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COMMISSION STAFF WORKING DOCUMENT

European Financial Stability and Integration Review, April 2015

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.

TABLE OF CONTENTS

Preface	5
Acknowledgments	6
Executive Summary	7
CHAPTER 1. MARKET DEVELOPMENTS	9
1. Introduction	9
2. Macroeconomic and financial landscape	9
2.1. <i>Return to economic growth?</i>	9
2.2. <i>Public accounts</i>	11
2.3. <i>Interconnectedness and financial stability</i>	11
2.4. <i>Confidence in the markets and in the broader economy</i>	13
2.5. <i>Sovereign debt markets</i>	13
3. Credit provided through bank intermediations: loans	15
3.1. <i>Volume of loans</i>	15
3.2. <i>Flow of loans</i>	16
3.3. <i>Interaction of credit supply and demand factors</i>	16
3.4. <i>Solvency and asset quality</i>	17
3.5. <i>Leverage</i>	18
3.6. <i>Overall provision of funding by banks</i>	20
4. Credit obtained through bonds	20
4.1. <i>Bond volumes</i>	20
4.2. <i>Net issues of bonds</i>	21
4.3. <i>Market developments in bond markets</i>	22
5. Capital obtained through quoted shares	22
5.1. <i>Volumes: market capitalisation of quoted shares</i>	22
5.2. <i>Net issues of quoted shares</i>	22
5.3. <i>Market developments in equity markets</i>	23
6. Conclusions	24
Annex: Additional charts and tables	24
CHAPTER 2. AN OVERVIEW OF THE EUROPEAN FINANCIAL SYSTEM	34
1. Introduction	34
1.1. <i>The European financial system: an overview</i>	34
1.2. <i>Financing as inter-temporal transfer of value</i>	36
2. Who? Providers and users of financing: the institutional sectors	36
2.1. <i>The flow of funds in the economy</i>	36
2.2. <i>The size of the institutional sectors: aggregate analysis</i>	37
2.3. <i>Institutional sectors: country analysis</i>	40
2.4. <i>Institutional sectors' dynamics</i>	42
3. What? Products and instruments	44
3.1. <i>Provision of funds: instruments from the assets point of view</i>	45
3.2. <i>Sources of financing: instruments from the liabilities point of view</i>	47
Box A. Non-financial assets and the investment plan for Europe	50
3.3. <i>Instruments and products: country analysis</i>	51
3.4. <i>Products and instruments' dynamics</i>	55
Box B. Comparisons with the US	59
4. Financial intermediation	61
4.1. <i>Financial intermediation: an overview</i>	62
4.2. <i>Credit institutions</i>	63
Box C. Interlinkages between banks and governments	67

Box D. Size of financial institutions: comparison against NFCs	69
4.3. <i>Insurance corporations and pension funds (ICPFs)</i>	71
4.4. <i>Other financial intermediaries (OFIs)</i>	73
4.5. <i>Interconnectedness and complexity within the financial sector</i>	84
5. Direct financing through debt and equity capital markets	86
5.1. <i>Bond markets</i>	87
Box E. Bonds and bond issuers in the EU and the US: main features	92
5.2. <i>Stock markets</i>	95
Box F. Quoted vs non-quoted companies. Main features	97
6. Direct financing beyond capital markets	100
6.1. <i>The financing mix of non-financial corporations</i>	100
6.2. <i>Interconnections within the economy</i>	101
6.3. <i>Crowdfunding</i>	104
7. Conclusions	105
Annex: Additional charts and tables	107
CHAPTER 3. SPECIAL FOCUS ON PRIVATE DEBT OVERHANG	114
1. Introduction	114
Box A. High indebtedness: definition and measurement	114
2. Historical background and magnitude of the problem	115
3. The debt overhang of households and NFCs	118
3.1. <i>Credit expansion and crunch: impact on households and NFCs</i>	118
3.2. <i>The non-financial corporation sector</i>	120
3.3. <i>The household sector</i>	123
Box B: Foreign-currency mortgage loans	125
4. Consequences	129
5. The way forward: how to proceed?	130
5.1. <i>Macroeconomic level</i>	130
5.2. <i>Microeconomic level</i>	132
5.3. <i>The non-financial corporation sector</i>	134
5.4. <i>The household sector</i>	135
6. Future: avoiding new debt build-up	136
CHAPTER 4. SPECIAL FOCUS ON LONGEVITY RISK	140
1. Introduction	140
1.1. <i>The single market dimension of international risk sharing</i>	141
2. Democratising finance	142
2.1. <i>The risk-managing problem of the individual</i>	142
2.2. <i>The risk-managing problem of the government</i>	144
2.3. <i>Risk sharing on the balance sheet of intermediaries</i>	146
3. Two major and interconnected risks facing private households	146
3.1. <i>Housing equity</i>	147
3.2. <i>Longevity risk</i>	149
4. Conclusions	152
CHAPTER 5. SPECIAL FOCUS ON COMPETITION AND REGULATION	155
1. Introduction	155
2. Financial market regulation and competition enforcement	156
2.1. <i>Historical pendulum swings</i>	156
2.2. <i>Financial regulation should correct market and government failures</i>	157
2.3. <i>The perceived trade-off between competition and stability</i>	159
Box A. EU State-aid control by the Commission: assessing viability and financial stability	162

