}\theta_{i,t} + \varepsilon_{i,t}$ , where  $\theta_{i,t}$  is the return on the first common factor equity portfolio (first principal component) for country  $i$  on day  $t$ . Regressions are estimated recursively (200 observations window). Right graph represents variance ratios (see Baele *et al.*, 2004, and see ECB- Financial integration in Europe, 2014), which are computed in two steps. Firstly, domestic historical volatility time series are estimated by applying asymmetric Garch models ( $\sigma_{i,t}^2$ ). Secondly, the following regression is run for each country  $i$ :  $\sigma_i^2 = \alpha_i + \beta_i\sigma_{euro}^2 + \gamma_i\sigma_{usa}^2 + \varepsilon_i$ , where  $\sigma_{euro}^2$  and  $\sigma_{usa}^2$  are respectively EuroStoxx 50 and S&P500 stock index volatilities. The variance ratio indicator is computed as  $VR_{usa,i} = \frac{\beta_i\sigma_{usa}^2}{\sigma_i^2}$ . Non-distressed countries included in the sample are: Germany, France, Netherlands, Austria, Finland. Distressed countries included in the sample are: Italy, Portugal, Spain, Ireland.

Notwithstanding the limited systemic implications of recent financial markets' turmoil, risk aversion and investors' perception of extreme events have risen in Eurozone.

Figure 1.10 – Investor perception of extreme events and risk aversion indicator



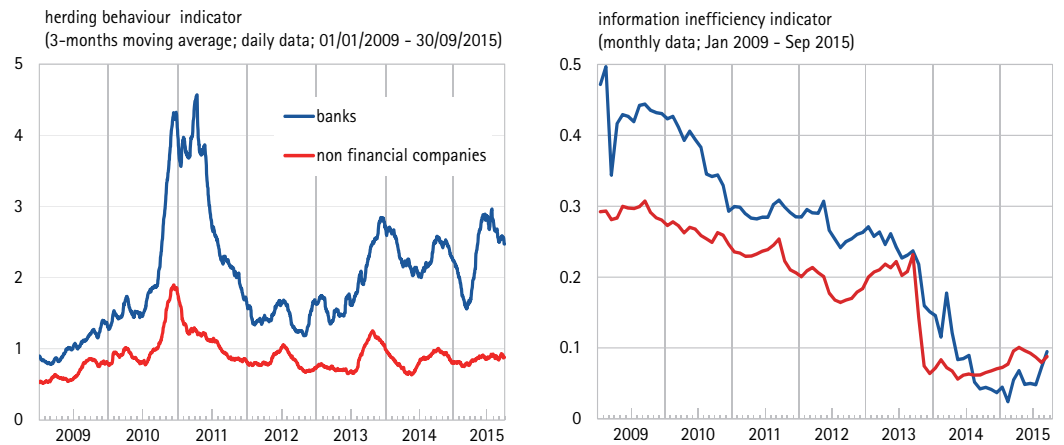
Source: calculations on Thomson Reuters Datastream and Bloomberg data. Risk neutral probability distributions are estimated on S&P500 and Euro Stoxx 50 option prices. The indicator of risk reversal (right graph) is defined as the difference between implied volatilities computed on put and the call out of the money options characterized by the same maturity (2 months) and equal risk premium sensitivity to the variations of the underlying asset price (delta equal to 25); the sample includes options on Euro Stoxx 50 (euro area) and on Ftse Mib (Italy). Higher values of the risk reversal indicator signals a higher perception of extreme-events risk (negative returns). The unconventional policy measures adopted by ECB and reported in the right graph are: 09/08/2007, injection of liquidity; 12/12/2007, swap agreement with Fed to inject liquidity in US dollars in exchange of guarantees in euro; 09/05/2010, Securities Market Programme; 20/12/2011, long-term refinancing operations (LTRO); 28/02/2012, LTRO; 26/07/2012, OMT announcement programme; 07/11/2013, interest rates cut; 05/06/2014, interest rates cut and TLTRO announcement; 04/09/2014, interest rates cut and ABSPP/CBPP3 announcement; 22/01/2015, PSPP announcement.

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During the second quarter of 2015, herding behaviour in Eurozone banks' stocks rose on the renewed Greek tensions, widening further the gap with non-financials. Consistently informational efficiency worsened in the banking sector.

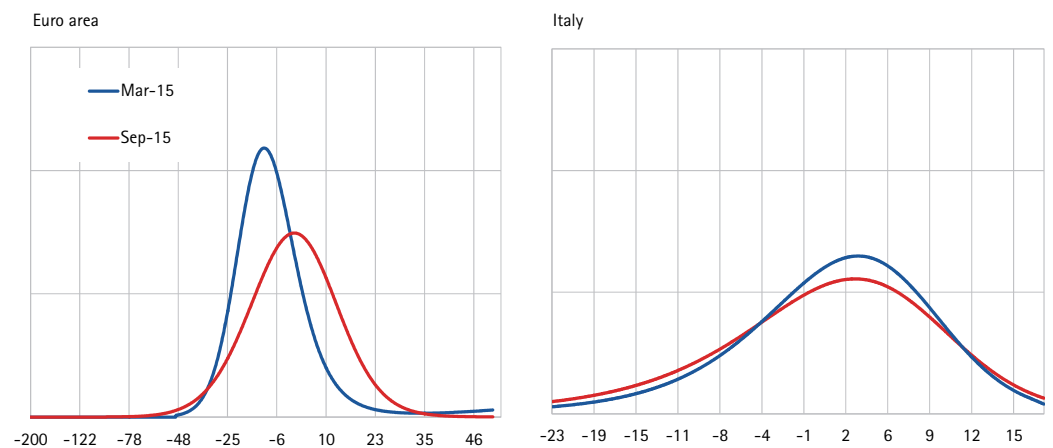
**Figure 1.11 – Herding behaviour and information inefficiency in the euro area stock markets**



Source: calculations on Thomson Reuters Datastream data. The indicator of herding behaviour is computed as the inverse of the standard deviation of stock market returns referring to main blue chips in the euro area (Chang, E., Cheng, J. and Khorana, A. 2000). A lower dispersion (i.e. a higher level of the indicator) signals that the investors adopt more frequently similar or imitative investment strategies and, therefore, that the herding behaviour phenomenon is more intense. The information inefficiency indicator is the absolute value of the first order stock index return autocorrelation. The indicators are computed on the stocks included in the euro area Datastream non-financial indexes and in Euro Stoxx Banks index.

At the end of the third quarter of 2015, short term expectations on euro area stock returns result improved on average with respect to March 2015, even if they tend to be more dispersed, while remaining substantially stable in Italy.

**Figure 1.12 – Stock return expectations on 3-month time horizon**

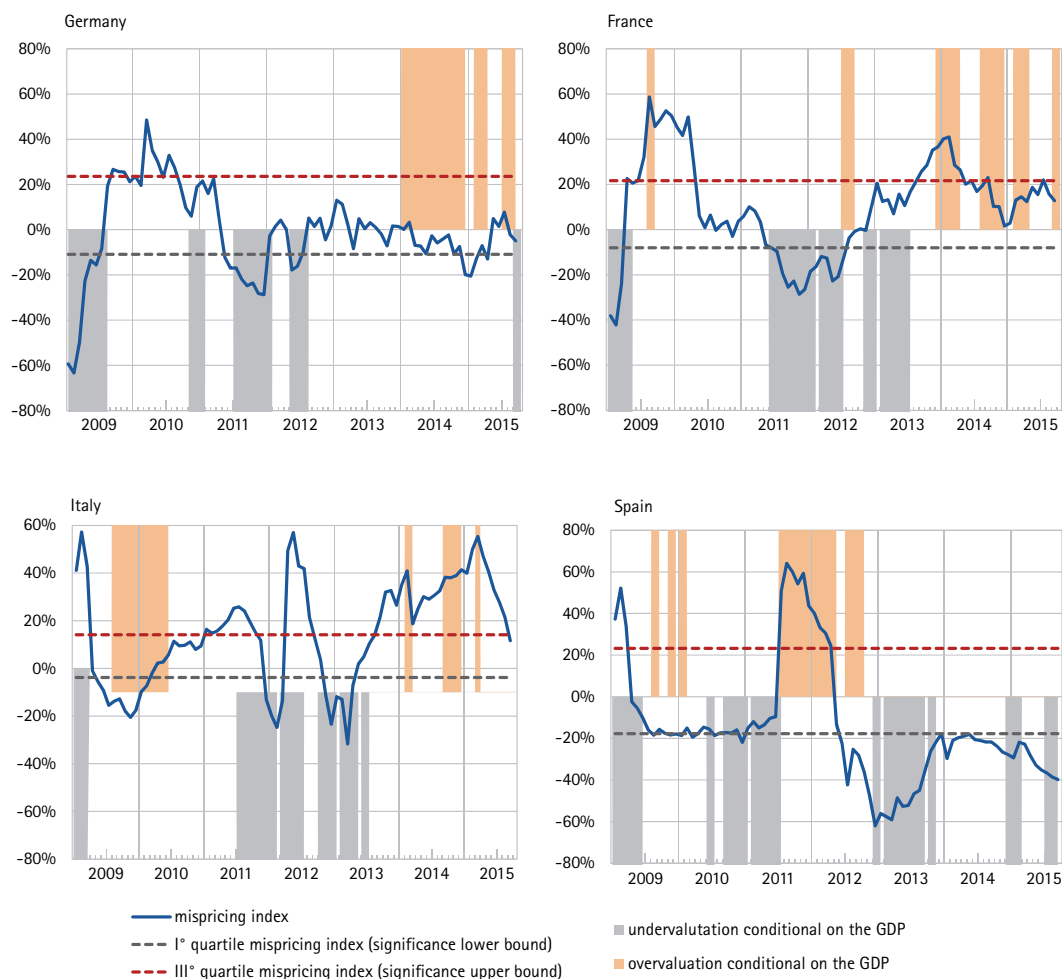


Source: calculations on Thomson Reuters Datastream data. Risk neutral probability distributions are estimated on Ftse Mib and Euro Stoxx 50 option prices.

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During the third quarter of 2015, misalignment between stock prices and fundamentals has been increasingly tightening in the Italian banking sector for the first time since the second half of 2013. Instead, Spanish banks seem to remain largely undervalued, both against E/P and risk premia and against the business cycle. For French and German banks some evidence of under- or overvaluation emerges only against the business cycle.

Figure 1.13 – Boom and bust episodes of bank stock price in the euro area (monthly data; January 2009 – September 2015)



Source: calculations on Thomson Reuters Datastream data on main listed euro area banks (20 groups).

The figure plots two mispricing indicators: a micro indicator (blue line) and a macro indicator (shaded areas).

The micro mispricing index is the percentage difference between the observed price and the fundamental value (Campbell and Shiller, 1988; Nelson, 1999; De Bondt et al., 2010). The fundamental value is estimated by applying a VECM co-integration model on stock prices, earnings per share adjusted for the business cycle, and risk premium (earnings yield premium). The micro mispricing indicator signals undervaluation (overvaluation) if it is lower than its I° quartile (greater than its III° quartile). The quartiles are computed on micro mispricing indicator's distribution estimated by taking into consideration time series starting from January 2000.

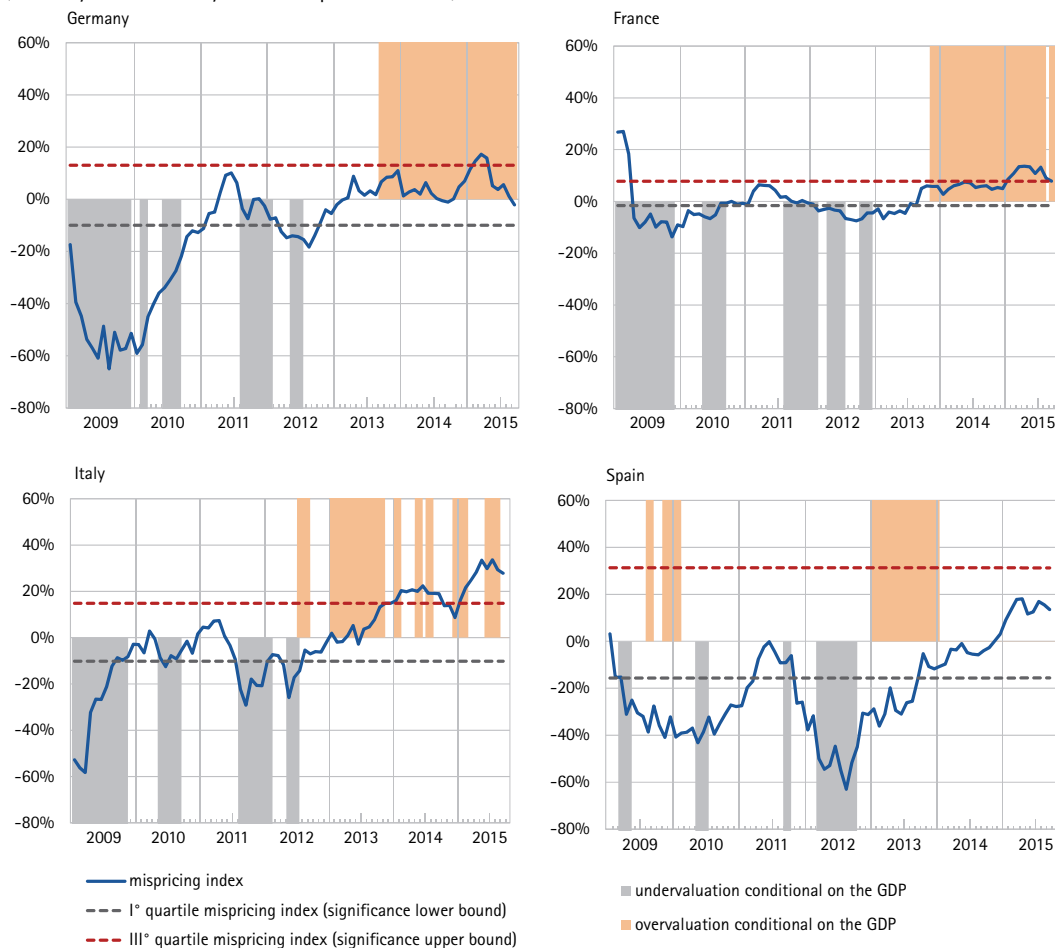
The macro mispricing indicator signals undervaluation (overvaluation) with respect to the business cycle. It is computed by estimating the time series of the  $p_t^{I^{\circ} \text{quartile}, GDP}$  ( $p_t^{III^{\circ} \text{quartile}, GDP}$ ) of the stock index price distribution conditioned on the GDP (trend component estimated by applying the Hodrick-Prescott filter). The indicator signals undervaluation (grey area) if  $p_t < p_t^{I^{\circ} \text{quartile}, GDP}$ ; the indicators signals overvaluation (orange area) if  $p_t > p_t^{III^{\circ} \text{quartile}, GDP}$ ; white areas correspond to a statistically insignificant mispricing level (Quiros and Timmermann, 2001; Cassola and Morana, 2002; Detken and Smets, 2004).

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Market prices of euro area non-financial firms seem overvalued against the business cycle in Italy, France and Germany. In Italy, overvaluation is supported also by theoretical values based on E/P and risk premia. Such misalignment might reflect positive expectations about Italian non-financial companies perspectives, since their profit vulnerabilities are reducing in 2015. Overall, market prices seem now more in line with fundamentals than they were during the large undervaluation episode over the 2009 financial crisis.

**Figure 1.14 – Boom and bust episodes of non-financial firms stock price in the euro area**  
(monthly data; January 2009 – September 2015)



Source: calculations on Thomson Reuters Datastream data on main listed euro area non-financial groups..

The figure plots two mispricing indicators: a micro indicator (blue line) and a macro indicator (shaded areas).

The micro mispricing index is the percentage difference between the observed price and the fundamental value (Campbell and Shiller, 1988; Nelson, 1999; De Bondt et al., 2010). The fundamental value is estimated by applying a VECM co-integration model on stock prices, earnings per share adjusted for the business cycle, and risk premium (earnings yield premium). The micro mispricing indicator signals undervaluation (overvaluation) if it is lower than its 1° quartile (greater than its 3° quartile). The quartiles are computed on micro mispricing indicator's distribution estimated by taking into consideration time series starting from January 2000.

The macro mispricing indicator signals undervaluation (overvaluation) with respect to the business cycle. It is computed by estimating the time series of the  $p_t^{I^{\circ} \text{quartile}, GDP}$  ( $p_t^{III^{\circ} \text{quartile}, GDP}$ ) of the stock index price distribution conditioned on the GDP (trend component estimated by applying the Hodrick-Prescott filter). The indicator signals undervaluation (grey area) if  $p_t < p_t^{I^{\circ} \text{quartile}, GDP}$ ; the indicators signals overvaluation (orange area) if  $p_t > p_t^{III^{\circ} \text{quartile}, GDP}$ ; white areas correspond to a statistically insignificant mispricing level (Quiros and Timmermann, 2001; Cassola and Morana, 2002; Detken and Smets, 2004).

