1. Key developments

The European macroeconomic environment has remained challenging since the last review in December 2015. Although the overall economic growth in Europe is positive, the outlook has deteriorated pointing out that growth is not robust yet and above all heterogeneous with peripheral countries still struggling to recover from the latest crisis. A slow reduction of the unemployment rate contributes positively to support domestic consumption. On the other hand, geopolitical risks have risen in the past few months. Challenges in Greece remain and a potential outcome of the EU Referendum in the United Kingdom could temporarily lead to uncertainties and volatilities in financial markets and challenge the European economic and political integration. Moreover, further potential terrorist attacks in Europe and the Syrian civil war, instrumental to the refugee crisis, might contribute to the overall European fragile economic environment. Additionally, risks from emerging markets driven mainly by China could deteriorate the global economic outlook. Chinese financial markets have been volatile in the past few months with spillover effects on the global economic environment. Other emerging countries like Brazil and South Africa have been facing negative economic consequences of falling commodity prices like oil which recently reached a very low (see Box 1) leading to the downgrade of the sovereign rating of Brazil. As a consequence, the likelihood of re-pricing of risk premia in global financial markets has further increased.

These external factors concur to worsen the already low growth environment and keep inflation low. In order to revamp the EU economic condition, the ECB proposed a robust and extended stimulus plan. The plan is based on an accommodating monetary policy and non-standard intervention enforced by the purchase of sovereign and recently corporate bonds of the EU area. Besides the potential expected positive impact on the real economy, ample source of funding concurs to keep yields in Europe close to historical lows enhancing "search for yield" behaviour and increasing the valuation risks. The effect on the market of the asset purchase program of corporate bonds by the ECB is still to be evaluated.

Against this background the main challenge for the EU (re)insurers and pension funds remain the low interest rates in a weak macroeconomic environment. Life companies with long-term liabilities and with a relevant portion of guaranteed return products are struggling to maintain a reasonable level of profitability and to match the obligation towards policyholders. As a consequence companies are exposed to reinvestment risk and possible excessive risk taking. Furthermore, high volatility and increasing risk

premia in combination with low risk-free rates makes the insurance industry prone to the so called double-hit scenario.

In addition to the traditional risks, two other emerging elements represent both a threat and an opportunity for the insurance sector: the cyber risk and the InsurTech wave. Whilst posing a severe and increasing threat to the financial system[1], cyber risk also offers new business opportunities for insurers at the same time.

1.1. Low yield environment

Low interest rates will remain a risk in the long run as inflation expectations have fallen sharply in recent months on lower crude oil prices. Furthermore, the ECB continued its path of monetary stimulus.

Low yields and reinvestment risk are still on the spot. After a temporary increase of medium to long-term yields in October 2015 (Figure 1.1a), the trend has revised downwards once again. Short-and medium-term yields turned negative over a short horizon, reaching their lowest historical levels ever. Forward rates suggest even lower levels in the future (Figure 1.1b). Given the accommodative monetary policy in Europe (and a lowering of the ECB policy rate in March), a prolonged low yield environment can be anticipated.

[1] Cyber risk has been gaining momentum with dramatic pace. In less than five years, it surged into the first top risks of global risks for business rankings (World Economic Forum).

Figure 1.1a: EUR swap curve (in per cent)