3.	How to assess if markets are functioning properly?	165
3.1.	<i>Measuring static and dynamic competition in the financial system</i>	165
Box B.	Evidence on gradually resurging competitive pressures in euro area bank lending	168
3.2.	<i>Measuring stability and systemic risk in the financial system</i>	169
4.	TBTF related competition and regulatory concerns	170
4.1.	<i>Adverse effects on competition, efficiency, market integrity and systemic risk</i>	170
4.2.	<i>Case studies of TBTF misconduct behaviour</i>	172
4.3.	<i>The response of public authorities to the scandals</i>	176
5.	Conclusions	178
CHAPTER 6. SPECIAL FOCUS ON CYBER SECURITY RISKS		180
1.	Introduction	180
2.	The cyber environment	181
2.1.	<i>What is the cyber environment?</i>	181
2.2.	<i>Developments in the cyber environment</i>	182
2.3.	<i>Actors in the cyber environment</i>	183
2.4.	<i>Techniques in the cyber environment</i>	184
3.	Cyber risk in companies	185
Box A.	Major cyber-attacks in non-financial companies	185
4.	Cyber risk in financial services	189
4.1.	<i>Facts and figures in financial services</i>	189
Box C.	Example of a cyber-attack in a market infrastructure	192
4.2.	<i>Governance and management of cyber-risks in financial institutions</i>	192
5.	Work in international organisations and regulatory bodies	194
5.1.	<i>Institutional set-up in the European Union</i>	194
5.2.	<i>Policy work at EU level on a cyber-security area</i>	195
5.3.	<i>Financial services regulatory requirements relevant to cyber security</i>	195
5.4.	<i>Cyber security initiatives at international level</i>	196
6.	Conclusions	197
CHAPTER 7. SPECIAL FOCUS ON SME CREDIT INFORMATION IN THE EU		200
1.	Introduction	200
2.	Facts	201
3.	What are the problems?	202
4.	Mapping Exercise	203
4.1.	<i>Methodology</i>	203
Box A.	Information required for comprehensive credit reporting and assessment	204
4.2.	<i>Set of variables</i>	204
4.3.	<i>Findings of the mapping exercise</i>	205
4.4.	<i>Case study UK: Best practice in credit information data</i>	207
Box B.	Current initiatives in the UK to improve credit information	207
5.	Differences Between the EU and the US	208
6.	Experience with the EU Single Market	210
7.	Conclusions	210
Annex 1:	Summaries of mapping results for each Member State	212
Annex 2:	Companies and institutions contacted for the Mapping Survey	219

PREFACE

Since 2004, the European Commission has been publishing annual reviews of its monitoring of the financial system as part of the Single Market.¹

The recent crisis has shown that financial risks need to be monitored more closely. As of 2011 this continuous monitoring was conferred to the European System of Financial Supervision (ESFS) and the European Systemic Risk Board (ESRB). EBA, ESMA, EIOPA and the ESRB have been monitoring different aspects of the financial system under their respective competencies and all of them are issuing regular reports on risks and vulnerabilities, often on a quarterly basis. The ECB also monitors financial stability and integration in Europe on a continuous basis.

Since November 2014, the ECB has become the single supervisor for the euro area's largest credit institutions. From 1 March 2015, the Single Resolution Board has taken up its work as well.

The present review does not interpret, pre-empt or prejudge any official reporting that any of the above mentioned bodies carries out within their mandate. It does not attempt to provide a comprehensive overview or analysis of all developments across all the different financial market segments. It focuses on selected market and policy developments from a European financial stability and integration perspective, within a broader Single Market perspective.

The present review reflects market and policy developments in 2014 and, where possible, during the first quarter of 2015.

¹ http://ec.europa.eu/internal_market/economic_analysis/reports/index_en.htm

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EXECUTIVE SUMMARY

This year's European Financial Stability and Integration Review (EFSIR) was launched at a conference organised with the European Central Bank on 27 April 2015 in Brussels.

The document has two main parts: the first part is more descriptive and data driven (Chapters 1, 2), the second part has a special focus on particular policy areas that impact European financial stability and integration developments including those expected to have a significant impact on economic growth (chapters 3-7).

Chapter 1 reviews financial market developments in 2014 and during the first months of 2015. The chapter shows how a series of economic indicators signal that the recovery of the EU economy is gaining traction. However, economic growth remains slow and output has yet to reach pre-crisis levels. Some risk and vulnerabilities of the European economy are also to be noted. Firstly, despite many years of extraordinary monetary stimulus, structural reforms and regulatory reforms, the EU and many other economies remain in a low growth and low inflation environment (also influenced by demographic trends), while historical high debt levels have hardly come down. Secondly, financial markets and financial system in the EU and abroad have overall been resilient over the past several months; however, some short episodes of volatility have also been observed. Finally, the protracted low yield environment may generate some risks linked to the search for yield, a potential sharp and disorderly reversal in the assessment of risk, the build-up of bubbles in specific market segments, potential reduction of private sector consumption, compression of profit margins for financial institutions against the guaranteed returns to policy holders (insurance corporations and pension funds), or a false sense of security that may lead to delaying consolidation. The chapter also analyses the developments in the different segments of the financial sector including bank loans, bonds and quoted shares.

