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PART 1/2

**COMMISSION STAFF WORKING DOCUMENT**

**European Financial Stability and Integration Review (EFSIR)**

This document has been prepared by the Directorate-General for Financial Stability, Financial Services and Capital Markets Union (DG FISMA).

*This document is a European Commission staff working document for information purposes. It does not represent an official position of the Commission on this issue, nor does it anticipate such a position. It is informed by the international discussion on financial integration and stability, both among relevant bodies as well as in the academic literature. It presents these topics in a non-technical format that remains accessible to a non-specialist public.*



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The production of the document was coordinated (in alphabetical order) by Staffan Linden and Geert Van Campenhout. Individual contributors to the document were (in alphabetical order) Chris Bosma, Javier Villar Burke, Matteo Cominetta, Johanne Evrard, Helen Ginter, Anna Grochowska, Max Langeheine, Jouni Lehto, Staffan Linden, Stan Maes, Juri Mara, Santosh Pandit, Harald Stieber, Mariana Tomova, Diego Valiante, Eleuterio Vallelado Gonzalez, Geert Van Campenhout, Ivar Van Hasselt, Tomas Vaclavicek, Nicolas Willems and Alexandru Zeana.

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Comments would be gratefully received and should be sent to:

Directorate-General for Financial Stability, Financial Services and Capital Markets Union  
(DG FISMA)

Unit B2: Economic analysis and evaluation

Unit E1: EU/Euro area financial system

European Commission

B-1049 Brussels

Belgium

Or by e-mail to [peter.grasmann@ec.europa.eu](mailto:peter.grasmann@ec.europa.eu) or [martin.spolc@ec.europa.eu](mailto:martin.spolc@ec.europa.eu).

## LIST OF ABBREVIATIONS

### Countries

AT	Austria
BE	Belgium
BG	Bulgaria
CY	Cyprus
CZ	Czech Republic
DE	Germany
DK	Denmark
EE	Estonia
EL	Greece
ES	Spain
FI	Finland
FR	France
GB	Great Britain
GR	Greece
HR	Croatia
HU	Hungary
IE	Ireland
IT	Italy
LT	Lithuania
LU	Luxembourg
LV	Latvia
MT	Malta
NL	Netherlands
NO	Norway
PL	Poland
PT	Portugal
RO	Romania
SE	Sweden
SI	Slovenia
SK	Slovakia
UK	United Kingdom
US	United States of America

## Others

APRC	Annual percentage rate of charge
BCBS	Basel Committee on Banking Supervision
BIS	Bank for International Settlements
BME	Spanish Capital Markets Holding Company
BoE	Bank of England
BoP	Balance of payments
BRRD	Bank Recovery and Resolution Directive
C/I	Cost to income
CAPM	Capital asset pricing model
CCD	Consumer credit directive
CDS	Credit Default Swap
CEE11	Bulgaria, Croatia, Czech Republic, Estonia, Latvia, Lithuania, Hungary, Poland, Romania, Slovenia and Slovakia
CET1	Common Equity Tier 1
CI	Credit institutions
CoCo	Contingent convertibles
CoE	Cost of equity
CMU	Capital Markets Union
CRD IV	Capital Requirement Directive
CRR	Capital Requirement Regulation
DB	Defined benefit
DGS	Deposit guarantee scheme
DLT	Distributed ledger technology
DSTI	Debt service to income
DTI	Debt to income
EA	Euro area
EBA	European Banking Authority
EBAN	European Business Angel Network
EC	European Commission
ECB	European Central Bank
EDIS	European Deposit Insurance Scheme
EEA	European Economic Area
EFAMA	European Fund and Asset Management Association
EFSI	European Fund for Strategic Investments



EIB	European Investment Bank
EIOPA	European Insurance and Occupational Pensions Authority
EONIA	Euro over-night index average
EPPF	European Personal Pension Framework
ESIS	European Standardised Information Sheet
ESMA	European Securities and Markets Authority
ESRB	European Systemic Risk Board
ETF	Exchange traded funds
EU	European Union
EU-28	European Union 28 Member States
EUR	Euro
EURIBOR	Euro interbank offered rate
FDI	Foreign direct investment
Fintech	Financial technology
FSR	Financial stability review
FTSE	Financial Times Stock Exchange
G-SII	Global systemically important institutions
G20	Group of 20 major economies
GBP	Great Britain pound
GDP	Gross domestic product
GWP	Gross written premiums
HHI	Herfindahl-Hirschman index
HICP	Harmonised index of consumer prices
HNWI	High net worth individual
IBEX	Spanish exchange index
IC	Insurance corporation
ICI	Investment Company Institute
ICT	Information and communication technology
IFRS	International Financial Reporting Standards
IMF	International Monetary Fund
IORP	Institutions for Occupational Retirement Provision
IOSCO	International Organisation of Securities Commissions
IPO	Initial public offering
JPY	Japanese yen
JRC	Joint Research Centre

LCR	Liquidity coverage ratio
LGD	Loss given default
LIBOR	London interbank offered rate
LP	Limited partner
LR	Leverage ratio
LTI	Loan to income
LTV	Loan to value
M&A	Mergers and acquisitions
MCD	Mortgage Credit Directive
MFI	Monetary financial institution
MiFID	Markets in Financial Instruments Directive
MiFIR	Markets in Financial Instruments Regulation
MMF	Money market fund
MREL	Minimum required for own funds and eligible liabilities
MTF	Multilateral trading facility
NFC	Non-financial corporation
NPL	Non-performing loan
OECD	Organisation for Economic Co-operation and Development
OFI	Other financial institution
OIS	Overnight index swap
OPEC	Organization of the Petroleum Exporting Countries
PAYG	Pay-as-you-go
PEPP	Pan European personal pensions
PP	Private placement
Q3	Third quarter
q-o-q	Quarter-on-quarter
RoE	Return on equity
SAFE	Survey on access to finance of enterprises
SDD	Security and derivative dealers
SECCI	Standard European consumer credit information
SFT	Securities financing transactions
SRB	Single Resolution Board
SNL	Standard & Poor's database
SRF	Single Resolution Fund
SRM	Single Resolution Mechanism

SSM	Single Supervisory Mechanism
STOXX	Dow Jones STOXX index
STS	Simple, transparent and standardised (securitisation)
TFA	Total financial assets
TLAC	Total loss absorbing capacity
UCITS	Undertakings for the collective investment in transferable securities
USD	American dollar
y-o-y	Year-on-year

## EXECUTIVE SUMMARY

The annual European Financial Stability and Integration Review (EFSIR) provides an analysis of recent developments in financial markets and the financial sector and their impact on financial stability and integration. The European Commission regularly monitors these developments and analyses the underlying structural drivers in order to assess the effectiveness of existing policy actions and gain insight into the need for future actions in view of emerging risks and opportunities.

The report first describes the recent general developments in financial markets and the financial sector (Chapters 1-3). This is followed by a more in-depth analysis of two particular policy areas that impact European financial stability and integration (Chapters 4-5). In this edition, the first focus chapter reviews the current achievements of the Banking Union and the progress towards its completion. The second focus chapter discusses the EU macro-prudential policy framework. The Banking Union and macro-prudential policy have gone a long way in providing authorities with the tools to reinforce financial stability in the EU. They will remain important policy areas in view of the need to improve risk sharing and reduce risk as part of the long-term vision to deepen the Economic and Monetary Union.

These policies are further developed and implemented in a period in which the European economy has continued to recover, despite remaining economic and political uncertainties. **Chapter 1** argues that the recovery is now well established, with private consumption as the main growth driver, supported by other drivers such as rising employment, favourable exchange rate conditions and low commodity prices. Several factors, including a better regulatory and supervisory framework as well as improved bank funding, seem to have outweighed the concerns at the beginning of 2016 of a global economic slowdown led by the US and China and increased political uncertainty.

**Chapter 2** underlines the importance of securing a sustainable and healthy banking sector, as well as the need to diversify the sources of funding to the EU economy. The chapter discusses the challenges banks face to ensure a sufficient level of profitability. The combination of low interest rates, high operational costs and rising competition from non-banks could compress profit margins. This in turn could affect bank stock prices and their cost of capital. Achieving a sustainable banking sector requires banks to adjust to a changing economic and regulatory environment, focusing on diversifying income sources and containing costs. Although financial technology (Fintech) has put pressure on traditional bank business models, it also provides opportunities for banks to reduce costs. The diversification of funding sources is addressed in the ongoing work on the Capital Markets Union, which will nurture more integrated, deeper and liquid financial markets.<sup>1</sup>

**Chapter 3** shows that EU capital markets stabilised and grew regardless of occasional volatility outbursts. Share prices rose and corporate bond yields remained low, lifted by the

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<sup>1</sup> The Capital Markets Union complements the Banking Union and as an umbrella project envisages building deeper and more integrated capital markets and increasing funding sources and investment opportunities. It will also help make the financial system more resilient and lower the cost of funding.

emerging economic recovery. Corporate bond issuance continued to expand. Investors seem to be shifting their portfolio to bonds with longer maturities and higher credit risk in search of higher yields. Equity issues of banks shrank given that banks have largely completed strengthening their balance sheets. The latest data for alternative funding, like private equity, business angels, and crowdfunding, also showed good performance of these market segments.

**Chapter 4** presents the various existing and proposed parts of the Banking Union and discusses the progress towards its completion. The measures currently in place, such as increased capital requirements and common frameworks for supervisions and resolution, have boosted financial stability with stronger balance sheets for banks and a common application of rules. Completion of the Banking Union is an ongoing project. In June 2016, EU finance ministers delivered a road map that laid out further guidelines for completing the Banking Union. To this end, the Commission delivered a comprehensive bank reform package in November 2016 to tackle remaining weaknesses, by strengthening the loss absorbency of EU banks and facilitate their resolution in case of risk of failure. The measures envisage both increased risk reduction and risk sharing and the new features try to find the right balance between these two objectives.

The chapter also attempts to gauge any progress on the overall objective of Banking Union, i.e. to break the link between banks and sovereigns. It is difficult to isolate the effects of Banking Union from other relevant factors, notably post-crisis risk aversion and the policy actions of the European Central Bank (ECB). The analysis shows there are signs that the links between sovereigns and banks have been weakened, while these links persist. It is therefore necessary to move forward to complete the Banking Union as a means to break links between banks and sovereigns.

**Chapter 5** provides a perspective on how macro-prudential policies in the EU complement other economic policy measures seeking to dampen financial cycles. These financial cycles, the movements in credit and asset prices, which have been shown to be distinct from traditional business cycles, have been a source of banking crises. The chapter shows that developments in the housing market are of particular importance for macro-prudential policies. For instance, high home ownership rates and strong growth in mortgage credit can be linked to strong feedback loops between the housing market, the financial system, and the real economy.

Understanding the drivers of developments in real estate markets is key to designing an appropriate policy response. Many structural characteristics linked to the housing market, including home ownership rates and mortgage characteristics, vary profoundly across Member States and are at the centre of social, fiscal and income policies. The macro-prudential policy can therefore not be set in isolation, as it is just one of numerous interacting policies contributing to the sustainability of the financial system. In the context of a robust European coordination and oversight framework, it also follows that it is essential to take into account specific national characteristics to prevent spill-overs and ensure the good functioning of the single market. As such, the macro-prudential policy framework will need to be permanently assessed and improved so that it can respond to continuously changing financial structures in the EU.

## Chapter 1 MACRO-ECONOMIC AND FINANCIAL DEVELOPMENTS

In 2016, the European economy continued to recover in a challenging economic environment with increased political uncertainty. Favourable exchange rate conditions, low commodity prices, accommodative monetary policy, and supporting endogenous factors, such as improving labour markets, underpinned this recovery. The ECB announced additional expansionary measures in March 2016, further easing the funding conditions for non-financial corporations (NFCs).

In terms of funding, the funding mix not only differs between NFCs, households and the government sector, but also shows significant intra-sector variation across countries. NFCs are mainly financed through equity (representing 50% of firms' liabilities), while households (including non-incorporated businesses) rely mainly on bank loans (representing 76% of their liabilities). Net access to new funding has recovered since 2015, especially in the case of bank loans. Governments are still significantly exposed to bond markets given that bonds, on average, make up 70% of their liabilities.

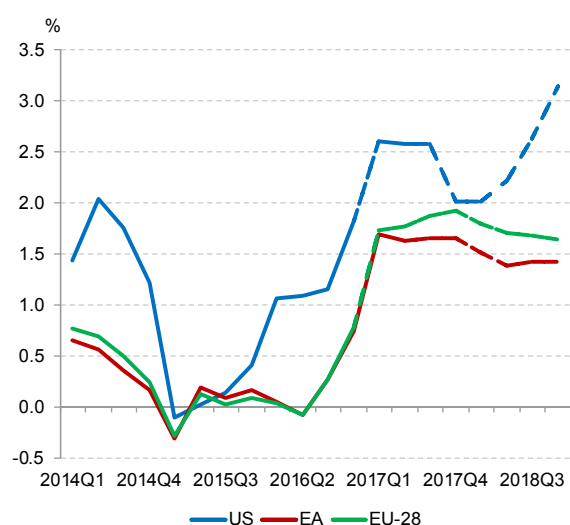
Reflecting gradually rising current account surpluses, net capital inflows continued moderating in 2016, and eventually switched to net outflows. The ECB bond-buying programme may have resulted in lowering the holdings by foreign residents of EU debt securities. Foreign direct investments (FDI), followed by bank-related flows, are the most stable sources of foreign capital for EU Member States.

### 1.1 Macro-economic and financial developments

#### 1.1.1 Macro-economic developments

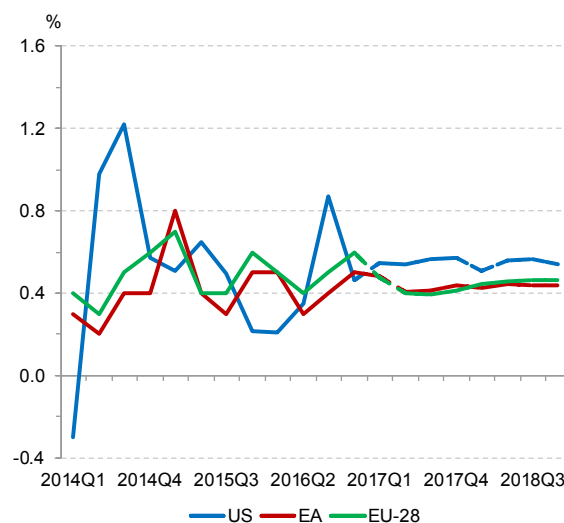
Against a challenging political and financial background, the European economy continued to recover in 2016. Recovery was supported by relatively low commodity prices, a favourable euro exchange rate, a continued accommodative monetary policy, and improving labour market conditions.

**Chart 1.1: Real GDP growth, quarter-on quarter**



Source: European Commission  
Note: Actual data (2014-2016) and forecast (2017-2018)

**Chart 1.2: HICP inflation, year-on-year**



Source: European Commission  
Note: Actual data (2014-2016) and forecast (2017-2018)

Economic activity in the EU had a relatively strong start in 2016, with first quarter GDP growing by 0.5% quarter-on-quarter (q-o-q) in both the euro area and in the EU<sup>2</sup>. This was driven by expanding private consumption and investment. The pace of activity slowed somewhat in the second quarter (0.3% q-o-q in the euro area; 0.4% q-o-q in the EU), amid slowing investment. There was a steady increase in the pace of economic growth in the second half of the year, despite increased political uncertainty.

The recovery in the EU economy is expected to continue at a largely steady pace in 2017, with annual GDP growth projected at 1.7% in the euro area and 1.9% in the EU<sup>3</sup>. In 2016, private consumption, the main driver of growth in recent years, expanded at its fastest pace in 10 years. However, consumption growth is set to moderate this year as inflation partly erodes gains in the purchasing power of households. Investment is expected to increase fairly steadily, but remains hampered by the modest growth outlook, and the need for further deleveraging in some sectors. A number of factors support a gradual pick-up in investments, such as rising capacity utilisation rates, corporate profitability, attractive financing conditions, but also through the Investment Plan for Europe.

The labour market in the EU and euro area has continued to recover during 2016 and early 2017, with net employment increasing and unemployment declining.<sup>4</sup> These developments were supported by the ongoing economic expansion, modest wage growth and structural reforms in several Member States. However, despite this recovery, which started in mid-2013, unemployment at the aggregate level has not yet returned to pre-crisis levels. Although cross-country differences are declining, unemployment remains unacceptably high in several Member States.

Inflation in the EU and euro area was very subdued in the first two quarters of 2016, but picked up during the second half of the year. The trend in inflation was a consequence of developments in energy prices, which first continued to be low but then picked up in the second half of 2016. Core inflation has remained subdued, without a clear upward trend yet; this is consistent with the remaining slack in labour markets and the effects of structural reforms implemented in some Member States.<sup>5</sup>

Outside of the EU, GDP growth slowed in the first half of 2016 before recovering in the second half of the year. After the initial weakness, global activity gained momentum in the third quarter of 2016, registering 0.9% q-o-q growth, the fastest in two years. In the final quarter of the year, global GDP grew by 0.7% q-o-q. The annual growth rate for the global economy (ex-EU-28) was just 3.0% in 2016, which was the weakest since 2009. The pick-up in global economic activity in the second half of 2016 should be seen against the background of the G20 commitment to use all economic policy tools available, i.e. monetary, fiscal and structural, to strengthen growth, investment and financial stability. Global growth is projected

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<sup>2</sup> In this case EU growth excludes Ireland. In 2015-16, there was a statistical re-classification of some activities in Ireland. Despite the relatively small weight of Irish GDP in the euro-area and EU aggregates, the size of the changes makes developments in Ireland a key determinant of aggregate figures.

<sup>3</sup> See European Commission Spring Forecast 2017.

<sup>4</sup> By February 2017, the unemployment rate had fallen to 9.5% of the labour force in the euro area and 8.0% in the EU, the lowest levels since May 2009 and January 2009, respectively. This compares to pre-crisis levels of 7.5% in the euro area and 7% in the EU in 2008.

<sup>5</sup> In 2016, the harmonised index of consumer prices (HICP) in the euro area increased by 1.1% and in the EU by 1.2%.

to pick up further in 2017, but the outlook is surrounded by considerable geopolitical uncertainty in both advanced and emerging market economies. Globally, inflation seems to be picking up, supported by the rebound of energy prices and the strengthening pace in global growth.

Economic activity in the US disappointed in the first half of 2016, as a drawn-out inventory correction coincided with a prolonged weakness in investment in the energy and manufacturing sectors. However, in the third quarter, GDP growth recovered due to a rebound in inventory investment and was followed by a 0.5% GDP growth rate in the fourth quarter. Meanwhile, growth in emerging markets seems to have bottomed out at the end of 2015, early 2016. It recovered gradually in 2016, supported in particular by a turnaround in commodity prices.<sup>6</sup> However, growth rates differed across countries and regions. At the end of 2016, downside risks to growth in the emerging markets increased due to uncertainties about US economic policy and the possible impact through trade and financial channels.

### ***1.1.2 Monetary policy developments in the EU***

Accommodative monetary policies from all the major central banks have continued to support economic activity and ensured price stability at the global level. In the euro area, the ECB announced additional expansionary measures in March 2016 to further ease funding conditions for the non-financial private sector. The ECB lowered its major policy rates, increased the amount of monthly purchases under the ongoing asset purchase programme and broadened the range of purchasable securities to include euro-denominated investment-grade non-bank corporate bonds.<sup>7</sup> Furthermore, four new quarterly targeted longer-term refinancing operations with a maturity of 4 years were announced. During the remainder of the year, the ECB did not change its monetary policy stance. However, at its December 2016 meeting, the Governing Council announced a reduction of its asset purchase programme to EUR 60 billion per month from April 2017 onwards. The ECB did, though, specify that the size and duration of the programme could be expanded again, should the outlook become less favourable, or if financial conditions became inconsistent with further progress towards a sustained adjustment to inflation.

Monetary policies remained accommodative in most non-euro EU Member States, with central banks in Hungary and Sweden undertaking additional expansionary measures. Despite inflation and inflation expectations moving up somewhat, monetary policy has remained supportive in the early months of 2017. Following the outcome of the UK referendum on EU membership, the Bank of England immediately eased its macro-prudential policy stance by reducing the countercyclical capital buffer that banks have to hold. Further, in August, it announced a package of easing monetary measures, lowering the policy rate by 25 basis points (bps) to 0.25% for the first time since 2009. The Bank of England also expanded its quantitative easing by purchasing an additional GBP 10 billion of corporate bonds and GBP

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<sup>6</sup> Oil prices bottomed out early 2016, rebounded strongly in spring and have trended slightly upwards since as the oil market tried to find an equilibrium price. Continued supply overhang and slower growth in oil demand weighed on prices, but the OPEC agreement on limiting oil production and increasing market confidence that the agreement would be respected put a floor under the oil price.

<sup>7</sup> The ECB lowered the interest rate on its deposit facility (by 10 bps to -0.40% after lowering it to 0.30% in December 2015), main refinancing operations (by 5 bps to 0%), and its marginal lending facility (to 0.25%).



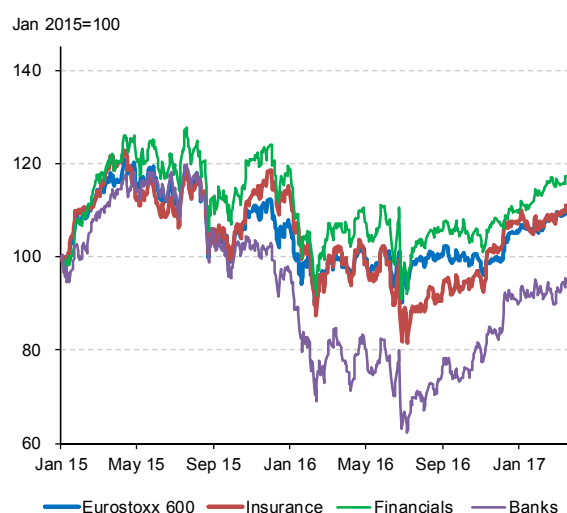
60 billion of government bonds and introducing a new Term Funding Scheme aimed at providing cheap financing to banks. At the end of the year, the Bank of England's Monetary Policy Committee maintained its policy rate at 0.25%, and decided to continue its previously announced asset purchases for monetary policy purposes, while both headline and core inflation reached 1.6%.

Monetary policy divergence between the euro area and the US has increased further. After its first rate hike in 9 years at the end of 2015, the US Federal Reserve (Fed) kept its monetary stance on hold throughout most of 2016. However, in December, the Fed raised its target range for the policy rate by another 25 bps to 0.50%-0.75%, a hike largely priced in by financial markets. In March 2017, the US Federal Reserve subsequently increased the target range for its policy rate by an additional 25 bps.

### 1.1.3 Financial-market developments

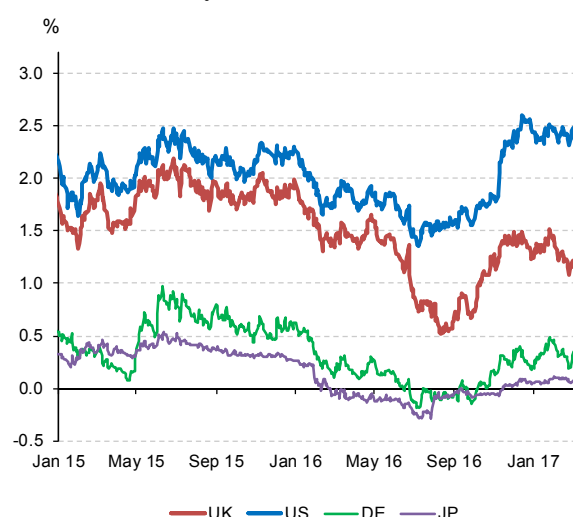
In recent years, global and EU financial markets have witnessed a number of sharp asset price corrections, which in hindsight have turned out to be short-lived. In early 2016, global financial markets experienced strong headwinds as investors became increasingly risk-averse amid rising concerns of a global economic slowdown led by the US and China. In addition, there were concerns about the potential adverse impact of very low interest rates on banks' profits, particularly in the euro area and Japan. In equity markets, the financial segment significantly underperformed the broader indices (see Chart 1.3). Meanwhile, high-grade sovereign bonds served as safe-haven assets, and yields fell close to historically low levels (see Chart 1.4). However, renewed concerns about the links between banks and sovereigns created upward pressure on bond spreads in the euro-area periphery.