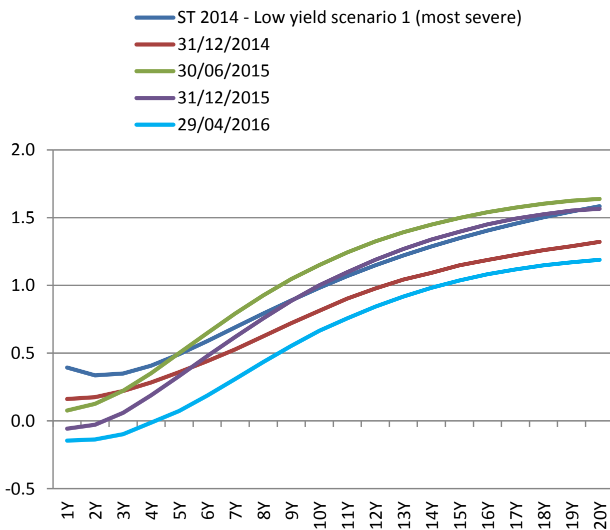
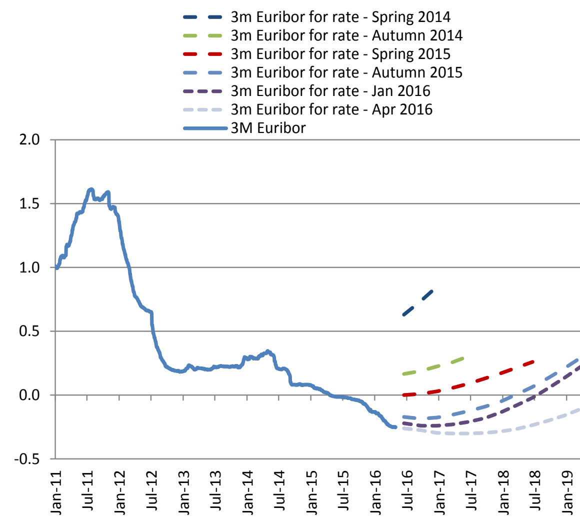


Figure 1.1b: 3M EURIBOR (in per cent)



Source: Bloomberg - Final observation: 29/04/2016

Government bond yields remain at very low levels. After the turbulence (increase in yields) caused by the situation in Greece in June and July 2015, euro area government bond yields have further temporarily dropped (Figure 1.2). The interest rate volatility remains high for 10-year government bonds involved in the (Quantitative Easing) QE program. Figure 1.3 shows how the effect is particularly significant for the higher graded countries' bonds as for example in Germany, Netherlands and France where the robust demand in combination with a reduced availability of securities on the market amplify fluctuations.

Figure 1.2: 10-year government bond yields (in per cent)

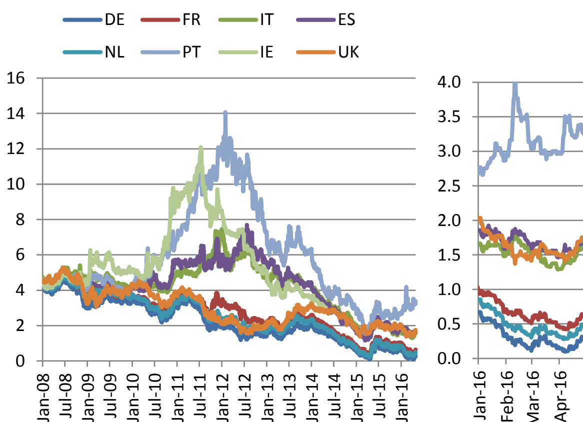
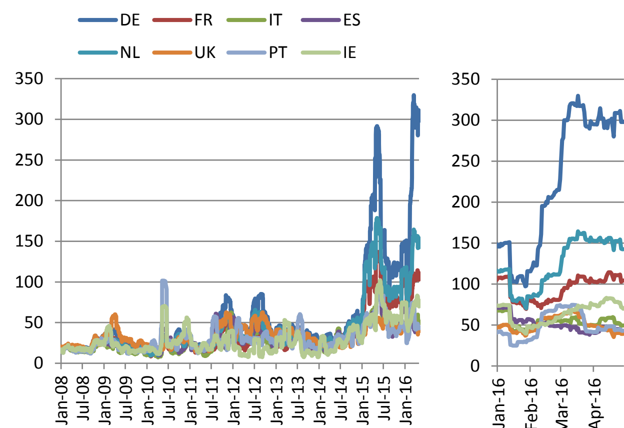


Figure 1.3: 10-year government bond 30-day volatility (in basis points)



Source: Bloomberg; Last observation: 29/04/2016

Similarly, Euro area corporates yields (financials and non-financials) remain at very low levels (Figure 1.4 and Figure 1.5). Increasing risks in emerging markets is narrowing geographic diversification for investments (e.g. the recent downgrade of Brazil below investment grade). Recently, corporate bonds have been included in the asset purchase program of the ECB. Effects in term of price and volatility of the securities shall be scrutinised in the future.