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## Non-equity markets

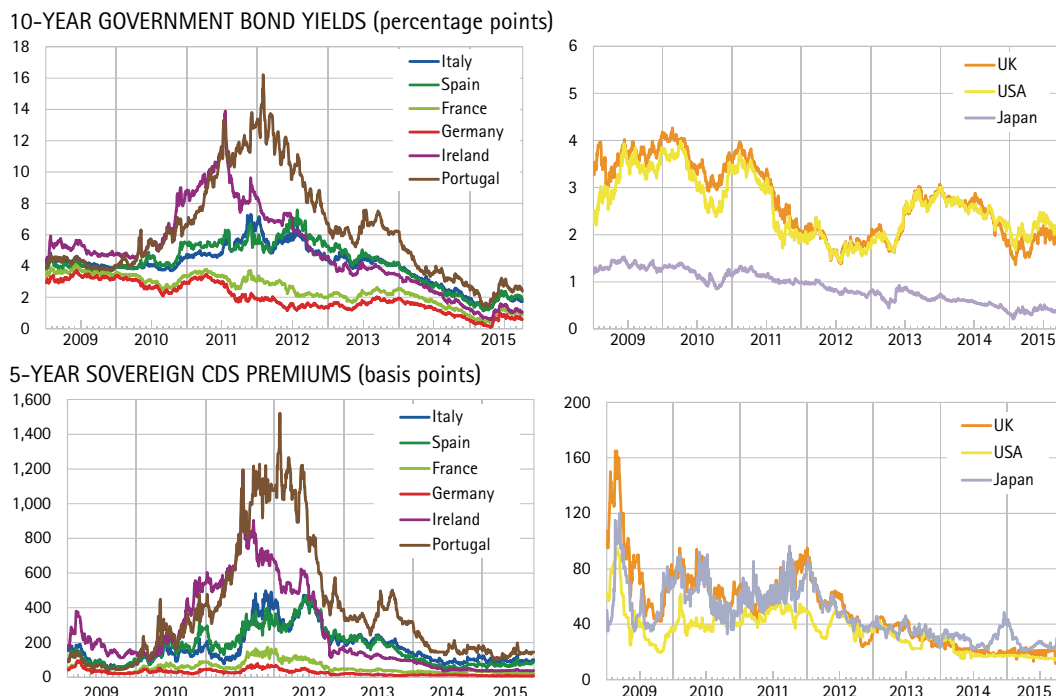
After the rise prompted by the renewed Greek turbulence, euro area government spreads have recently retraced back to their early year levels in most peripheral countries (Figure 2.1). As for BRICs, differences in trends and levels of their government bond yields mirror significant dissimilarities in economic activities and policies. While Indian and Chinese 10-year yields are substantially levelling-off, economic and political distress in Brazil led to a sharp increase in 10-year spreads and CDS premia, whilst geo-political tension in Russia might have spurred volatility hikes especially in 2015 H1 (Figure 2.2). Contagion in European sovereign bond markets surged on the renewed Greek crisis during the second quarter of 2015, coupled with a moderate spike in the conditional volatility of peripheral countries' yield spreads. Both contagion and volatility are now back to their early year levels (Figure 2.3). Over the last twelve months, in response to the ECB accommodative monetary policy and expectations of an extension to the QE, the European sovereign yield curves flattened further, pushing into negative territory short term interest rates of the main countries and even long rates of core countries (Figures 2.4 and 2.5). Consistently with the QE impact on secondary markets and the improvements recorded in the economic backdrop, market implied ratings of most peripheral countries are now well above the investment grade threshold (Figure 2.6). In 2014, foreign holdings of peripheral countries' sovereign bonds increased with respect to the previous year. However, non-resident holdings of Italian and Spanish government bonds are not yet back to the pre-crisis level (Figure 2.7). Apart from Germany, 2016 sovereign refinancing needs are significant in all the main Eurozone countries, which might raise concerns given the weakness of the economic activity. With the exception of Spain, the euro area economic recovery remains sluggish, with a slackening in the GDP growth rate in the second and third quarters of 2015 (Figure 2.9). Contributions to GDP growth remains heterogeneous across advanced countries: in the first half of 2015 the Spanish recovery was sustained by investments and private consumption, while net exports were the main driver in Germany and UK; in Italy, a feeble recovery was mainly due to the change in inventories (Figure 2.10). Since the debt crisis, euro area current account has been improving mainly because of Germany, which is now running a surplus close to 7% of GDP (Figure 2.11). The depreciation of the Euro nominal exchange rate (Figure 2.12) and the consequent evolution of the terms of trade explain the 2014 improvement of the current account positions, especially for Spain. However the latest dynamics of the real effective exchange rates signal a marginal deterioration in the European competitiveness (Figure 2.13). The exposure to selected emerging economies through the international trade channel is overall limited for European countries compared with the US and Japan (Figure 2.14). As for commodities markets, in the second half of 2015 prices have experienced a drop both for oil (Figure 2.15) and non-oil commodities (Figure 2.16). With regard to the European corporate bonds, in secondary markets spreads across rating categories have remained small (Figure 2.17), while net issues in primary markets have continued being stable for non-financials (Figure 2.18) and negative for banks (Figure 2.19). Securitization activity has kept being stagnant in the main advanced countries, showing persistent negative net issues (Figure 2.20).



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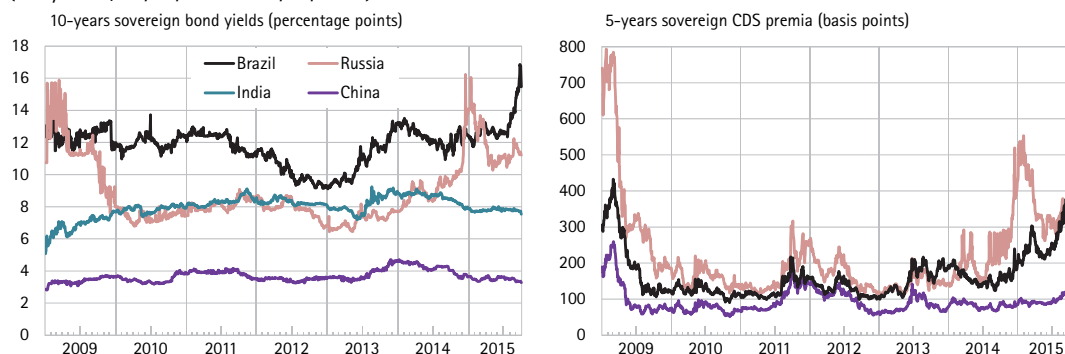
After the rise prompted by the renewed Greek turbulence, unfolded over the summer, during the third quarter of 2015, euro area government spreads have retraced back to their early year levels in most peripheral countries.

**Figure 2.1 – Government bond yields and CDS on public debt in advanced countries**  
(daily data; 01/01/2009 – 30/09/2015)



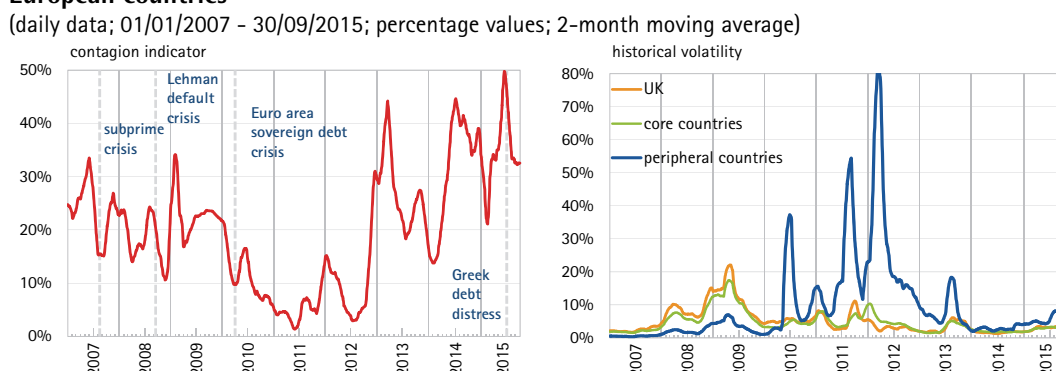
Source: Thomson Reuters.

**Figure 2.2 – Government bond yields and CDS on public debt in selected emerging countries**  
(daily data; 01/01/2009 – 30/09/2015)



Source: Thomson Reuters. Only 10-year bid-yields are available for Brazil, Russia, India, and China (hereafter BRIC). Indian CDS market kicked off in December 2011; CDS data for India are not available.

**Figure 2.3 – Contagion and historical volatility of 10-year sovereign bond spreads for some European countries**



For the methodology applied to estimate the contagion indicator see Consob Working paper no. 72, 2012 (left graph) and Note Figure 2.2 RO no. 9.

As for BRICs, differences in trends and levels of their government bond yields mirror significant dissimilarities in economic activities and policies. While Indian and Chinese 10-year yields are levelling-off, in Brazil economic and political distress led to a sharp increase in spreads and CDS premia, whilst in Russia geo-political tension might have spurred volatility hikes.

Contagion in European sovereign bond markets surged on the renewed Greek crisis during the second quarter of 2015, coupled with a moderate spike in the conditional volatility of peripheral countries' yield spreads. Both contagion and volatility are now back to their early year levels.



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Over the last twelve months, in response to the ECB accommodative monetary policy and expectations of an extension to the QE, the European sovereign yield curves flattened further, pushing into negative territory short term interest rates of the main countries and even long rates of core countries. The shift in the US Treasury yield curve probably anticipates an interest rate hike, envisaged by the end of the year.

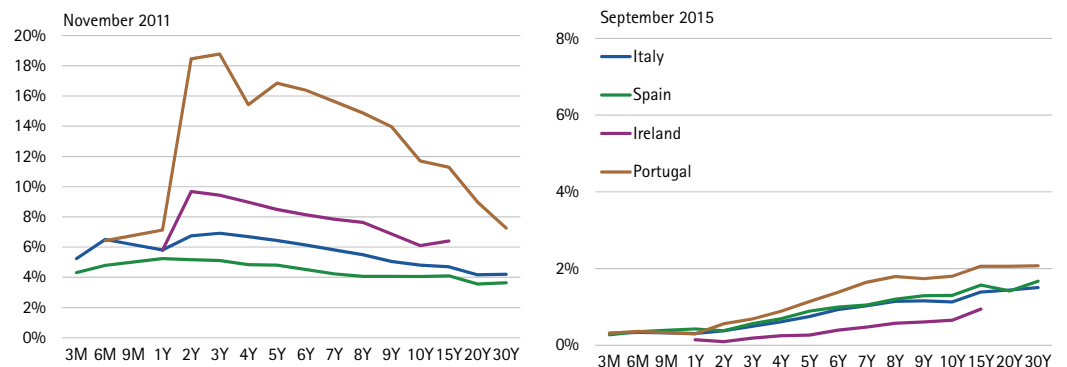
Figure 2.4 – Sovereign yield curves in major advanced countries



Source: calculations on Thomson Reuters data.

The yields' spread term structure of peripheral European countries versus the German benchmark has remained substantially unchanged.

Figure 2.5 – Term structure of yields' spreads between peripheral euro area countries and Germany

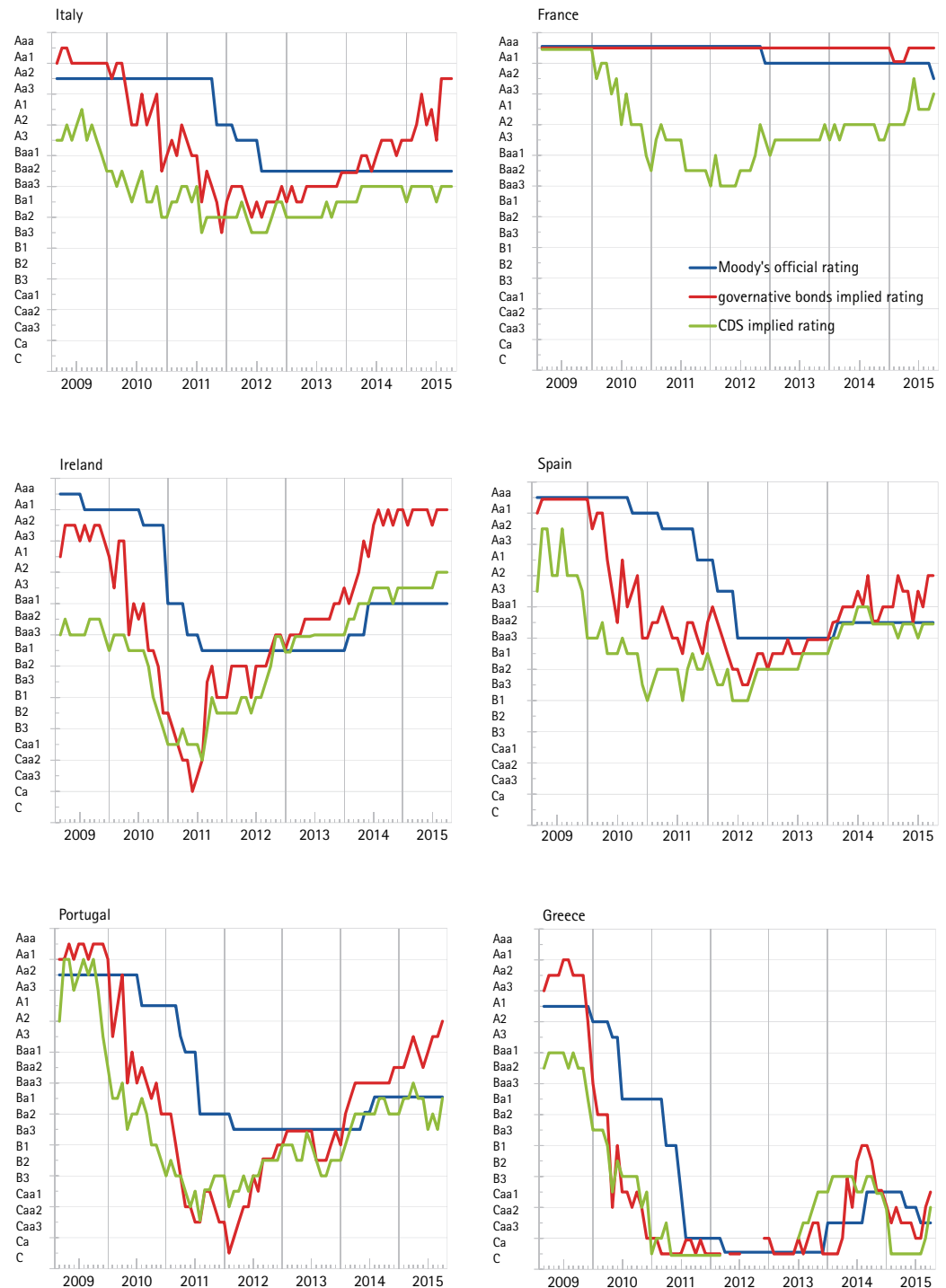


Source: calculations on Thomson Reuters data.

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Market implied ratings of most peripheral countries are now well above the investment grade threshold, consistently with the improvements recorded in their economic backdrop and the QE impact on secondary markets.

**Figure 2.6 – Sovereign bond and CDS implied ratings in some euro area countries**  
(monthly data; January 2009 – September 2015)

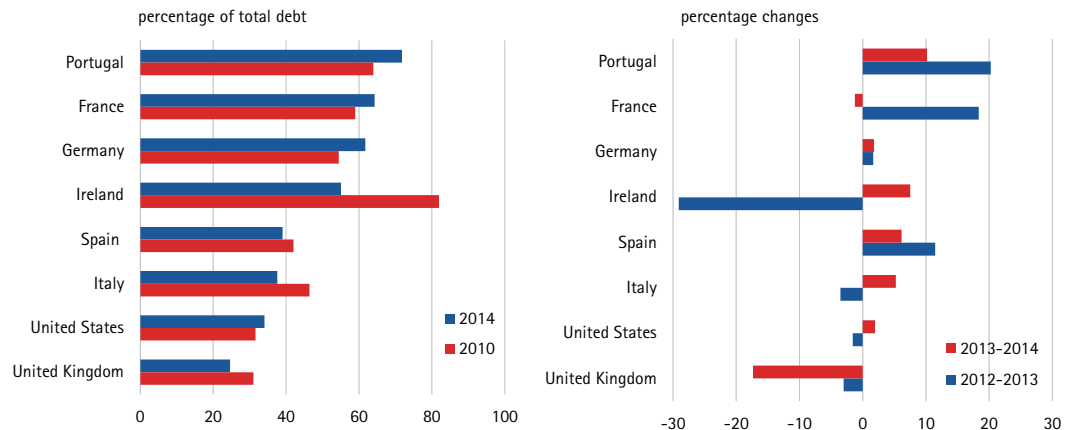


Source: calculations on Moody's data.

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In 2014, foreign holdings of peripheral countries' sovereign bonds marked an increase with respect to the previous year. However, non-resident holdings of Italian and Spanish government bonds are not yet back to their pre-crisis levels.

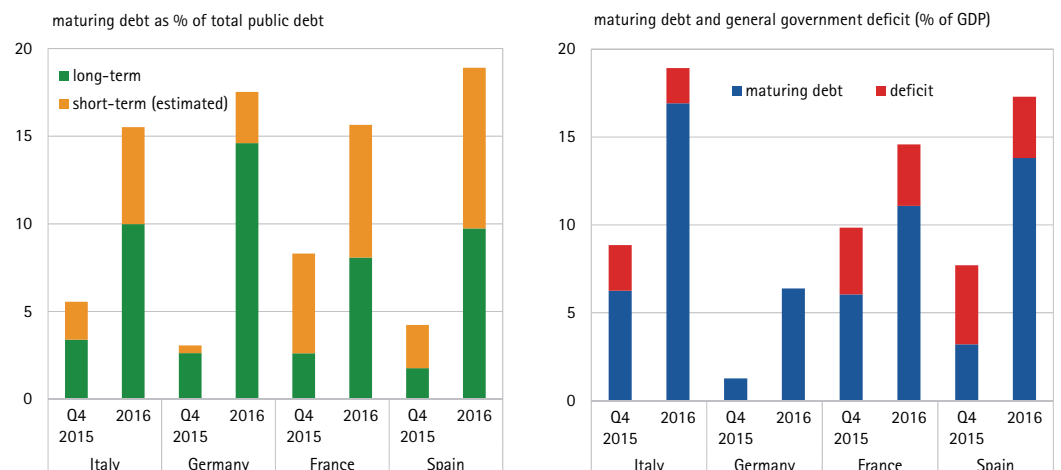
**Figure 2.7 – Non-resident holdings of general government debt in selected countries**



Source: calculations on data from Bruegel database of sovereign bond holdings developed in Merler and Pisani-Ferry (2012; www.bruegel.org) and IMF data (for Portugal).

Apart from Germany, 2016 sovereign refinancing needs are significant in all the main euro area countries, because of the rollover of maturing debt (as in Italy and Spain) and the expected public deficit (as in France and Spain).

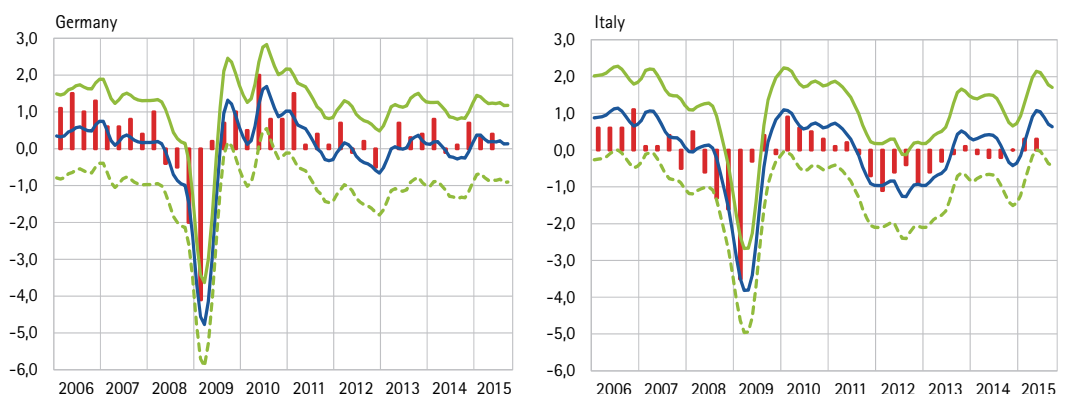
**Figure 2.8 – The refinancing needs of general government debt in main euro area countries**



Source: calculations on data from Thomson Reuters Eikon and EU Commission, Winter Forecasts 2015.