**Chart 1.3: Share prices by financial sector, Europe**



Source: Bloomberg

**Chart 1.4: Benchmark 10-year government bond yields**



Source: Bloomberg

Financial-market sentiment turned positive in February 2016, amid expectations that monetary policies in some regions (notably the EU) could become even more accommodative as the economic outlook for emerging markets improved. While stock markets recovered globally, euro-area indices — especially relating to bank shares — continued to

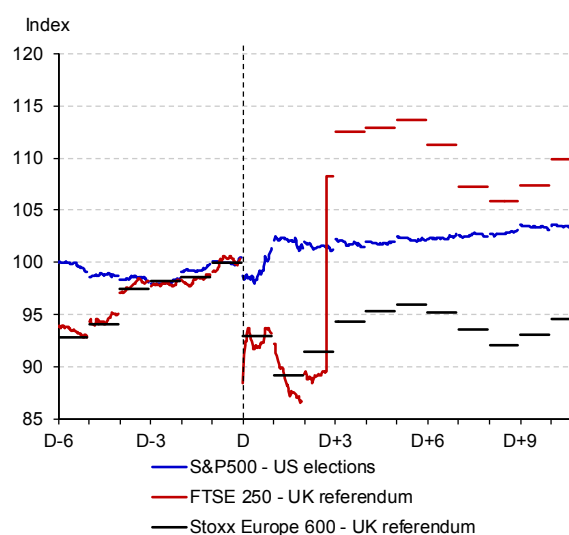
underperform. The announcement by the ECB to include investment-grade non-bank corporate bonds in its asset purchase programme led to a narrowing of corporate bond spreads and supported corporate bond issuance. In general, sovereign bond spreads tightened, but spreads remained higher in the euro-area periphery because of disappointing figures on the public deficit and/or economic growth. The outcomes of the UK referendum on EU membership in June and the US presidential election in November took financial markets by surprise but in each case, they recovered rapidly (see Box 1).

### Box 1: Financial-market reaction to the UK referendum and US presidential elections

The UK voted to leave the EU in June 2016, while Donald Trump was unexpectedly elected as US president in November 2016. These outcomes were not predicted in the polls and surprised financial markets. This box summarises and compares the immediate financial market reaction to the two outcomes, focusing on three market segments: equities, sovereign bonds and currencies. Overall, it would seem that the outcome of the UK referendum shocked markets more, generating volatility to a larger extent and for a longer period.

On the day following the UK referendum, EU equity markets opened with heavy losses of around 10% and remained consistently lower for several days. However, the size of the fall should be seen in the light of accumulated gains during several days before the referendum, as markets expected a vote in favour of the UK remaining in the EU. The UK's FTSE (which is dominated by export-oriented companies) recovered sharply after two days due to the depreciation of the GBP, but continental indices remained depressed for longer. This would suggest that investors in the UK reacted to a short-term improvement in competitiveness while ignoring the more medium-term implications of Brexit.

**Chart B1.1: Reaction of stock markets**



Source: Bloomberg

Note: Intraday quotes, index 100 = Day of the results

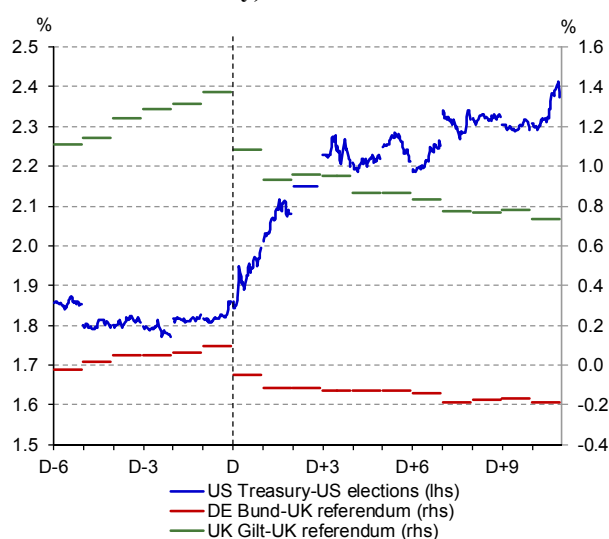
Equity indices declined only moderately following the outcome of the US presidential election and bounced back within hours. Market sentiment continued to improve in the following days and weeks, as investors assessed earlier statements by the president-elect on tax cuts and higher infrastructure spending. Equity indices in the EU followed suit, with gains across the board and particularly in the financial sector. Expectations of de-regulation and a steepening yield curve were deemed to be positive for the financial sector in general and for EU banks in particular. This contrasts with the very negative price developments in EU bank equities after the UK referendum.

Sovereign bond markets have also seen different patterns in response to the outcomes of the two votes. The UK referendum triggered a massive flight to safety, with benchmark sovereign bonds benefitting from safe-haven inflows. Long-term yields fell in the US, Germany, Japan and the UK, despite warnings by credit agencies of a possible downgrade. Conversely, spreads in the vulnerable euro-area Member States widened for several days before trends were reversed on mounting expectations of more action from the ECB. In contrast, the most notable market fallout from the US election was a sharp spike in sovereign long-term yields, which began with the US Treasuries and spilled over across global markets. Such market re-pricing suggests that investors expected the massive infrastructure spending and lower taxes proposed by President Trump to enhance growth, but increase the US fiscal deficit and inflation.

Currency markets reacted swiftly and abruptly to the news of the outcome of the UK referendum. The GBP was hardest hit, but the euro also weakened against the USD and the JPY. These market developments suggest that market participants became worried about the UK's current account deficit when outside the EU, while viewing Brexit as also negative for the euro area.

The euro also fell after the US presidential election, as investors turned more positive on the US economy and expected a combination of more expansionary fiscal and tighter monetary policy. In particular, an expected further widening of monetary policy divergence between the US and the euro area contributed to the depreciation of the euro against the USD.

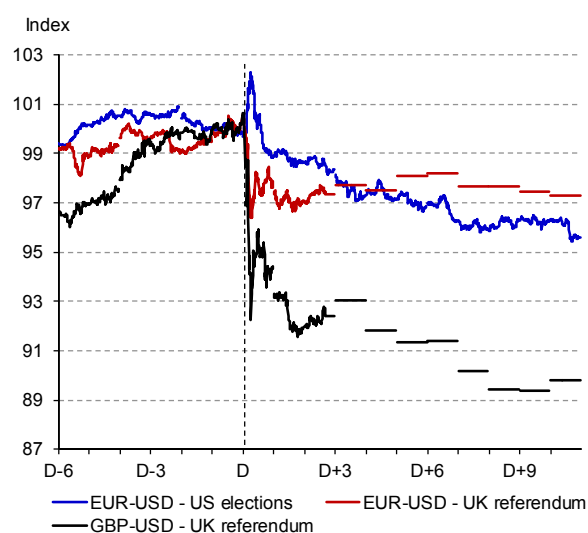
**Chart B1.2: Reaction of government bonds (10-year maturity)**



Source: Bloomberg

Note: Intraday quotes, index 100 = Day of the results

**Chart B1.3: Reaction of currency markets**



Source: Bloomberg

In autumn, global financial markets recovered, driven by improving macro-economic data and a pick-up in inflation. Global government bond yields rose significantly, albeit remaining low

overall, while most equity markets yielded positive returns. Bank shares outperformed the broad market, thanks to the steepening of the yield curve. After the volatility surrounding the US elections, markets have started to embrace a new paradigm of stronger growth, higher inflation, and higher natural interest rates.

In the EU, market perceptions of an improving economic outlook, sustained ECB asset purchases, and the expected tailwind from the US have lifted government bond yields and pushed equity markets higher in 2017. Euro-area sovereign bond spreads widened somewhat on account of heightened perceived political risks in some euro-area countries. This led to a moderately widening of spreads to the German bund for most euro-area countries. However, despite the recent rise in bond yields, almost EUR 4 trillion of euro-area sovereign bonds trade at negative yields. Euro-area corporate bond spreads versus German bunds have picked up, as a consequence of supply pressures and softer investor demand, despite the ECB's ongoing purchases. The widening of spreads was more pronounced in the high-yield (lower grade) segment.

## 1.2 International capital flows and trade in financial services

The dynamics of gross and net capital flows reflects the extent of interlinkages between the economic and financial sectors across countries. After a period of rapid international financial interlinkages before the financial crisis in 2008-2009, the post-crisis period has been characterised by more subdued international capital flows and in some cases by diverging economic and financial trends. The effect of reduced integration in terms of financial stability is ambiguous, as declining capital flows simultaneously reduce contagion risk and opportunities for international risk sharing and diversification.

Overall, global net capital flows continued to moderate in 2016 and turned negative (with outflows exceeding inflows) for most of the major world regions including the EU. Capital outflows from emerging markets seem to have levelled off in 2016, although a change in the policy mix in major advanced economies may trigger further adjustments in 2017. In the last quarter of 2016, EU capital outflows to third countries are expected to have accelerated.

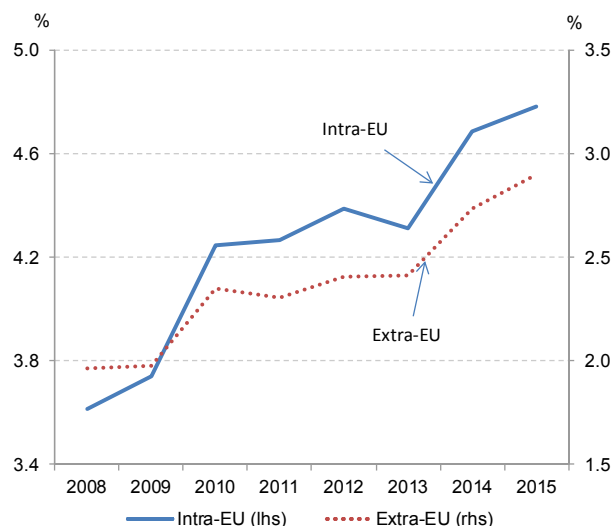
The EU's current account surplus is mostly driven by trade in goods and services. Trade in financial services with third countries continued to show a surplus in 2016, although the surplus declined compared to a very strong outcome in 2015.

In terms of composition, FDI continues to be the most stable source of foreign capital for EU Member States followed by bank-related flows. The net portfolio investment position of the EU with third countries showed net outflows instead of net inflows, possibly owing to the ECB bond-buying program. This net outflows position constitutes a major shift in 2016 given that previously net outflows were only recorded in 2012-2013 during the sovereign debt crisis.

### 1.2.1 Financial claims and gross external positions

The financial claims of an economic area or country can be measured by the sum of the holdings that domestic residents have of financial claims on the rest of the world and the claims of non-residents on the domestic economy scaled by GDP at current market prices.<sup>8</sup>

**Chart 1.5: European and international financial integration, 2008-2015, % of GDP**

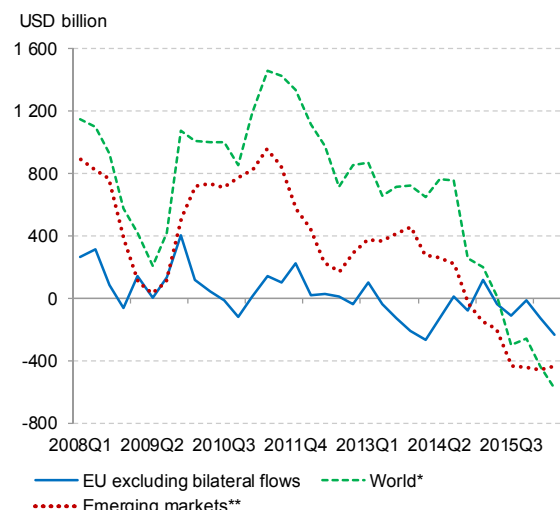


Source: Eurostat BoP Quarterly Statistics and National Accounts  
 Note: International financial integration is measured by the sum of gross external assets and liabilities divided by GDP at current market prices, excluding reserves and financial derivatives.

<sup>8</sup> See Lane and Milesi-Ferretti (2003).

Using this measure, EU financial claims both between the EU Member States and between the EU and the rest of the world continued to progress in 2015. Financial claims within the EU are still much higher than towards the rest of the world, although in 2015 growth in extra-EU foreign assets and liabilities was faster than growth in intra-EU foreign assets and liabilities.

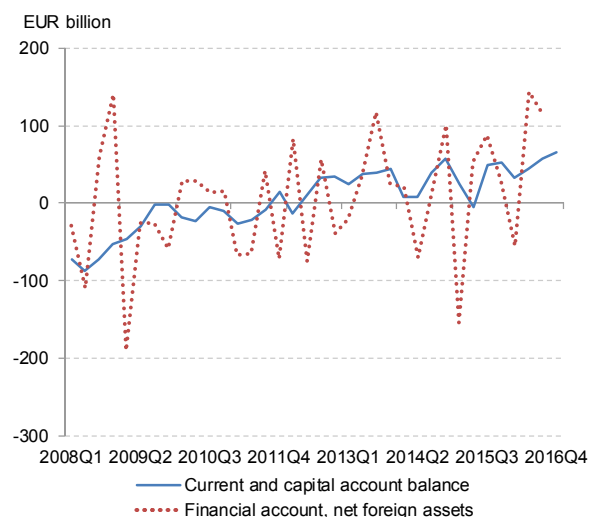
**Chart 1.6: Net capital flows by world regions, rolling 4-quarter sums**



Source: IMF and Eurostat BoP Statistics

Note: Excluding reserves and related items, EU — excluding reserves, financial derivatives and bilateral intra-EU flows.

**Chart 1.7: EU balance of payments with non-EU countries**



Source: Eurostat quarterly BoP Statistics

Note: Excluding intra-EU flows; Net foreign assets, excluding reserves and financial derivatives. Current and capital account balance: (+)/(-) indicates a surplus or net lending/deficit or net borrowing; Financial account: (+) indicates capital outflows, (-) indicates capital inflows.

### 1.2.2. Net current and financial accounts

#### Global developments

Against the backdrop of a gradual normalisation of monetary policy in the US, a subdued global economic recovery, and political uncertainty, global net capital flows moderated further in 2015 and in the first three quarters of 2016 (see Chart 1.6).<sup>9</sup> After receiving record-high capital inflows in the post-crisis period, emerging markets have been experiencing net capital outflows since 2014.<sup>10</sup> These were triggered by the normalisation of monetary policy conditions in the US and declining growth differentials.

#### EU net current and financial accounts with non-member countries

EU net capital flows with third countries turned negative at the beginning of 2015 and continued to decline in 2016.

<sup>9</sup> Global flows are approximated by a sample of 77 countries including both advanced and emerging economies as well the EU excluding EU bilateral flows between Member States (i.e. EU flows with the rest of the world only). *Net* capital flows are defined as gross inflows minus gross outflows. *Gross capital inflows* are defined as net changes in domestic resident liabilities to non-residents. *Gross capital outflows* are defined as net changes in foreign assets owned by domestic residents, excluding reserves.

<sup>10</sup> Approximated by a sample of 56 emerging market economies including, 14 EU Member States. For more details and the sample see: Recent experiences in managing capital flows. IMF, 2015, Annex I.

In 2016, the current account of the EU recorded a surplus of EUR 217 billion, compared with EUR 167 billion in 2015 (see Chart 1.7). The increase in the current account surplus of the EU is mainly explained by the surplus maintained by the euro area, which is expected to have increased to EUR 365 billion in 2016, up from EUR 319 billion in 2015. The EU current account surplus has increased in every quarter since the second quarter of 2016.

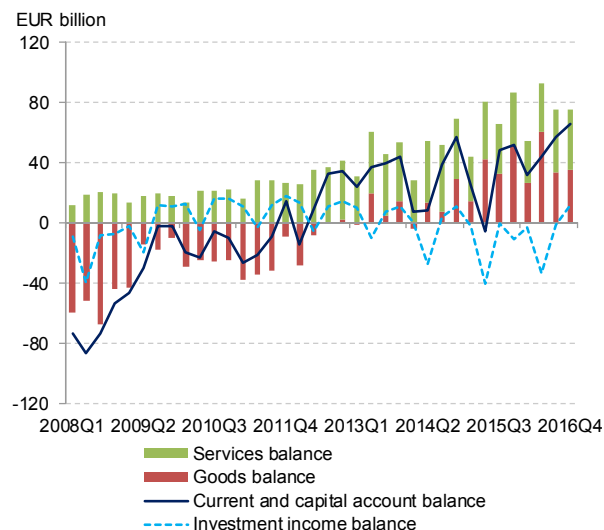
The financial account, which shows how the current and capital account are financed, has been much more volatile and recorded capital outflows in the second and third quarters of 2016.

### 1.2.3. Composition of the current and financial accounts

The EU's current account surplus with third countries is mainly a result of trade in goods and services, while the share of net earnings from foreign assets and liabilities is relatively small (see Chart 1.8). Since 2015, the investment income balance has mostly been negative, as the income earned from assets in third countries was lower than the return paid to non-residents for liabilities in the EU.

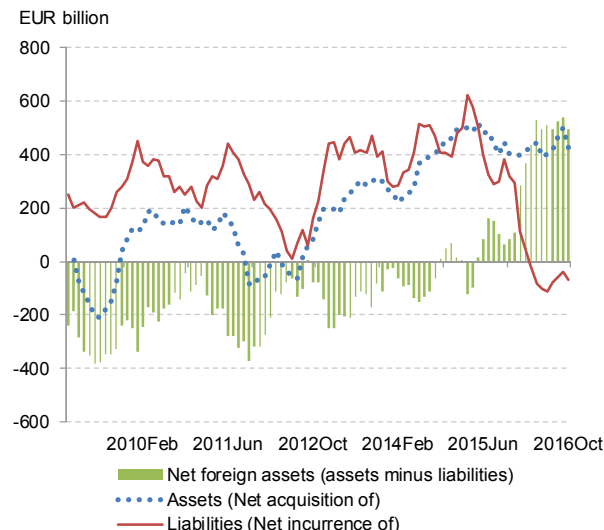
In the financial account, the net acquisition of foreign securities by EU residents (capital outflows) exceeded the net incurrence of liabilities (capital inflows) during the first half of 2016.

**Chart 1.8: Composition of the EU current account surplus with non-EU countries**



Source: Eurostat quarterly BoP Statistics  
Note: Excluding intra-EU flows.

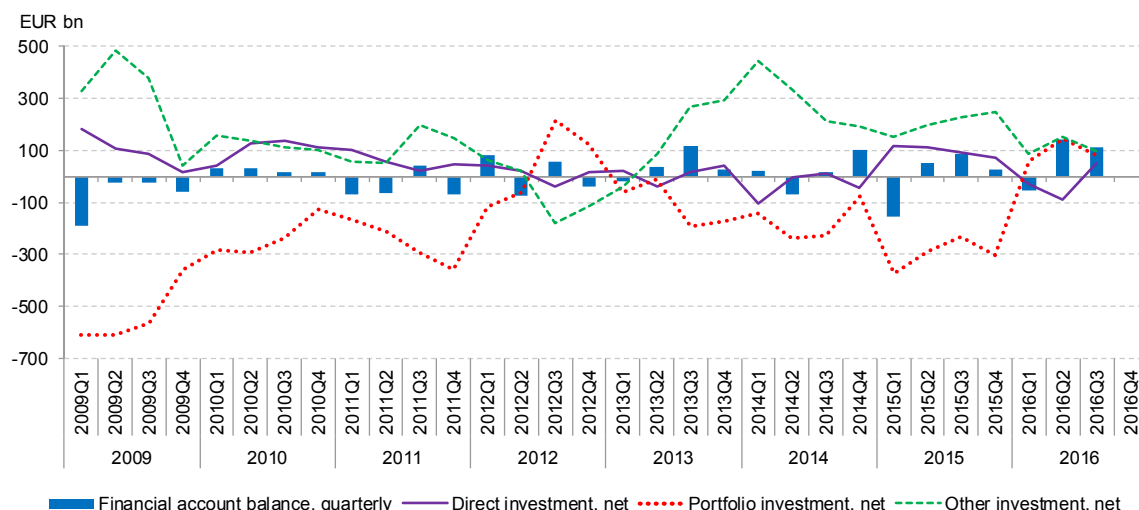
**Chart 1.9: Euro-area portfolio investment flows with non-euro area, rolling 12-month sums**



Source: ECB balance of payments monthly statistics

Remarkably, portfolio investment outflows exceeded inflows in the second and third quarter of 2016 because of a decline in euro-area portfolio investment inflows (liabilities) relative to broadly unchanged outflows (see Chart 1.9). Such a positive net EU portfolio investment position only occurred very rarely in the past (i.e. during the sovereign debt crisis in 2012). This outcome can partly be attributed to the disinvestment (sales) by non-residents of their holdings of EU securities in relation to the extended ECB's bond purchasing programme.

**Chart 1.10: EU financial account transactions with non-EU countries, cumulated four-quarters**



Source: Eurostat BoP Statistics

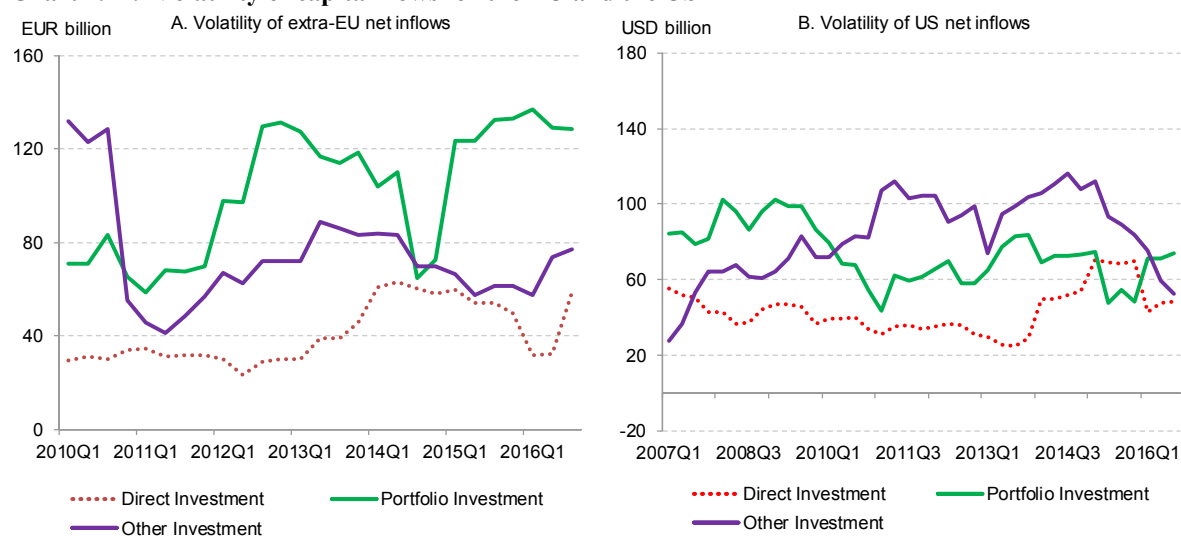
Note: excluding bilateral intra-EU flows. Positive figures indicate outflows (an increase of foreign assets), negative figures indicate inflows (an increase in the incurrence of liabilities).