Figure 1.4: Corporate bond yields and EMU and US Indices (in per cent)

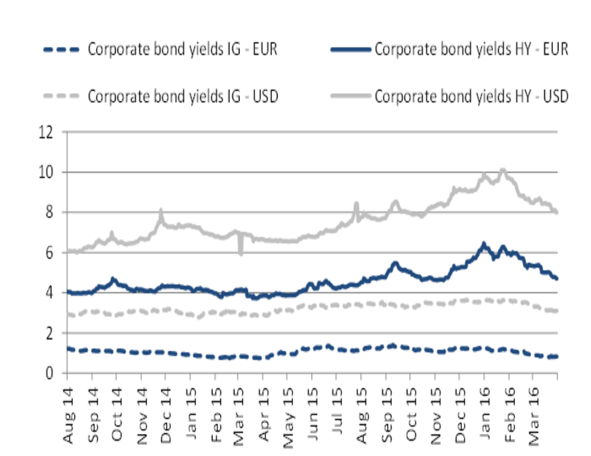
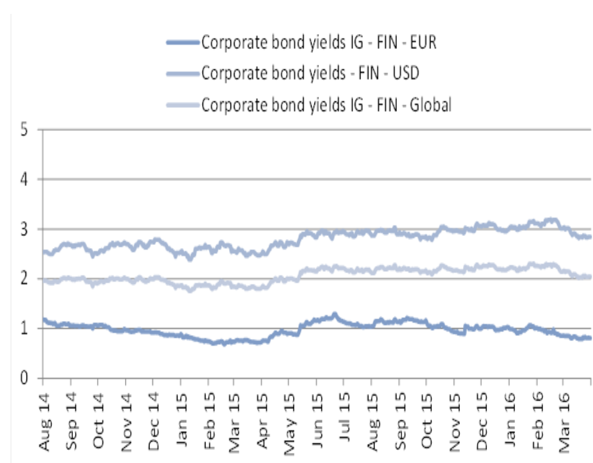


Figure 1.5: Corporate financial bond yields and EMU, US and Global Indices (in per cent)

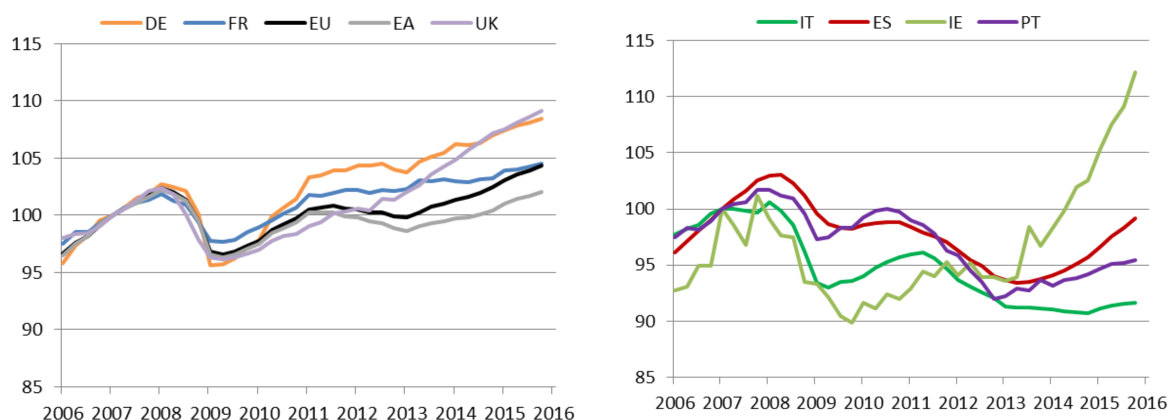


Last observation: 29/04/2016

Furthermore, excess of liquidity in the market leads to reduced sovereign bond yields which might not be in line with what credit risk fundamentals suggest. At the same time, the reduced availability of high-graded bonds will likely feed back into increases in bond prices and lower yields (Figure 1.4 and 1.5).

The economic growth development remains weak and very heterogeneous in Europe. Although overall slight positive economic growth can be observed, some countries still struggle to reach their pre-crisis levels (Figure 1.6). The latest economic outlook further suggests that growth is not robust yet with EU peripheral countries facing many structural issues including inflexible labour markets.