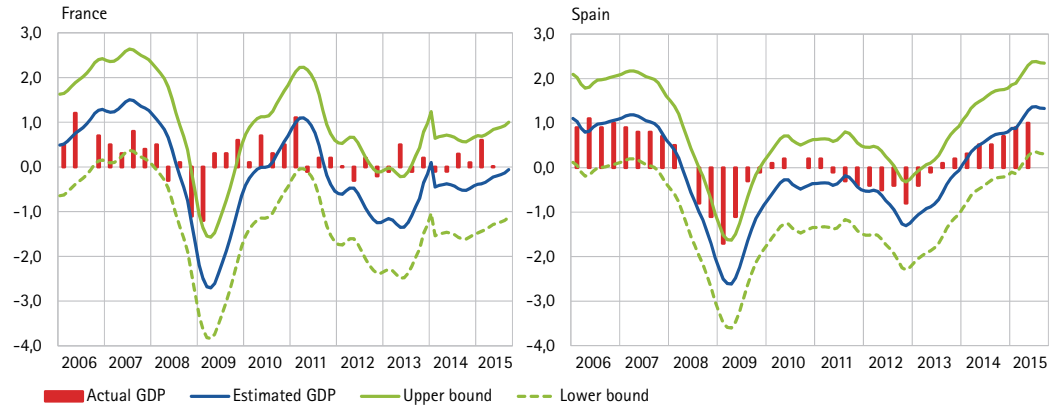
The euro area economic recovery remains sluggish, with a slackening in the GDP growth rate in the second and third quarter of 2015. The only exception is Spain, apparently moving along a consolidated growth path.

**Figure 2.9 – GDP nowcasts for some euro area countries (percentage values)**



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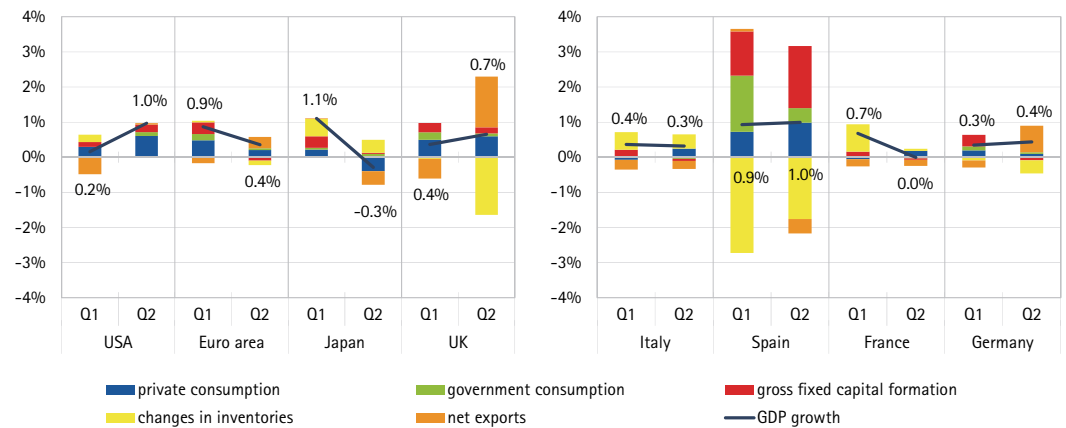
Figure 2.9 (cont.) – GDP nowcasts for some euro area countries



Source: calculations on data from EU Commission, Istat, Insee, Bundesbank, Ine. The sample used to construct the forecast ranges from June 2002 to January 2015. The methodology applied to construct the forecast is based on a small-size state space model, using 11 hard and soft indicators (preliminary and final estimates of GDP; hard indicators: Exports, Industrial Production Index, Retail Sales, Employment; soft indicators: Economic Sentiment Indicator, Business Confidence Indicator, Consumer Confidence Indicator, Building Confidence Indicator) adapted from Camacho and Perez-Quiros (2010). The Kalman filter methodology is used to extract a common factor. The model is estimated separately for each country (Germany, Italy, France, Spain).

Contributions to GDP growth remains heterogeneous across advanced countries. Data for H1 2015 show that in Spain recovery is sustained by private investments and consumption, while net exports are the main driver in Germany and UK. In Italy, a feeble recovery is mainly due to change in inventories.

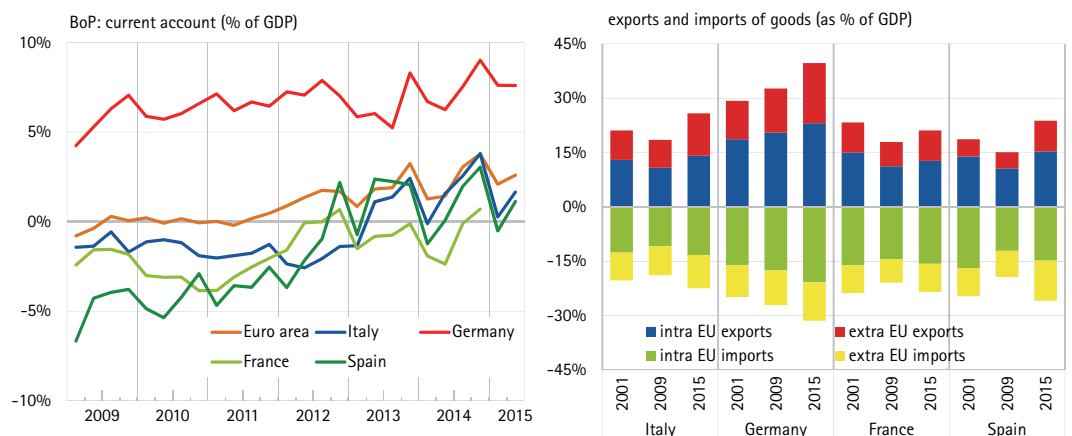
Figure 2.10 – Contributions to GDP growth for selected advanced economies (changes from previous quarter)



Source: calculations on Thomson Reuters data.

Since the debt crisis, euro area current account has been improving mainly because of Germany, which is now running a surplus close to 7% of GDP. Other large euro area countries are starting to show positive surplus as well.

Figure 2.11 – Current account balances and trade pattern of selected euro area countries



Source: calculations on data from Thomson Reuters and Eurostat. Recent French CA data are not available yet (left panel).

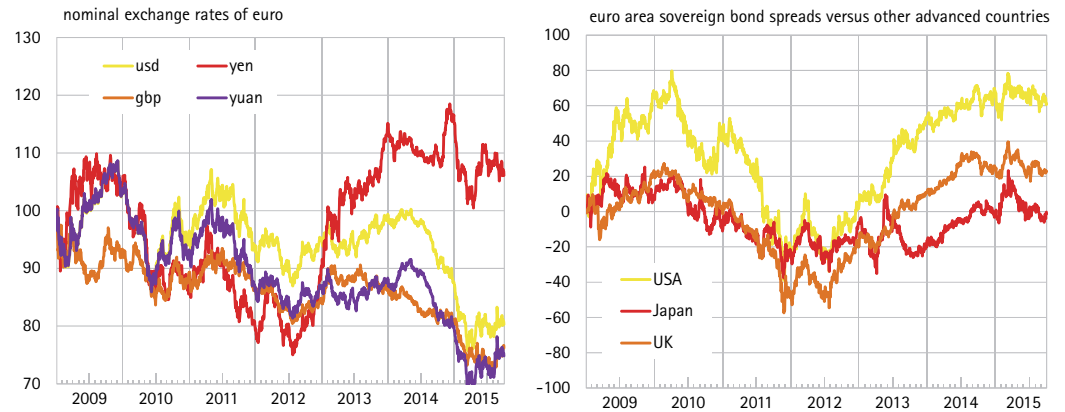
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Yen apart, the Euro nominal exchange rate has recently appreciated against the major international currencies, possibly as a technical correction with respect to previous significant depreciation. This dynamics is also consistent with the level of the sovereign relative bond spreads: although declining, in fact, the spread between the EMU yields and both the US and the UK yields is still positive.

The evolution of the terms of trade explains the 2014 improvement of the current account positions, especially for Spain. However the latest dynamics of the real effective exchange rates signals a marginal deterioration in the European competitiveness.

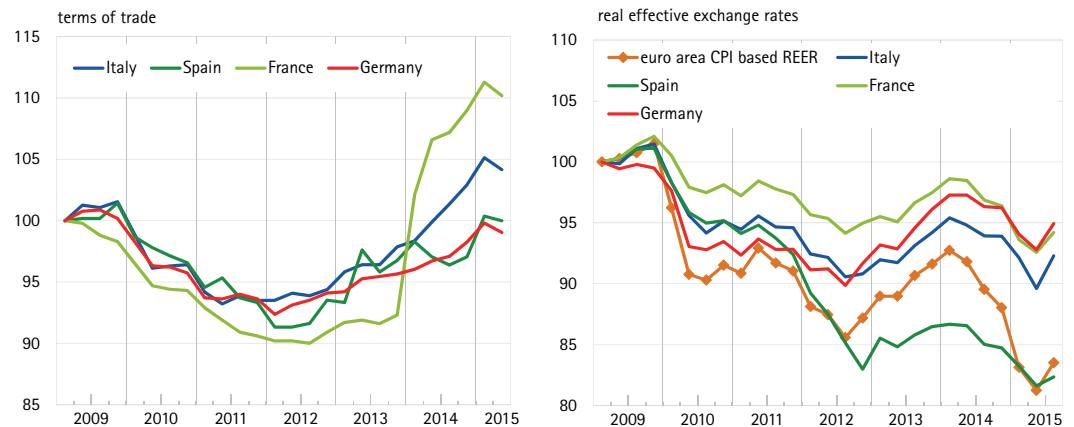
The exposure to selected emerging economies through the international trade channel is overall limited for European countries compared with the US and Japan.

**Figure 2.12 – Exchange rates of selected foreign countries against euro and interest rates spreads of sovereign bonds**



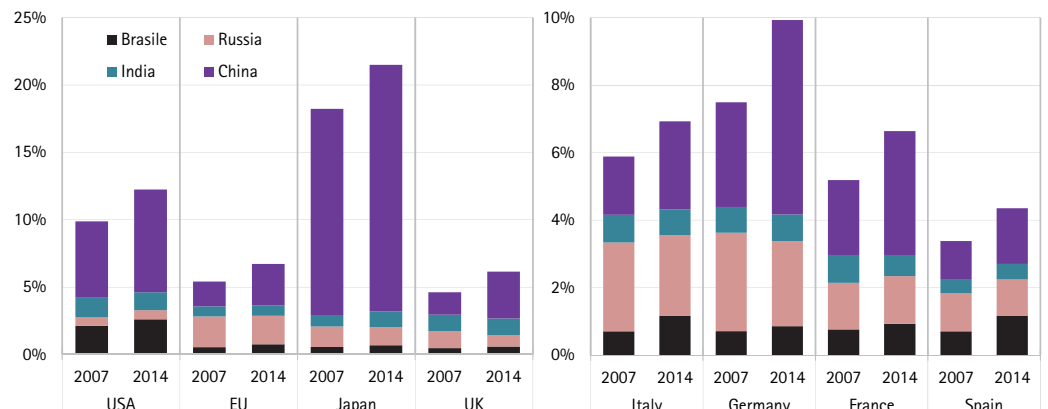
Source: calculations on data from Thomson Reuters. Nominal exchange rates: 01/01/2009 = 100. The interest rate spread is computed using the benchmark yield on 10-year sovereign bonds. The benchmark yield of the euro area is a weighted average of the 10-year yields prevailing in the single member countries.

**Figure 2.13 – European terms of trade and real effective exchange rates** (quarterly data; Q1 2009 = 100)



Source: calculations on data from Thomson Reuters. In the right graph, for the main euro area countries data refer to ULC based REER.

**Figure 2.14 – Exports to selected emerging economies of advanced economies in 2014** (percentage of total exports)



Source: calculations on data from IMF Direction of Trade Statistics.

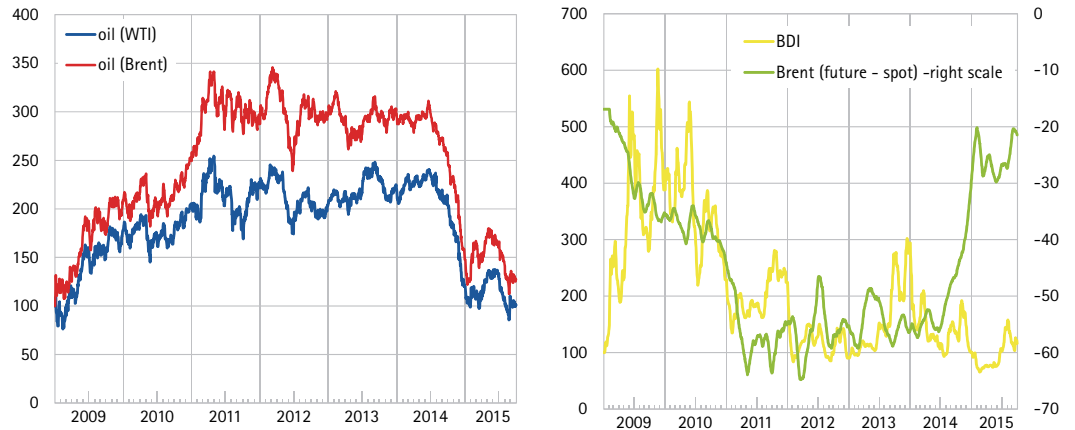
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In the second half of 2015, the oil price reverted to a downward trend on a robust supply exceeding a subdued worldwide demand, weakened further by the slowdown of the Chinese economy.

Also non-oil commodities experienced a price drop, in the wake of the feeble recovery of advanced countries and the slowdown of emerging markets.

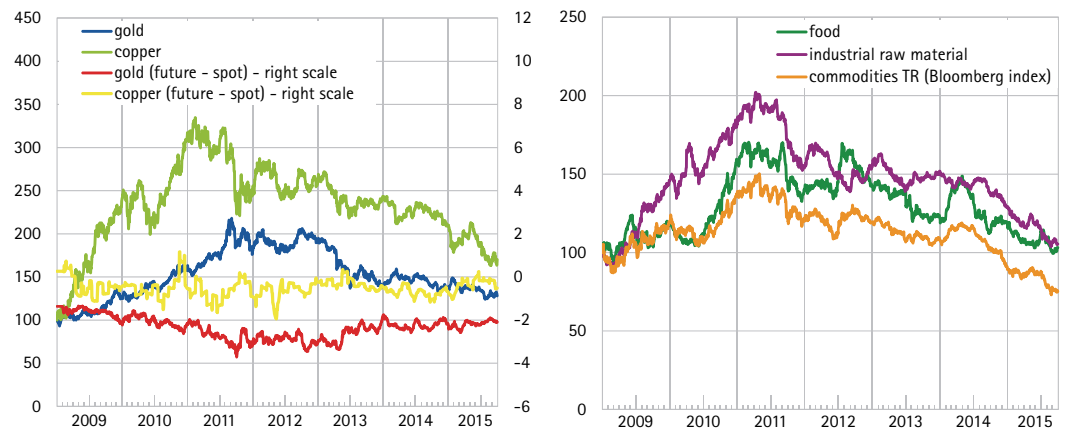
Since March, European bank and non-financial bond spreads have slightly increased in the aftermath of Greece renewed crisis. Moreover differences across rating categories remained small. US yield spreads are more stable.

**Figure 2.15 – Oil prices and the Baltic Exchange Dry Index**



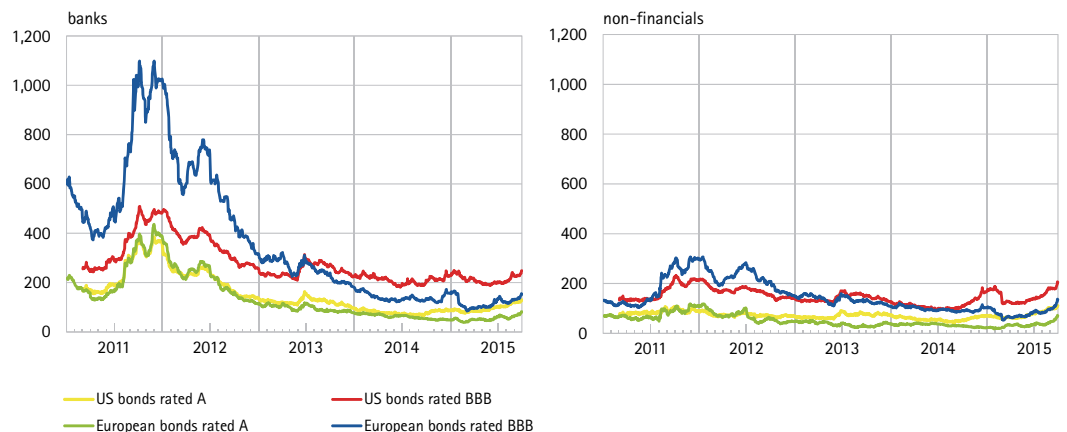
Source: calculations on data from Thomson Reuters. Price and index series: 01/01/2009 = 100. The future - spot differential is computed as the monthly moving average of the difference between the re-scaled series (01/01/2009 = 100).

**Figure 2.16 – Commodity prices**



Source: calculations on data from Thomson Reuters. Price and index series: 01/01/2009 = 100. The future - spot differential is computed as the monthly moving average of the difference between the re-scaled series (01/01/2009 = 100).