Another significant development was the increase in the disinvestment by non-EU residents of their FDI in the EU. Based on preliminary data, extra-EU disinvestment accelerated in the last two quarters of 2016, and it remains to be seen whether this was a temporary development linked to merger and acquisitions (M&A) activities or a more permanent shift.

#### 1.2.4. Volatility of capital flows

The impact of international capital flows on financial integration and financial stability depends not only on the volume of capital flows but also on their volatility. Chart 1.11 illustrates the volatility of net capital inflows in the US and in the EU by their main components.

**Chart 1.11: Volatility of capital flows for the EU and the US**



Source: Eurostat quarterly BoP statistics and IMF BoP statistics

Note: Excluding bilateral intra-EU flows; Net capital flows are defined as the net increases in the liabilities of the country or groups of countries in a given instrument, that is, all increases in the liabilities (inflows) in an instrument netted against all increases in the assets (outflows) of the same instrument. Volatility is calculated as the standard deviation of capital flows.



Foreign direct investment remained the most stable component of capital flows both in the EU and the US over the period 2010 to the third quarter of 2016. Regarding EU net inflows from third countries, portfolio investment has been the most volatile component since the beginning of 2011. Towards the end of the reporting period its volatility became almost twice as high as that of the other two components of capital flows. The volatility of other EU investment, which mainly consists of bank-related flows, declined sharply in mid-2010, most likely as a result of the extension of the first financial assistance programmes for euro-area Member States. In contrast, other investment flows were the most volatile component of US capital flows between 2011 and 2015. Overall, EU capital flows to third countries seem to have been more volatile than those of the US, mostly due to portfolio investment.

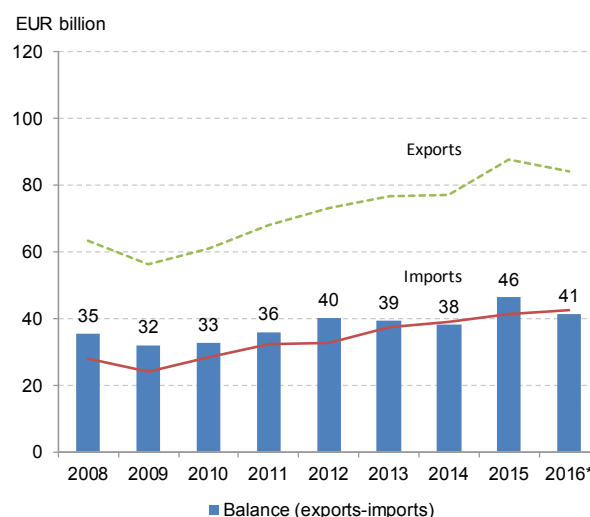
### 1.2.5. Trade in financial services

Since 2008, the EU has consistently generated trade surpluses in financial services. In 2015, exports of financial services exceeded imports by almost EUR 46 billion and in 2016 by EUR 41 billion (see Chart 1.13).<sup>11</sup> The UK share of the EU trade surplus in financial services with third countries is around 70%. In 2015, exports to countries outside the EU were up by more than 13%, while imports from countries outside the EU grew more moderately by 6%. Exports to third countries, in particular to the US (2.5%), and offshore financial centres (1.9%), grew the fastest in 2015.

In 2016 year-to-date, the surplus in trade in financial services declined slightly (down by almost EUR 5 billion). This decline was due to falling exports to all major trading partners and especially for those trading partners whose exports grew the fastest in the previous year. The sharpest reversals were registered with the US (-1.6%), Japan (-0.74%) and Switzerland (-0.64%).

Intra-EU trade in financial services showed uneven patterns across different groups of Member States (see Chart 1.14). All groups of Member States had surpluses in trade in financial services between in 2009 and 2016, except CEE11.<sup>12</sup> Exports of financial services declined the most in Denmark, Sweden and the UK. Almost the entire decline in EU-28 exports in 2016 was due to these three Member States. Imports remained almost flat in 2015-2016 across all Member States. Developments in CEE11 countries sometimes diverge from those other EU countries. The deficit of CEE11 in trade in financial services has been on a

**Chart 1.13: Trade in financial services with non-EU countries**



Source: Eurostat, quarterly BoP statistics

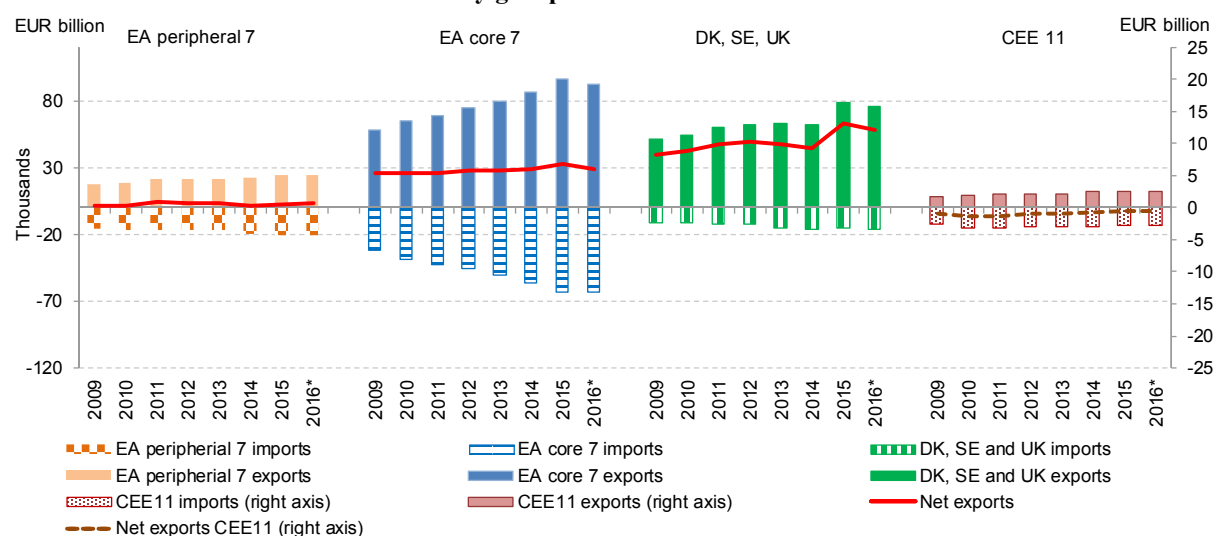
Note: \*2016 is a sum of the last 4 quarters up to Q3 2016.

<sup>11</sup> Data for 2016 is up to Q3 on a rolling four-quarter basis.

<sup>12</sup> The CEE11 Member States are: Bulgaria, Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovenia and Slovakia.

downward path since 2010 and declined to EUR -432 million in 2016 from EUR -1 415 million in 2010.

**Chart 1.14: Trade in financial services by groups of Member States**



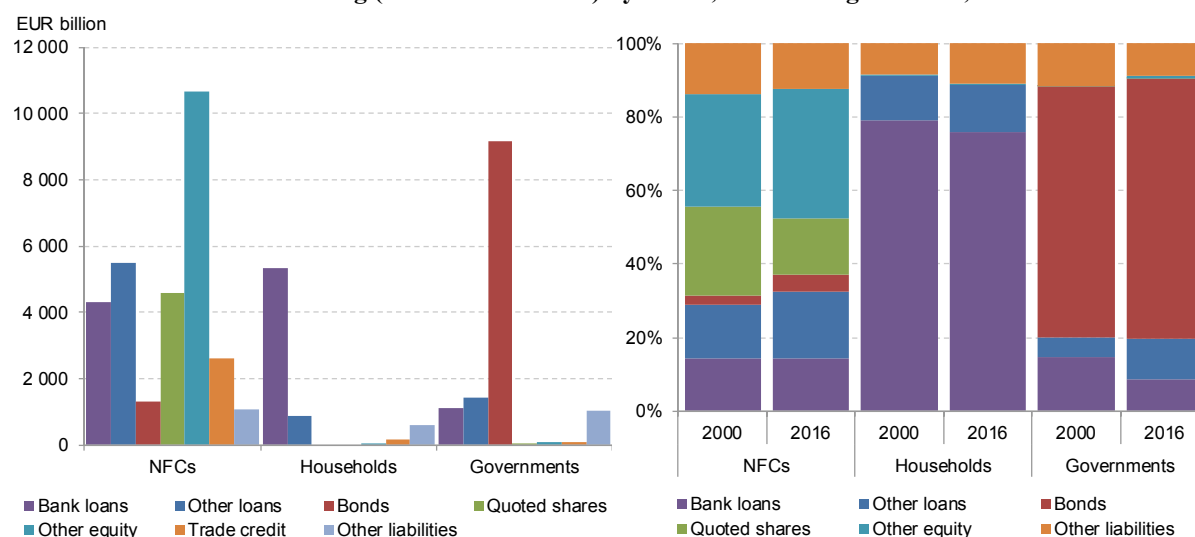
Source: Eurostat, quarterly BoP statistics

Note: \*2016 is a sum of the last 4 quarters up to Q3 2016; EA peripheral: Cyprus, Greece, Ireland, Malta, Italy, Portugal and Spain; EA core 7: Austria, Belgium, Finland, France, Germany, Luxembourg and the Netherlands; CEE11: Bulgaria, Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovenia and Slovakia.

### 1.3 Non-financial corporations, households and public sector funding

This section provides an overview of the different sources of funding used by non-financial corporations, household and governments. It summarises the changes in certain variables over time and differences and particularities across countries.

**Chart 1.15: Sources of funding (financial liabilities) by sector, outstanding amounts, euro area**



Source: ECB euro area accounts

Note: For governments, trade credit is included in other liabilities.

The funding mix differs from one sector to another. Non-financial corporations (NFCs) finance their activities through a variety of sources, while households and governments tend

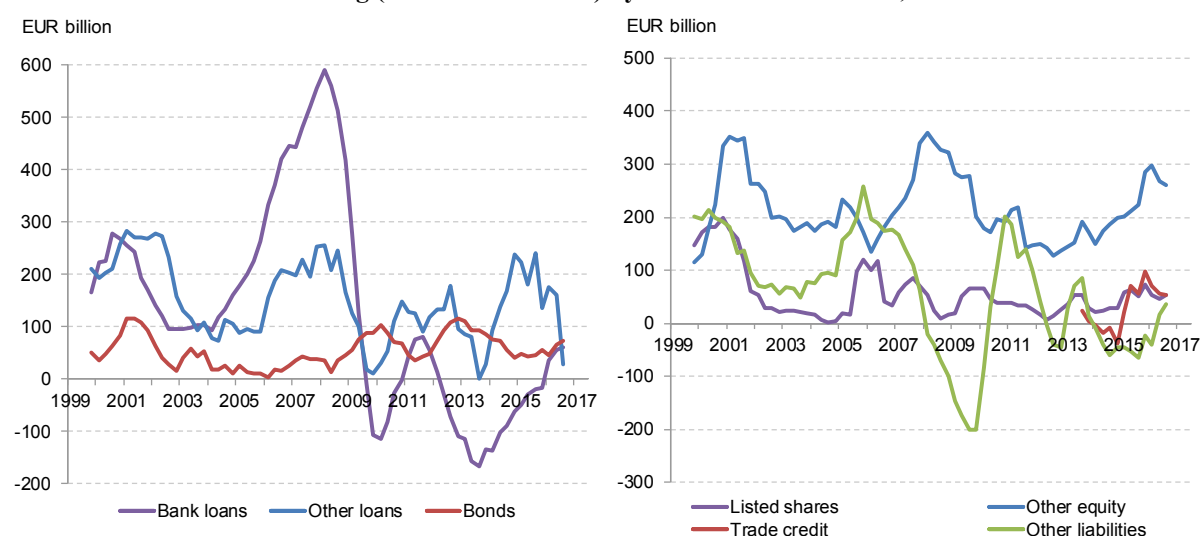
to concentrate their funding mix in a few sources (see Chart 1.15, left panel). The right panel in Chart 1.15 shows that over time a progressive shift in the funding mix has taken place.

### 1.3.1 Non-financial corporations

In the euro area, more than half of NFCs' activities are financed through equity, most of it in the form of equity other than quoted shares. Among debt instruments, loans are the most widely used by euro-area NFCs, with bank loans representing on average about 14% of total liabilities.<sup>13</sup> Other loans, which include intercompany loans, private loans, loans from public entities, or loans stemming from a supplier-customer relationship, are an even larger source of funding for euro-area NFCs, representing on average almost 20% of liabilities. The issuance of bonds is still a relatively marginal source of financing, representing on average 4.4% of liabilities and is only slightly more significant (between 6.0% and 7.5% of liabilities) in the UK, France, the Netherlands, Austria and Portugal.

Euro-area NFCs also make use of trade credit (9% of liabilities). Other liabilities, which include items such as taxes due, derivatives, factoring, or leasing, are a more marginal source of funding, representing 3.6% of liabilities. There are just a few countries where they represent more than 10% of liabilities, e.g. in the UK, Romania, Bulgaria, Poland, Portugal, Croatia, Estonia and Germany. Overall, European companies finance about 35% of their activities through the financial sector, either by borrowing from banks, or by issuing bonds or shares.

**Chart 1.16: Sources of funding (financial liabilities) by sector in the euro area, flows**



Source: ECB: euro-area accounts and own calculations

Note: Other liabilities also include trade credit until 2014.

The net provision of funding through bank loans has been highly volatile over the last 15 years (see Chart 1.16), expanding extraordinarily from about EUR 100 billion a year in mid-2000 to almost EUR 600 billion a year in 2008.<sup>14</sup> During this period, bank loans provided up to 50% of the new financing obtained by European firms, in spite of the fact that bank loans

<sup>13</sup> See Box 2 for a discussion on the role of shadow banking in non-banking credit intermediation.

<sup>14</sup> Net transactions correspond to the difference between increases and decreases in transactions.

represent only 15% of the NFCs' outstanding liabilities (see Chart 1.15). With net bank flows receding with the financial crisis, NFCs turned to other sources of funding. Net flows of loans became positive in late 2015, and have gained traction throughout 2016, indicating an increasing recourse to this important source of funding by EU corporations. Within the context of CMU, it remains important to promote alternative funding to facilitate diversification of funding sources.

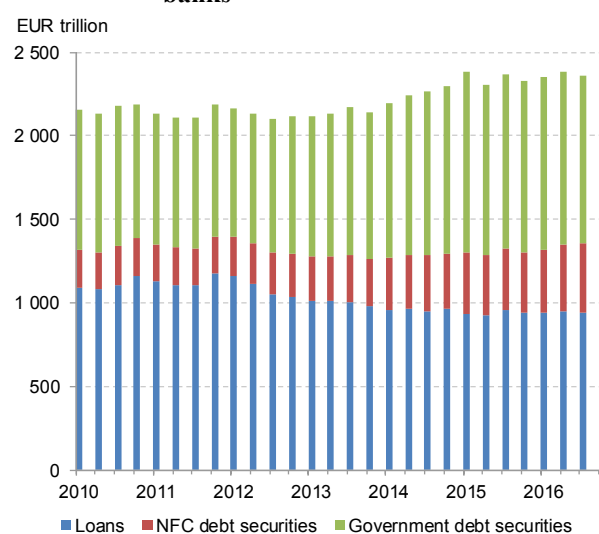
Since the outbreak of the crisis, NFCs have issued more bonds. Annual net issuance of bonds has mostly remained above EUR 50 billion since late 2008, with some peaks above EUR 100 billion. Loans other than bank loans have also been an important source of funding for European firms since the outbreak of the crisis. However, they seem to have lost traction in 2016, probably because of improved access to bank loans. Equity, in particular non-listed shares, has been another source of funding available to firms throughout the crisis. The increasing amount of unquoted equity since early 2015 may originate from the cyclical economic upturn and the increased capacity of companies to generate profits. Net access to trade credit and other accounts payable has been very volatile. The increase in net flows of trade credit observed since early 2015 and in other liabilities observed since early 2016 may reinforce the idea that EU companies are consolidating their financial positions, and that confidence underpinning new business is returning.

## Box 2 Shadow banking as an alternative source of financing

Under a widely accepted definition provided by the Financial Stability Board, shadow banking is credit intermediation which involves entities and activities fully or partially outside the regular banking system. In effect, shadow banking often breaks down the credit intermediation process between various entities and involves the use of structured financial products.

The size of the broadly defined shadow banking system in the EU was EUR 37 trillion in total assets in Q4 2015, or 36% of total EU financial sector assets.<sup>15</sup> This accounts for various financial actors such as financial vehicle corporations, security and derivative dealers, money market funds, and bond funds, which are not regulated as banks, but engage in credit intermediation as well as maturity transformation. They are active in derivative, repo as well as securities lending markets. The EU shadow banking system has grown significantly, tripling in size since 2004 thanks to increased transactions, as well as asset valuation and other effects. The EU shadow banking system has also become bigger compared to the traditional banking system. Between the end of 2012 and the end of 2015, for instance, the shadow banking system measured by assets grew by 22%, compared to a decrease in assets of 5% in the traditional banking system.

**Chart B2.1: Credit provision by euro-area shadow banks**



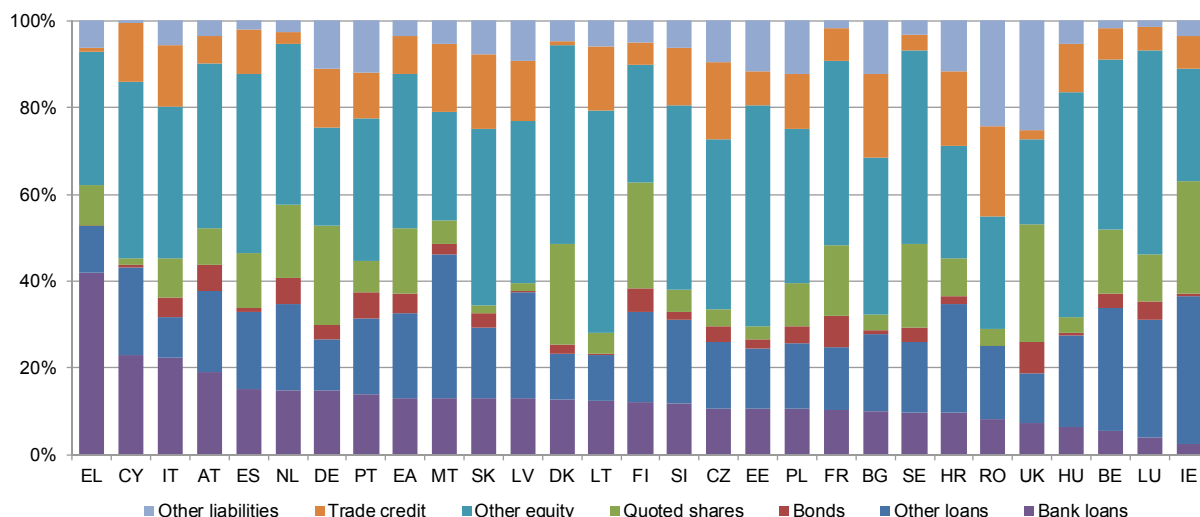
Source: Doyle et al. (2016)

<sup>15</sup> The European Systemic Risk Board (ESRB) broad measure of shadow banking includes all entities of the financial sector except banks, insurance corporations and pension funds.

The European aggregates conceal differences across countries in the use of various funding sources. To a large extent, the mix of funding sources that NFCs use to finance their activities depends on the funding conditions and available sources in their country of residence, e.g. the level of financial development.

EU NFCs finance most of their activities with equity issuance, which in general represents about 50% of firms' liabilities. However, there are some differences across countries in the use of equity. In Member States that joined the EU before 2004, equity is often raised on organised markets (i.e. through the issuance of quoted shares). In Belgium, Denmark, Finland, France, Germany, Ireland, the Netherlands, Sweden and the United Kingdom, quoted shares represent between 15% and 30% of financial liabilities, or 70% or more of their respective GDP. In the majority of Member States which joined after 2004, quoted shares represent at most 5% of total liabilities, and at most 20% of GDP. However, the use of other forms of equity as a source of funding is significantly greater than quoted shares in the vast majority of Member States, with the exception of Finland, Germany, Ireland, and the UK, where quoted shares have a similar, or even larger, size than other equity instruments (see Chart 1.17).

**Chart 1.17: Funding sources used by NFCs across Member States, end of second quarter 2016**



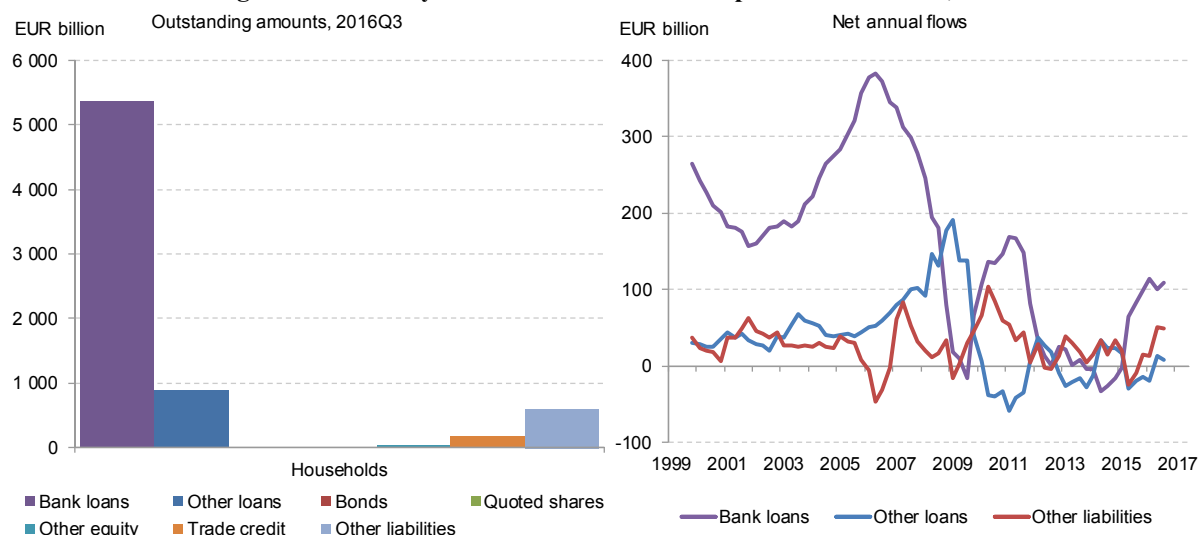
Source: ECB euro-area accounts and own calculations

Usually, NFC debt funding represents less than 50% of liabilities. However, in some Member States, such as Belgium, Ireland, Luxembourg, Malta, Portugal and Sweden, debt levels are rather high for NFCs. As regards bank loans, in Member States such as Bulgaria, Croatia, Romania or Hungary, with a still developing banking system, the limited amount of household deposits constrain the availability of banks loans for corporates, which represent less than 10% of liabilities. In these Member States, NFCs often compensate their restricted access to bank loans with other sources of funding, such as trade credit and 'other loans'. On the other hand, in countries like Sweden, the UK and Ireland, with well-developed capital markets, firms tend to more often issue quoted shares (up to 25% of liabilities). NFCs in these countries therefore make less use of bank loans.

### 1.3.3 Households and non-incorporated businesses

Bank loans are the main source of financing for households and non-incorporated businesses.<sup>16</sup> Currently, 76% of their financial liabilities stem from bank loans, but they also use ‘other loans’ to a certain extent (13% of liabilities). In terms of dynamics, net access to new funding was contained, particularly between 2012 and 2014, but has recovered since early 2015, particularly in the case of bank loans (see Chart 1.18).