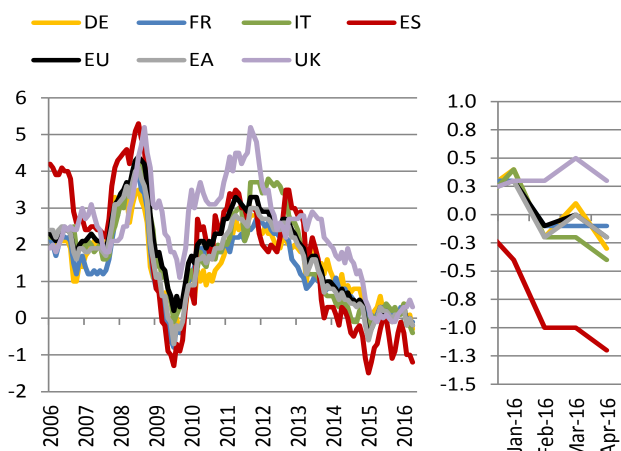
Figure 1.6: Real GDP development (index 2007Q1=100)



Source: Eurostat and EIOPA calculations - Last observation: Q4 2015.

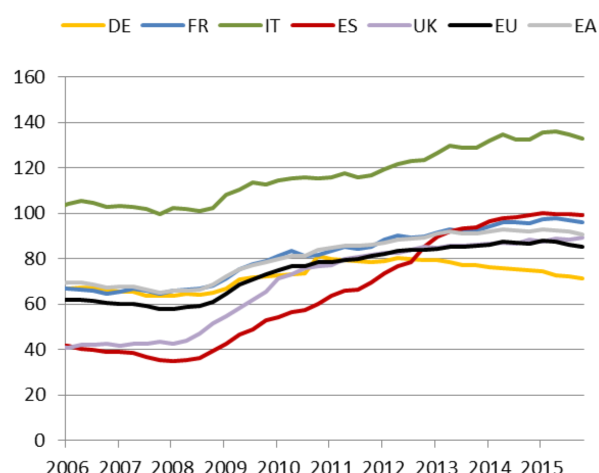
A strong deflation pressure in the euro area has re-emerged. The inflation rate across the EU countries remains low but is somewhat positive for some countries (Figure 1.7). Supported by the ECB's stimulus (Box 1) inflation rates have started to pick up slowly in most countries of the euro area. However, a debt overhang (Figure 1.8) and continuing uncertainty about the future development of some EU members, as well as geopolitical risks keep the average euro area rate at 0.03 per cent for Q1 2016, far below the target of 2.0 per cent.

Figure 1.7: Inflation rate (in per cent)



Source: ECB and Eurostat - Last observation: April 2016

Figure 1.8: Public Debt (as a per cent of GDP) - Countries



Source: Eurostat - Last observation: Q4 2015

Box 1. Oil Prices and their potential impact on the European Economy and the Insurance Sector

Low oil prices contribute mainly positively to the real economy by supporting consumer demand in developed markets, but also represent a potential threat to the insurance industry.

As the world's largest oil-importing region, the EU's oil import dependency rate is about 88.4 per cent.[2] In addition, due to its relative price flexibility, Europe is the region with the highest ratio of crude oil prices to domestic retail prices. This means that the fall in world crude prices translates into a substantial decline in petroleum prices at the retail level compared to other regions, thereby directly having an impact on demand channels. Such channels also lead to more purchasing power for consumers and lower the costs for transport and heating. Consequently, it increases profit margins for business. However, the repricing of gas and oil companies leads to higher refinancing costs. It also fuels volatility on equity and bond markets and increases credit risks.[3]

Consequently, the insurance sector is directly impacted by low oil prices. Although the share of this kind of investments is not large enough to be considered a high threat for the insurance sector in Europe, it limits the scope of alternatives of return even more within an already scarce environment. Moreover, the perspective of a persistent low oil price scenario triggers postponements and annulments of investments in projects related to exploration and energy production, which might reduce the demand for insurance coverage, affecting profitability. In addition, due to the dropping prices, many energy companies may want to (re)negotiate a cheaper alternative for their coverage. Through the rising claims on motor insurance, the cheaper oil also increases the pressure on the non-life sector. However, these effects might be partially offset by higher disposable income of households and other sectors implying a higher demand for insurance coverage. In the medium to long run, the potential increase in mergers and acquisitions among energy companies could impact premiums negatively, due to the reduced demand for insurance. Under these circumstances, the energy sector might become less

[2] Source: Eurostat (2013).