**Figure 2.17 – Bank and non-financial corporate bond yield spreads over IRS**  
(basis points; daily data; 01/06/2010 - 30/09/2015)



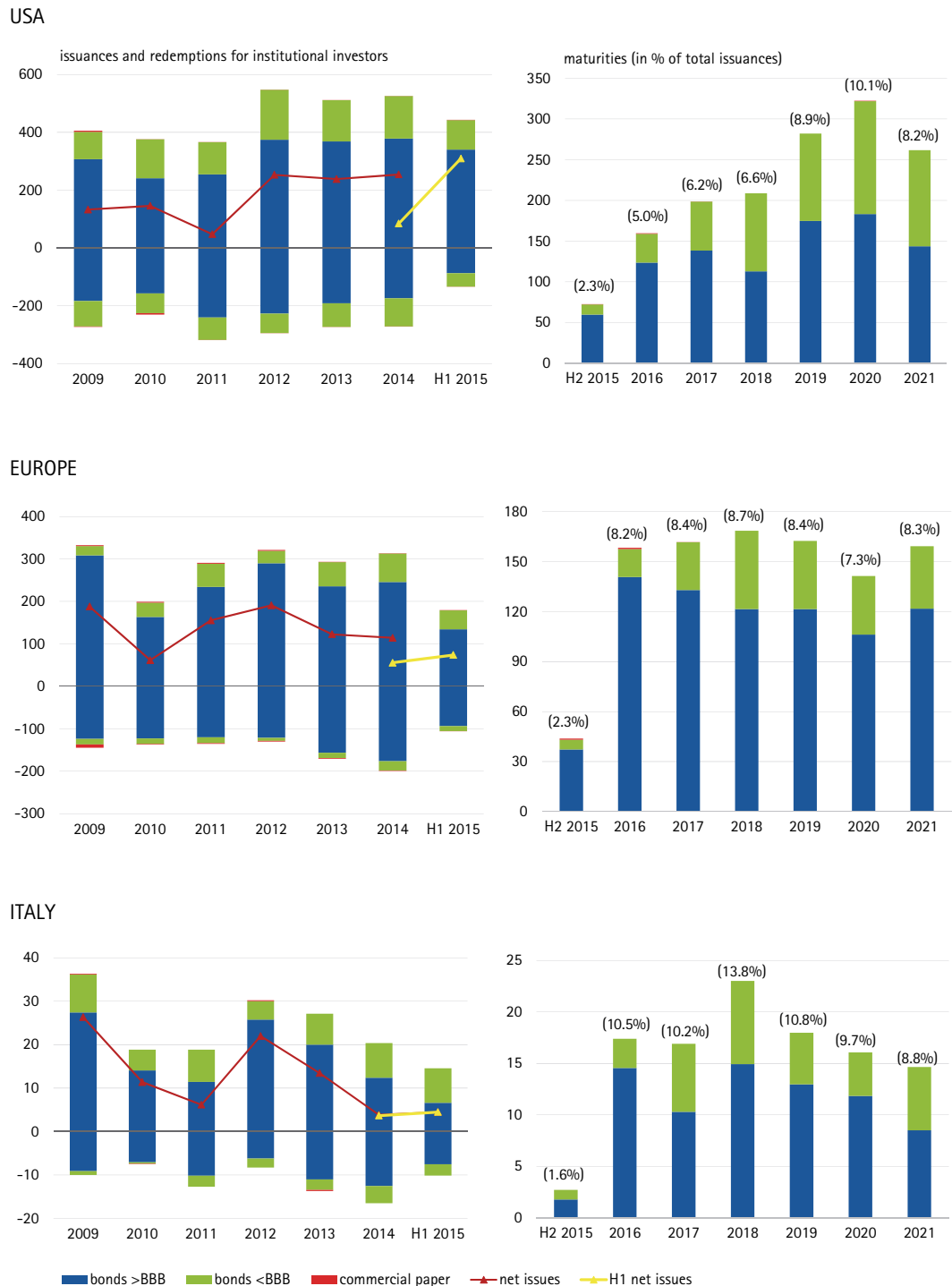
Source: Thomson Reuters Eikon. Data refer to spreads between Markit Iboxx 3-5 year indexes and the average of 3-5 year Euro and Usd IRS.

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Data for H1 2015 show a significant increase in the activity on corporate bond primary markets in the US, whilst it remained more stable in Europe and Italy.

Given the weight of maturing bonds over the outstanding debt, Italian companies have a higher rollover risk for 2016 than their peers.

**Figure 2.18 – Non-financial corporate bonds issues and maturities**  
(billions of euro)

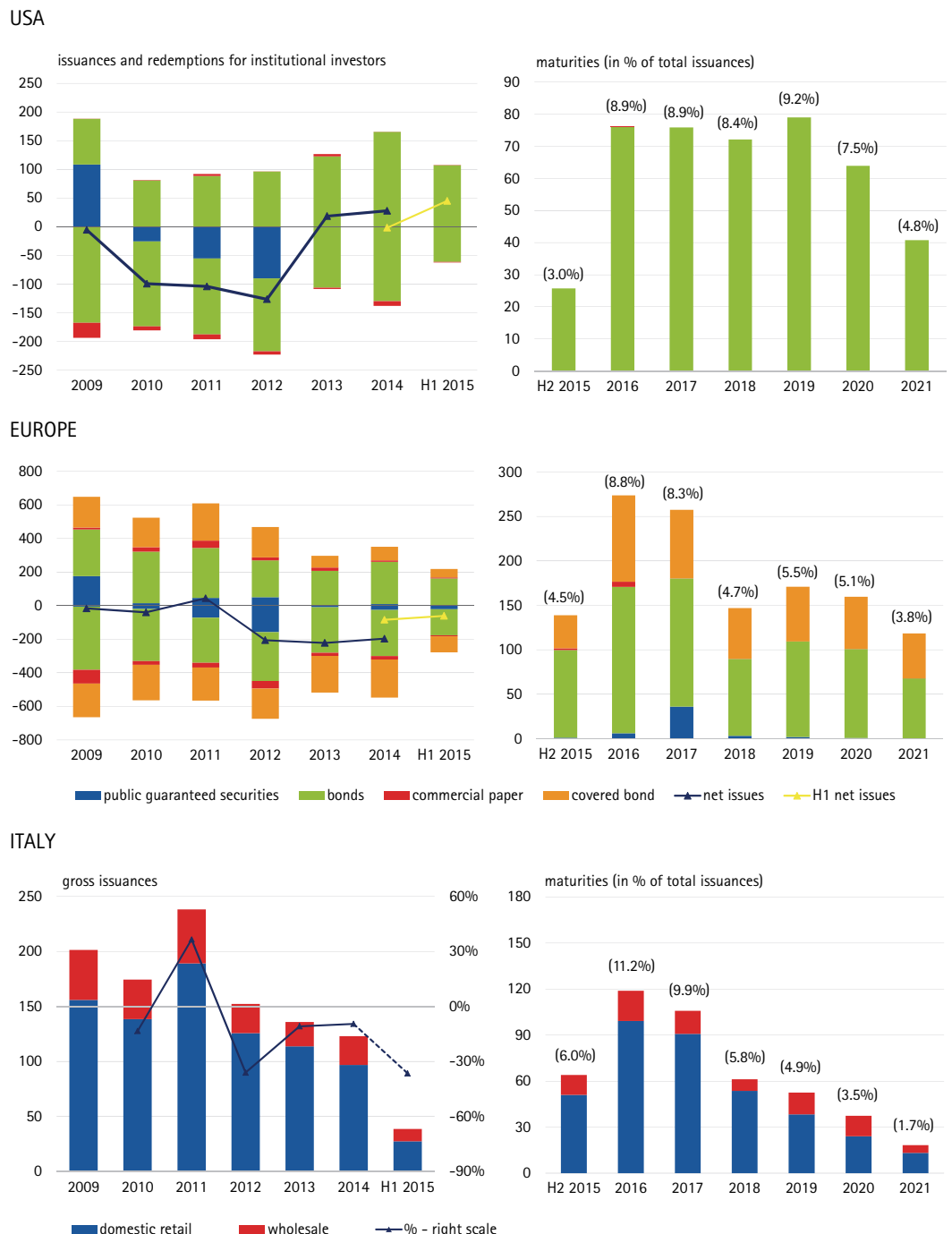


Source: calculations on Dealogic data. European issuance data refer to companies with registered office in Italy, France, Germany, Spain, the Netherlands and the UK and their subsidiaries (even those established in other countries). Maturities refer to bonds issued since 2007.

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Similarly to non-financial corporate debt securities, US bank bond net issues rose in H1 2015, while net issues remained negative in Europe. Italian banks strongly reduced gross issues and their refinancing needs for 2016 are significantly higher than in the US and Europe.

**Figure 2.19 – Bank bonds issues and maturities**  
(billions of euro)



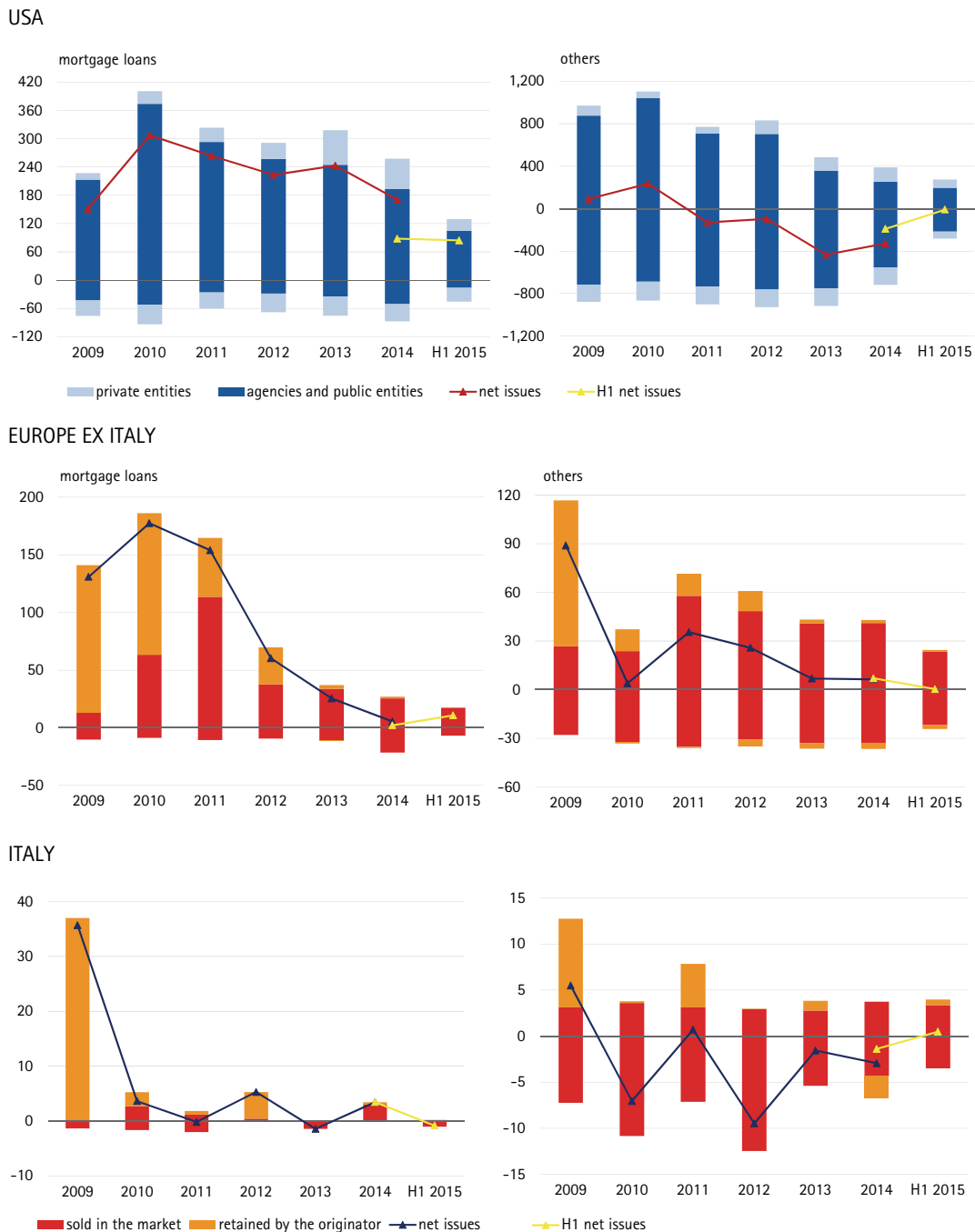
Source: calculations on Dealogic data. European issuance data refer to companies with registered office in Italy, France, Germany, Spain, the Netherlands and the UK and their subsidiaries (even those established in other countries). Gross issuance change for H1 2015 is computed relative to H1 2014. Maturities refer to bonds issued since 2009.



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Securitization activity remains stagnant in the main advanced countries. This will likely determine persistent negative net issues (especially in Europe, and Italy as well) for the near future with possible refinancing and liquidity risks for originating banks.

**Figure 2.20 – Securitisation issuances**  
(billions of euro)



Source: calculations on Dealogic data. The data for Europe refer to asset-backed securities of companies with registered office in Italy, France, Germany, Spain, the Netherlands and the UK and their subsidiaries.

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## Non-financial companies

Stock market performance of European non-financial firms remains very heterogeneous across sectors. In some industries market prices are now well above pre-crisis levels (automotive, health and personal care), while in others prices have not fully recovered (utilities and oil&gas). In Europe, small caps outperformed large caps (consistently with higher returns on riskier investments), while in Italy they have underperformed since the financial crisis (Figure 3.1). Market cap by industry sectors varied significantly across main European equity markets. While the financial sector is clearly overweighted in Italy and Spain, industrials and consumer goods have a greater market cap share in Germany and France, respectively (Figure 3.2). In the first half of 2015 revenues and profitability of large European non-financial companies remained stable on average, although German companies displayed a more significant growth in net revenues, while Italian and UK firms exhibited a decrease in RoE. Ebit margins were instead more homogeneous across countries and on average still declining. The Italian firms exhibited the lower incidence of short-term debt on total debt with respect to their European peers (Figure 3.3). The reduction in RoE for Italian and UK firms is related to a sharp fall in net income, due to a decrease in Ebit and a rise of interest rate expenses (Figure 3.4). In the first six months of 2015, labor productivity of main corporations fell in Italy and UK, while remaining more stable in other large countries. Over the same period employment slightly increased compared to previous years, except for Spain (Figure 3.5). The share of large European companies displaying signs of profit vulnerability (i.e. a change in revenues lower than long-term average) declined especially in Germany and France, while remaining rather stable in terms of companies reporting a net loss or a negative Ebit. However, the percentage of firms with short-term debt incidence worse than the 10-year average has generally increased (Figure 3.6). Italian and Spanish firms remained by far the most leveraged, with the weakest interest coverage ratio and the highest percentage of companies experiencing a deterioration of interest coverage relative to long-term average (Figure 3.7). UK and French large companies showed the highest payout of debt across European countries, consistently with their lower leverage. Italian firms have one of the highest short-term debt coverage together with UK companies (Figure 3.8). Overall, financial vulnerability of large European corporations was roughly stable, although 2015 data showed some improvements for Italian and Spanish firms (in terms of interest expense coverage and leverage relative to long-term average) and for UK firms (in terms of debt payout ratio and short-term debt coverage; Figure 3.9). Bank lending to non-financial companies in euro area peripheral countries keeps recovering, with substantially stable or improved lending conditions. Bank interest rates continue to decline, consistently with a reduction in corporate expected default frequencies (Figure 3.10). Interest rates for large companies have converged across euro area countries, but small Italian and Spanish firms continue to pay higher rates than German and French peers (Figure 3.11). Demand for bank loans by non-financial firms is generally increasing. Lower rates and working capital are the main drivers of the demand for new loans, especially in Italy and Spain (Figure 3.12). Perception of credit risk for European firms, as measured by observed and implied CDS prices, remains roughly stationary at pre-financial crisis levels (Figure 3.13). Credit risk implied by bond spreads is however on average quite lower than that implied by CDS and official ratings (Figure 3.14). As for European SMEs, the EC forecasts show that they have been recovering over the last two years, given the significant increases in value added and in employment rates (Figure 3.15). An important source of finance for SMEs comes from private equity, whose incremental fundraising fell by roughly 10 billion euros in 2014, even if total investments increased by more than 5 billion. Buyout deals absorbed the largest share of investments, while pure venture capital involved a relatively small amount of resources (Figure 3.16).

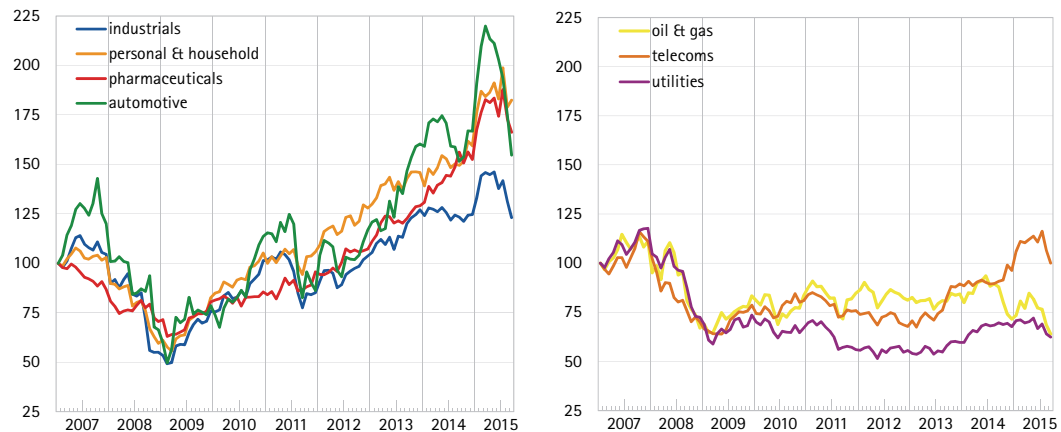
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Stock market performance of European non-financials firms remains very heterogeneous across sectors. In some industries market prices are now well above pre-crisis levels (automotive, pharmaceuticals and personal care), while in others prices have not fully recovered (utilities and oil&gas). With half year gains wiped off in the third quarter, the automotive sector was severely hurt by the VW emission scandal, although it had begun to underperform before. In Europe, small caps outperformed large caps (consistently with the higher requested returns on riskier investments), while in Italy small caps have underperformed since the financial crisis.

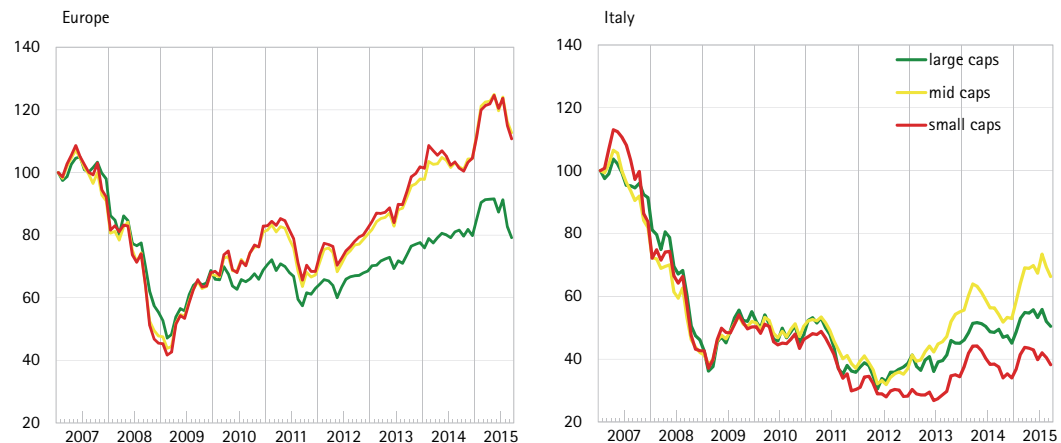
Market capitalization by industry sectors changes significantly across the main European equity markets. While the financial sector is clearly overweighted in Italy and Spain, industrials and consumer goods have a greater market cap share in Germany and France, respectively.