Chapter 2 provides a comprehensive overview of the structure of the financial sector in the European Union. In particular, it provides a quantitative overview of the role of the financial system in channelling funding across the economy. The analysis presented here deals with questions such as who is providing credit, who is using this credit, in which form the credit is formalised or through which channels financial resources flow. Besides the size of the different institutional sector (e.g. households, non-financial corporations) in terms of assets and liabilities, the chapter also reviews the preferences of markets participants as reflected in the mix of products they choose to invest in or to use as a source of funding. These customer preferences in the provision and use of funding determine the importance and role that the financial sector, and its different segments, is to play in the European economy.

The chapter also analyses the three main channels that the European economy uses for financing its activities. First, organised markets: issuance of bonds, quoted shares or private placements. Secondly, financing channelled through the direct interaction of a firm with its stakeholders (i.e. customers, local and national authorities, employees, supplier, etc.) in the form of equity, loans or advances.

Direct financing requires that both the providers and the users of funding have the same preferences and to interact with each other. However, this is not always possible. Therefore, the third channel of financing is provided by financial institutions, which provide an intermediation service of connecting the resources of savers and depositors with those of borrowers and investors and of adapting the features of savings to the needs of investors through what is called maturity transformation. Although financial institutions do not generate net additional financial resources, they play a crucial role in allowing for the full mobilisation of the savings generated by the economy to be allocated to investment projects².

Once credit within the financial sector is netted out (e.g. interbank credit or the interactions of banks with the shadow banking) these three channels have broadly the same size, providing about one third of the total financing of the economy each.

² The financial sector also runs payment systems; however, this is beyond the scope of this chapter, which focuses on financing channels.

The chapter also highlights the high level of interconnection and interaction between the different economic agents which can lead to high levels of complexity and interdependence.

The information gathered and the discussion presented throughout this chapter can be a useful background for a number of Commission policies including the on-going work on developing capital markets union and for the investment plan for Europe.

In the second part, the review contains 5 special focus chapters on current issues of particular interest for understanding developments in financial market structure, regulation, and technology.

- *Chapter 3 discusses the role of private debt overhang in the EU.* 'Debt overhang' indicates a situation of excessive or non-sustainable debt. Although there is no universal consensus on an optimal level of debt, high debt by itself suggests vulnerability as it increases the fragility of agents to changes in the economic conditions. An excessive level of debt may damage growth, as corporates and households will tend to focus on increased savings, contracting investment and consumption as a consequence. This topic is particularly relevant since both the length and depth of the crisis, as well as the weakness of the recovery, cannot be understood without an analysis of the role of debt dynamics in the private sector and their negative impact on financial integration and risk sharing opportunities.
- *Chapter 4 reviews large financial risks facing households.* Financial risk, including longevity risk, is increasingly being shifted to households. A concrete example of this shift is the transition from defined benefits to defined contribution pension schemes. At the same time, households faced with increased longevity risk will have to increase their supplementary pension provisioning, and as such, personal pension products are becoming more important. However, to the extent that private households cannot successfully assume or mitigate some of the largest risks the latter may be better viewed as implicit liabilities of the government. Hence, large under-hedged/under-insured individual risks represent both a challenge from a financial integration and risk sharing perspective, and for short- and longer-term financial stability.
- *Chapter 5. Competition and Regulation in the Financial System.* The focus here is on how banking competition can influence contagion risk and systemic stability and how non-core banking activities, such as securitisation and trading, may affect the relationship between competition and stability. It argues for a closer coordination of financial regulation and competition enforcement *inter alia* to avoid that regulation itself becomes a barrier to entry. Also, the chapter recalls that financial regulation on its own would likely not achieve its objectives of stability and efficiency without competition enforcement.
- *Chapter 6. Cyber security risks in the financial sector.* Modern financial systems operate digitally and depend heavily on digital network infrastructure. Financial institutions operate critical payments and settlement systems and maintain sensitive customer information and customer deposits. New, sophisticated technologies for trading platforms, data warehouses and internet banking introduce challenges for cyber security. The interconnectedness among markets participants and financial institution makes the financial sector vulnerable to disruptions from cyber-attacks that pose a serious threat not only to them, but to overall financial system stability.
- *Chapter 7. Mapping the SME credit information landscape in the EU.* SMEs face a structural hurdle when accessing finance. Information on SMEs is usually with banks. Non-bank investors struggle to access credit information, and the control of credit information by the existing providers is a barrier to entry in the market for SME financing. The Commission's Communication on Long Term Financing announced a mapping exercise of the availability of credit information on SMEs across Europe. The rationale and result of this exercise are outlined in this chapter, as well as a number of policy actions that could have a beneficial impact for the Capital Markets Union agenda.