**Chart 1.18: Funding sources used by households and non-incorporated businesses, euro area**



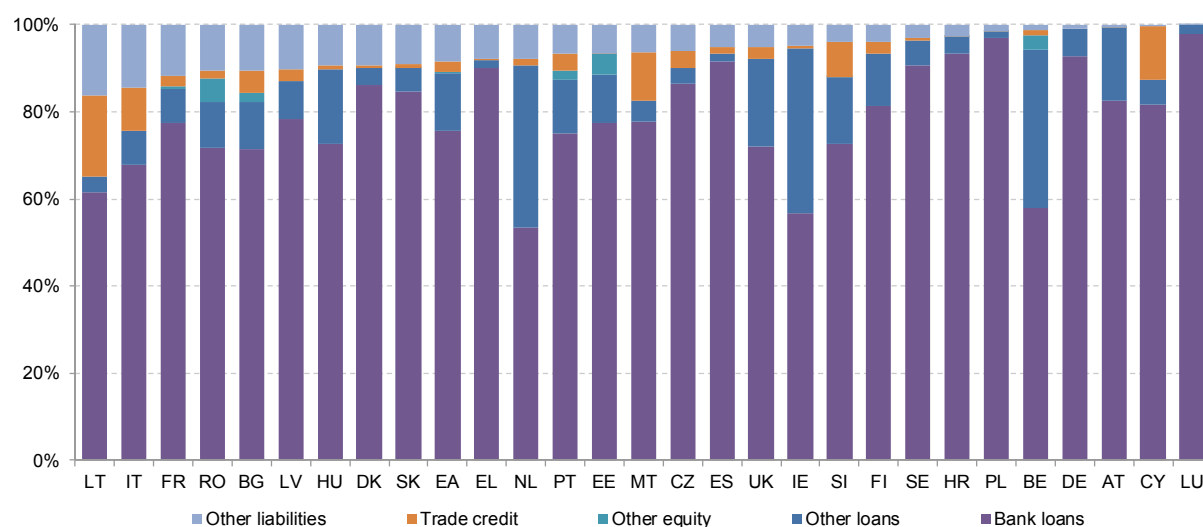
Source: ECB euro-area accounts and own calculations

Note: households include figures for non-incorporated businesses.

Bank loans are the main source of funding used by households and non-incorporated businesses across the EU, representing more than 80% of their financial liabilities in about half of the Member States. The use of trade credit is generally marginal, with the exception of Lithuania, Cyprus, Malta, Italy and Slovenia, where households finance up to almost 20% of their activities with trade credit. Finally, the use of other liabilities is, to a certain extent, commonly used by households in countries like Lithuania, Italy, France, Romania, Bulgaria and Latvia (see Chart 19).<sup>16</sup>

<sup>16</sup> Statistics are only available for the aggregate of households and non-incorporated businesses. This explains the existence of some company-like sources of funding such as trade credit and other liabilities.

**Chart 1.19: Funding sources used by households and non-incorporated businesses across Member States, end of second quarter 2016**

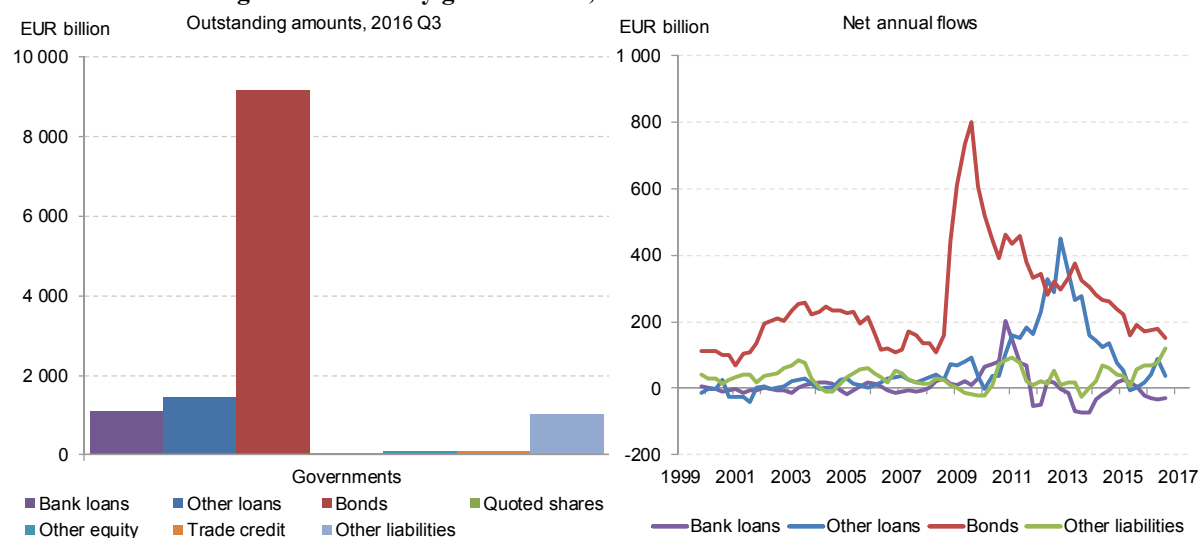


Source: ECB euro-area accounts and own calculations  
Note: households include figures for non-incorporated businesses.

### 1.3.4 Governments

The bulk of governments' financial liabilities are bonds (about 70% of their financial liabilities). Bank loans, other loans and other liabilities (trade credit, pending bills, pending transfers, advanced taxes, etc.) represent about 10% each.

**Chart 1.20: Funding sources used by governments, euro area**



Source: ECB euro-area accounts and own calculations  
Note: Other liabilities include also trade credit until 2014.

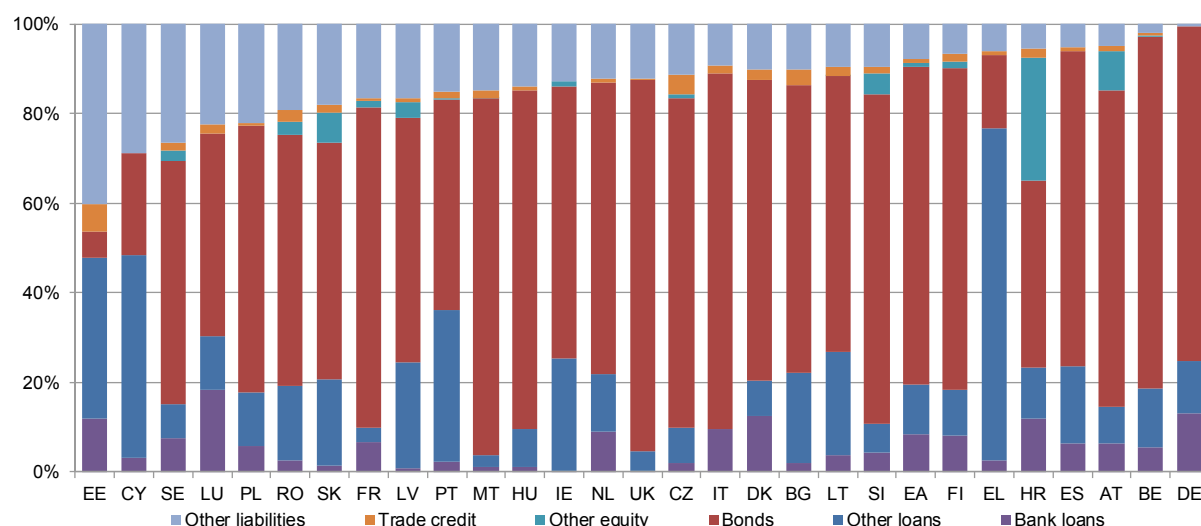
Public accounts were particularly affected by the crisis because of the macro-economic automatic stabilisers (e.g. rising unemployment benefits and reduced tax receipts), but also because of one-off measures such as the financial support to credit institutions under financial stress. The new funding required to confront these needs was mainly obtained by issuing new bonds on the markets, particularly during the period 2008-2012. However, some countries lost market access, and had to ask their European partners for support. The recourse to the new

stability mechanisms created during the crisis (e.g. the European Stability Mechanism) is reflected in the series of loans from official sources (i.e. ‘other loans’).

Since early 2015, the net annual issuance of sovereign bonds by euro-area governments has gone down to pre-crisis levels. However, the accumulation of debt during the crisis meant a significant increase in public sector leverage. Similarly, the recourse to official loans has significantly declined (see Chart 1.20).

In most Member States, governments finance more than 50% of their debt by issuing bonds, except for Portugal, Luxembourg, Croatia, Cyprus, Greece and Estonia. This is due to two distinct reasons. In Estonia and Luxembourg, issuances are carried out only at infrequent intervals, and the general level of debt is low. For Greece, Cyprus and Portugal, the stock of loans remains high due to past international financial assistance. On the other hand, the financial support provided by European stability instruments (European Financial Stability Facility, European Financial Stabilisation Mechanism and European Stability Mechanism) are accounted for as ‘other loans’, and imply a lower use of bonds in relative terms in countries like Ireland, Greece, Cyprus and Portugal.<sup>17</sup> Most countries also make use of bank loans, trade credit and other sources of funding, but generally to a lesser extent (see Chart 1.21).

**Chart 1.21: Funding sources used by governments across Member States, end of second quarter 2016**



Source: ECB euro-area accounts and own calculations

<sup>17</sup> Note that the financial stability programmes were successfully completed in all countries except for Greece; however, the loans remain outstanding as the repayment is spread across several years.



## **Chapter 2 EU BANKING SECTOR**

This chapter focuses on the profitability of the EU banking sector, discussing the impact of recent developments in cyclical and structural drivers including increased competition by non-banks, on the profitability of banks.

Despite the recent years' of expanding EU bank credit, the conditions in EU banking remain challenging. Although the circumstances vary significantly across both banks and Member States, the combination of continued low interest rates and high bank operational costs are compressing bank profit margins. Low market expectations of future bank profitability, in turn are putting downward pressure on bank share prices, raising banks' cost of equity and therefore the cost of external funding. On a more positive note, the enhanced bank solvency and resilience, confirmed by the overall comforting results of the EU-wide stress test published in the summer of 2016, support confidence in the EU banking sector. The accommodative monetary policy supports bank funding conditions and banks' lending activity to the private sector.

The analysis in this chapter underlines the importance of securing a sustainable and healthy banking sector as well as diversifying the sources of funding to the European economy. Many EU banks are successful in adjusting to changing conditions, and these efforts must continue. This includes a continued focus on diversifying income sources and higher-margin lending activities. In developing and implementing these revenue-boosting and cost-reduction initiatives, including introduction of new technologies and broader use of consumer data, sufficient attention should also be devoted to ensuring financial stability and a sufficient high level of consumer protection (see Box 3). It also requires ongoing efforts to contain costs through further branch reductions, consolidation initiatives and the effective use of innovative technologies to streamline business processes. A more diversified spectrum of funding sources available to the European economy will be achieved through ongoing efforts that are part of the Capital Markets Union initiative.

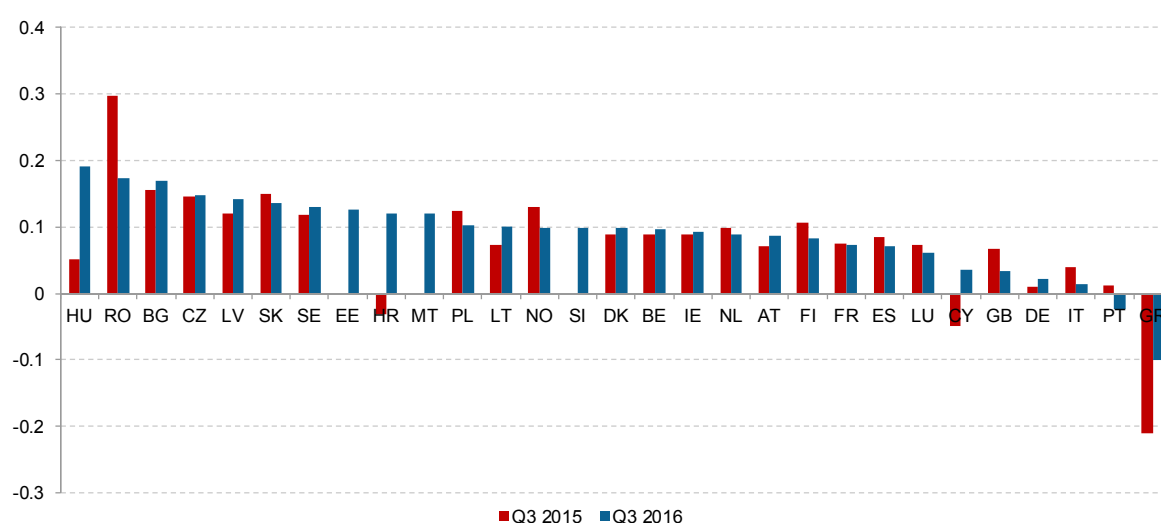
### **2.1 Profitability performance of the EU banking sector**

European banks have faced several challenges in recent years. The global financial crisis of 2007-2008 severely disturbed the functioning of the EU banking sector, with strong negative effects on the broader economy. In response to the crisis, wide-ranging regulatory reforms have been introduced to strengthen banks' capital and liquidity positions, and to make banks safer and more resilient to shocks. However, the long-term viability of the banking sector has emerged as a concern amid very low bank profitability for EU banks over a period of many years. The low profitability can be attributed to the combined impact of many factors, including persistently weak economic conditions, a low interest rate environment, deleveraging needs, excess competition from financial technology companies and other non-bank entities, litigation costs, as well as regulatory and compliance costs.

Despite moderate improvements in 2015, bank profitability in the EU remains far lower than in the pre-crisis period. The annualised return on equity (RoE)<sup>18</sup> fell to 5.4% in the third quarter of 2016, one percentage point below the third quarter of the previous year. The annualised RoE also fell relative to the second quarter of 2016, when it stood at 5.7%.

Return on equity (RoE) for EU banks is very unevenly distributed across Member States (see Chart 2.1). CEE banks have recently performed better than the average for the EU, while banks in the southern periphery have underperformed relative to the average. Croatia, Hungary, Cyprus and Greece witnessed the greatest improvements over last year, although the RoE for Greek banks remains significantly negative. Portuguese banks also recorded negative RoE in 2016, and the RoE of Italian banks — although still positive — declined to 1.5%, amid concerns about asset quality.

**Chart 2.1: Banks' return on equity**



Source: EBA, own calculations

Meanwhile, the cost of equity (CoE)<sup>19</sup> for EU banks increased to around 10% on average<sup>20</sup>, contributing to a renewed widening of the RoE-CoE gap. When costs exceed returns over an extended period of time, a bank may experience higher costs of debt funding and equity issuance. The currently low market valuations of EU banks and low expectations of future profitability demonstrate the challenges that lie ahead. For the euro area, analysts are systematically lowering their RoE forecasts for banks, with the median ROE forecasts<sup>21</sup> between 6% and 7% for 2017 and 2018.

<sup>18</sup> RoE is defined as the ratio of net income to shareholders equity. It measures a firm's profitability by showing how much profit a company generates with the money shareholders have invested.

<sup>19</sup> CoE is defined as the return that the market demands from firms in exchange for bearing the risk of ownership and investing their capital.

<sup>20</sup> EU weighted average for 2016, by EBA, estimated using the CAPM model, see more details in 'Risk Assessment of the European Banking System', European Banking Authority (EBA), December 2016, p. 48.

<sup>21</sup> See more in ECB Financial Stability Review, p. 75.

## 2.2 Cyclical and structural drivers of bank profitability

Bank income statements comprise a number of key components that shape its operating profitability: net interest income, non-interest income, operating expenses, and impairments.<sup>22</sup> Aggregate data for the EU banking sector indicate that the weakness in post-crisis profitability has been driven mainly by subdued macro-economic conditions, and related lower net interest income and high loan-losses and the one-off shocks to profitability stemming from impairment provisions. Analysis shows a persistently declining trend in net interest income, while the negative contribution from loan-loss provisions eased, which supported bank profitability in recent years.

Interest income is the main source of overall income in the traditional bank business model. The low interest rate environment has compressed this important source of income. Illustrating this phenomenon, the ratio of net interest income to total assets dropped to 1.2% for euro-area banks in 2015 and remained close to this low level after that. In particular, interest income derived from lending activities fell significantly and by more than interest income from banks' debt securities portfolios.

Non-interest income of euro area banks failed to compensate for the weakness in net interest income. Following an increase in 2015, banks<sup>23</sup> reported a 4% year-on-year decline in net fee and commission income in 2016, mainly due to a drop in fees from securities issuance, asset management, and the distribution of investment products. All these sources of income are sensitive to financial market volatility. The ECB has identified net non-interest income as the greatest contributor to RoE decline in the euro-area banking sector, both in Member States significantly affected by the financial crisis and other Member States.<sup>24</sup> Likewise, banks' trading income was negatively affected by repeated bouts of market volatility during the course of 2016, resulting in approximately a 20% annual decline compared to 2015.

The phenomenon of low profitability in the EU banking sector reflects a range of cyclical and structural factors, varying across banks and across Member States. The most crucial cyclical challenge to banks has been the protracted low interest rates in combination with low economic growth. Persistently low interest rates erode bank profitability by compressing net interest margins. The impact differs across institutions, depending on the composition of the loan portfolio (e.g. the share of floating rate loans) and its funding mix (e.g. the share of deposit funding). Generally, however, when interest rates are low, the difference between the rate of interest paid on bank liabilities and the rate charged to borrowers is smaller. This is because banks are constrained in their capacity to lower the rate on deposits below zero. Finally, low interest rates translate into lower profitability from government bond portfolios.

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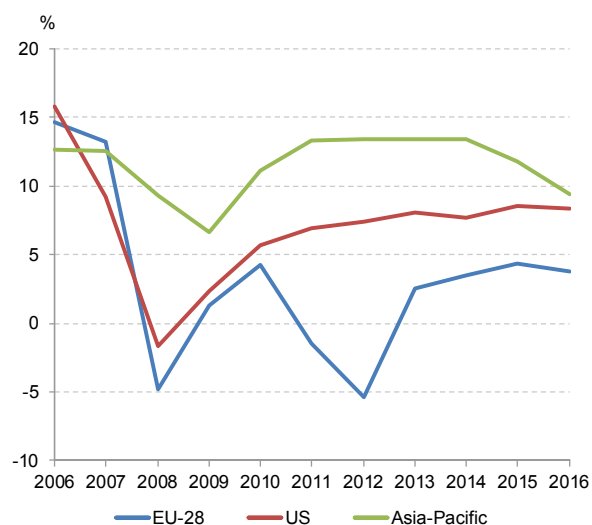
<sup>22</sup> The following definitions are used: *net interest income* is defined as income stemming from loans and other financial products net of funding costs; *non-interest income* is income stemming from financial operations such as trading activities, gains/losses on repurchase of own debt & asset disposals, fees and commissions; *operating expenses* are general expenses on premises and equipment, staff remuneration, depreciation and amortisation, other costs; and *impairments* refer to provision expenses for impaired loans (NPLs, doubtful loans).

<sup>23</sup> Data based on euro-area significant banks, directly supervised by the ECB.

<sup>24</sup> Based on ECB's supervisory data, for details see ECB's Financial Stability Review, November 2016, p. 73.

On the positive side, it has been estimated by ECB staff that the overall impact on bank profitability of recent monetary policy actions is net positive compared with a scenario assuming no monetary intervention.<sup>25</sup> There are several reasons for this. First, the lower interest rates and other interventions have improved the macro-economic environment, which has helped loan loss provisions to fall amid a better debtors' repayment performance. In addition, whilst lower rates have compressed margins, they have increased overall demand for loans and enhanced debtors' repayment performance, therefore supporting bank interest income through rising loan growth and higher lending volumes. Moreover, low interest rates have benefited banks by lowering the refinancing costs at the ECB. Lastly, lower rates have also lead to some capital gains on the bond portfolio of banks.

**Chart 2.2: Bank profitability measured by RoE**



Source: Standard & Poor's Global Market Intelligence data, own calculations.

Next to cyclical challenges, the profitability of European banks also suffers from structural challenges, which amplify cyclical difficulties, such as: a large stock of unresolved legacy assets in some Member States, high cost-to-income ratios, business models dependent on interest income, increasing competition from financial technology companies ('fintechs') and other non-banks. Some of these factors, which are described in more detail in the following sections, explain why bank profitability in the EU appears structurally lower than overseas, e.g. in the US or in Asia.<sup>26</sup>

## 2.3 Profitability challenges linked to costs

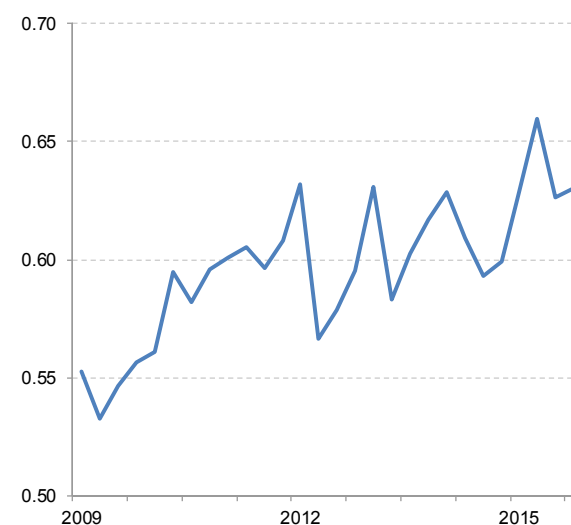
Low bank profitability in Europe is partly the result of high costs. Continued challenges to revenue generation shifted banks' focus to cost-cutting and restructuring efforts, including staff reductions, branch closures, and an increased use of digital distribution channels. Still, cost efficiency varies widely across banks and Member States, suggesting that some banks still have room to improve operational efficiency via cost-cutting, including by consolidation. Consolidation could bring some profitability at the sector level by enhancing cost and revenue synergies. However, progress in bank consolidation in the euro area, in particular across borders, remains somewhat limited to date.

<sup>25</sup> See Rostagno et al. (2016).

<sup>26</sup> Fintechs are companies that use new technology and innovation in the delivery of financial services. They sometimes compete with traditional financial institutions, but can also help make business processes more efficient.

Data shows that costs continued to rise over the course of 2016 for the average of EU banks (see Chart 2.3), which contributes to bank profitability challenges. The most typical measure of bank costs are cost-to-income ratios (C/I), which are high for EU banks compared to historical standards.<sup>27</sup> The EU-wide C/I average stood at 63.0% in Q3 2016. Over the course of 2016, the C/I ratio increased by 3 percentage points. When contrasted with declining bank revenues, this trend in C/I ratios indicates that costs have been reduced less than proportionally, and confirms a long-term trend of a rising C/I ratio, which recently increased quite significantly from around 55% in 2010 to 63% in 2016.