**Figure 3.1 – Relative performance of European non-financial listed companies**  
(monthly data; January 2007=100)

Stock performance of large European non-financial companies by sector

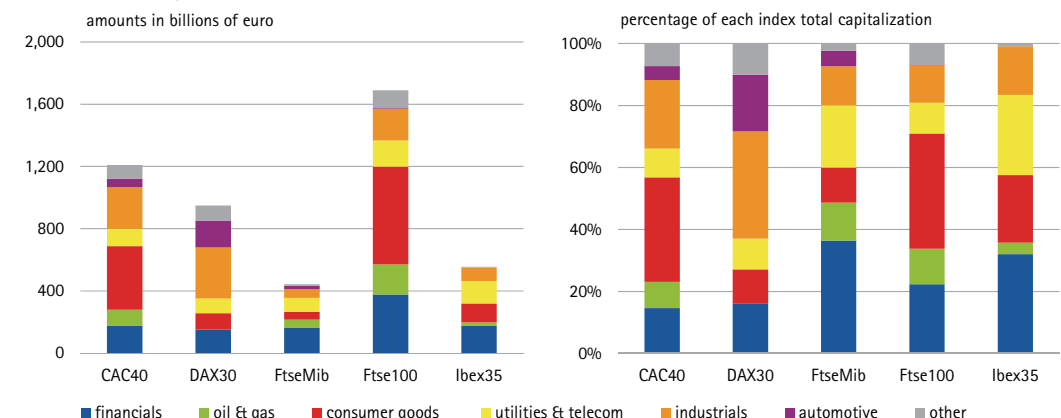


Stock performance of European and Italian non-financial companies by size



Source: Thomson Reuters data for the Stoxx600 (Europe) main sectorial indexes ex financials. Mid and small size company indexes are represented by the Stoxx600 (Europe) and the Ftse Italia All Share sub-indices, respectively for European and Italian companies. The Europe Stoxx50 and Ftse Mib indexes are used as proxies for large caps.

**Figure 3.2 – Market capitalization by industry sectors for leading European stock indexes**  
(data as end of September 2015)

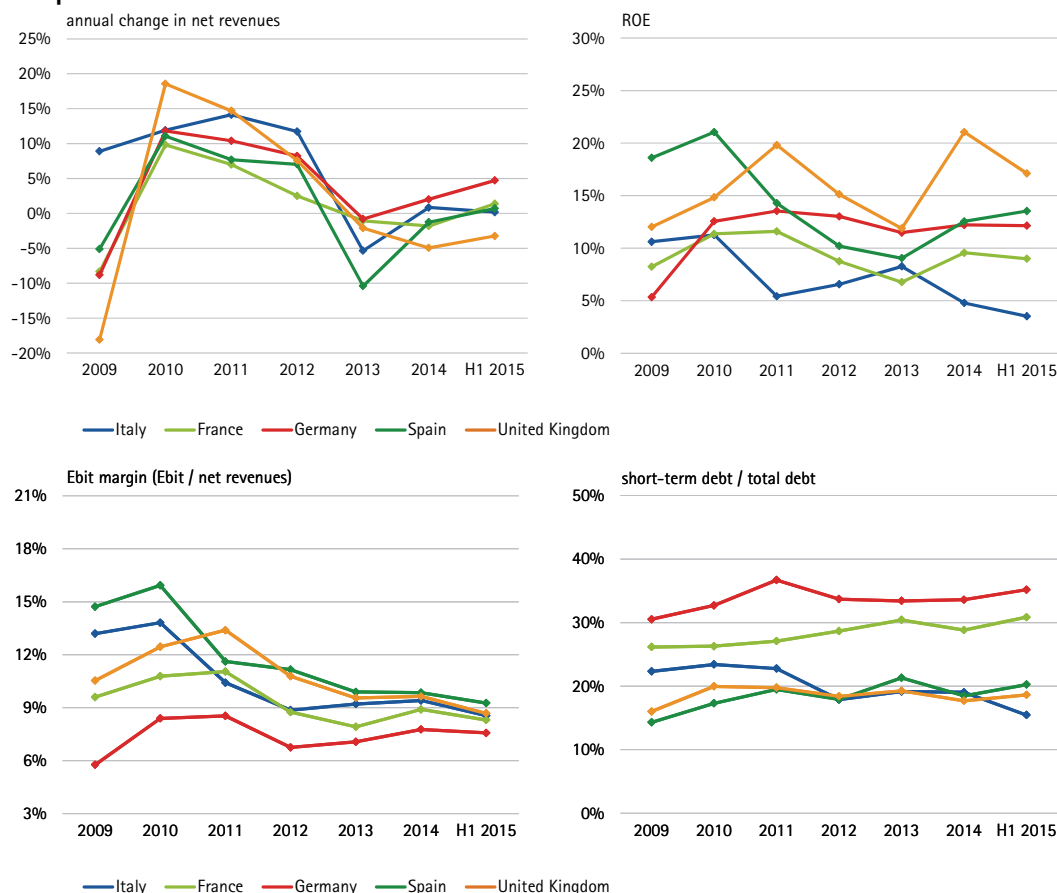


Source: calculations on Bloomberg data. Financial sector includes banks, insurance and financial services. Consumer goods includes personal, healthcare, food, travel&leisure, retail. Industrial goods include chemicals, basic resources, construction. Others include e.g. media, technology and real estate.

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In the first half of 2015 revenues and profitability of large European non-financial companies remained stable on average, although German companies displayed a more significant growth in net revenues, while Italian and UK firms exhibited a decrease in RoE. Ebit margins were instead more homogeneous across countries and on average still declining. The Italian firms exhibited the lower incidence of short-term debt on total debt with respect to their European peers.

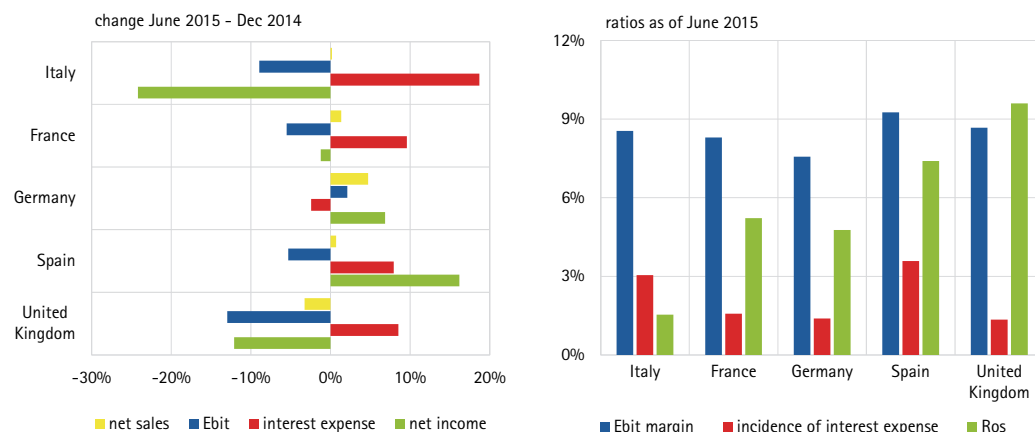
**Figure 3.3 – Profitability and financial structure of major European non-financial listed companies**



Source: calculations on Bloomberg data for the top 30 non-financial companies by market capitalisation as of end of June, 2015 for Italy, France, Germany, Spain and UK. Sample size and constituents may be adjusted to take into account leavers/joiners movements in the top 30 ranking and historical data availability. The annual change in net revenues is computed with respect to the end of previous year. Income statement interim period figures are normally annualised (using 12-month trailing data). In a few cases, data might be preliminary or partly estimated.

The reduction in RoE for Italian and UK firms is related to a sharp fall in net income, due to a decrease in Ebit and a rise of interest rate expenses. In spite of similar Ebit margin across countries, Italian firms have a lower Ros because of a higher incidence of interest charges.

**Figure 3.4 – Margin analysis for major European non-financial listed companies (percentage values)**



Source: calculations on Bloomberg data (see Note to Figure 3.3). Interim period figures are annualised (using 12-month trailing data). In a few cases, data might be preliminary or partly estimated. Ros is the ratio between net income and net sales.

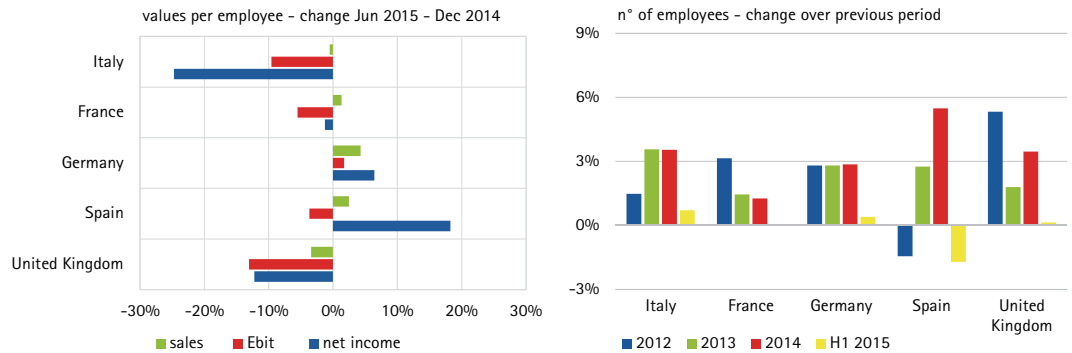
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In the first six months of 2015, labor productivity of main corporations fell in Italy and UK, while remaining more stable in other large countries. Over the same period employment slightly increased compared to the previous three years, except for Spain.

In H1 2015, the share of large European firms displaying signs of profit vulnerability declined especially in Germany and France, while remaining rather stable in terms of companies reporting a net loss or a negative Ebit. However, the percentage of firms with short-term debt incidence worse than the 10-year average has generally increased.

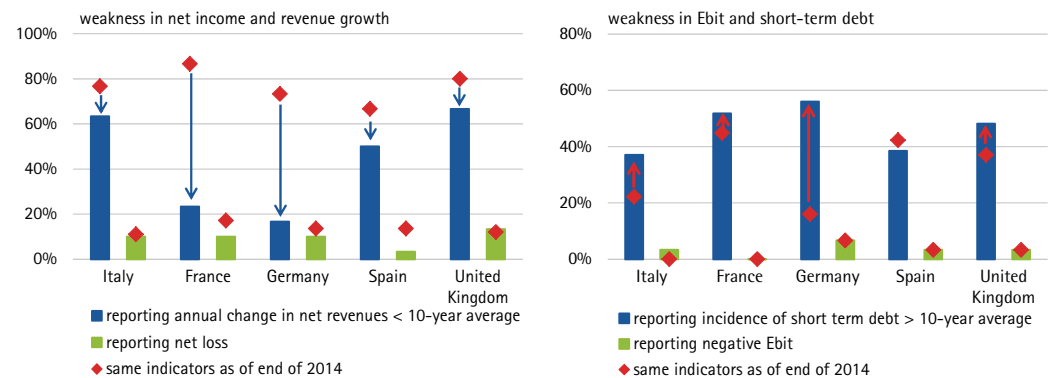
In H1 2015, Italian and Spanish firms remained by far the most leveraged, with the weakest interest coverage ratio and the highest percentage of companies experiencing a deterioration of the interest coverage with respect to the long-term average.

**Figure 3.5 – Employment and labor productivity for main European non-financial listed companies**



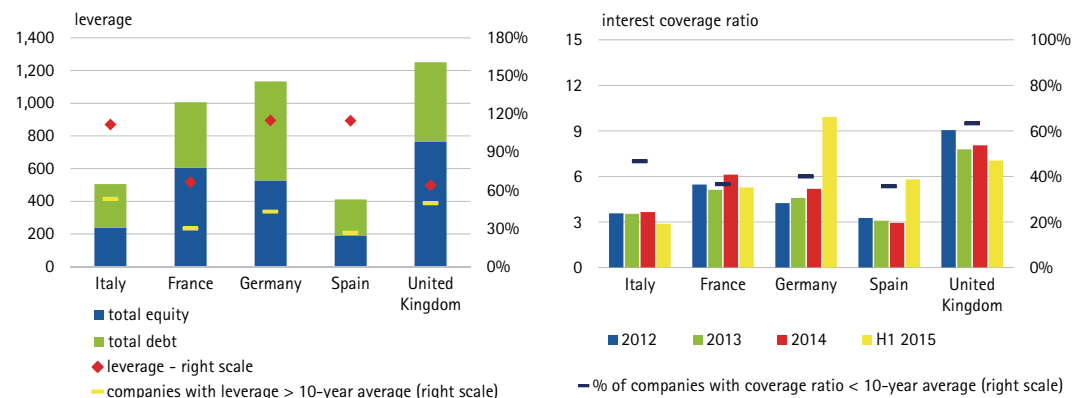
Source: calculations on Bloomberg data (see Note to Figure 3.3). Income statement *interim* period figures are annualised (using 12-month trailing data), while balance sheet interim period figures refer to year's half. In a few cases, data might be preliminary or partly estimated (i.e. when missing, assumed to be unchanged).

**Figure 3.6 – Profit vulnerability of major European non-financial listed companies (number of companies in percentage of the sample as of 2015)**



Source: calculations on Bloomberg data (see Note to Figure 3.3). Income statement *interim* period figures are annualised (using 12-month trailing data), while balance sheet interim period figures refer to year's half. In a few cases, data might be preliminary or partly estimated.

**Figure 3.7 – Leverage and interest expense coverage of large European non-financial listed companies (amounts in billions of euro)**



Source: calculations on Bloomberg data (see Note to Figure 3.3). The leverage is computed as total debt divided by total equity. The interest coverage ratio is computed as Ebit divided by interest expenses. Income statement *interim* period figures are annualised (using 12-month trailing data), while balance sheet interim period figures refer to year's half. In a few cases, data might be preliminary or partly estimated.

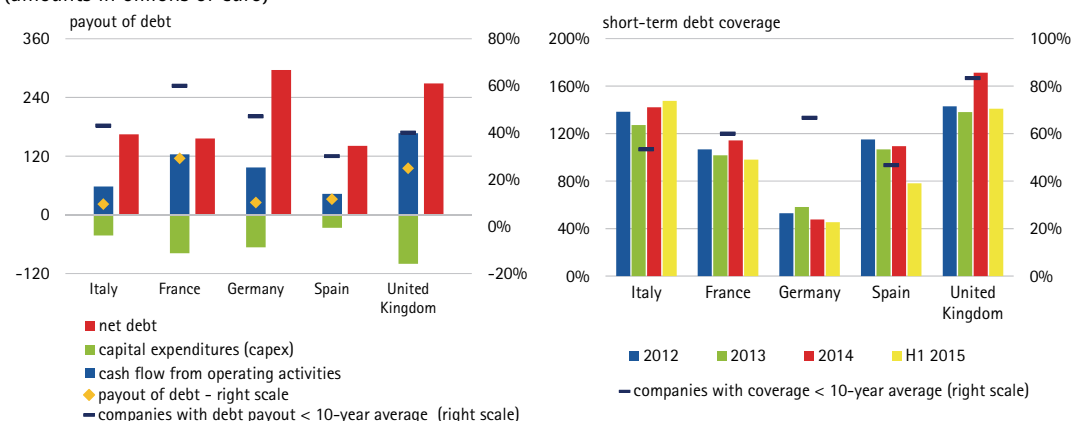
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UK and French large companies showed the highest payout of debt across European countries, consistently with their lower leverage. Italian firms have one of the highest short-term debt coverage (liquid assets/short term debt) together with UK companies.

Overall, financial vulnerability of large European corporations was roughly stable, although 2015 data showed some improvements for Italian and Spanish companies (in terms of interest expense coverage ratio and leverage relative to 10-year average) and for UK firms (in terms of debt payout ratio and short-term debt coverage ratio).

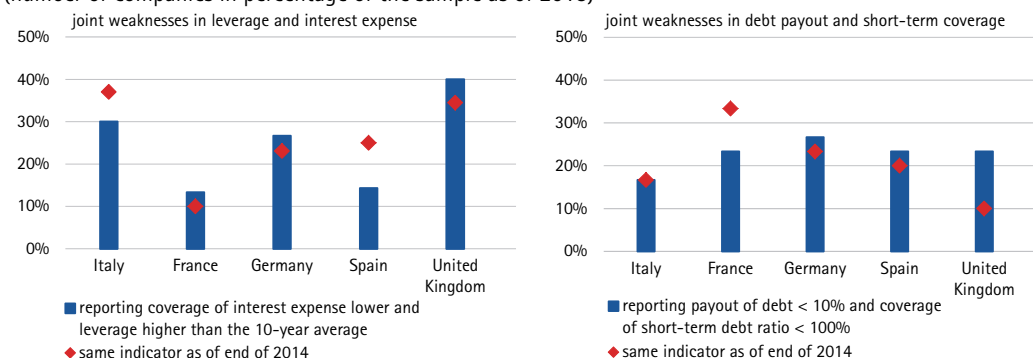
Bank lending to non-financial companies in euro area peripheral countries keeps recovering (especially in Spain), along with substantially stable or improved lending conditions. Bank interest rates continue to decline, consistently with a persistent reduction in corporate expected default frequencies.

**Figure 3.8 – Payout of debt and coverage of short-term debt of major European non-financial listed companies**  
(amounts in billions of euro)



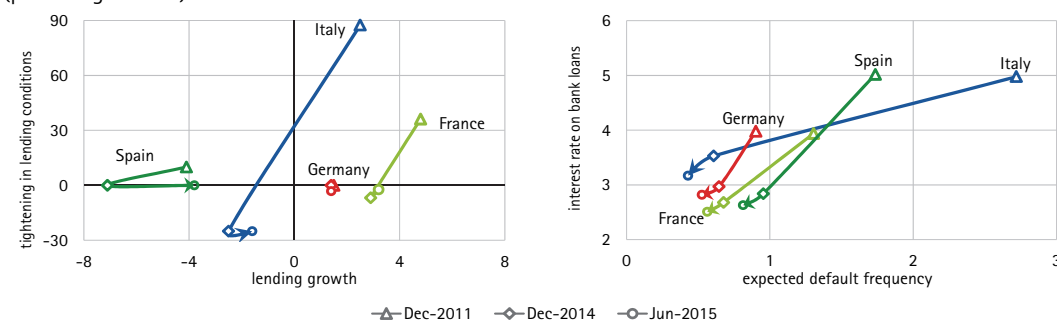
Source: calculations on Bloomberg data (see Note to Figure 3.3). The payout of debt is the ratio between operating cash flow net of capital expenditure and net financial debt. The coverage of short-term debt is the ratio of cash plus short term investments to short-term debt. Income statement *interim* period figures are normally annualised (using 12-month trailing data), while balance sheet *interim* period figures refer to year's half. In a few cases, data might be preliminary or partly estimated.