Chapter 1: Market developments¹

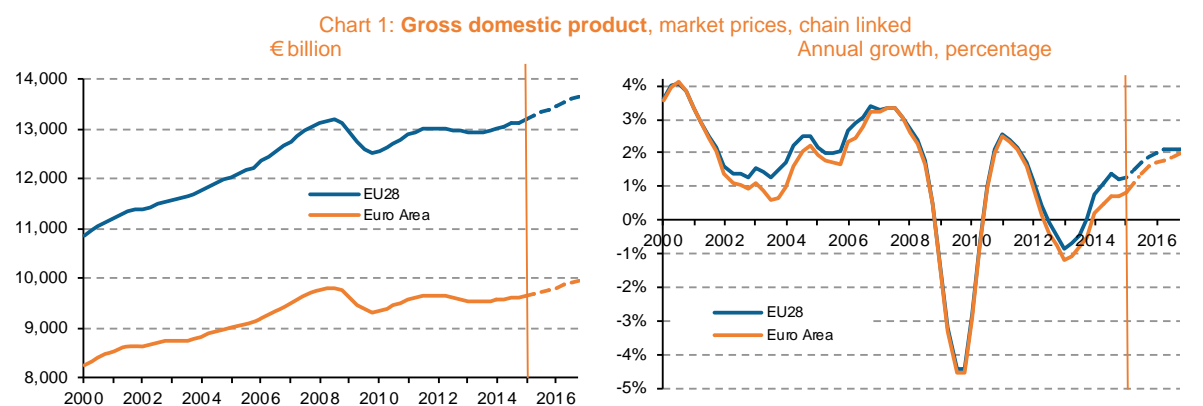
1. INTRODUCTION

This chapter focuses on market developments in the provision of credit throughout 2014 and in early 2015. After setting out the general macroeconomic background in Section 2, the chapter analyses the three main sources of credit to the economy: banking intermediation (Section 3), debt markets (Section 4) and equity markets (Section 5). The analysis of the financial sector is discussed further, from a more structural point of view, in Chapter 2.

2. MACROECONOMIC AND FINANCIAL LANDSCAPE

2.1. Return to economic growth?²

The EU economy is entering its third year of recovery, but economic growth remains slow and output has yet to reach pre-crisis levels. For the first time since 2007, the economies of all EU Member States are expected to grow in 2015, according to the European Commission's 2015 winter forecast³. Over the course of 2015, economic activity is expected to pick up moderately in the EU and in the euro area, before growing further in 2016. Growth this year is forecast to rise to 1.7 per cent for the EU as a whole and to 1.3 per cent for the euro area. In 2016, annual growth should reach 2.1 per cent and 1.9 per cent respectively, on the back of strengthened domestic and foreign demand, an accommodating monetary policy and a broadly neutral fiscal stance (Chart 1).



The pace of recovery remains slow as Europe continues to struggle to leave the legacy of the crisis behind. Momentum is weak, partly because of factors specific to the EU, some of which were already evident before the crisis, including structural weaknesses that have not yet been fully addressed. Private sector consumption has been the main driver of growth in the recovery, but investment has failed to recover and exports have done little to support growth. Economic recovery in the EU and the euro area is therefore expected to have lacked momentum in 2014, with annual GDP expected to have increased by 1.3 per cent in the EU and 0.8 per cent in the euro area.

Growth prospects across Europe continue to be limited by a weak investment environment and high unemployment. However, since autumn 2014, a number of key developments have improved the near-term outlook. Oil prices have declined, the euro has depreciated noticeably, the ECB has announced quantitative

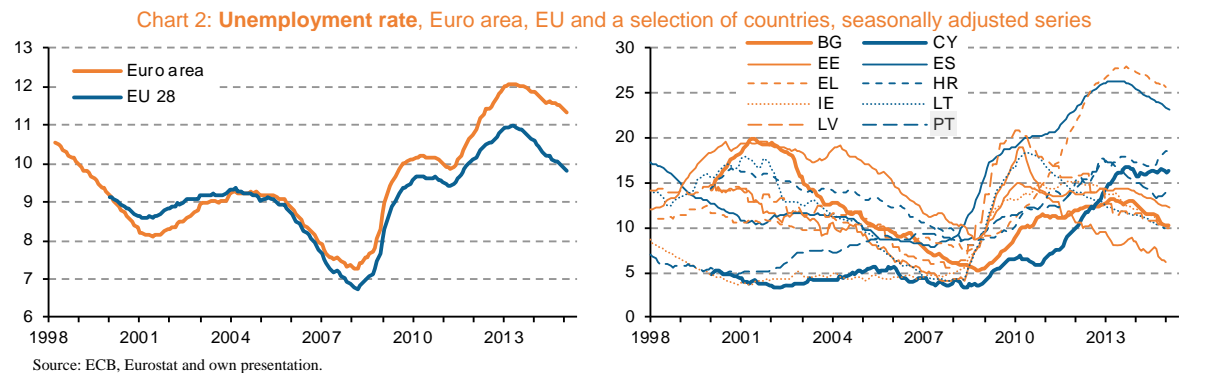
¹ Authors: Javier Villar Burke, Chris Bosma and Alexandru Zeana with the support of Raluca Maran and Olli Mononen.

² This section draws extensively on the European Commission's 2015 winter forecast.

³ See European Commission (2015b).

easing, and the European Commission has presented its investment plan for Europe⁴. All these factors are expected to have a positive impact on growth.