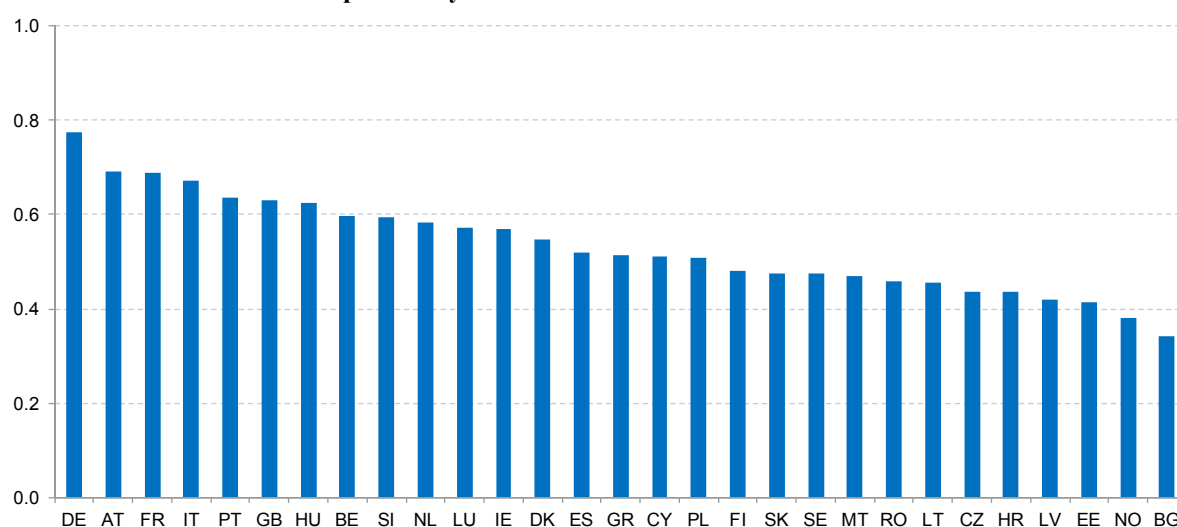
**Chart 2.3: EU banks' cost-to-income ratio, weighted average**



Source: EBA

There is a wide dispersion of C/I performance across Member States (see Chart 2.4). C/I ratios tend to be lower in eastern European countries and in most central European and Nordic markets. The large dispersion in C/I ratios partially reflects prevailing business models in the region. Sweden and other Nordic countries are notable examples of banking sectors achieving high profitability while not being burdened with legacy credit quality issues or excessive cost inefficiency. Some banks in the region have reduced their branch presence by more than 50% and eliminated cash service in branches. On the other hand, the highest C/I ratios can be found in Germany (77.4%), Austria (69.2%) and France (68.8%), dominated by banks with traditional business models and high branch presence.

**Chart 2.4: Cost-to-income dispersion by Member State**

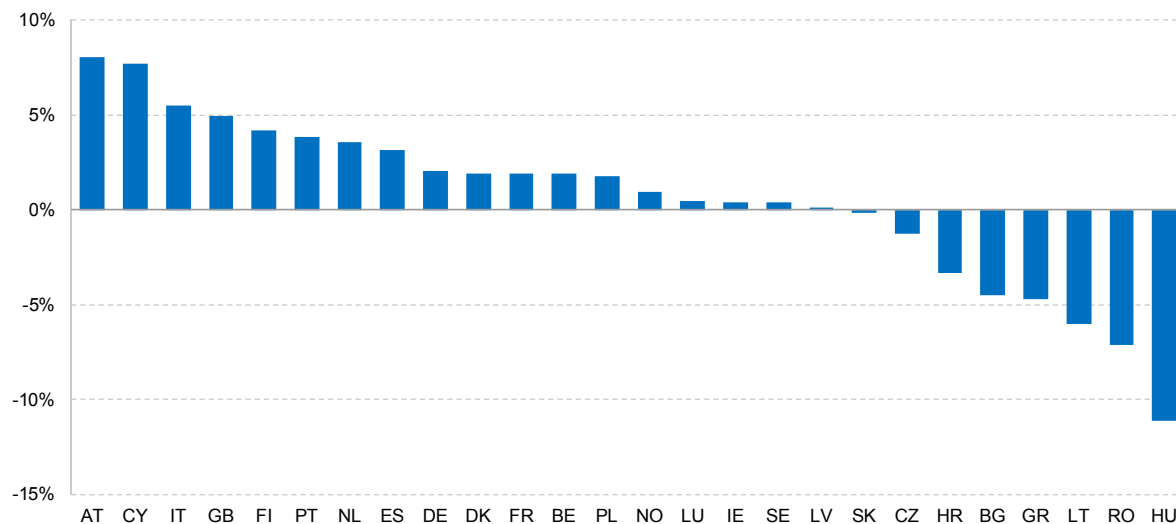


<sup>27</sup> Cost-to-income ratios capture bank operating expenses relative to net revenues. A rise in C/I ratio can reflect rising costs in absolute terms or a situation where cost reductions are not keeping pace with dropping revenues.

Source: EBA

As shown in Chart 2.5, C/I rose in 18 countries of the EBA sample of banks last year, while it declined in eight. The increase was the largest in Austria, Cyprus and Italy.<sup>28</sup> C/I dispersion among individual banks has grown since Q3 2015, particularly in the first half of 2016.

**Chart 2.5: Change in cost-to-income ratio compared to Q3 2015**



Source: EBA

While Fintech has put pressure on traditional business models, it also provides opportunities for banks to reduce costs. Recent developments in areas such as cloud computing, mobile applications and big data analytics have the potential to increase the efficiency of banks business models. For instance, it may lead to more efficient pricing and better risk management practices, and many business processes could become less resource intensive. An entire category of financial technology solutions helping firms comply with regulatory requirements has become known as RegTech. Subject to appropriate assessment of its compatibility with Union policies, in particular as regards data protection, Distributed Ledger Technology (DLT) systems could in the future lead to even more efficiencies and lower costs by improving processes and making resource-intensive back-office functions redundant. In March 2017, the Commission launched a public consultation on the opportunities and challenges of Fintech.<sup>29</sup>

Attention should also be paid to other costs, including litigation and regulatory compliance. According to the results of the EBA's risk assessment questionnaire, more than 44% of banks have paid out more than EUR 500 million in compensation, litigation and similar payments since the financial crisis. The share of banks which have paid out more than EUR 1 billion is 37%. The first half of 2016 brought a decline in legal settlements, according to Scope ratings, but the threat of further litigation costs for banks remains in the light of recent scandals.

Banks have cited rising regulatory and compliance costs over the last years, further weighing on profit margins. These concerns are related to a combination of tighter conduct standards, additional reporting requirements and stricter capital rules. While the benefits of these measures are key to enhance financial stability and consumer protection, they have been cited

<sup>28</sup> Estonia, Malta and Slovenia were missing in the Q3 2015 sample.

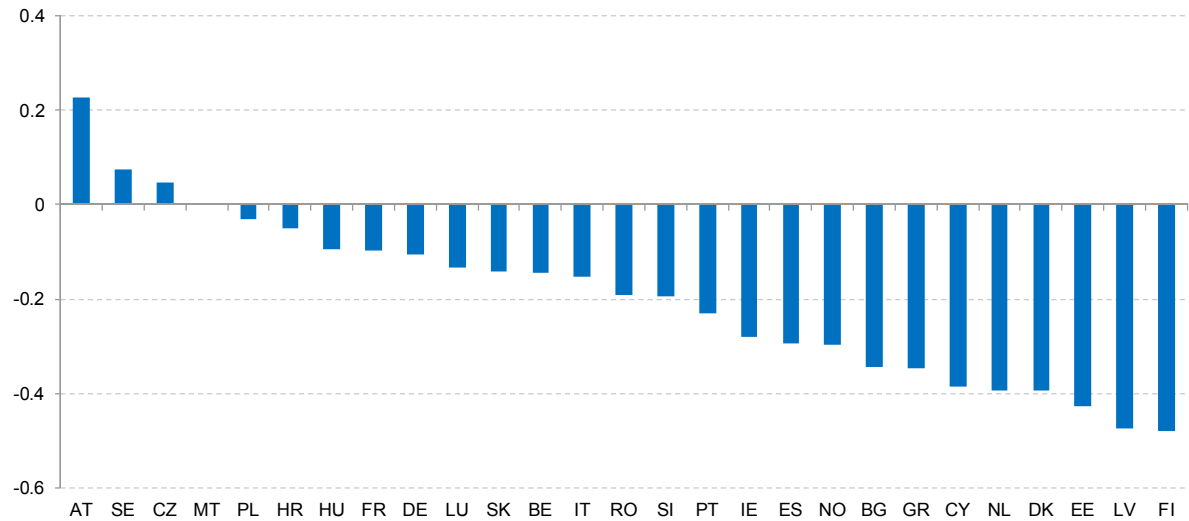
<sup>29</sup> See [https://ec.europa.eu/info/sites/info/files/2017-fintech-consultation-document\\_en\\_0.pdf](https://ec.europa.eu/info/sites/info/files/2017-fintech-consultation-document_en_0.pdf).

as a source of rising operational costs. However, the concluding result of the Commission’s Call for Evidence was that overall the benefits outweighed the costs. The Commission is committed to following its better regulation principles and applying the Regulatory Fitness and Performance programme, which ensure that EU legislation delivers results for individuals and businesses effectively, efficiently and at minimum cost.

## 2.4 Effects of banking sector concentration and network structures

At individual bank-level, costs are highly influenced by the size and role of a bank’s branch network. Despite a sharp decrease in branch density (from 33.1 branches per 100 000 people in 2010 to 27.5 in 2015), the reliance of EU banks on branches remains very high compared to other regions of the world. The International Monetary Fund hints that there remains potential for further rationalisation, as 46% of branches in the EU service only 5% of client deposits.

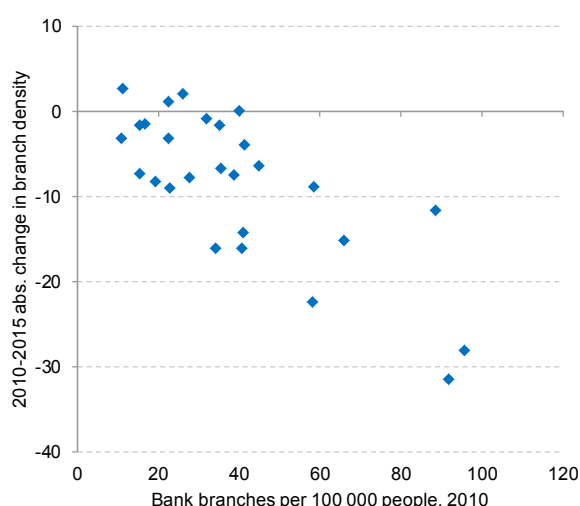
**Chart 2.6: Branch density, relative change from 2010 to 2015**



Source: World Bank, own calculations

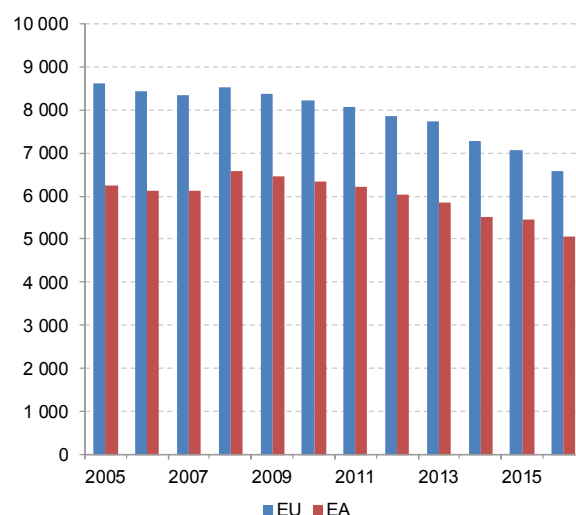
The trend of reducing branch density has been relatively widespread since 2010. Only four EU Member States have experienced growth in branch density (see Chart 2.6), while on average EU Member States have reduced their branch network by about 20%. Several Member States, notably Estonia, Latvia and Finland, have reduced their networks by 40% or more, to radically cut costs and broaden the use of digital services. Statistical analysis shows that the reduction of the branch networks is linked to initial bank branch density (see Chart 2.7). Countries with the highest branch density in 2010 have seen the highest reduction in the branch network in the following years, both in absolute and relative terms. This convergence hints at possible overcapacity in countries with large branch density, coupled with decreasing demand for branch-based services.

**Chart 2.7: Changes in bank branch density**



Source: World Bank, own calculations

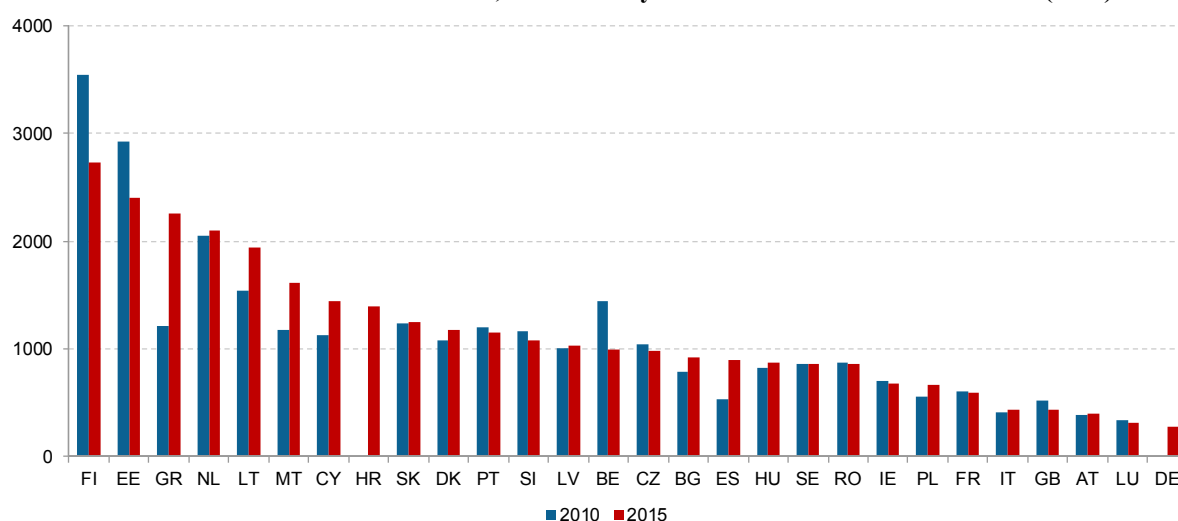
**Chart 2.8: Number of credit institutions**



Source: ECB

Meanwhile, the number of credit institutions has steadily decreased since the financial crisis (see Chart 2.8), driven by pressure to achieve cost containment. Market concentration not only negatively affect competition, but could also be an important factor influencing bank revenues and costs, as large parts of costs in banking are fixed<sup>30</sup> and because of that the sector exhibits to some degree economies of scale and scope.

**Chart 2.9: Market concentration for banks, measured by the Herfindahl-Hirschman Index (HHI)**



Source: ECB, own calculations

The overall Herfindahl-Hirschman index (HHI) for EU banks is estimated to be 675. This can be interpreted as a quite competitive market. Data show a moderate increase in market concentration since the crisis started.<sup>31</sup> The EU-wide average is largely influenced by the largest countries, which tend to have a more competitive financial environment. The HHI

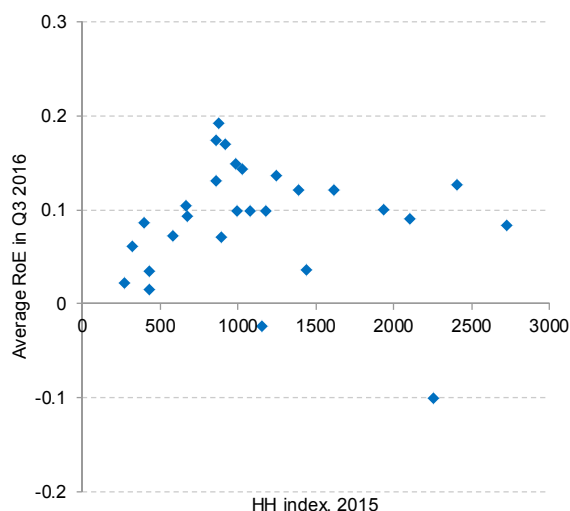
<sup>30</sup> Kovner and Zhou (2014).

<sup>31</sup> Market concentration is typically measured by shares of largest companies in the sector or by the Herfindahl-Hirschman index (HHI) for credit institutions. The HHI is defined as the sum of squares of individual company's market shares, and it can range from 0 to 10 000, which would be the level corresponding to one company with a 100% share in the market. Thus a lower level of HHI indicates a more competitive market. See ECB (2016a) for the value of this index.



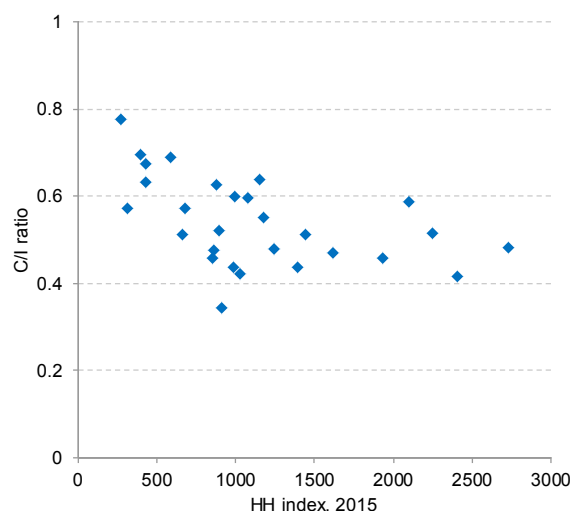
differs significantly among Member States and appears to be related to the RoE and C/I of the banks sampled. Between 2010 and 2015, it declined in Member States with relatively concentrated credit markets (e.g. Finland and Estonia), while it either remained flat or increased somewhat in Member States with relatively less concentrated markets (see Chart 2.9).

**Chart 2.10: Market concentration and RoE**



Source: Eurostat, EBA, own calculations

**Chart 2.11: Market concentration and C/I**



Source: Eurostat, EBA, own calculations

Bank concentration in a country seems to be related to RoE and C/I aggregated at national level (see Charts 2.10 & 2.11). Statistical analysis of a small sample of EU Member States suggests that national banking systems with HHI below 500 points tend to have relatively low RoE and high costs. This may serve as an argument in favour of further consolidation in the European banking sector, as most markets with RoE above 10% and C/I below 60% have an above-average HHI of around 1 000 points.<sup>32</sup>

## 2.5 Challenges linked to non-performing loans

Loan-loss provisions, which are used by banks to offset potential losses on the loan portfolio, have constituted an important cost for EU banks in the years following the crisis. The elevated levels of loan-loss provisions in recent years have been closely related to higher amounts of non-performing loans (NPLs) accumulated by some of the banks during the crisis, as well as by greater banks' caution about resulting risks. According to the latest data, the EU average NPL ratio continues to trend downward, decreasing by 10 bps to 5.4% in the third quarter 2016 (see Chart 2.12).<sup>33</sup> Nevertheless, the level remains high by historical standards and is still higher than in the US and Japan (below 2%).

Notwithstanding the substantial reduction in NPLs observed over the past years, the progress is uneven across Europe. In some banking sectors, e.g. in Finland or Sweden, the NPL ratio stands at around 1%, and many other Member States have ratios of less than 3%. At the other end of the spectrum, NPL ratios have reached high double-digit levels in some Member

<sup>32</sup> Nevertheless, a sufficient level of competition should be present to ensure consumer choice.

<sup>33</sup> The NPL ratio is defined as gross non-performing loans in % of total loans.

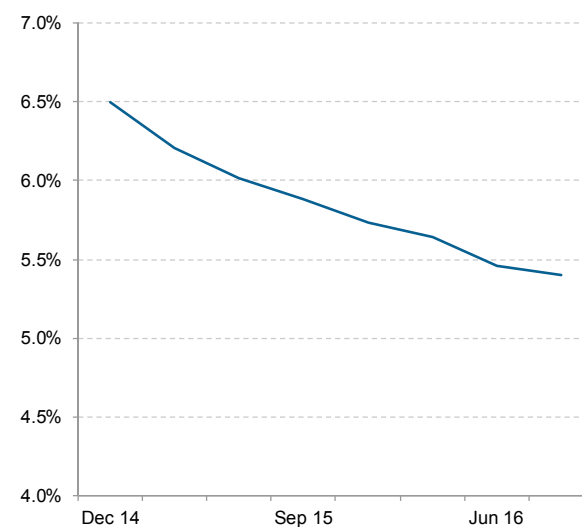
States.<sup>34</sup> In Cyprus and Greece, nearly half of total loans are non-performing, accounting for about one third of total bank assets. According to ECB statistics, banks directly supervised by the ECB still held EUR 921 billion of such troubled loans at the end of September 2016, representing 6.4% of total loans and nearly 9% of the euro-area GDP.

Not only the severity, but also the root of the NPL problem varies significantly across Member States. In Spain and Ireland, the high level of NPLs is linked to the earlier collapse of the property markets, whereas in Italy the increase in NPLs resulted from sluggish economic growth and a weak post-crisis recovery. In some Member States, the sharply rising numbers of bankruptcy or restructuring cases have also strained the judicial system, causing long delays in formal debt liquidation. As a consequence, NPLs were kept on balance sheets longer, aggravating their impact on bank profitability and long-term viability. The distribution of non-performing loans by sector is also mixed. More than half of currently impaired loans were extended to non-financial companies. But lending to households also constitutes a significant share, accounting for more than half of the NPLs in some Member States.

NPLs impact bank profitability in manifold ways. NPLs imply higher provisioning needs and therefore absorb bank capital and lower operating income. Net profits are further reduced by the greater need for human resources and higher administrative expenses to monitor and manage the NPL stock. Profitability can also be reduced by higher funding costs for banks as concerns about asset quality challenges are associated with higher risk premia on bank liabilities. NPLs also generate legal costs.

A sizeable part of the NPL stock is covered with provisions, reducing the risk to bank balance sheets. On average, 46% of NPLs were covered by provisions. However, as shown in Chart 2.13, coverage ratios — share of the face value of the loan covered by loan loss provisions — vary widely in the euro area, ranging from 28% to roughly 68%. Next to provisions some NPLs may also be covered with collateral. Nevertheless, while being a key tool to secure the repayment and/or recovery of a loan, acquisition of collateral is often a lengthy and costly process, eroding the net present value of the collateral concerned.

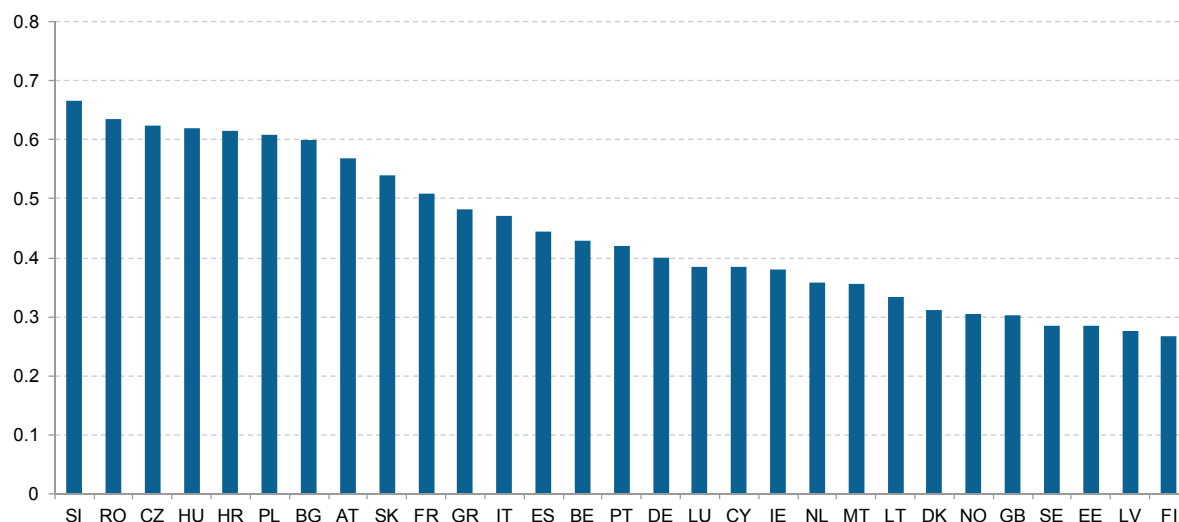
**Chart 2.12: NPL ratio, weighted average for EU banks**



Source: EBA, own calculations

<sup>34</sup> Notably Italy, Ireland, Portugal and Slovenia.