**Figure 3.9 – Financial vulnerability of major European non-financial listed companies**  
(number of companies in percentage of the sample as of 2015)



Source: calculations on Bloomberg data (see Note to Figure 3.3). Income statement *interim* period figures are normally annualised (using 12-month trailing data), while balance sheet *interim* period figures refer to year's half. In a few cases, data might be preliminary or partly estimated.

**Figure 3.10 – Trends in bank lending to non-financial companies and expected default frequencies in main euro area countries**  
(percentage values)



Source: 'ECB Bank lending survey' and Moody's Credit Edge data. Tightening in lending conditions is the net percentage of banks reporting a tightening in credit standards (for Italy, Germany and Spain) and the net percentage of banks reporting a tightening in credit standards weighted for the share of each bank in the total loan outstanding amount in the sample (for France). Lending growth is the annual growth rate of bank loans to non-financial companies. Corporate EDF (one year) are the average of the 25<sup>th</sup>, 50<sup>th</sup> and 75<sup>th</sup> percentiles; the sample comprises publicly traded firms.

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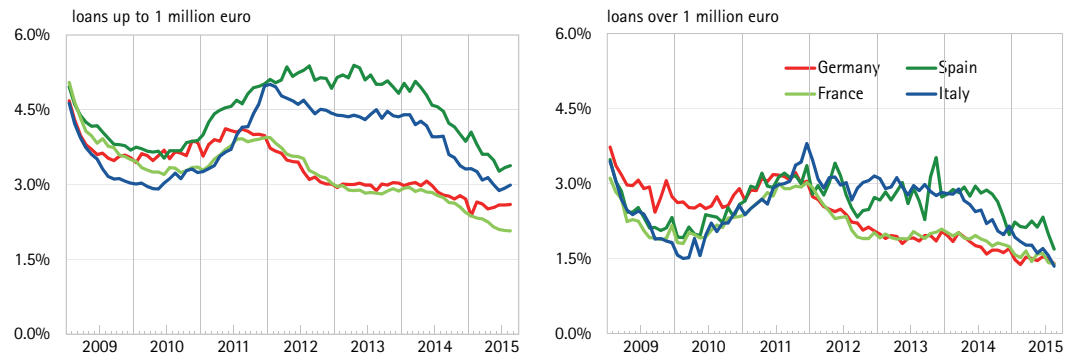
Interest rates for large companies have converged across euro area countries, while small Italian and Spanish firms continue to pay higher rates than their German and French peers.

In the first three quarters of 2015, the demand for bank loans by European non-financial firms generally increased. Lower rates and the need to finance working capital are the main drivers of the demand for new loans, especially in Italy and Spain.

Market perception of credit risk of European firms, as measured by observed and implied CDS prices, remains roughly stable at pre-financial crisis levels.

**Figure 3.11 – Interest rates on bank loans to non-financial corporations in major euro area countries**

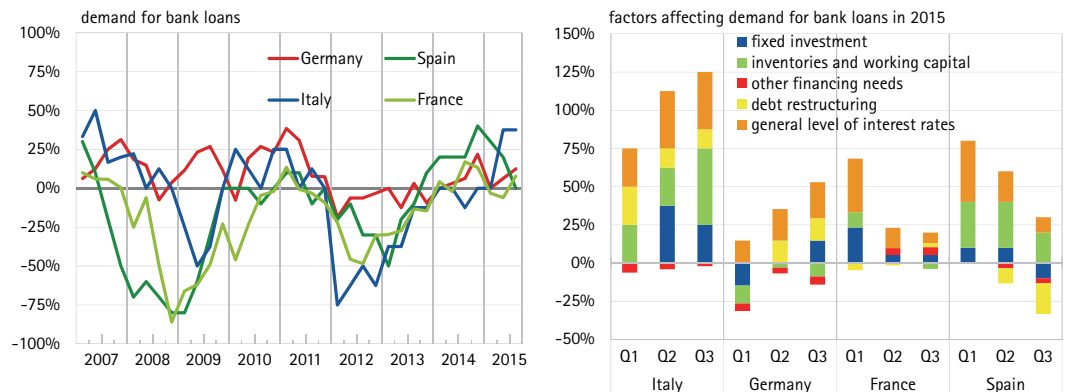
(monthly data; January 2009 – September 2015)



Source: ECB; interest rates on new loans.

**Figure 3.12 – Demand for bank loans from non-financial corporations in main euro area countries**

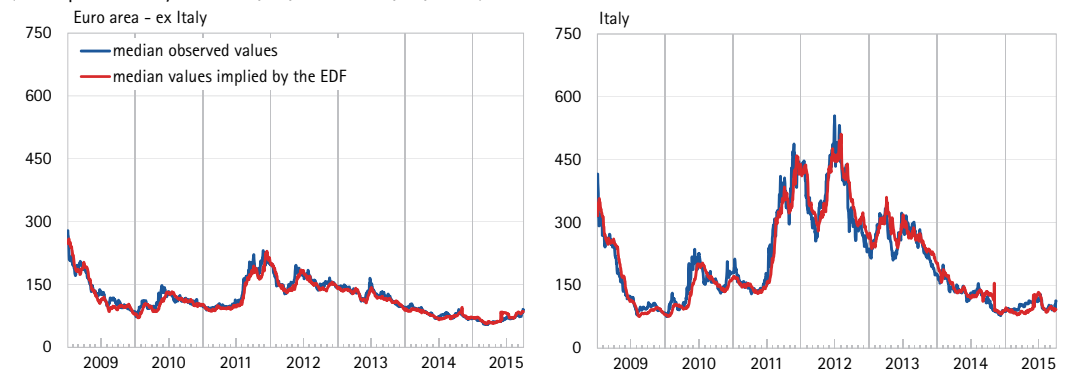
(quarterly data; Q1 2007 – Q3 2015)



Source: ECB Bank lending survey. The demand for bank loans is defined as the net percentage of banks reporting an increase in demand. Factors are defined as the difference between the percentage of banks reporting that the given factor contributed to increasing demand and the percentage reporting that it contributed to decreasing demand. 'Other financing needs' are calculated as the unweighted average of 'internal financing', 'loans from other banks', 'loans from non-banks', 'debt securities issuance', 'equity issuance' and 'mergers/acquisitions and corporate restructuring'.

**Figure 3.13 – Prices of 5-year CDS observed and implied by the expected default frequencies (EDF) for euro area non-financial firms**

(basis point; daily data; 01/01/2009 – 30/09/2015)



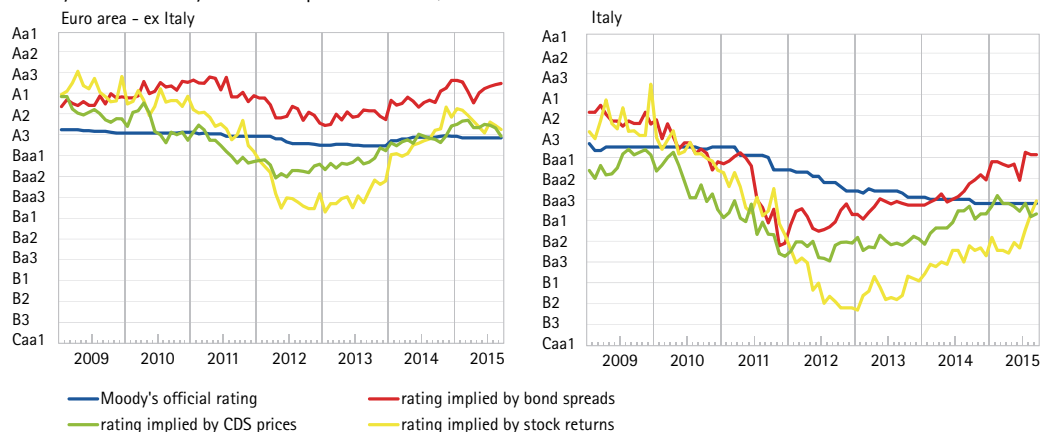
Source: calculations on Thomson Reuters Datastream and KMV - Credit Edge data. The sample includes 68 listed firms in the euro area, which belong to Thomson Reuters corporate CDS indexes and under Moody's rating and of 8 Italian non-financial listed firms.



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Credit risk implied by bond spreads is however on average quite lower than that implied by CDS and official ratings. For Italian firms, CDS and stock return implied ratings have risen to official ratings levels for the first time since 2009.

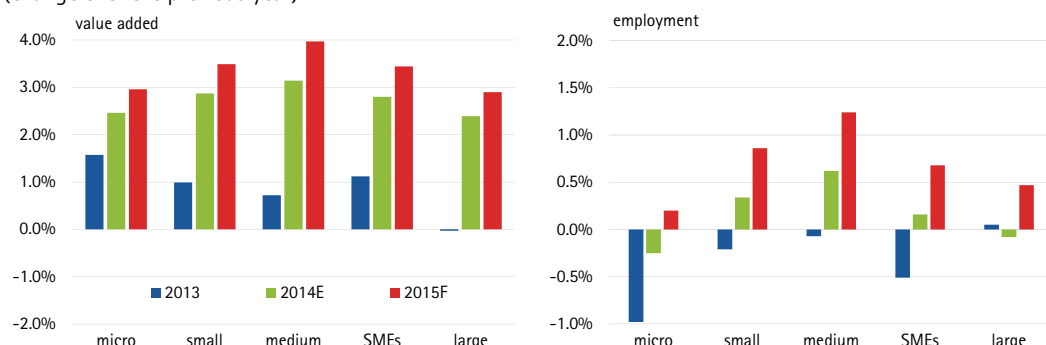
**Figure 3.14 – Official and market implied ratings for euro area non-financial firms**  
(monthly data; January 2009 – September 2015)



Source: calculations on Moody's Implied Rating data. Average values, referring to *corporate* firms included in the Euro Stoxx 50 index for the euro area (excluded non-financial Italian firms) and to Italian non-financial companies included in the Ftse Mib.

The European Commission forecasts show that European SMEs have been recovering over the last two years, given the significant expected increases in value added and, to a lesser extent, in employment rates.

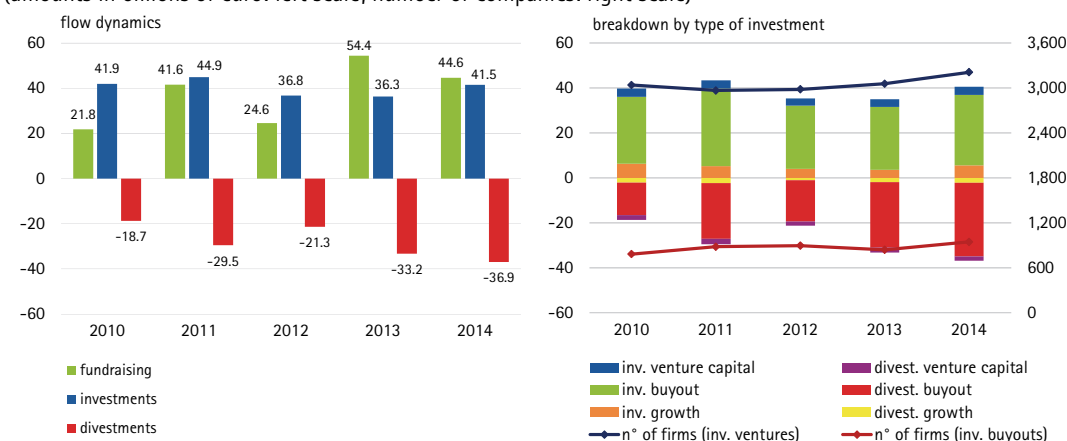
**Figure 3.15 – Change in value added and employment in European SMEs**  
(change over the previous year)



Source: European Commission, Annual Report on European SMEs, July 2014. Data refer to EU-28 SMEs, and, due to the lagged publication of the Report, 2014 and 2015 figures are, respectively, estimated and forecast. Small and medium-sized enterprises (SMEs) are defined in the EU recommendation 2003/361. Medium-sized companies are characterized by the following limits regarding, respectively, employees, either turnover or balance sheet total: < 250, ≤ € 50ml or ≤ € 43ml; Small-sized companies by: < 50, ≤ € 10ml or ≤ € 10ml; Micro-sized companies by: < 10, ≤ € 2ml or ≤ € 2ml.

An important source of finance for European SMEs comes from private equity. Although incremental fundraising fell by roughly 10 billion euros in 2014, total investments increased by more than 5 billion. Buyout deals absorbed the largest share of investments, while venture capital operations involved a relatively small amount of resources.

**Figure 3.16 – European Private Equity fundraising and investment activity**  
(amounts in billions of euro: left scale; number of companies: right scale)



Source: calculations on data from EVCA (European Private Equity and Venture Capital Association). Interim data for 2015 not reliable as many private equity firms report only at year's end data.



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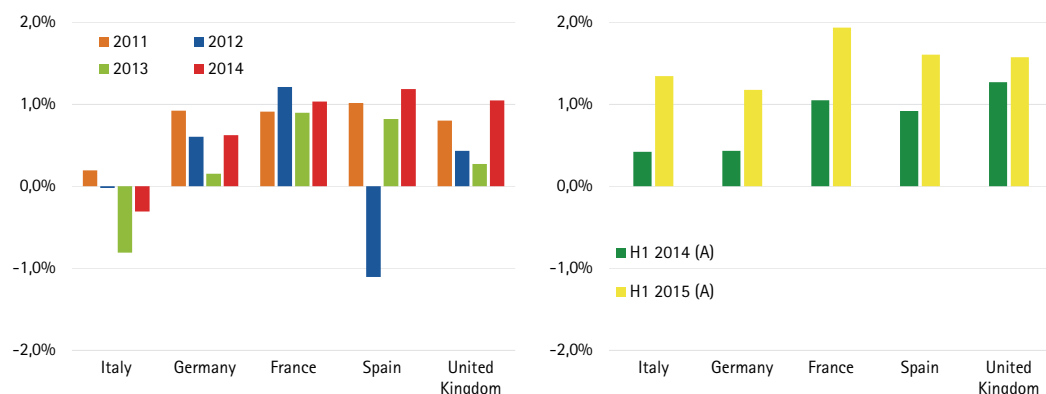
## Banks

In the first half of 2015, European banks' profitability increased, in some cases confirming the trend recorded in the previous year (Figure 4.1). The recent rise of profitability is due to the strong growth in gross income, to a reduction in new loan loss provisions for bad loans (although less pronounced in France and Spain) and to a slight improvement in cost efficiency (Figure 4.2). Except for the UK, the growth of gross income is mainly due to the recovery in trading profits and commissions. However, the contribution of trading income to profits is heterogeneous across countries, recording the lowest value in Italy (Figure 4.3). On average ROE and cost efficiency of the eight major Italian banking groups have strongly improved in H1 2015. Capital adequacy remained basically unchanged, with both the Tier 1 ratio and total capital ratio stable, respectively, at around 12% and 15% on average (Figure 4.4). On aggregate, Tier 1 ratios of the major European banks are converging across countries, but French and German banks have a much higher leverage and a much lower RWA to total assets ratio (Fig 4.5). The weight of financial assets on total assets is similar across major European banks (with the exception of French institutions), although Italian and Spanish banks keep a much lower exposure in derivatives (Figure 4.6). Credit quality is improving except for Italian banks, though the share of bad loans seems to be stabilizing. Indeed, H1 2015 data show a strong reduction in the cost of risk for the period (loan loss provision to total loans; Figure 4.7). The credit quality of the main Italian banks has been worsening since the financial crisis in 2009. However, net doubtful loans have declined during 2015, in spite of persistently increasing gross bad loans (Figure 4.8). The incidence of bad loans on banks' balance sheet is expected to decline thanks to the new legislative measures approved in June and aimed at facilitate non-performing assets disposal. As for credit conditions, European banks keep loosening credit standards to both households and firms thanks to better access to external funding and lower internal capital constraints, but also to a decreasing risk perception related to expectations of improving economic activity (Figures 4.9 and 4.10). Despite the easing in credit standards, bank loans to non-financial companies keep declining in Italy and Spain (Figure 4.11). Except for Germany, house prices are lingering or slightly declining though residential mortgages show some timid sign of recovery (Figure 4.12). At the end of 2014, Spanish and Italian banks were still the most exposed to domestic sovereign debt. This exposure has been shrinking since the start of QE, due to Italian and Spanish institutions being large net seller of domestic bonds (Figure 4.13). Data at Q1 2015 show that the exposure to emerging markets is significant only for Spanish and UK banks (Figure 4.14). Since the strong decline in 2010, intra-EU cross border lending is stabilizing around 2014 values for both interbank market and the lending to the private non-financial sector (Figures 4.15 and 4.16). However, since 2010 banks' cross-border activity within the euro area (especially lending to non-financial sector) has experienced a significant drop, signaling a persistent fragmentation (Figure 4.17). Persistent Target 2 imbalances reflect the large capital outflows towards core countries occurred during the sovereign debt crisis, which have not yet been reverted (Figure 4.18). The weight of ECB funding on total asset stood at around 4% for Italian and Spanish banks, almost three times higher than for French and German banks. Negative short rates have caused a new rise in the use of ECB deposit facilities (Figure 4.19). The increasing perception of default risk for the main European banks signaled by the dynamics of CDS prices since the beginning of 2015 is not confirmed by trends in ratings (Figures 4.20 and 4.21).

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In the first half of 2015, European banks' profitability increased, in some cases confirming the trend recorded in the previous year.

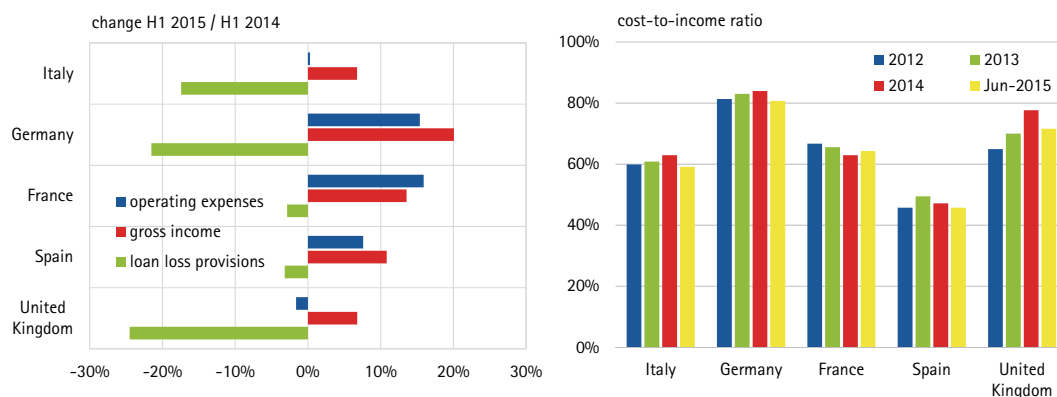
**Figure 4.1 – Profitability of main listed European banks**  
(profit before taxes / risk-weighted assets)



Source: calculations on data from consolidated annual and interim reports of main listed European banks (24 groups). The profit before taxes is calculated excluding goodwill impairment. The figures as at June 30 are annualised and partly estimated.