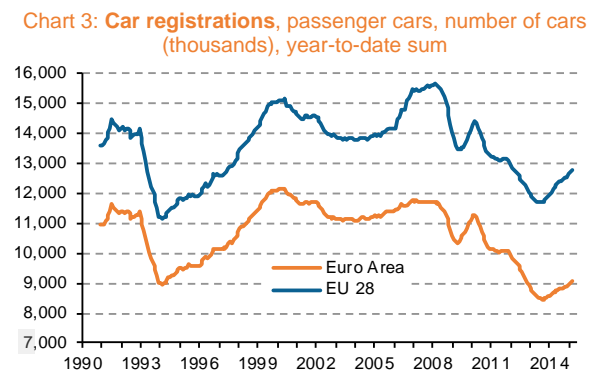
As economic growth gains momentum, so will net job creation which accelerated over the course of the last year from a low level. Labour markets are forecast to improve towards late 2016. The unemployment rate is set to fall to 9.8 per cent in the EU and 11.2 per cent in the euro area in 2015 (Chart 2). Labour market reforms undertaken in recent years are expected to continue to deliver results and help unemployment rates decrease further in 2016. However, the momentum of employment growth is expected to remain too low to lead to a substantial improvement in the labour market situation.



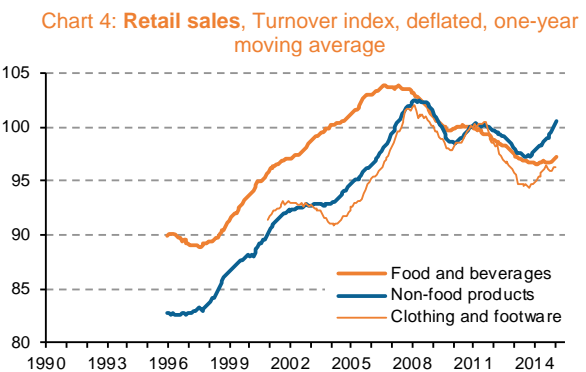
Variance in economic performance is likely to continue since the pace of implementing reform, balance sheet adjustment and deleveraging among banks, the non-bank corporate sector, households and the public sector differ across Member States. Some will benefit more than others from the fall in oil prices, depending on the energy intensity of their economies and their energy taxation systems. This is also reflected in quite significant differences in impacts on unemployment rates across countries.

GDP growth in the EU and the euro area is expected to be led primarily by domestic demand which, in 2015 and 2016, should benefit from lower oil prices and more supportive monetary and fiscal policies. Implementation of structural reforms and reforms to the financial architecture (e.g. banking union) should also support an increase in domestic demand. In 2016, domestic demand should also start to be supported by the EU investment plan.

Lower energy prices are expected to be a key factor driving the expansion of private sector consumption. With slightly improved employment prospects and nominal rises in salaries for employees, disposable income is expected to increase further, while the very low consumer price inflation will boost real income this year. Households are expected to slightly increase their savings this year, reflecting willingness to restore savings levels eroded during the crisis, ongoing deleveraging and uncertainty.



Note: The decline observed in the mid-1990s corresponds with the global recession (many European countries were affected in terms of unemployment and several currencies were devaluated) and to the Gulf War, which significantly impacted oil prices.
Source: ECB, Eurostat and own calculations.



Source: ECB, Eurostat and own calculations.

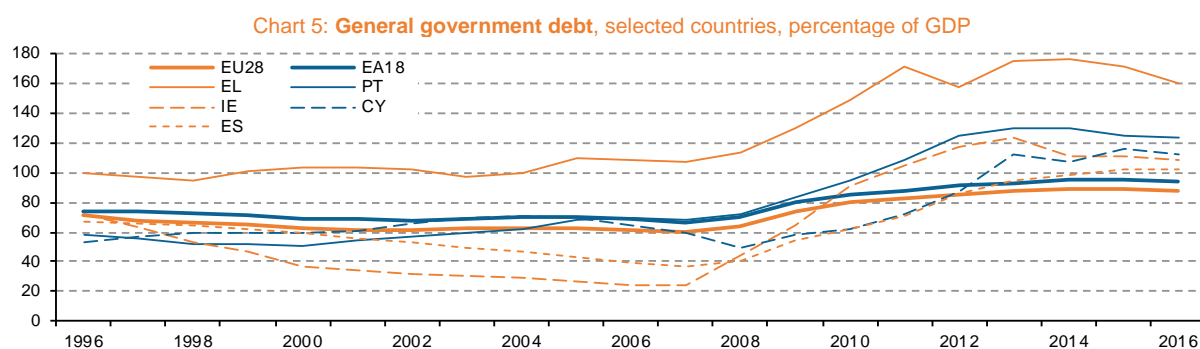
⁴ See European Commission (2014a).

While investment has been held back in most EU Member States by deleveraging pressures in the corporate sector, fiscal constraints and heightened uncertainty, it should gradually benefit from strengthening demand prospects, a diminishing need for balance sheet adjustment, and improved credit conditions and profit margins. Investment in equipment is expected to pick up more strongly as of the second half of 2015, whereas the recovery in investment in construction will only become significant in 2016 when the negative impact of the ongoing adjustment in housing markets is reduced.

These dynamics are reflected in the evolution of car registrations (Chart 3) and retail sales, which gained momentum since late 2013 after over six years of decline. Absolute levels are still far from having recovered to pre-crisis values, however. In a similar vein, non-performing loans are abating from the peak of the crisis indicating a clear improvement in the real economy (Chart 16). However, they still represent a significant burden for parts of the banking system and highlight the legacy of the crisis for the economy, still in the process of healing.

2.2. Public accounts

The debt-to-GDP ratio is expected to peak at 88.4 per cent in the EU in 2014 and at 94.4 per cent in the euro area in 2015, before declining as inflation increases and the recovery picks up. Challenges to public debt sustainability continue, in particular against a background of sustained high debt levels in many Member States, increased downside risks to the economic outlook and low levels of inflation.