**Chart 2.13: Cross-country dispersion in NPL coverage ratios**



Source: EBA

Note: The coverage ratio is the share of the face value of the loan covered by loan loss provisions.

The currently low levels of trading in NPLs on secondary markets can be explained to a large extent by substantial information asymmetries intrinsic to this kind of markets.<sup>35</sup> On the demand side, banks' informational advantage over investors on the quality of loan portfolios and prospective recoveries may deter potential market activity. Moreover, barriers to entry such as licensing requirements further inhibit the market. On the supply side, banks may be insufficiently capitalised to recognise loan losses, or they may want to wait for an economic recovery before reducing their NPLs. To avoid an increase in NPLs and defaults, some banks choose to renew high-risk loans that they would otherwise not renew. Finally, at macro level, structural inefficiencies in debt and collateral enforcement may further contribute to the lack of market turnover.

Notwithstanding the described difficulties, important action at national and at EU level is being taken to tackle the NPL problem in Europe. At EU level, the Commission is conducting a benchmarking review of loan enforcement (including insolvency) regimes to establish a reliable picture of the outcomes that banks experience when faced with defaulting loans in terms of delays, costs and value-recovery. The Commission is also assessing the case for initiatives to facilitate the development of a secondary market for distressed debt, such as information standardisation, with a view to sharing the risks across a greater pool of capital market participants. The Council, following Commission's proposal, has addressed NPLs in Country-specific Recommendations in 2016.

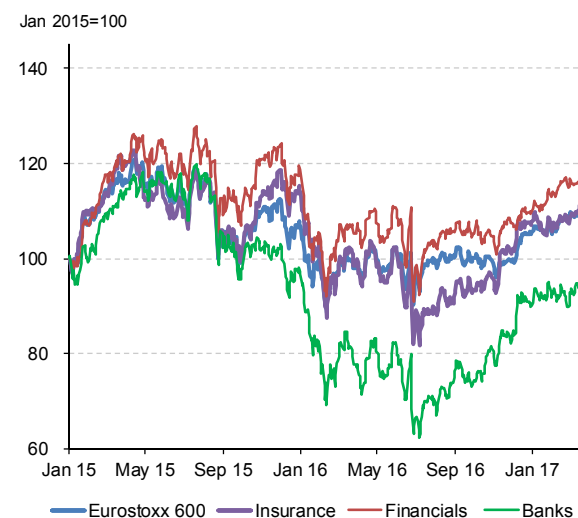
At national level, Member States faced with high NPL ratios, such as Cyprus, Greece, Ireland, Spain and Slovenia, have introduced policy measures and reforms aimed at reducing NPL stocks. The Commission supports policy responses by Member States in this area through its Structural Reform Support Service (SRSS). If the efforts to reduce the NPL ratios across the EU are successful, this should have a positive impact on the profitability of the banking sector.

<sup>35</sup> See Akerlof (1970) for more details.

## 2.6 Performance of banking stocks and bank funding markets

Underscoring the challenges to EU banks, banks' share prices showed relatively high volatility in the course of 2016 (see Chart 2.14). Over the summer, banking stock indices reached new lows. Mounting market concerns about banks' profitability drove this revaluation of bank equity. A further decline in long-term interest rates and narrowing interest rate margins led analysts to revise banks' earnings prospects down. Investors seemed to distinguish between weak and strong banks. This led, in particular, to selling pressure on banks with a large stock of legacy non-performing assets or expected high litigation costs. However, spill-over effects to the sector as a whole cannot be excluded. Since mid-2016, bank stock performance has improved amid stronger than expected earnings reports and favourable macro-economic conditions.

**Chart 2.14: European banking share prices compared to other sectors**



Source: Bloomberg

The two most significant marked corrections in bank equity valuations occurred after the UK referendum and, to a much lesser degree, after the disclosure of EU-wide stress-test results in late July. In the second half of 2016, bank share prices recovered amid a steepening of yield curves which could support banks' net interest margins and rising market expectations that global bank regulation (Basel III) might end up less tight than previously feared. Bank share prices finished 2016 at levels similar to those seen at the beginning of the review period.

While the weakness in bank share prices made banks' equity financing more challenging, euro-area money markets remained functional and supportive for banks' lending activity to the private sector. ECB operations, including the second series of targeted longer-term refinancing operations and the expanded asset purchase programme, boosted excess liquidity, which exceeded EUR 1 trillion towards the end of 2016.

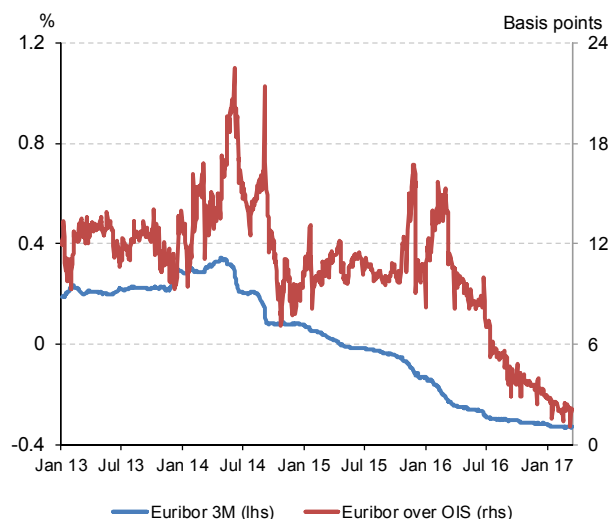
Overall, bank funding markets have also improved, and funding stress remains generally contained. Spreads on subordinated bank debt widened markedly in the aftermath of the UK referendum, and spreads on senior bank debt widened more moderately. Following that, funding conditions improved, with spreads for bank debt tightening back to levels below those observed before the early episode of market turbulence in 2016.

Illustrating benign money market conditions, interest rates on unsecured and secured instruments hovered close to the ECB deposit facility rate. In the unsecured segment, the Euribor rate and the Euribor to OIS spread<sup>36</sup> have reached their multi-year minima (see

<sup>36</sup> The Euribor spread to OIS spread is the difference between the rate at which European banks lend to each other (EURIBOR) for 3 months and the overnight risk-free swap rate (EONIA), also for 3 months, among the same two banks. The measure is considered to reflect the health of the banking system.

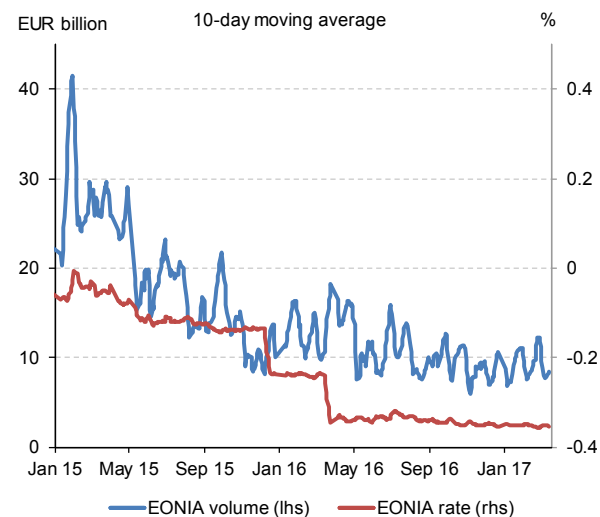
Chart 2.15), with certain interbank transactions conducted at rates below the deposit facility rate.<sup>37</sup> In the secured segment, repo rates continued to trend deeper into negative territory (see Chart 2.16) amid high levels of cash holdings by market participants.<sup>38</sup>

**Chart 2.15: Euribor rates and spreads to OIS (3-months)**



Source: Bloomberg

**Chart 2.16: EONIA volumes and rates**



Source: Bloomberg

<sup>37</sup> Some euro-area banks have offered institutions with no access to the ECB facilities the possibility to deposit their cash with them for subsequent placing at the ECB deposit facility rate.

<sup>38</sup> Repo rates are interest rates at which a central bank repurchases government securities from commercial banks.

### Box 3 Ensuring consumer protection in lending

At EU level, the relevant legislative instruments to ensure a high level of consumer protection are the main credit institutions' regulation, the Consumer Credit Directive 2008/48/EC (CCD), and the Mortgage Credit Directive 2014/17/EU (MCD). In addition, general consumer protection legislation applies to consumer lending contracts. The Unfair Contract Terms Directive 93/13/EEC (UCTD) protects consumers against the use of unfair standard contract terms. Unfair terms are not binding for the consumer. Based on the UCTD, the Court of Justice of the European Union issued a number of important rulings during the last years, enhancing consumer protection against banks' unfair contract terms, in particular in mortgage loan contracts. Moreover, the Unfair Commercial Practices Directive 2005/29/EC (UCPD) protect consumers against misleading and aggressive commercial practices by financial services providers. The UCPD applies to all commercial practices before, during or after the transaction. These two Directives apply to both online and offline environments, and to all products, including financial services.<sup>39</sup>

Key consumer protection requirements in lending ensure that consumers: (i) understand the product they are purchasing before entering into the contract; (ii) are not confronted with standard contract terms in lending that are unfair; (iii) can afford to pay the loan back; and (iv) do not become subject to poor market practices. These requirements also aim to safeguard financial stability.

Transparency and access to information for consumers have been improved by obliging credit institutions to provide advertisements containing standardised information and standardised pre-contractual information. In the case of mortgage loans, the pre-contractual information should follow the form of a European Standardised Information Sheet (ESIS). In the case of consumer loans, they should follow the form of a Standard European Consumer Credit Information (SECCI). The ESIS and SECCI, together with the Annual Percentage Rate of Charge (APRC), enshrined in MCD and CCD as compulsory information, allow consumers to compare loan offers. For consumer credits, those standards were introduced in 2008 and have been binding since June 2010. For mortgage credits the standards were introduced in 2014 and have been binding since March 2016. They apply to EU and EEA Member States.

Creditworthiness assessments protect lenders from non-performing loans and borrowers from over-indebtedness. A standardised and harmonised assessment of creditworthiness could facilitate cross-border lending, leading to lower prices, and more choice for consumers. The MCD, together with EBA guidelines for creditworthiness assessments, provides for rather detailed requirements for these assessments. Article 8 of the CCD provides that consumer's creditworthiness must be based on sufficient information. However, 'sufficient information' is not defined in more detail at EU level. So, the assessment of unsecured consumer credit is carried out differently across Member States. The Commission services are currently assessing the need to introduce more detailed creditworthiness assessment standards and principles in the area of consumer credit.

Also, data used for creditworthiness assessments differs across the EU, making it difficult to collect the required information from other countries. This is the case despite the MCD and CCD granting creditors non-discriminatory access to credit registers' databases in other Member States. Therefore, to facilitate cross-border lending, the Commission services are looking into developing a minimum set of data to be exchanged between credit registers across borders.

Given the transparency and other consumer protection requirements, effective supervision and enforcement are central to ensure that these requirements are met in practice. Traditional lenders, such as banks and mortgage intermediaries, are regulated and authorised firms and are subject to supervision. Member States are obliged to ensure that all consumer credit providers are supervised or regulated. In recent years, the online lending market has developed quickly, with new types of organisations, e.g. peer-to-peer lending platforms, offering unsecured loans to consumers. These new developments pose a challenge for existing EU legislation, given that currently these new business models do not fall under harmonised registration/authorisation or financial supervisory requirements. This creates uncertainty for consumers as to which requirements apply and which supervisors are monitoring the activities of these firms.

The Commission services are now seeking to better understand the changes in this market and to explore ways of giving borrowers easier access to loans across borders, notably by making online lending easier, while fostering a high level of consumer protection.<sup>40</sup>

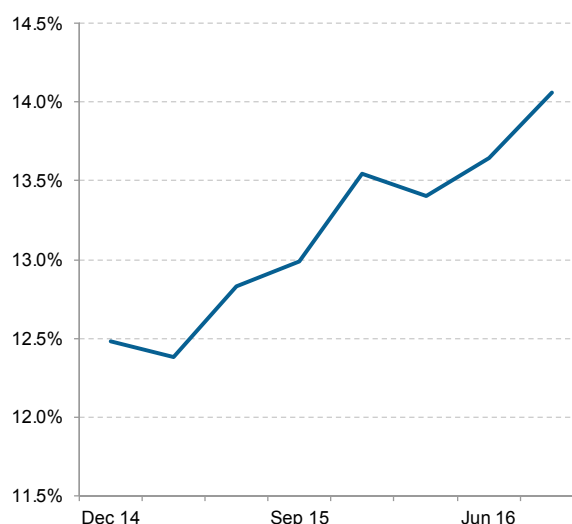
The euro repo rates remain lower than the ECB's deposit facility rate as some counterparties borrow euros on the foreign exchange swap market at levels significantly below the ECB deposit facility rate. These are then lent in repo markets at higher rates, closer to the deposit facility rate. Elevated volatility in repo rates persisted around dates for balance sheet reporting, reflecting supply-demand imbalances in the market for high-quality collateral.

Despite a favourable impact on borrowing costs, the low and negative level of short-term interest rates has weighed on lending and borrowing activity in interbank markets. Unsecured EONIA daily trading volumes have fallen from close to EUR 30 billion in 2014 to just above EUR 10 billion in 2017 (see Chart 2.16). A similar trend can be observed in terms of secured lending volumes in the repo markets.

Any systemic implications of the recent weakness in bank share prices were also limited. Over the past few years, banks have significantly strengthened their balance sheets and built up resilience to adverse shocks. Illustrating these positive changes, the CET1 ratio has increased by 50 bps to 14.1% in Q3 2016 thanks to both an increase in capital and a decrease in risk-weighted assets. Euro-area banks' leverage ratios also continued to improve, rising to 5.7% in June 2016 from 5.5% six months earlier.<sup>41</sup>

The enhanced bank solvency and resilience have also been confirmed by the overall comforting results of the EU-wide stress test published in the summer of 2016. The EBA's 2016 EU-wide stress test and transparency exercise revealed that the average fully loaded common equity Tier 1 capital stood at 13.4% in significant institutions in the euro area. The capacity of banks to further shore up their capital buffer is nevertheless hampered by low profitability, limiting organic capital generation, and by their low market valuation, making equity capital very expensive.

**Chart 2.17: EU banks' CET1 ratio, weighted average**



Source: EBA

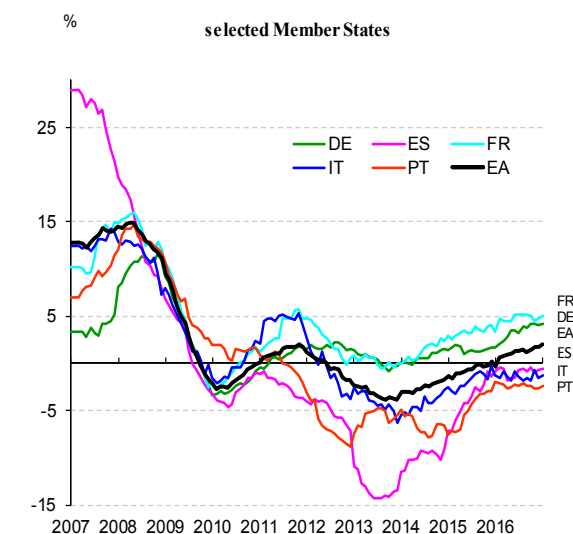
## 2.7 Recent trends in bank credit

Along with constantly improving bank resilience, and despite the profitability challenges faced by some banks, net lending flows to households and non-financial corporations (NFCs) continued to be positive over the last year, leading to a further rise in the annual growth rate of loans to the private sector. For the whole euro area, the annual growth rate of MFI loans to the private sector (adjusted for loan sales and securitisation) increased to 2.3% in 2016 from 0.4% in 2015. In particular, the annual growth rate of adjusted loans to households stood at

<sup>41</sup> The median of euro-area significant banks.

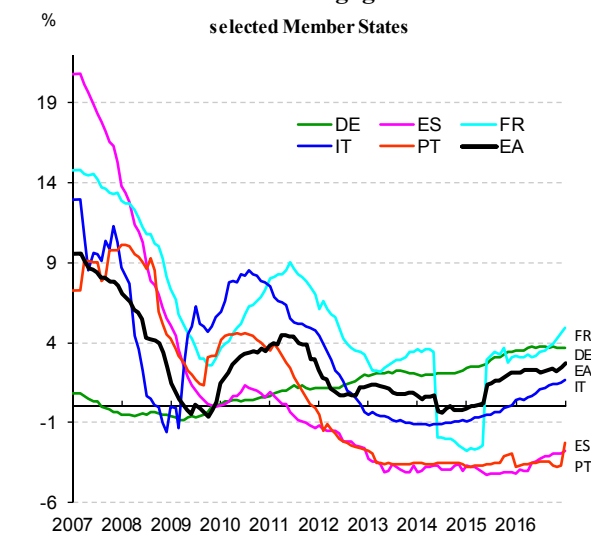
2.0% in 2016, up from 1.4% in 2015. Meanwhile the annual growth rate of adjusted loans to non-financial corporations (NFCs) increased to 2.3% in 2016 from 0.3% in 2015.

**Chart 2.18: Growth of credit to NFCs**



Source: ECB

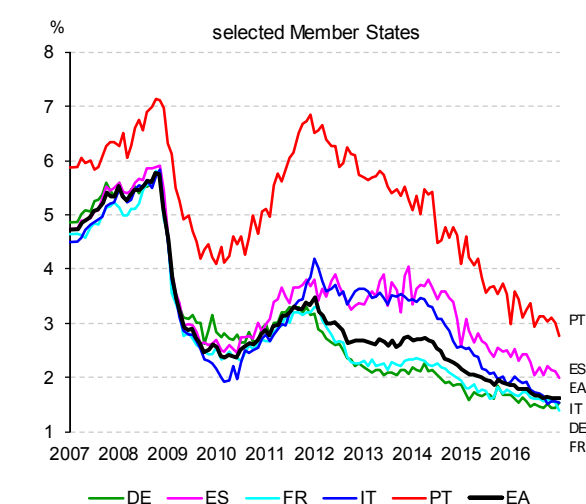
**Chart 2.19: Growth of mortgage credit**



Source: ECB

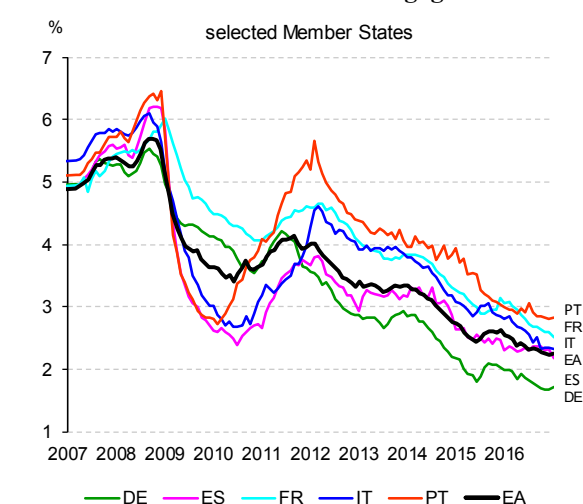
The positive trends in bank lending were supported by persistent low interest rates for NFCs and households across euro-area Member States, suggesting an efficient transmission of the accommodative monetary policy of the ECB through the euro-area banking system. Euro-area banks have been further lowering interest rates to NFCs and households over the past year, which contributed to the gradual recovery in lending volumes in the euro area. However, differences remain across euro-area Member States with higher interest rates for some countries. Such differences could partly explain the still uneven recovery in lending volumes.

**Chart 2.20: Interest rates on loans to NFCs**



Source: ECB

**Chart 2.21: Interest rates on mortgage credit**



Source: ECB

In Spain and Portugal, credit to NFCs is still shrinking year-on-year, while interest rates are at higher levels than in other euro-area Member States. Italian credit to NFCs has continued to shrink despite low levels of interest rates. This could be explained by other factors on the supply side such as high NPLs or lower demand compared with the euro area's average.



Declining interest rates have also contributed to increased bank lending activity, either via the provision of new loans or through renegotiation of existing credits. Rising business volumes

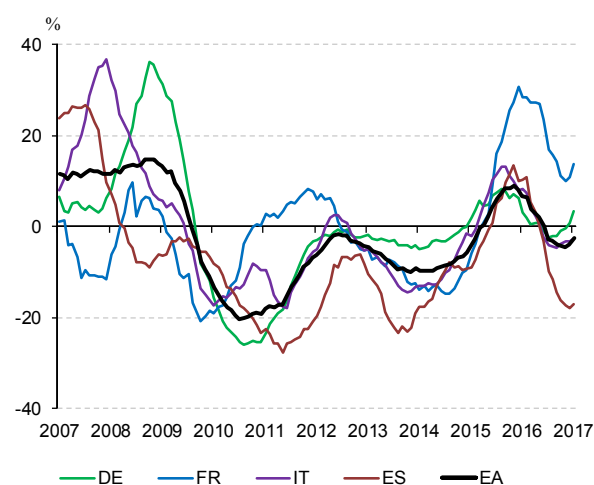
are a sign that businesses and households took advantage of the improved price conditions by either taking new loans or getting a reset of interest rates at lower levels. This activity was particularly buoyant one year ago (end 2015–early 2016) and took place in most euro-area countries. Mechanically, the activity decreased somewhat compared with a year ago, as NFCs and households perceived fewer opportunities with a slower pace of interest rates declines.

The latest results from the relevant surveys confirm the positive trends in bank lending. The ECB’s latest bank lending survey released in January 2017 indicates that

credit standards in the euro area tightened marginally for non-financial corporations (NFCs) while remaining broadly unchanged for housing loans and continuing to ease for consumer credit. Easing credit standards for consumer might entail a risk if credit is extended to less credit worthy households. Noteworthy though, the slight tightening for corporate credit is due to one country in particular, the Netherlands. Meanwhile, loan demand continued to improve for all loan categories, further supporting the credit growth for corporations and households. For the first quarter of 2017, banks covered by the latest bank lending survey expect a net easing of credit standards across all loan categories and a further increase in net demand. The latest Survey on the Access to Finance of Enterprises (SAFE) takes a corporate perspective and confirms the views of banks expressed in the latest bank lending survey.<sup>42</sup> It signalled a further improvement in the availability of external sources of finance and in particular an increased willingness of banks to provide credit at lower interest rates. As in previous survey rounds, small and medium-sized enterprises (SMEs) in the euro area considered that finding customers remains the dominant concern while access to finance was the least important problem that they faced.

Looking forward, the situation in the banking sector will continue to be of importance for credit supply, particularly in some Member States where banks face balance sheet constraints and funding pressures. Overall, however, euro-area banks have further improved their capacity to support lending, as they continued to adjust to regulatory and supervisory actions by further strengthening their capital positions and reducing the risk on their balance sheets. In addition, the ECB’s policies continue to help banks by offering attractive price conditions for their funding. Meanwhile, demand for credit is picking up across all euro-area countries. This should enable credit volumes to rise further, tracing the economic cycle.

**Chart 2.22: Loans to NFCs–volumes, y-o-y growth**



Source: ECB

<sup>42</sup> The latest SAFE survey was released in November 2016 and covers April to September 2016 (see ECB, 2016b).

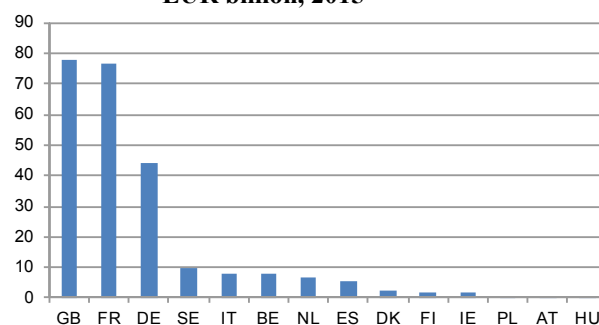
In summary, there are challenges and uncertain prospects for some parts of the European banking sector, and that might bear important repercussions for the European economy. The combination of continued low interest rates and high bank operational costs creates the risk of further compressed bank profit margins. Low market expectations of future bank profitability may put further downward pressure on bank stock prices, raising banks' cost of equity and increasing the cost of external funding. Taken together, these trends may make it more expensive for banks to fund new lending.