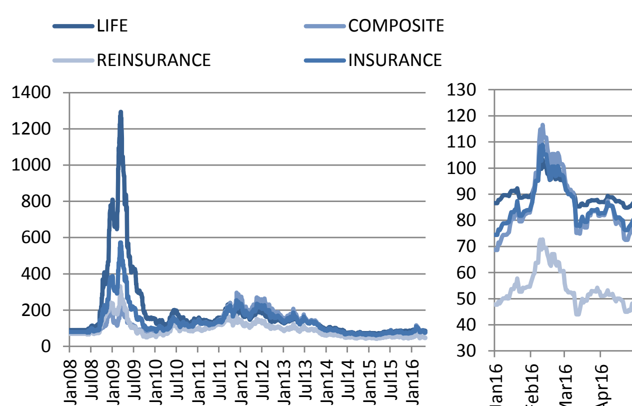
[3] In Europe, twenty of the biggest banks own energy loans of nearly USD 200bn.

and less attractive possibly encouraging insurers to step out of the energy-related business eventually.

1.2. Credit risk

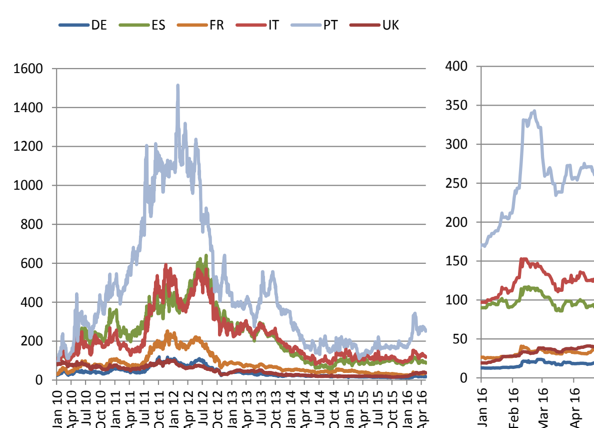
Yields of Credit Default Swaps (CDS) remained at comparatively low levels. This development indicates some financial risk among major insurance and reinsurance companies (Figure 1.9 and 1.10), even if in comparison with the last financial crisis, CDS yields were much higher. Since the beginning of 2016, returns in all segments are mostly negative.

Figure 1.9: 5-year CDS - Insurance (in basis points)



Source: Bloomberg. Last observation: 29/04/2016

Figure 1.10: 5-year CDS - Sovereign (in basis points)



Source: Bloomberg. Last observation: 29/04/2016

1.3. Digitalization, InsurTech and cyber risks

As technological innovation progresses in a fast pace releasing new business opportunities and new business entrants; consumers have more alternatives while the insurance sector faces stronger competition. Although this should be seen as an opportunity for insurers, it implies also risks. The industry is still lagging behind in the digital consumer experience while innovative business models based on technology - commonly known as InsurTech - emerge. This makes the need of modernisation imminent and crucial for insurance companies. As the migration towards highly integrated systems occurs, companies may also become more exposed to cyber-attacks.

So far, most insurers put a focus on optimising existing tools instead of significantly reviewing and transforming their business models. However,

technology is likely to cause a profound change in the industry in the coming years by disrupting traditional business models.

Box 2: Technological threats to the traditional business model of the insurance sector

One of the most imminent threats enabled by technology to the traditional business model of insurers is the disintermediation process. Players operating in different markets with substantial data assets and more frequent consumer connections are entering in the insurance business and offering integrated solutions through their ecosystem, namely exploiting the extensive knowledge of consumers for instance via e-commerce, banking and e-travel.