However, there are some positive measures expected in the medium term. Key initiatives from the European Commission, i.e. the Investment Plan for Europe and the project on Capital Markets Union (CMU),⁵ could significantly help improve economic and financial conditions. In addition, the Bank Recovery and Resolution Directive (BRRD)⁶ and the Single Resolution Mechanism (SRM)⁷ will make the bailing-in of debt instruments obligatory for bank resolutions as of 2016. These will alleviate the tense fiscal situation in Member States if further bank restructuring is needed and enable Member States to manage those crisis situations using very little, if any, taxpayer money, relying instead on the new bail-in regime and resolution funds (i.e. the Single Resolution Fund in the Banking Union and the national resolution funds in the other EU Member States) financed by the banking sector itself.

2.3. Interconnectedness and financial stability

In the past 20 to 30 years financial markets have become highly interconnected at the global level. However, the crisis has shown that, in some cases, this has led to high levels of instability and vulnerability. The bulk of the response to the crisis has been to stabilise the financial system as a precondition for a return to growth and jobs.

⁵ See European Commission (2015a).

⁶ Directive 2014/59/EU.

⁷ Regulation (EU) No 806/2014.

An integrated financial system that creates value for the overall economy requires a high level of interconnection but also needs to be balanced and robust. Stability in financial markets is a necessary condition for the European economy to return to growth and create jobs. The global crisis has not only damaged financial markets and financial institutions, but has also put a heavy strain on households, non-financial corporations and public authorities and has led to a disruption in the general productive chain based on complex interactions among economic actors.

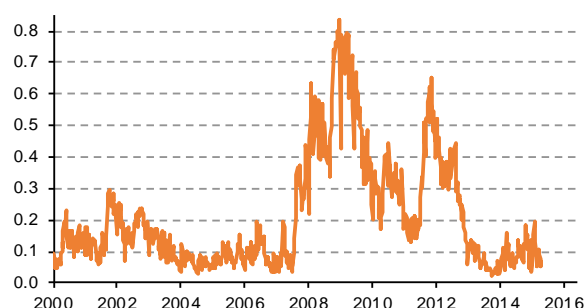
Beyond traditional financial markets and financial institutions, the financial positions of the different economic agents in the economy need to be examined, along with the effects the financial crisis has had on them (see Chapter 2). Understanding the interconnections among the different economic agents in the economy is crucial to detecting 'weak links' or 'bottlenecks' in order to be able to encourage a virtuous cycle of economic growth built on robust foundations.

2.4. Confidence in the markets and in the broader economy

General financial indicators

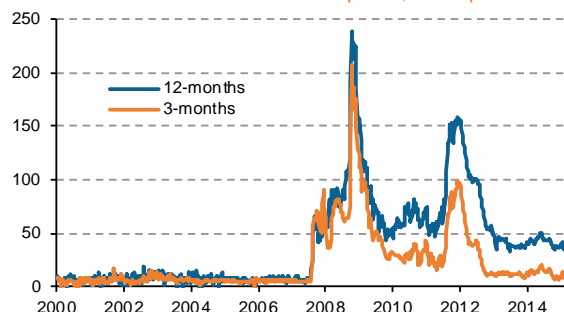
Over the period covered by this report, financial market conditions in the EU have continued to improve. Financial asset prices have risen across the board and market volatility has been low apart from some temporary hick-ups. Most of the typical indicators of market stress have eased and are now back at levels similar to those prevailing in the pre-crisis period, consolidating the trend noted in last year's review (Charts 7 and 8 and Charts A1 and A2 in the Annex). Although economic and geopolitical worries have led to increased volatility in financial markets in recent quarters, the overall trend in European equity markets has remained positive. Meanwhile, as the global search for yield continues and has become more pervasive across asset classes and geographic spread, the correlation measures for bond and equity markets have reached levels which make it difficult for investors to diversify risk.

Chart 7: Systemic Stress Composite Indicator, index



Source: ESRB: Risk Dashboard.

Chart 8: Euribor-OIS spread, basis points



Source: Bloomberg and own calculations.