Recent increase in profitability is due to the strong growth in gross income, the reduction in loan loss provisions (although less pronounced in France and Spain) and the slight improvement in cost efficiency.

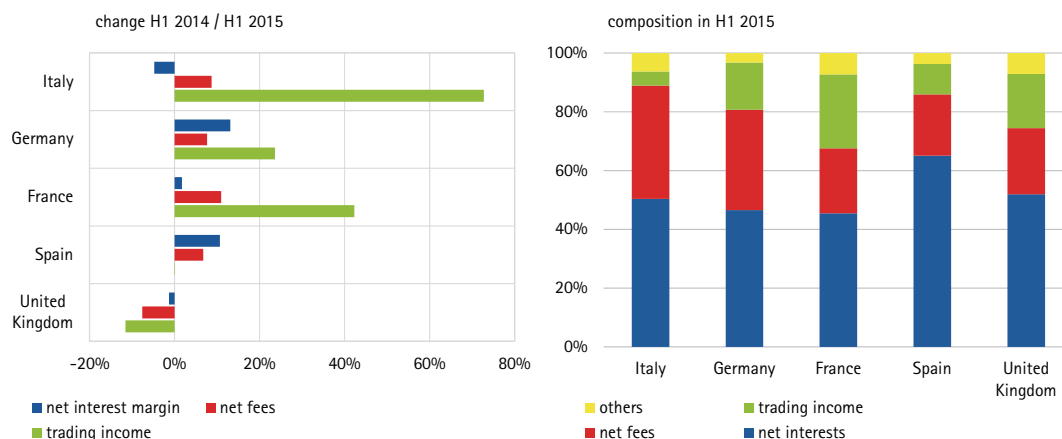
**Figure 4.2 – Change in efficiency and profitability of main listed European banks**



Source: calculations on data from consolidated annual and interim reports of main listed European banks (24 groups). The figures as at 30 June are annualised and partly estimated.

Except for the UK, the growth of gross income is mainly due to the recovery in trading profits and commissions. However, the contribution of trading income to profits is heterogeneous across countries, recording the lowest value in Italy.

**Figure 4.3 – Change in revenues and composition of main listed European banks**



Source: calculations on data from consolidated annual and interim reports of main listed European banks (24 groups). The figures as at June 30 are annualised and partly estimated.

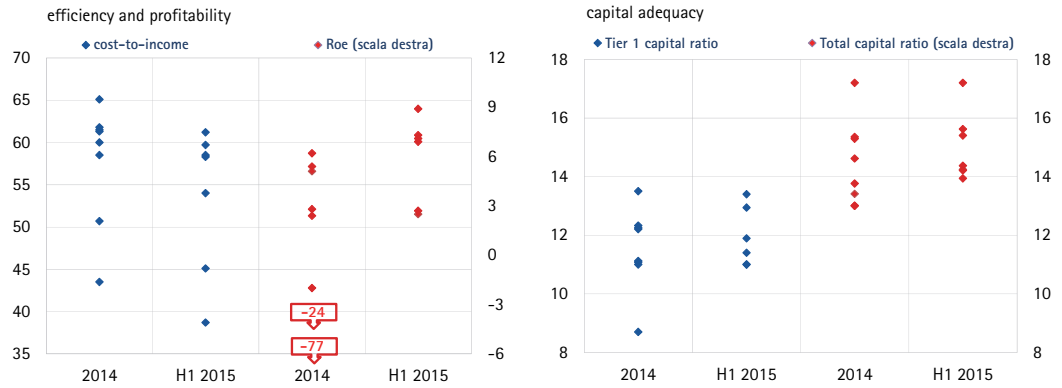
1. Equity markets
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On average ROE and cost efficiency of the eight major Italian banking groups have strongly improved in H1 2015. Capital adequacy remained basically unchanged, with both the Tier 1 ratio and total capital ratio stable, respectively, at around 12% and 15% on average.

On aggregate, Tier 1 ratio is converging among major European banks, but French and German credit institutions have a much higher leverage and a much lower RWA to total assets ratio.

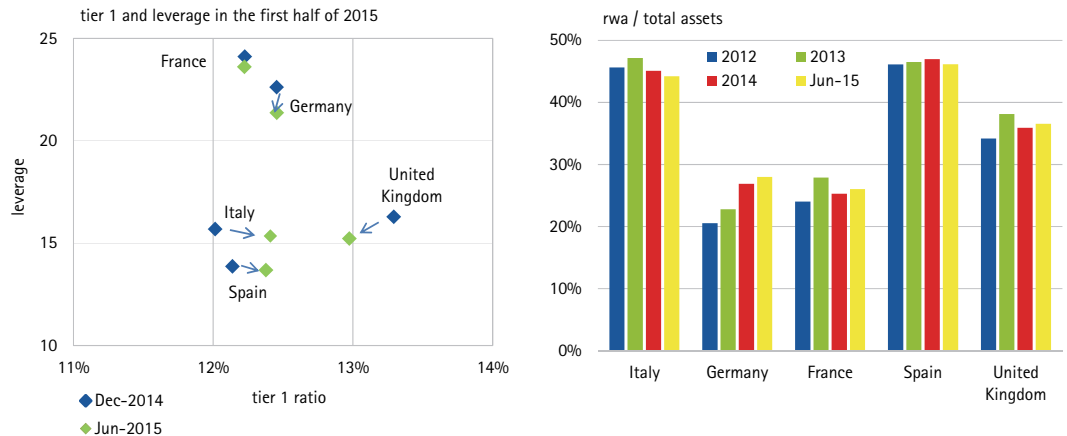
The weight of financial assets on total assets is similar across major European banks, with the exception of French institutions. However, Italian and Spanish banks keep a much lower exposure in derivatives.

Figure 4.4 – Income and solvency ratios of major Italian banking groups



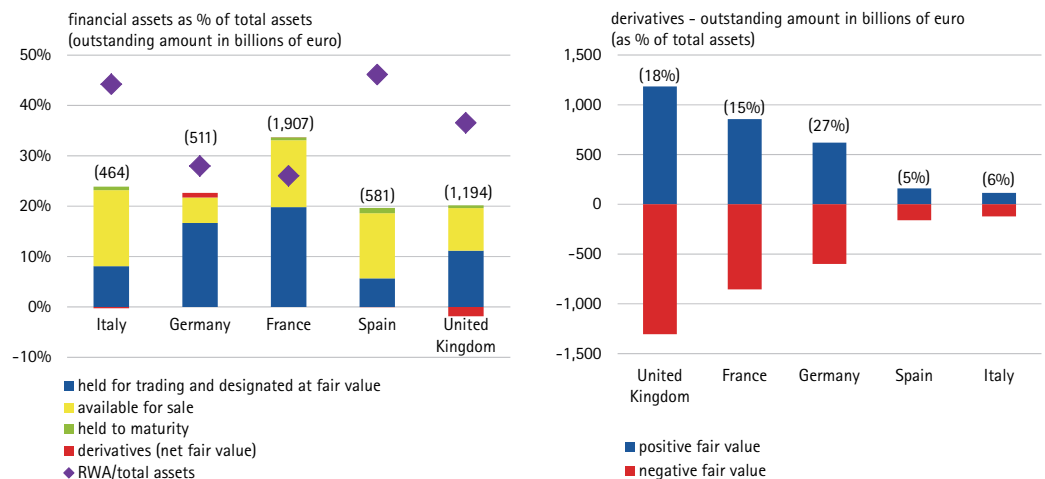
Source: calculations on data from consolidated annual and interim reports of the 8 largest groups.

Figure 4.5 – Capital adequacy and leverage of main listed European banks



Source: calculations on data from consolidated annual and interim reports of main listed European banks (24 groups). The figures as at 30 June are partly estimated.

Figure 4.6 – Financial assets and derivatives of main listed European banks (figures as of H1 2015)

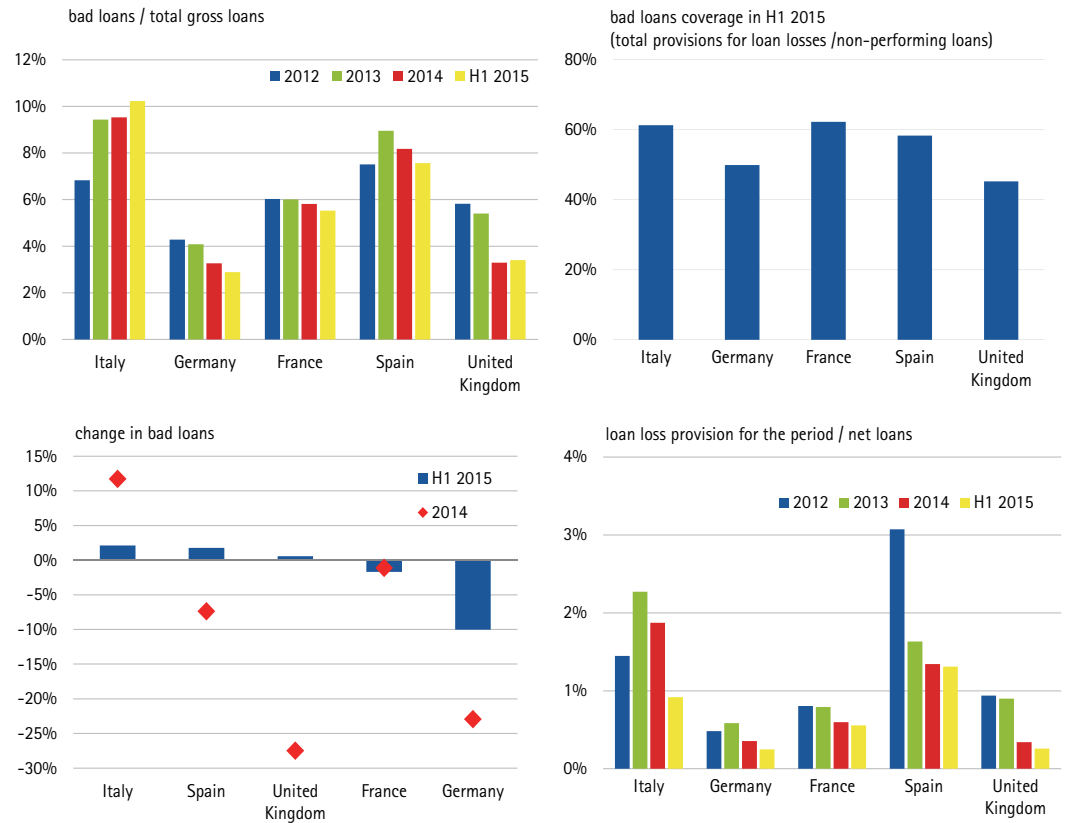


Source: calculations on data from consolidated annual and interim reports of main listed European banks (24 groups).

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Credit quality is improving except for Italian banks, though the share of bad loans seems to be stabilizing. Indeed, H1 2015 data show a strong reduction in the cost of risk for the period (loan loss provision to total loans).

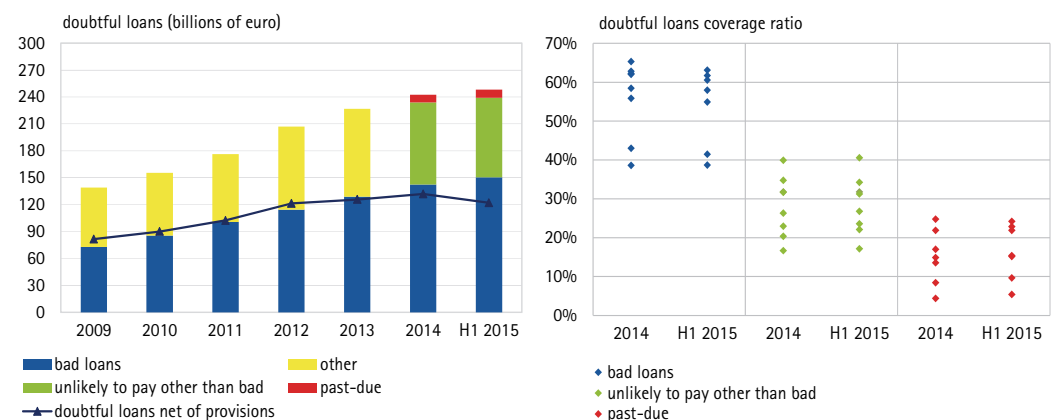
**Figure 4.7 – Credit quality of main listed European banks**



Source: calculations on data from consolidated annual and interim reports of main listed European banks (24 groups). The increase in non-performing loans of Spanish banks compared to 2011 reflects also the consolidation of Banca Civica by Caixa Bank in 2012. The figures are partly estimated.

The credit quality of the main Italian banks has been worsening since the financial crisis in 2009. However, net doubtful loans have declined during 2015, in spite of persistently increasing gross bad loans.

**Figure 4.8 – Credit quality of major Italian banking groups**



Source: calculations on data from consolidated annual and interim reports of the 8 largest groups. The half-yearly figures are annualised. Starting from the first quarter of 2015 the classification of loans into risk classes was updated in order to reflect the changes provided in Bank of Italy Circular 272 (see also section A.2 Accounting Policies of Explanatory Notes); this update adjusts the previous classification instructions to the definition of "Non-Performing Exposure" (NPE) introduced by the European banking authority (EBA) through the issue of EBA/ITS /2013/03/rev1 24/7/2014. The total volume of loans classified in the previous categories that made up the perimeter of impaired loans as at December 31, 2014 (Bad Loans, Doubtful, Restructured, Past-due) were reallocated to new risk classes (Bad Loans, Unlikely to pay other than bad, Past-due).

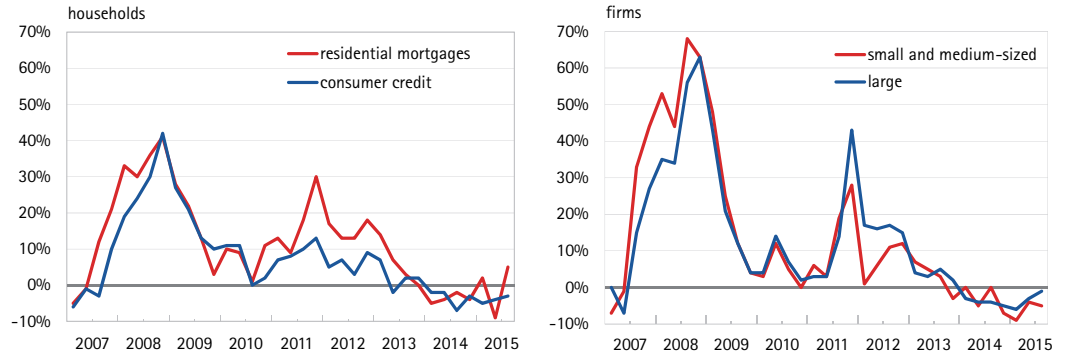
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European banks keep loosening credit standards to both households and firms ...

... thanks to better access to external funding and lower internal capital constrains, but also to a decreasing risk perception related to expectations of improving economic activity.

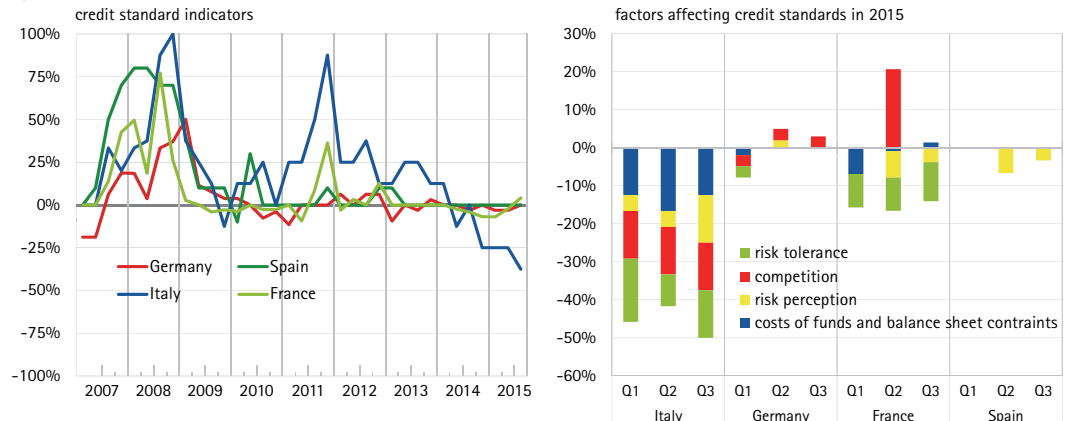
Despite the easing in credit standards, bank loans to non-financial companies keep declining in Italy and Spain. Bank deposits are still contracting in Spain.

**Figure 4.9 – Credit standard indicators for bank loans in the euro area**  
(quarterly data; Q1 2007 – Q3 2015)



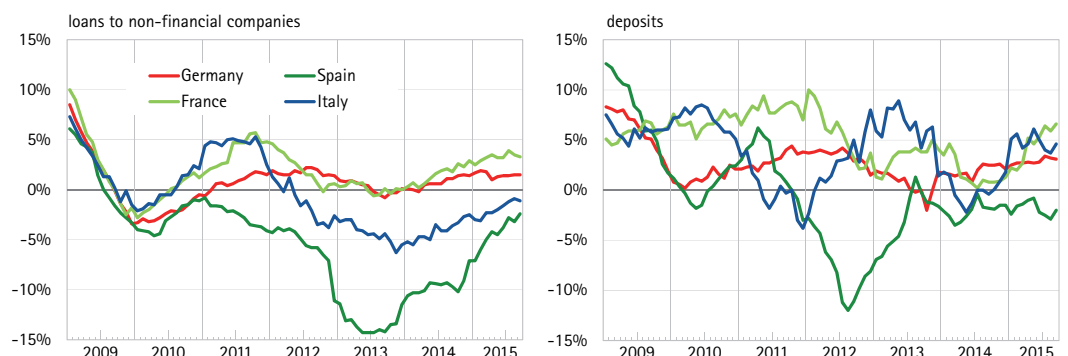
Source: ECB, 'Bank lending survey'. Net percentage of banks reporting a tightening in credit standards.