Other innovative alternatives are new insurance distribution methods and peer-to-peer insurance. One example of a new distribution method is pooling users with similar needs and negotiating insurance deals to each group according to their specific needs. The system is usually highly automated and makes intensive use of social media.

Peer-to-peer insurance consists of consumers with similar needs supporting each other whenever there is a claim. In general, there is a connection via a website that offers a diversified range of providers, which covers any amount that exceeds the coverage in case of big claims. In the case that claims are not submitted, the members get part of their money back at the end of the policy contract. The more people are connected, the less cover the insurance provider issues and the higher the payback can be. This system does not only encourage improved behaviour but also avoids frauds.

On the one hand the increased competition pushed by new technologies is providing impetus to the evolution of the traditional business model in the insurance industry. On the other hand, this transition requires time and implies potential reduction of profits driven by higher acquisition costs and reduced fee-based income.

Digitalisation is a unique strategic opportunity for insurance companies as it does not only substantially increase the productivity by automatising processes and decreasing costs, but also improves connections with customers, offers new

products, integrates and manages data. Internet of Things (IoT)[4] and Big Data[5] are revolutionary trends that can provoke a deep transformation in the sector. The big amount of data and its interconnectedness builds a powerful ecosystem that is able to change the nature of management, risk modelling and reduces frauds significantly. The traditional risk assessment is based on an actuarial approach, heavily relying on past events to statistically estimate new events. By estimating new structure models that aggregate new sources of information, one can explore the driving factors of certain events and its consequences, providing more precise risk assessments. Moreover, the prevention loss can be substantially increased by implementing IoT. The idea is to connect everyday objects through internet devices and have access to data that they emit. By detecting certain risks earlier, for instance signs of fire, the costs of claims can be mitigated. Fraud can also be avoided and the claim procedure is quicker as the information is sent directly to the insurer. Smart insurance contracts also diminish the level of bureaucracy, cut costs, protect companies against frauds and increase the efficiency of the claim procedures by automating the insurance policy.

On the other hand, the more exposed the industry is to digitalisation, the more it is vulnerable to cyber incidents if the security system does not follow the same level of sophistication as its innovations. Cyber risk continues to pose a threat to the financial system. It has been gaining momentum with dramatic pace. In less than five years, it surged into the first top risks of global risks for business rankings[6]. As the insurance sector aims to enter into a digitalization area, migrating towards highly integrated systems and big data storage, it also gains more visibility as a target to cyber-attacks. Cyber incidents are particular dangerous because of its risk multiplier effect: they are not only a risk itself but also one of the causes of other top business risks, such as business interruption, supply chain risk and loss of reputation. The financial loss can be irreversible especially in the latter case. Besides those risks, it can also trigger solvency issues by the high legal costs involved in case of data breach with notifications, litigation

---

[4] The Internet of Things (IoT) has been defined as a global infrastructure […], enabling advanced services by interconnecting (physical and virtual) things based on existing and evolving interoperable information and communication technologies (http://www.itu.int/en/ITU-T/gsi/iot/Pages/default.aspx).

[5] Big data is high-volume, high-velocity and/or high-variety information assets that demand cost-effective, innovative forms of information processing that enable enhanced insight, decision making, and process automation. (http://www.gartner.com/it-glossary/big-data/)

[6] http://www3.weforum.org/docs/WEFUSA_QuantificationofCyberThreats_Report2015.pdf (World Economic Forum)

and solution, as well with fraud. The major cases of data breaches reported by insurance companies have been designated as short-term cyber attacks intended to compromise a system, steal and abuse specific information. One emerging trend seen as a safer alternative for some companies when implementing digital innovations in the near future is the use of blockchains[7], especially to empower smart contracts.

Hence, cyber insurance represents both a threat and an emerging opportunity to the sector. Cyber coverage products are still relatively new in the market, and unlike other types of insurance, there is no standard methodology for pricing and there are usually several restrictive conditions within the policies. This risk management factor is an additional threat to the industry and implies higher premiums than other liability risks, which is one of the main barriers for the consumers.

[7] A Blockchain is a cryptographed decentralized data structure that records events shared and validated by different counterparties. It is considered a very safe and transparent system. Once entered, information cannot be erased.