Despite the profitability challenges, EU banks have proven resilient and well capitalised, and no significant slowdown in lending activities has been observed. In fact, recent bank lending surveys show positive developments in credit conditions across the EU.<sup>43</sup> This suggests that many banks have been able to adjust relatively well to the changing business conditions. Substantial cost rationalisation, through branch reductions, consolidation initiatives and effective use of innovative technologies to streamline business processes, as well as income diversification, have been observed across the EU.<sup>44</sup> These trends must continue to secure a sustainable and healthy EU banking sector, while giving sufficient attention to ensuring financial stability as well as an adequately high level of consumer protection (see Box 3). Alongside these developments, it is crucial to reduce the dependency on banks by diversifying the sources of funding available to the European economy through completing the actions that are part of the Capital Markets Union (CMU).

#### **Box 4: Level III assets — What are they and what do they do?**

Level III assets are assets that do not have directly or indirectly (similar assets) observable market quotations. Those are mainly assets that at the measurement date no longer are traded on the secondary market. For instance, this category includes some securitised products, like those sold just before the financial crisis, which no longer have a market price or similar assets traded on secondary markets. According to IFRS 13, the entity, in this case a credit institution, would use all the necessary information (including own data) and reasonable assumptions to give those assets a fair value. Therefore, in good times, level III assets tend to shrink, due to favourable market circumstances that can make optimistic assumptions more 'reasonable'. In bad times, though, their fair value can quickly drop, as these reasonable assumptions are less tenable in worsening market conditions. The illiquid nature of those assets (lack of publicly available inputs) does not grant them any role as liquid assets for the Liquidity Coverage Ratio (LCR) treatment. In addition, on top of the standard capital requirements, determined according to the book they are in (trading or banking) and the type of counterpart, level III assets are generally subject to a required stable funding factor of either 50% or 85% for the Net Stable Funding Ratio

**Chart B4.1: Level III assets, top 50 EU banks, EUR billion, 2015**



Source: SNL Financial and own calculations

Note: Selection of the top 50 banks that participated in the EBA Stress Test 2016. Data for Raiffeisen Bankengruppe, NV Bk Nederlandse Gemeenten, NRW.BANK and Volkswagen Financial Svcs AG were not available.

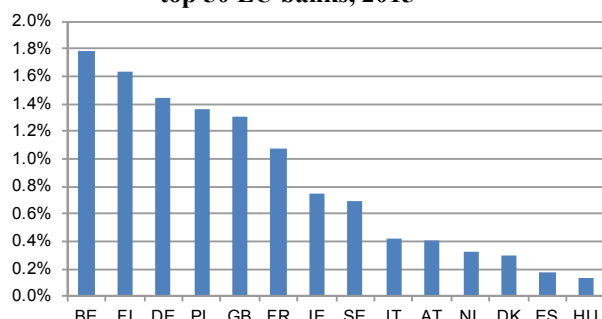
<sup>43</sup> For more details see : Results of the April 2017 euro area bank lending survey, Press Release, ECB, 25 April 2017

<sup>44</sup> Approximately 35% of the banks participating in the EBA risk assessment questionnaire mentioned reducing operating expenses as a primary target area for cost reduction, followed closely by impairments. More than 80% of banks whose main priority is to cut costs plan to focus on reducing staff costs and increasing automation.

(respectively, if maturity is below or above 1 year).

The 50 largest banks in the EU held EUR 245 billion in level III assets in 2015.<sup>45</sup> Level III assets are mainly concentrated in the UK and France, followed by Germany (see Chart B4.1), as these countries host the largest investment banks that have mainly dealt with illiquid assets during and after the crisis.

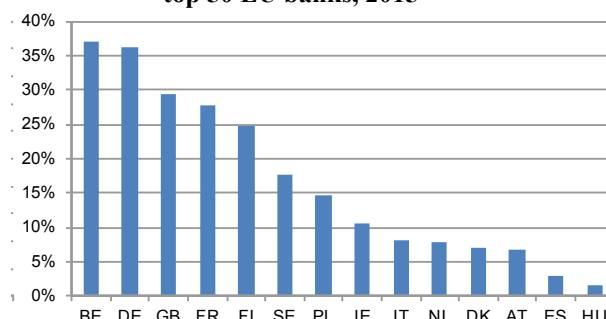
**Chart B4.2: Level III assets, in % of total assets, top 50 EU banks, 2015**



Source: SNL Financial and own calculations

Note: Selection of the top 50 banks that participated in the EBA Stress Test 2016. Data for Raiffeisen Bankengruppe, NV Bk Nederlandse Gemeenten, NRW.BANK and Volkswagen Financial Svcs AG were not available.

**Chart B4.3: Level III assets, in % of CET1, top 50 EU banks, 2015**



Source: SNL Financial and own calculations

Note: Selection of the top 50 banks that participated in the EBA Stress Test 2016. Data for Raiffeisen Bankengruppe, NV Bk Nederlandse Gemeenten, NRW.BANK and Volkswagen Financial Svcs AG were not available.

In relative terms, level III assets represent a smaller proportion of the overall balance sheet of EU banks, but there are differences across national banking sectors. On average, level III assets represent less than 1% of total assets and less than 10% of CET1, but they are more concentrated in a handful of countries, including Belgium, Finland, Germany, Poland and the UK (see Chart 4.2). Relative to capital, the proportion of level III assets can be significant. Indeed, it represents roughly 25% of CET1 in Belgium, Germany, the UK, France and Finland (see Chart 4.3).

At the level of individual banks, there are a few that hold significant amounts of level III assets. In particular, at the end of 2015, level III assets were between 40% and 90% of CET1 for Barclays, Deutsche Bank, DekaBank and Belfius.<sup>46</sup> In effect, the presence of level III assets is linked to the business model of the bank. Banks with strong wholesale or investment operations tend to have a larger proportion of level III assets than predominantly retail banks. This may call for targeted monitoring actions based on the actual business model of the financial institution to reduce the procyclicality issue embedded in this type of exposure.

<sup>45</sup> The sample of banks corresponds to the ones covered by the EBA Stress Test 2016. However, Data on level III assets were unavailable for Raiffeisen Bankengruppe, NV Bk Nederlandse Gemeenten, NRW.BANK and Volkswagen Financial Svcs AG.

<sup>46</sup> See EBA Stress Test (2016).

### **Chapter 3 CAPITAL MARKETS AND INSURANCE**

This chapter reviews recent developments in equity and fixed income markets, discusses the importance of investment funds, as well as the role of alternative finance and the insurance sector.

European equity markets performed well despite challenging market conditions. Share prices increased, supported by low interest rates, while dividend yields fell, even if they remained substantially higher than the return on most fixed-income securities. Equity issuance and the merger and acquisitions (M&A) market showed diverging trends in 2016. Equity issuance — less supported by bank issuing equity to rebalance their balance sheet — shrank, while there was a significant increase in intra-European M&As, largely owing to two major acquisitions in the Food and Beverage and Oil and Gas sectors.

European debt markets evolved positively despite volatility outbursts caused by economic and political uncertainty and monetary policy developments. Corporate issuance continued to expand, with investors shifting their portfolio to bonds with longer maturities and higher credit risk in search of higher yields.

Assets under management by the European asset management industry, dominated by the UCITS<sup>47</sup> sector, increased by 4% in 2016. About 27% of total assets are invested in equity funds, compared to 24% and 21% in debt and mixed funds respectively. Pension funds increased their assets under management by 90% over the period 2008-2015, supported by the recovery of the equity market and the increase in bond valuations.

Alternative funding like private equity, business angels, and crowdfunding showed good performance in 2015, with, for instance, crowdfunding gradually developing in a more mature market. Overall, the size of the EU alternative finance industry remains limited with alternative funding activities often strongly concentrated in a few countries. Positively, the overall access of small and medium-sized businesses to finance has continued to improve since the financial crisis.

The European insurance industry — the largest in the world — faced concerns about the effect of the low interest rate environment. This should not come as a surprise, knowing that fixed-income securities make up 60% of insurers' investment portfolio. With EUR 10 trillion of assets under management in 2015, insurance companies continue to be major institutional investors.

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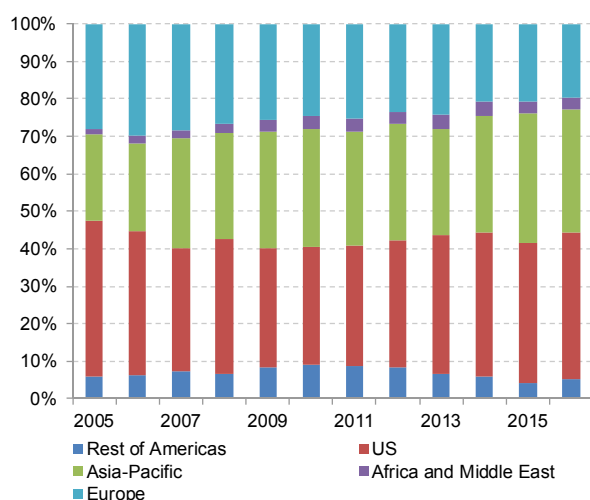
<sup>47</sup> UCITS refers to undertakings for the collective investment in transferable securities.

## 3.1 Equity markets

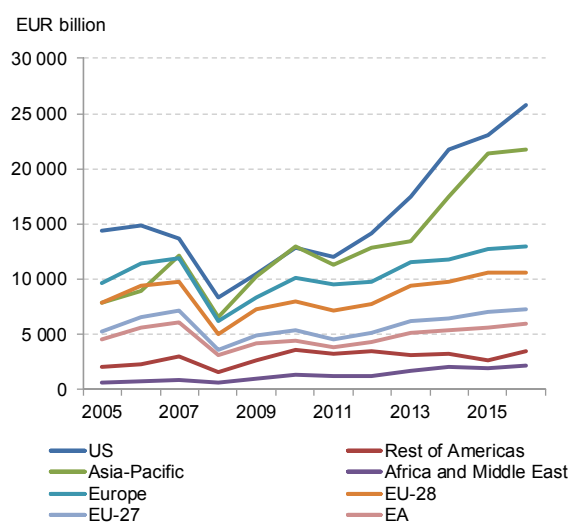
### 3.1.1 Relevance of EU equity markets in the world

The capitalisation in European equity markets has increased steadily in the past few years, just not as quickly as in some other markets. As a consequence, the relevance of European equity markets has diminished in the last decade.<sup>48</sup> The capitalisation of European equity markets represented almost 30% of global market capitalisation in 2005, whereas by 2016 it had declined to less than 20% (see Chart 3.1).<sup>49</sup> Since 2013, this relative decline has become more pronounced. Within Europe, the EU-28 has accounted for some 82% of the equity market capitalisation in the last decade, falling to 55%, if we consider the EU27 without the UK. Finally, the euro area accounts for 46% of European equity markets and less than 12% of world equity markets in the last decade (see Chart 3.2).

**Chart 3.1: Market shares in terms of stock market capitalisation, selected areas**



**Chart 3.2: Market capitalisation, selected areas**



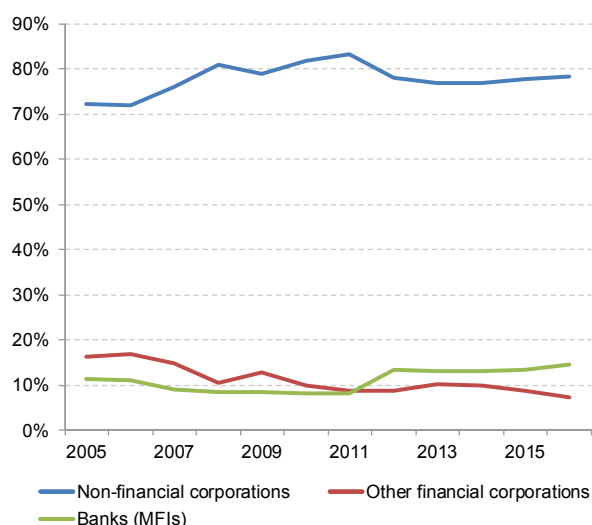
Source: ECB, Datastream, FESE, NASDAQ, LSE, WFE, and AFME

Non-financial corporations (NFCs) are the predominant issuers of equity, mainly in their domestic markets. In the last decade, the share of NFCs accounted for an average of 78% of total outstanding equity issuance, and this share is growing. Banks and other financial corporations account for the remaining share, with banks becoming more important relative to other financial corporations (see Charts 3.3 & 3.4). Globally, 94% of the listed companies were domestic, which implies that only 6% of all companies engage in cross-border equity listings. The EU and the US equity markets are the ones attracting most foreign companies. In the last decade, 42% of all cross-border company listings were recorded in the EU-28, while 27% were recorded in the US.

<sup>48</sup> In many Member States, non-listed equity is an important source of financing (see Chapter 1.3).

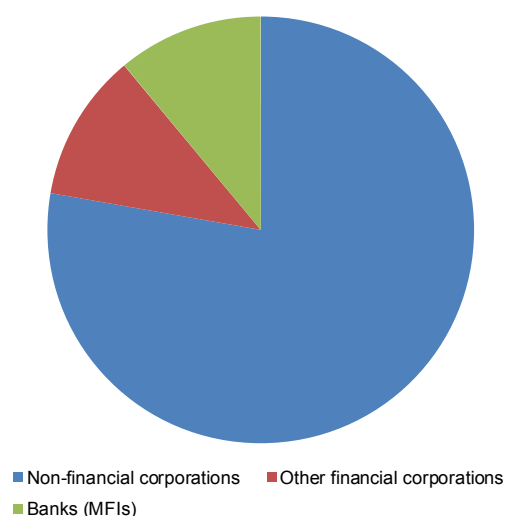
<sup>49</sup> European equity markets include those of the EU-28 countries as well as Belarus, Norway, Russia, Switzerland, Turkey, and Ukraine for which the World Federation of Exchanges provides information.

**Chart 3.3: Share of new issuance by issuer type, euro area**



Source: ECB, EFAMA, Dealogic

**Chart 3.4: Outstanding stocks (%) by issuer type, EA average 2005-2016**

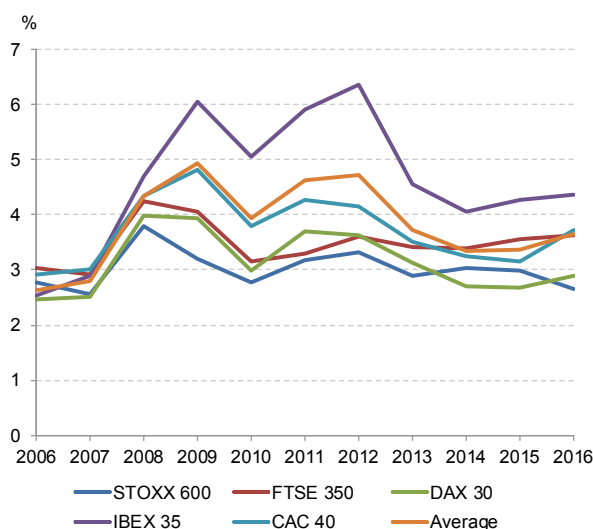


Source: ECB, EFAMA, Dealogic

### 3.1.2 EU equity markets performance

Dividend yields in EU equity markets declined in 2016, but remained substantially higher than yields on most fixed-income securities. The dividend yield in the STOXX600 index, which represents large, mid and small capitalisation companies across 17 EU Member States, has been on a declining trend since 2008. In particular, rising share prices, driven by low interest rates, have lowered dividend yields. The Spanish stock market consistently outperformed other main EU markets in terms of dividend yield. In 2016, the Spanish index IBEX35 reported a dividend yield of 4.4% (see Chart 3.5).

**Chart 3.5: Dividend yield, selected European indices**



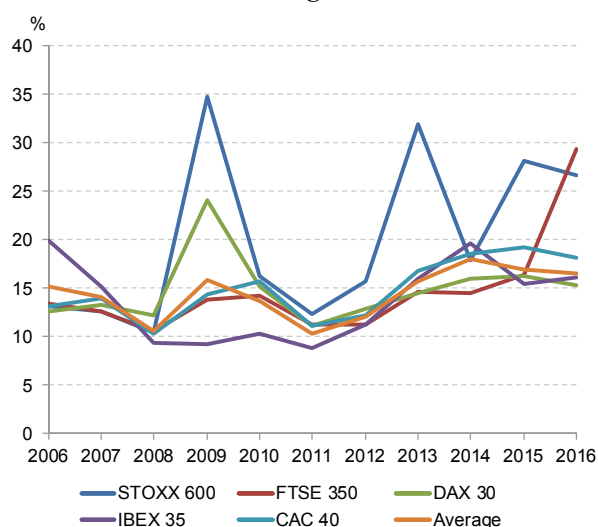
Source: ECB, EFAMA, Dealogic

The price-earnings ratio and the price-to-book value of the STOXX600 came down somewhat in 2016, but valuations are still high (see Charts 3.6 & 3.7). The STOXX600 index shows that equity valuations are high on European markets. Overall, conventional valuation measures show few signs of excessive risk-taking for European equity markets.<sup>50</sup> Stock markets have remained on the defensive, without moving in any clear direction. Political

<sup>50</sup> In comparison, US assets show signs of overvaluation, recently driven by optimistic assumptions about the prospects and impact of the new administration's announced pro-growth policy. Various measures (i.e. market capitalisation + debt - cash) / corporate gross value added and several price/earnings ratios) approach levels commensurable with those observed during previous bubbles.

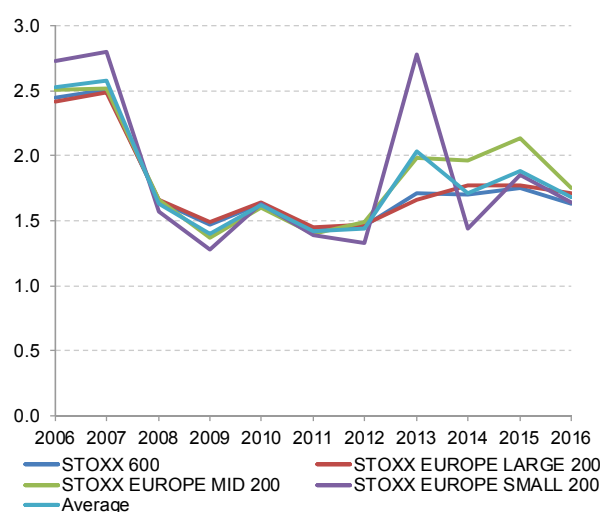
uncertainty and subdued corporate profits counterbalance the positive impact of the ongoing economic recovery and the search for yield by investors.

**Chart 3.6: Price-to-earnings ratio**



Source: ECB, EFAMA, Dealogic

**Chart 3.7: Price-to-book ratio**



Source: ECB, EFAMA, Dealogic

In terms of risks, emerging market shocks could affect equity markets globally, including the EU. This could happen if confidence eroded based on re-emerging uncertainty about emerging markets' growth prospects. Indeed, the sharp decline in Chinese equity markets in mid-2015 and early 2016 led to significant volatility across global markets, suggesting emerging markets have an increasing potential to trigger confidence and financial shocks that affect the global market. In particular, confidence shocks may prompt large portfolio reallocations and large price swings.

### 3.1.3 New equity issuance of financing companies

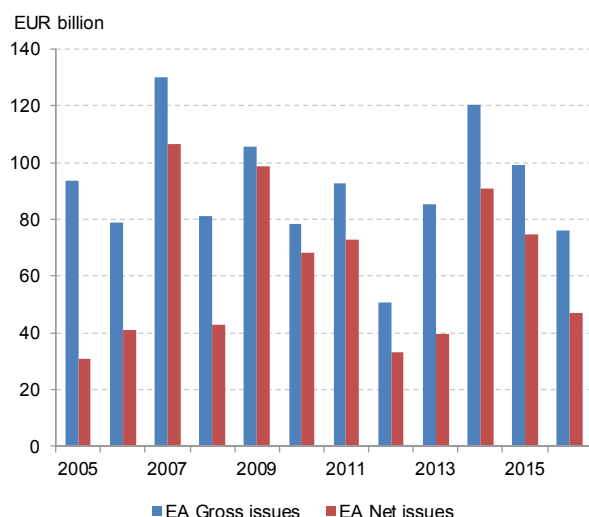
One of the main functions of equity markets is to make it easier to finance corporate investment projects.

Both gross and net issuances of shares have declined in the last year, partly because banks already had progressed in strengthening their balance sheets.<sup>51</sup> Gross issuance of equity in the euro area was more than EUR 76 billion in 2016 (see Chart 3.8), while in net terms, issuance was EUR 47 billion. New equity issuance in 2016 was below the ten-year average, both in gross and net terms. Non-financial corporations accounted for 70% of net equity issuance. The share of other financial corporations was 18%, and banks accounted for the remaining 12%. Bank issuance, which was the highest among all firms between 2010 and 2015, has declined significantly in the past couple of years. Banks' re-adjustment to lower issuance levels reflecting that they are close to completing the adjustment of their balance sheets in view of the new capital requirements introduced after the financial crisis (see Chart 3.9).

<sup>51</sup> Companies may not only issue new shares, but also redeem shares or delist. To properly account for this, one distinguishes between gross and net issuances.

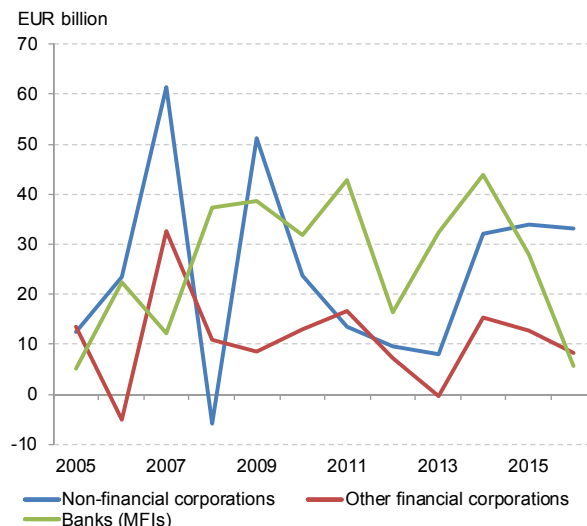


**Chart 3.8: Equity issuance, euro area**



Source: ECB

**Chart 3.9: Net equity issuance by issuer, euro area**



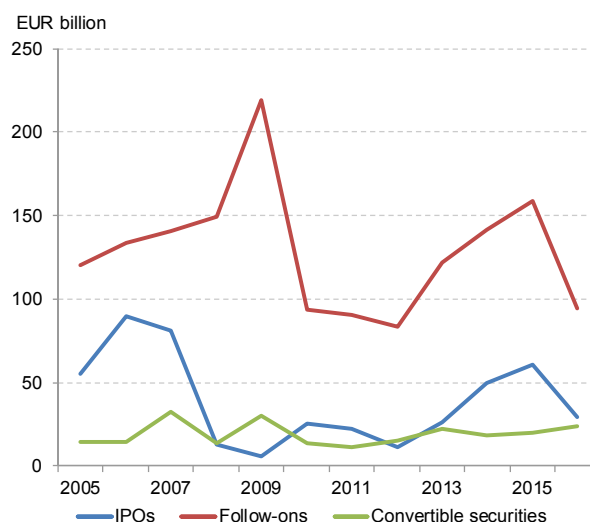
Source: ECB

### 3.1.4 Equity underwriting by type of asset

Equity underwriting totalled EUR 147 billion in 2016. Almost two thirds of underwritings were follow-on issues, another 20% were initial public offerings (IPOs), and the rest convertible securities (see Chart 3.10). Follow-on underwriting constitutes the bulk of the business every year.