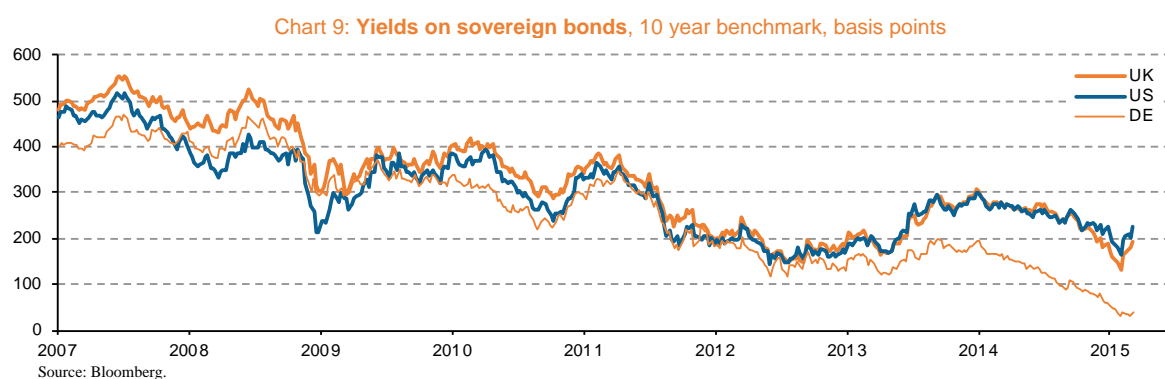
2.5. Sovereign debt markets

The most remarkable trend in sovereign bond markets since early 2014 has been the rise in bond prices and narrowing of sovereign bond spreads (Chart 9), which continued in the second half of 2014. This trend is, at least as far as the benchmark sovereigns are concerned, a reversal from that noted in last year's review. The decline of sovereign bond yields has been significant. While some argue that the current low yields are consistent with very low nominal economic growth rates, other market observers assess that current yields reflect a mispricing of credit risk and note that many of the causes of the recent sovereign debt crisis have not been solved¹⁰.

In 2013, the downward trend in benchmark sovereign bond markets seemed to have stopped and begun to reverse as, from spring 2013, benchmark yields rose amid an improving macroeconomic situation in the US and Germany, fuelled by US Federal Reserve's announcements about the gradual tapering of asset purchases.

¹⁰ See, for instance, Kaminska (2014), Corporate & Institutional Banking (2014) or IMF (2014).

At the beginning of 2014, benchmark yields started to decline amid mixed macroeconomic data releases in the euro area, financial turbulence in emerging markets and geopolitical tensions. These features remained present over the whole period covered in this review. In spring 2014, the downtrend was further and increasingly fuelled by declining long-term inflation expectations and forward guidance issued by central banks in the US and the euro area to keep policy rates low until the recovery is well entrenched. The decline continued when, in June, the ECB Governing Council decided to lower its key policy rates¹¹ and to introduce other monetary policy measures to improve the functioning of the monetary policy transmission mechanism. These included the launch, as of September 2014, of a series of six targeted long-term refinancing operations (TLTROs) with a fixed rate and maturity of four years. The ECB Governing Council's decision on 4 September to lower key rates further and to purchase non-financial private sector assets (asset-backed securities and covered bonds¹²) did not have a significant effect on benchmark yields, but did impact on sovereign yields in the non-core euro area Member States.



2014 saw bouts of increased volatility amid concerns about economic growth and due to country-specific events, for instance concerns about the Banco Espírito Santo and geopolitical tensions in the Middle East and Ukraine. However this widening of spreads was short-lived on each occasion. The downward trend continued, albeit at a slower pace, fuelled by widespread market expectations that the ECB's monetary stance would remain accommodative for a significant period, and would eventually include purchases of sovereign bonds. Expectations on the latter were further fuelled by Advocate General of the European Court of Justice's favourable opinion on the ECB's outright monetary transactions in January¹³ and were reinforced by the Swiss National Bank's unexpected decision to abandon the Swiss franc peg to the euro.¹⁴ The ECB's comprehensive assessment¹⁵ did not have a visible impact on bond markets, as investors had largely discounted the outcome. Faced with a persistent decline in both headline harmonised index of consumer prices (HICP) inflation and market-based measures of inflation expectations, the ECB Governing Council finally decided at its January 22 meeting to embark on a sovereign debt purchase programme.

In the final months of 2014, the decline of the German benchmark Bund yields gained momentum, amid market expectations of weakening growth and disinflation dynamics fuelled, among others, by declining oil prices. In 2015, German Bund yields continued their decline first on speculation about the launch of a sovereign bond purchase program by the ECB and, later on, by the announcement of the ECB's expanded asset purchase programme (EAPP) and its actual implementation. From early 2014 till mid-April 2015, the yield on German 10-year Bund dropped by 180 basis points (bps) to a historical low of 15 bps and US Treasuries declined by 110 bps to 190 bps over the same period. The spread between the American and German long-term benchmark yields

¹¹ In June, the ECB lowered its main refinancing rate to 0.15 per cent, while the deposit facility standing rate was set at -0.10 per cent, in negative territory for the first time ever. In September, the ECB cut its key interest rates by another 10 bps.

¹² The ECB's asset purchase programme was also intended to facilitate the revival of sound securitisation markets in Europe, while the covered bond programme contributed to a further easing in the euro-area banks funding costs.

¹³ See European Court of Justice (2015).

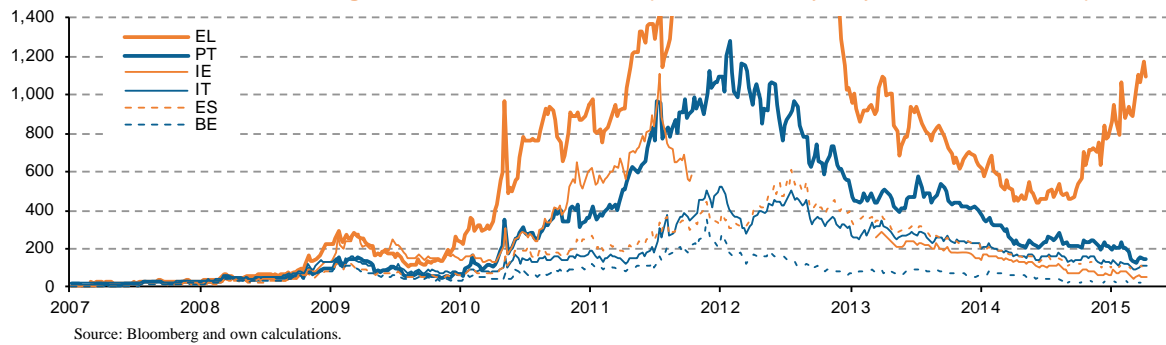
¹⁴ See Swiss National Bank (2015).