**Figure 4.10 – Credit standards of supply of bank loans to non-financial companies in main euro area countries**  
(quarterly data; Q1 2007 – Q3 2015)



Source: ECB, 'Bank lending survey'. The credit standard indicator is the net percentage of banks reporting a tightening in credit standards (for France net percentages are weighted based on the amounts outstanding of loans of the individual banks in the sample). Factors are defined as the difference between the percentage of banks reporting that the given factor contributed to a tightening and the percentage reporting that it contributed to an easing. 'Cost of funds and balance sheet constraints' is calculated as the unweighted average of 'capital position', 'access to market financing' and 'liquidity position'; 'risk perception' is calculated as the unweighted average of 'expectations regarding general economic activity', 'industry-specific risk' and 'risk on collateral demanded'; 'competition' is calculated as the unweighted average of 'bank competition', 'non-bank competition' and 'competition by market financing'.

**Figure 4.11 – Annual growth rate of loans to non-financial companies and deposits in main euro area countries**  
(monthly data; January 2009 – September 2015)

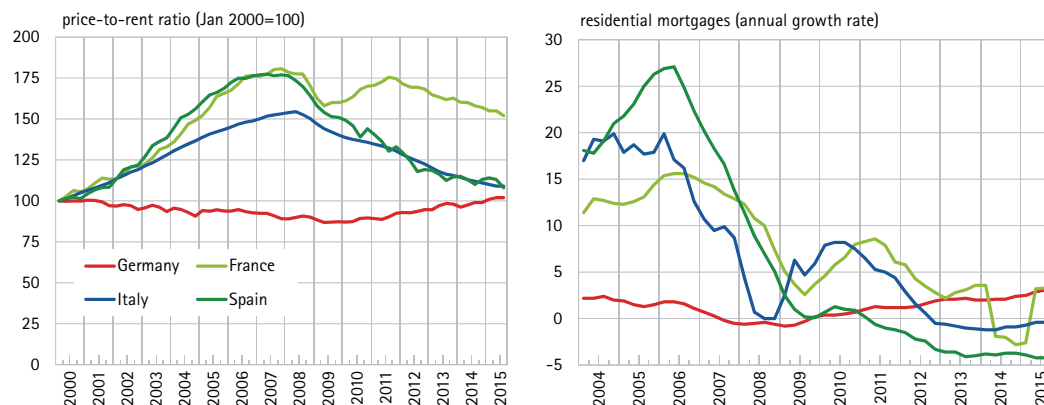


Source: ECB.

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Except for Germany, house prices are lingering or slightly declining though residential mortgages show some timid sign of recovery.

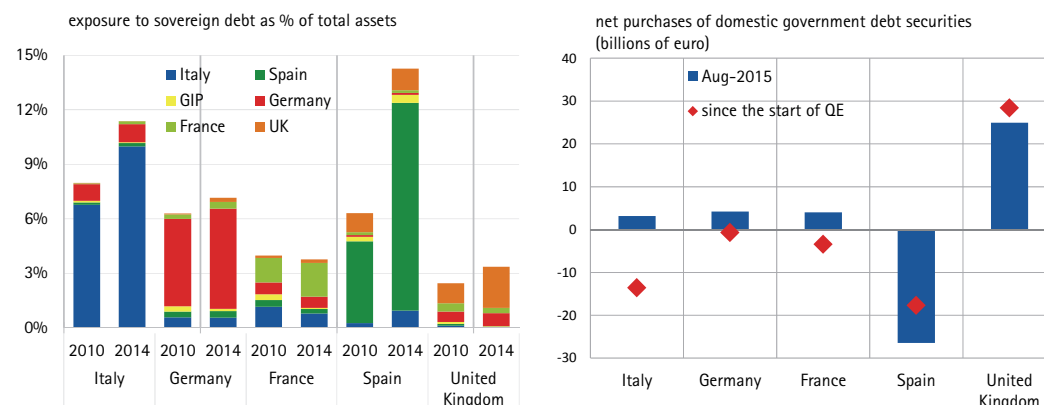
Figure 4.12 – House prices and residential mortgages in main euro area countries



Source: calculations on Thomson Reuters, BIS and ECB data.

At the end of 2014, Spanish and Italian banks were still the most exposed to domestic sovereign debt. This exposure has been shrinking since the start of QE, due to Italian and Spanish institutions being large net seller of domestic bonds.

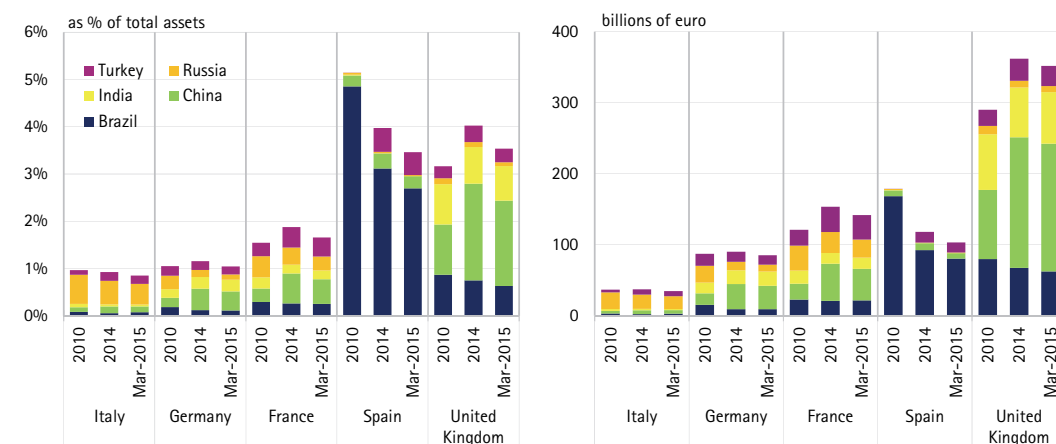
Figure 4.13 – Banks' exposures to sovereign debt in the main European countries



Source: calculations on Bank for International Settlements, Bruegel database of sovereign bond holdings and ECB data. GIP: Greece, Ireland and Portugal. Figures refer to total banking system of Italy, Germany, France, Spain and the United Kingdom. ECB data about net purchases of sovereign debt securities refer to financial transactions in domestic government debt securities held by banks summed up over period, with the exception of the United Kingdom for which data refer to differences between the outstanding amounts at the end of each period.

Data at Q1 2015 show that the exposure to emerging markets is significant only for Spanish and UK banks.

Figure 4.14 – Banks' foreign exposures to selected emerging markets in the main European countries



Source: calculations on Bank for International Settlements data.

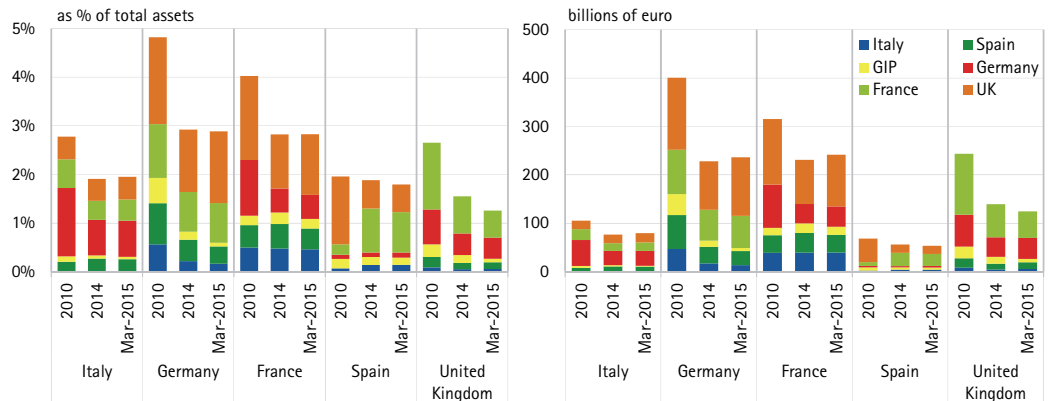
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Since the strong decline in 2010, intra-EU cross border lending is stabilizing around 2014 values for both interbank market ...

... and the lending to the private non-financial sector.

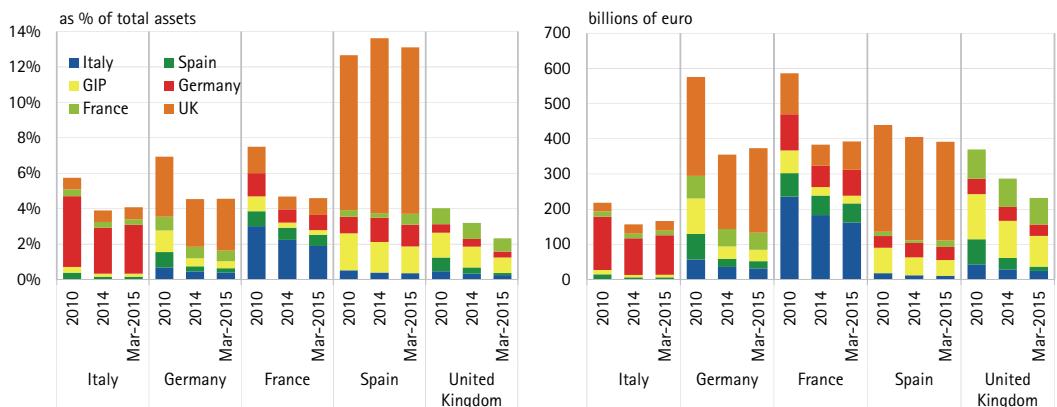
However, since 2010 banks' cross-border activity within the euro area (especially lending to non-financial sector) has experienced a significant drop, signaling a persistent fragmentation.

Figure 4.15 – Interbank cross-border lending in the main European countries



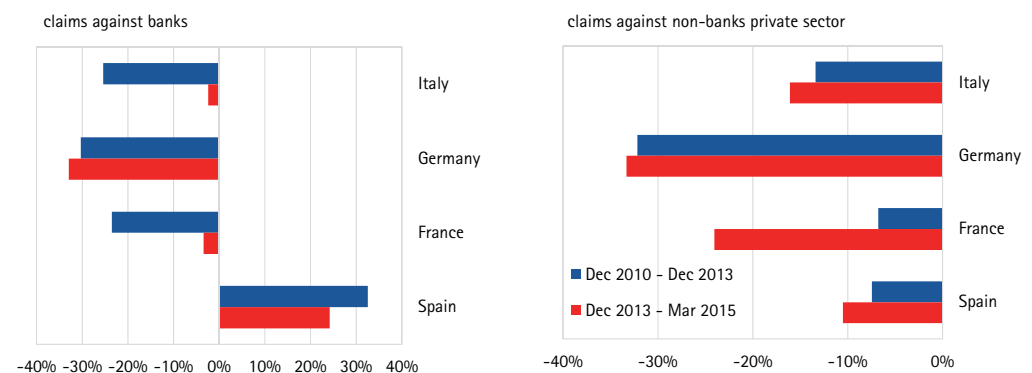
Source: calculations on Bank for International Settlements data. GIP: Greece, Ireland and Portugal. Figures refer to total banking system of Italy, Germany, France, Spain and the United Kingdom and do not include exposures to the country of origin.

Figure 4.16 – Banks' foreign lending to the private non-financial sector in the main European countries



Source: calculations on Bank for International Settlements data. GIP: Greece, Ireland and Portugal. Figures refer to total banking system of Italy, Germany, France, Spain and the United Kingdom and do not include exposures to the country of origin.

Figure 4.17 – Change in foreign claims of banks in the main euro area countries

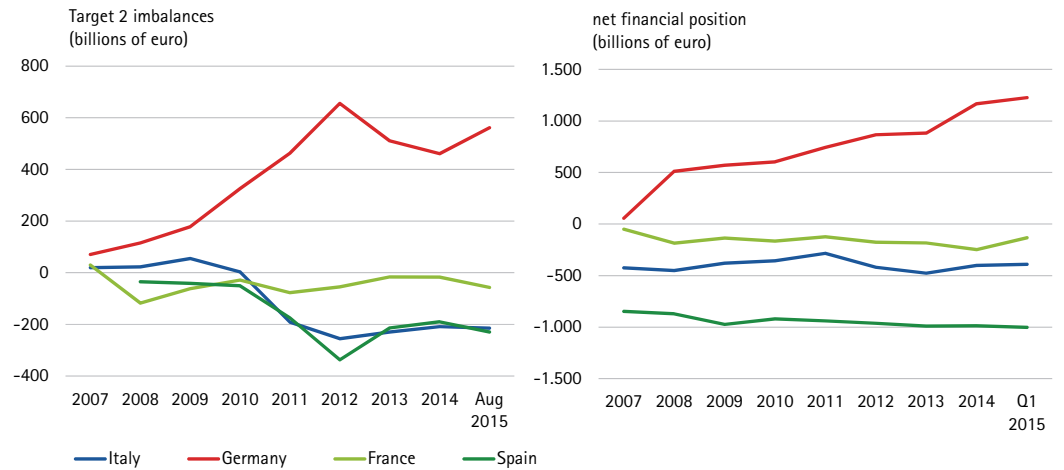


Source: calculations on Bank for International Settlements data. Figures on foreign claims of total banking system in Italy, Germany, France, Spain and the United Kingdom and do not include exposures to the country of origin. European countries for which foreign claims are available are Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain.

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Persistent Target 2 imbalances reflect the large capital outflows towards core countries occurred during the sovereign debt crisis, which have not yet been reverted.

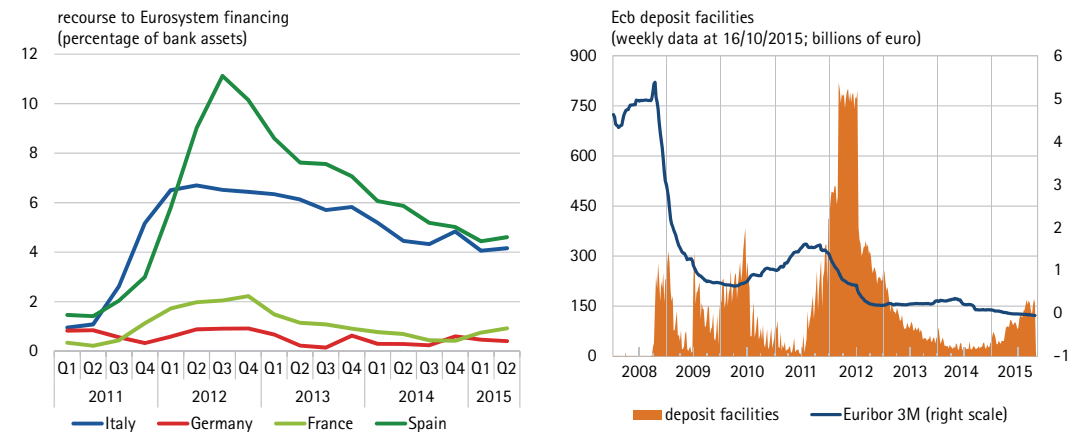
**Figure 4.18 – Target 2 imbalances and net financial position for main euro area countries**



Source: calculations on ECB and Central banks data.

The weight of ECB funding on total asset stood at around 4% for Italian and Spanish banks, almost three times higher than for French and German banks. Negative short rates have caused a new rise in the use of ECB deposit facilities.

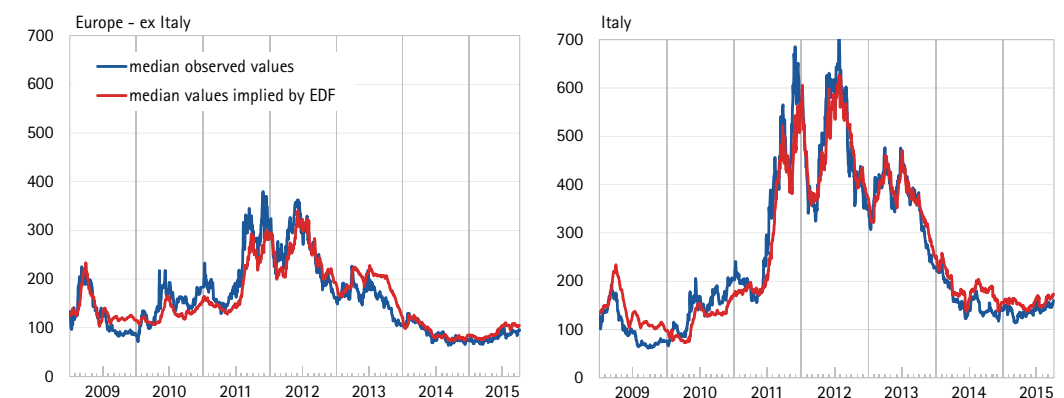
**Figure 4.19 – Reliance on Eurosystem funding by credit institutions of main euro area countries and ECB deposit facility**



Source: calculations on ECB and national central banks data.

The slight increase in the perception of default risk for the main European banks signaled by the dynamics of CDS prices since the beginning of 2015 ...

**Figure 4.20 – Average 5-year CDS prices observed and implied by the expected default frequencies (EDF) for main listed European banks (basis points; daily data; 01/01/2009 – 30/09/2015)**



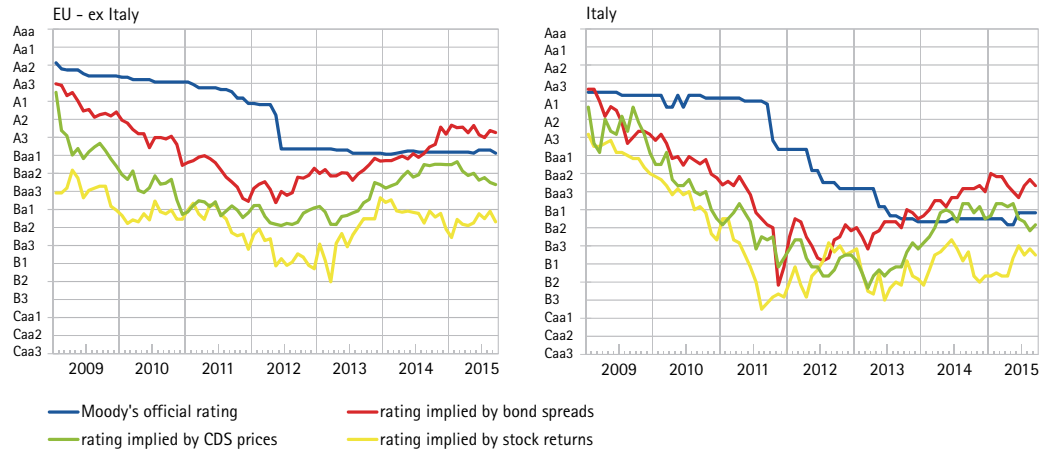
Source: calculations on Thomson Reuters Datastream and KMV - Credit Edge data for main listed groups (6 for Italy and 15 for Europe).



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... is not confirmed by the implied ratings in bond spreads.

**Figure 4.21 – Official and market implied rating for main listed European banks**  
(monthly data; January 2009 – September 2015)



Source: calculations on Moody's Implied Rating data. We report the average values for main listed European banks (23 groups).