On average, companies located in the euro area have issued 47% of the total amount of IPOs in euros. UK companies represent 27%, and companies located in other parts of the EU and the rest of the world make up the remaining quarter (see Chart 3.11). However, while IPO underwriting for UK firms is relatively stable, underwriting for companies in the euro area and other parts of the world has been more volatile. This volatility is illustrated by the share of corporate IPOs in the euro area increasing to over 60% in 2016, while the share of IPOs by firms located outside Europe became insignificant at around EUR 100 million (see Chart 3.12).

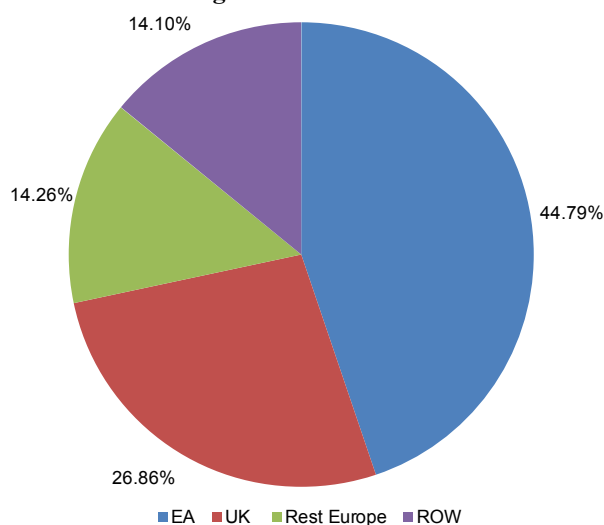
**Chart 3.10: Equity underwriting**



Source: Dealogic

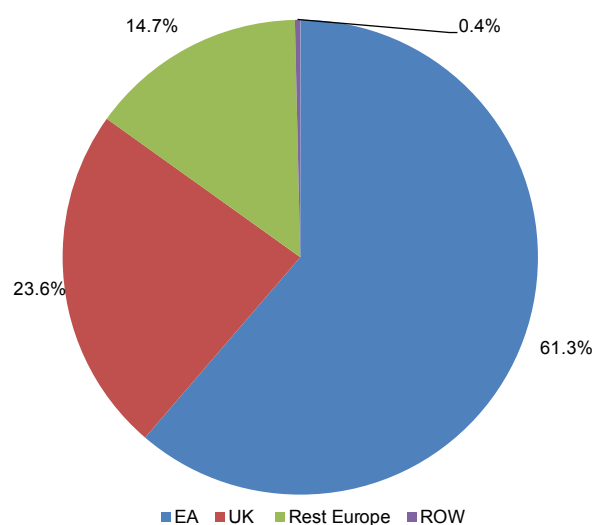


**Chart 3.11: IPOs by nationality of issuer; average value 2000-2016**



Source: Dealogic

**Chart 3.12: IPO value by nationality of issuer, 2016**

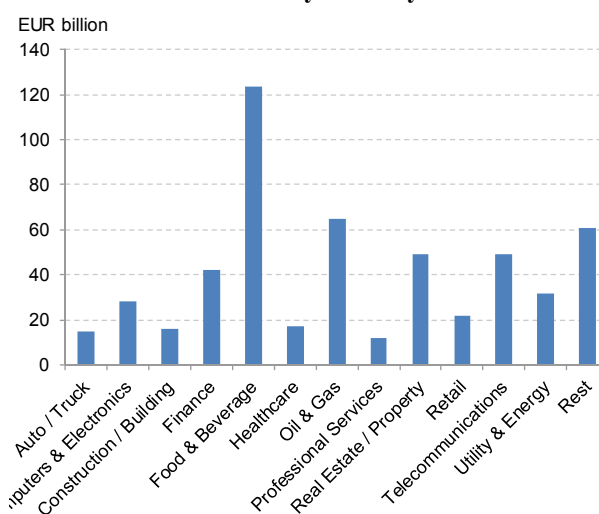


Source: Dealogic

### 3.1.5 European mergers and acquisitions

M&A activity has continued to recover globally after the crisis. M&A volume has been increasing since the low of 2012, when volumes were only EUR 267 billion. The volume of total deals increased by 19% in 2016, which was partly the result of two major acquisitions (Royal Dutch Shell bought the BG group, and Anheuser Busch acquired SAB Miller). As a consequence, the food and beverage and oil and gas industries accounted for the highest volumes of M&A in 2016 (see Chart 3.13). Intra-European deals account for EUR 531 billion out of EUR 1 013 billion of completed European M&A deals. In about 45% of non-intra-European deals, a European company bought a non-European company, and in the other 55% a non-European company acquired a European company.

**Chart 3.13: M&A deals by industry in 2016**



Source: Dealogic

The volume of intra-European M&As increased by 25% from 2015 to 2016. UK companies have been particularly active in this market, either as target companies or as buyers. By nationality of the target companies, almost half of all M&As involved UK companies (EUR 264 billion). Euro-area target companies constituted 45% of the deals, and the remaining 5% were companies located in the rest of Europe. Most of the acquiring firms were residing in the euro area and responsible for 77% of the value of all intra-European deals. The share of deals in which UK companies were the acquiring firm was 16%, and the companies in the rest of Europe accounted for the remaining 7%. 2016 was a year with an unusually high flow of intra-European M&As, where UK firms were bought by euro-area companies.

### 3.2 Fixed-income markets

Even though 2016 proved to be a difficult year, European fixed-income markets continued to perform well. In particular, (euro-denominated) corporate issuance continued to expand. In a search of yield, investors increased the risk level of their portfolio by shifting their investments to bonds with longer maturities and higher credit risk. Boundaries on the yield curve were indeed pushed ever further, with negative yields up to 12 years in German Bunds. Maturities were extended to new levels, as illustrated by the introduction of a new 70-year benchmark issue by Austria.

At the same time, the year was marked by several episodes of high volatility, driven by macro-economic shocks, political and monetary uncertainty. The combination of (ultra) low interest rates, elevated levels of volatility and high volumes was already steering markets in 2015. The strong volatility at the start of the year, usually an attractive window used by (frequent) issuers to frontload their funding programmes, caused the European corporate and high-yield markets to remain subdued until March. Sovereign issuers, even though less affected by such volatility spikes, also spread out their funding programme (somewhat) more evenly throughout the year.

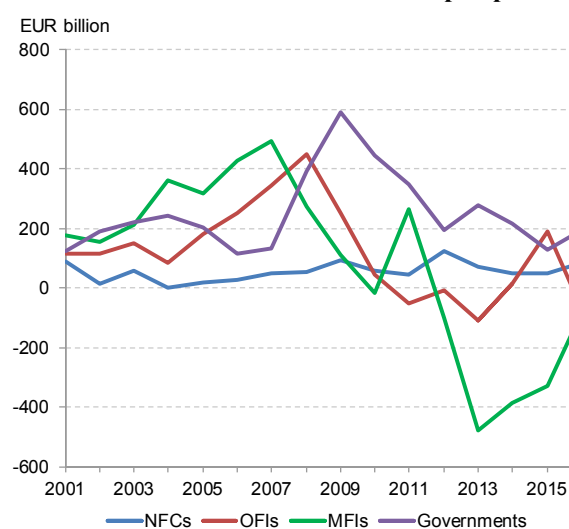
#### 3.2.2 Public sector

The market for public debt instruments (sovereigns, supra-nationals, agencies and local authorities) experienced considerable volatility in 2016. Net issuance rebounded from EUR 193 billion in 2015, which was the lowest since 2007 (see Chart 3.14). Net issuance in 2016 was EUR 193 billion (7% of euro-area GDP).

Central banks, primarily the ECB, the US Federal Reserve and the Bank of England continued to influence debt markets. Market participants generally welcomed the ECB's decision (March 2016) to undertake new stimulus measures (including extension and expansion of the public sector purchase programme and the corporate sector purchase programme, leading to a significant tightening of spreads and a flattening of yield curves.

Towards the end of the second quarter, investors became more risk averse, induced by the Federal Reserve's stated intention to raise interest rates and by the approaching date of the UK referendum on EU membership. The lower appetite for risk continued for most of the year. In this context, lower-risk instruments were performing well, as investors sought safe-haven assets to safeguard their investments. As a result, for example, the yields on 10-year German Bunds reached all-time lows, crossing the zero bound to attain a new record low of -0.19% in July (see Charts 3.15 & 3.16). At a certain point, the German yield curve

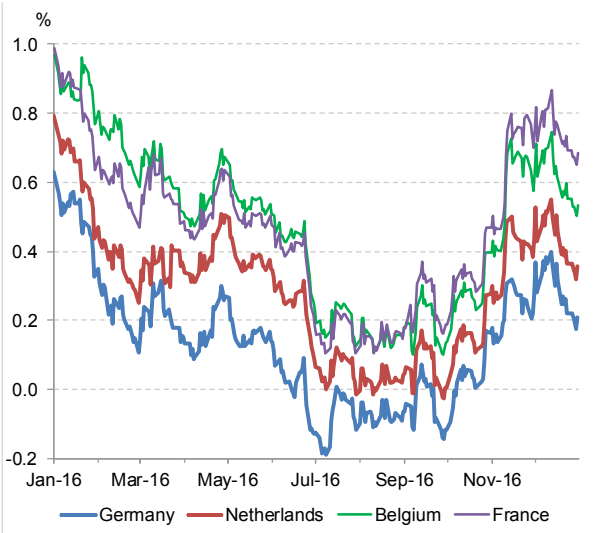
**Chart 3.14: Net issuance in historical perspective**



Source: ECB SDW and own calculations

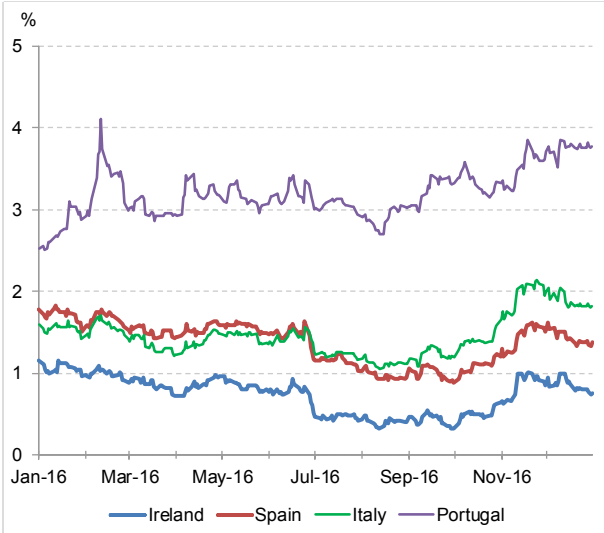
exhibited negative yields up to a maturity of 12 years. Globally, the total amount of outstanding sovereign debt with negative yields reached no less than EUR 11 trillion by the end of the first half of 2016. The amount fell towards the end of the year, falling below EUR 9 trillion.

Chart 3.15: 10-year benchmark yield



Source: Thomson Reuters DFO and Eikon

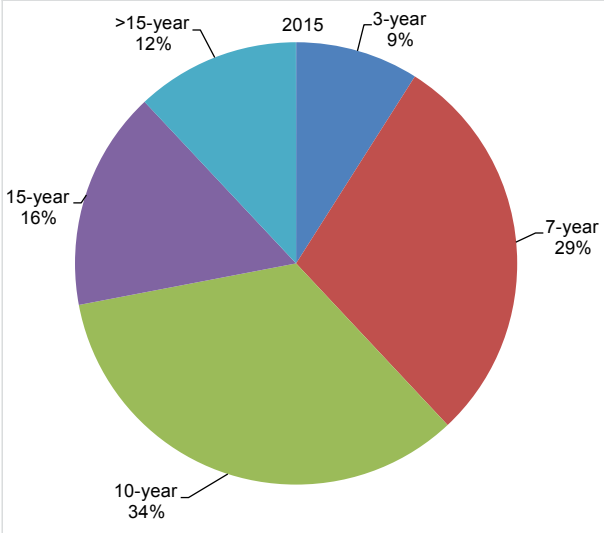
Chart 3.16: 10-year benchmark yield



Source: Thomson Reuters DFO and Eikon

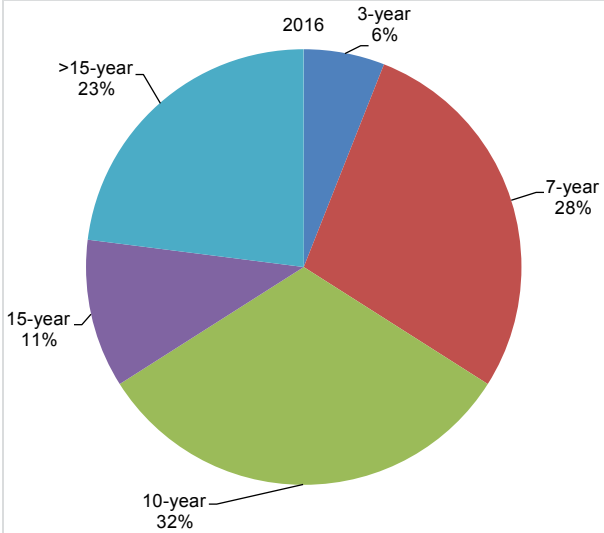
In general, sovereigns frontloaded their issuance less in 2016 than in 2015, reflecting lower funding needs due to budgetary consolidation. In view of low rates and cheap funding costs and with the public sector purchase programme on track until March 2017 (at the least) — strongly supporting the primary market — issuance has been progressively spread throughout the year.

Chart 3.17: EA public debt maturity in 2015



Source: Dealogic and own calculations

Chart 3.18: EA public debt maturity in 2016



Source: Dealogic and own calculations

The supply of bonds by sovereigns remained heavily skewed towards (ultra) long maturities, as issuers continued to exploit the historically low interest rate environment to lengthen their maturity profile (see Charts 3.17 & 3.18). Issuers capitalised on investors’ search for yield to secure long-dated financing at attractive funding costs. Building on solid demand at the ultra-

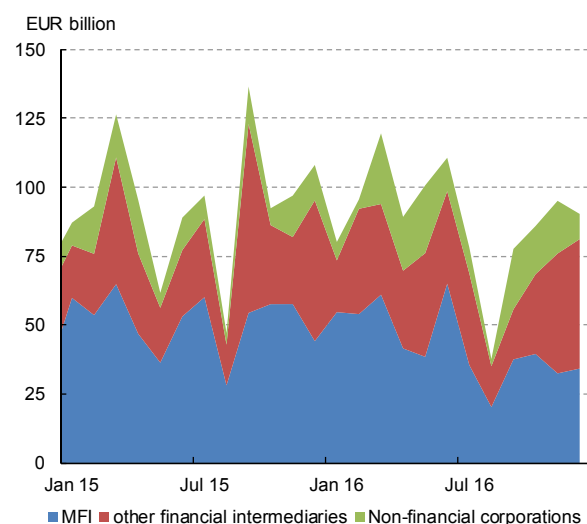
long end of the curve, some countries — Belgium, France and Spain — successfully issued a new 50-year benchmark. This was possible with the support of a large range of high-quality institutional investors, large redemption flows (particularly in the second quarter), and attractive pricing. Belgium and Ireland even issued 100-year papers in smaller private placements of EUR 100 million each. Italy also joined the league of ultra-long issuers, by issuing EUR 5 billion of its first 50-year syndication (while demand surpassed EUR 18.5 billion). Austria joined in pushing the boundaries of fixed maturity duration sovereign bonds ever further by issuing a new 70-year benchmark (issue size of EUR 2 billion). As a result, ultra-long dated bonds have become an important asset class.

### 3.2.3 Non-financial corporations

2016 was also a remarkable year for corporate issuers, with tight spreads and low premiums. Even though the corporate bond market experienced several bouts of elevated volatility, credit spreads were the tightest ever, premiums for new issues were very low, and investors' appetite remained strong.

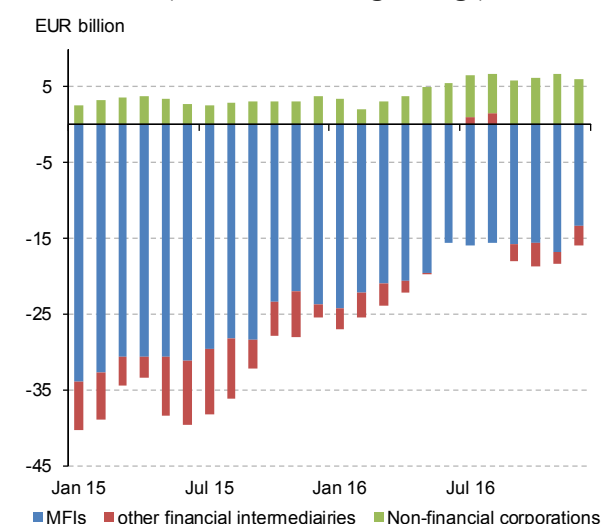
Total gross corporate issuance in 2016 was EUR 534 billion, down slightly from 2015 (see Chart 3.19). Net issuance increased substantially from the previous year and amounted to EUR 84 billion in 2016 compared to EUR 50 billion in 2015. Net issuance of private euro-denominated long-term debt securities has been persistently positive, contrasting with other types of issuance (see Chart 3.20).

**Chart 3.19: Gross issuance of private euro-denominated long-term debt securities**



Source: ECB / Thomson Reuters DFO and Eikon

**Chart 3.20: Net issuance of private euro-denominated long-term debt securities (12-months moving average)**



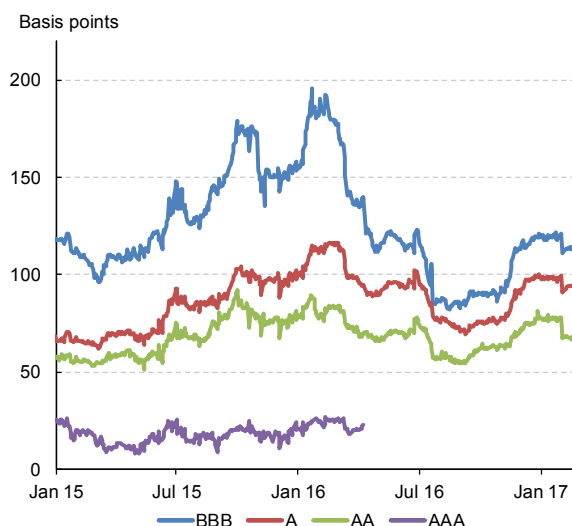
Source: ECB / Thomson Reuters DFO and Eikon

Amid several geopolitical and macro-economic shocks in 2016, NFC issuance volumes were supported by an environment of ultra-low interest rates, enduring continued bank disintermediation, as well as robust refinancing activity for M&As. The ECB's announcement of additional monetary policy measures in March included an expansion of the asset purchase programme (including corporate bonds), which changed the conditions for euro-denominated debt markets. ECB purchases of eligible corporate bonds in both secondary and primary markets also had an impact. Aggregate corporate spreads narrowed significantly — notably

for lower-rated issuance — in the months following the ECB announcement (see Chart 3.21). Primary market activity picked up substantially following the ECB announcement, driven also by NFCs reinforcing their liability management by capitalising on low interest rates. The most prominent primary-market issuances occurred in the context of M&As.

Issuance volumes were strong across all credit buckets. Total (euro-denominated) issuance volume of investment-grade bonds was EUR 285 billion in 2016 and exceeded the issuance of EUR 239 billion in 2015. The high-yield market steadily recovered from a poor start of the year, with a healthy increase in volumes reaching EUR 57 billion in 2016 compared to EUR 55 billion in 2015. Spreads in the high-yield segment fell below their long-term averages, in spite of weak fundamental data and slow earnings growth. The improving market sentiment encouraged many issuers to exploit the low interest rates, which in turn stimulated investor appetite for higher yielding assets. Most corporate issuance was at the long end of the curve, with over one third having a maturity of at least 10 years, again reflecting a search for yield. NFCs are thus significantly altering the maturity structure of their corporate debt. The resulting extension in their debt maturity profile could hold implications for growth opportunities, particularly considering the risks posed by debt overhang in terms of underinvestment in the future.

**Chart 3.21: Euro-area corporate bond spreads**



Source: Thomson Reuters DFO

Note: The AAA index is currently not updated due to the lack of qualifying corporate bonds required for the index.

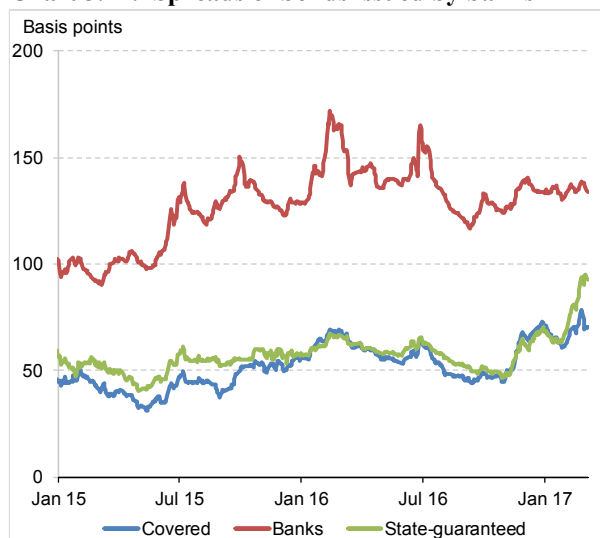
### **3.2.4 Monetary and financial institutions**

Funding activity (volumes as well as patterns) of monetary and financial institutions (MFIs) has been impacted specifically by the volatility in interest rates, currency exchange rates, and credit spreads. Moreover, market-based funding needs have diminished particularly in the EU, mainly due to the cost-efficient funding offered by central banks. Bank funding via deposits has also been strong despite very low retail deposit interest rates.

MFI issuance of bonds has been adjusted to minimise liquidity reserves as much as possible. Issuance plans have also been geared towards strengthening capital buffers to fulfil regulatory requirements, although the issuance of subordinated debt seems to have stalled, pending finalisation of the relevant legislative proposals on bank resolution.

Gross issuance of bonds by MFIs in 2016 was EUR 2 298 billion, down from EUR 2 645 billion in 2015. Net issuance remained negative, but rebounded substantially from EUR -330 billion in 2015 to EUR -84 billion in 2016. Net issuance has been persistently negative in recent years and is gradually recovering from the low in 2013, following the sovereign debt crisis. Alongside this recovery in issuance, there has also been a visible improvement in the spreads for MFI bonds and credit default swaps (see Chart 3.22).

**Chart 3.22: Spreads of bonds issued by banks**



Source: Thomson Reuters Eikon / Markit Iboxx

In an environment of elevated volatility, suitable issuance windows have been few and short. The distribution of issuance volumes has been linked to risk perceptions, determining the relative suitability of different debt instruments. MFIs have adjusted their strategies accordingly, by frontloading covered bond issuance in the first half of the year when market conditions were less favourable. Less defensive issuances were postponed until markets stabilised. As such, when the environment was more favourable to riskier instruments, issuers focused on senior unsecured debt.

As in the past few years, regulation and higher capital requirements for financial institutions have continued to influence the market for senior unsecured debt in 2016. For banks, the Minimum Requirement for Own Funds and Eligible Liabilities (MREL) and the Total Loss-Absorbing Capacity (TLAC) requirements play a crucial role in their capital planning. Last year banks were still waiting for the final implementation framework and required levels. Nevertheless, they are searching for the most cost effective ways to build up the envisaged capital buffers.