¹⁵ The comprehensive assessment included an asset quality review and a stress test and it was performed ahead of the SSM taking its responsibility of supervision. In parallel, the EBA also coordinated a stress test targeting banks both within the SSM and non-SSM Member States. Results were published in October 2014. See ECB (2014) and EBA (2014).

widened in the first three quarters of 2014, amid the effective tapering of US FED asset purchases,¹⁶ improving US labour market conditions and increasing inflation.

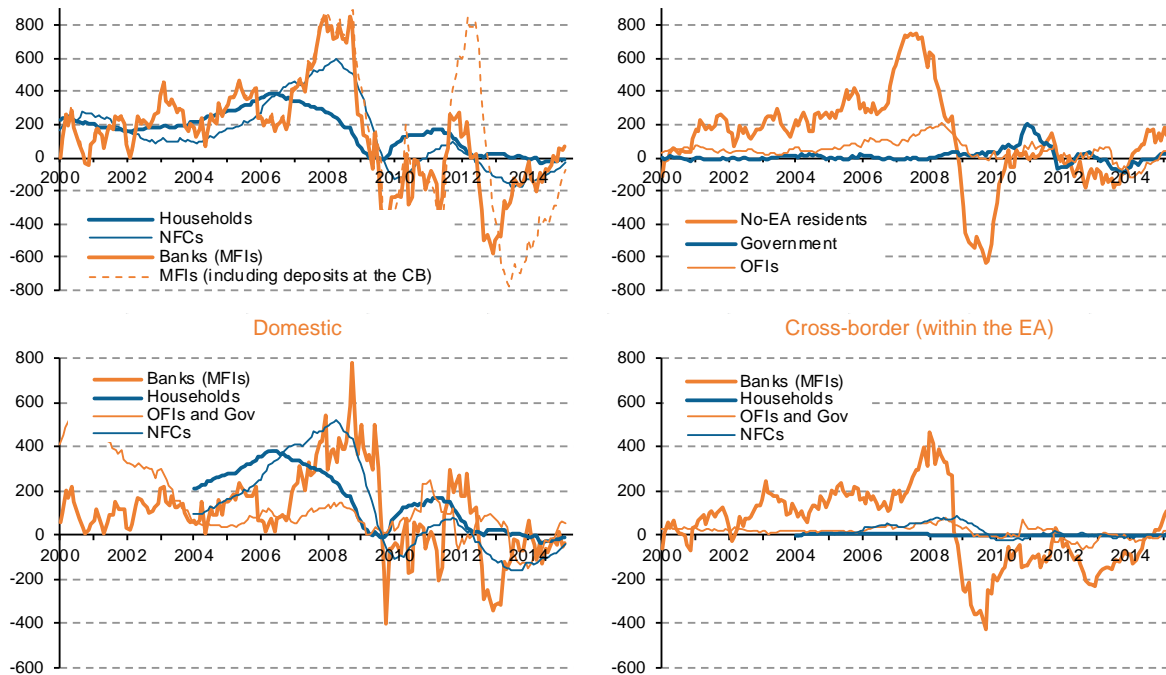
Both core and non-core euro area sovereign bond yields narrowed significantly vis-à-vis the German yields over the whole period. The narrowing was particularly strong in the first half of 2014. Debt from non-core countries benefited from the ongoing adjustment of fiscal fundamentals and an increased search for yield, as well as from investors moving their portfolios away from emerging markets. The low ECB policy rate also made bonds from non-core countries attractive from a carry trade¹⁷ perspective.

Chart 10: Yields on sovereign bonds, selected countries, spread to Germany, 10 year benchmark, basis points



EU sovereign bond yields outside the euro area took broadly the same course as their euro area equivalents. Spreads of Polish, Czech and Hungarian sovereign 10-year bonds to the equivalent German Bunds tightened to levels in place before the financial crisis erupted in 2008, and have outperformed many of their euro area equivalents over this period. The downward trend was interrupted in early 2014 (on account of a general pessimistic mood in the markets), in summer 2014 and near the year-end of 2014, amid concerns about spillovers into eastern Europe of Russia's full blown economic and financial crisis.

Chart 11: Loans by counterparts granted by Euro Area MFIs (excluding the Eurosystem), net annual flows, € bn
Totals by sector



Notes: Net annual flows are calculated as new businesses minus redemptions. MFIs: Monetary and financial institutions (banks); NFCs: Non-financial corporations. Deposits at the central bank include current account, deposit facility and fixed term deposits.

¹⁶ On December 18, 2013, the Fed began to taper its bond purchases by \$10 billion per month, to \$75 billion. After a series of reductions throughout 2014, the program concluded following the Fed's October 29-30 meeting.

¹⁷ Carry trade refers to the return obtained by banks when they invest in sovereign bonds liquidity borrowed from the central bank.

Source: ECB: monetary statistics and own calculations.

3. CREDIT PROVIDED THROUGH BANK INTERMEDIATIONS: LOANS

3.1. Volume of loans

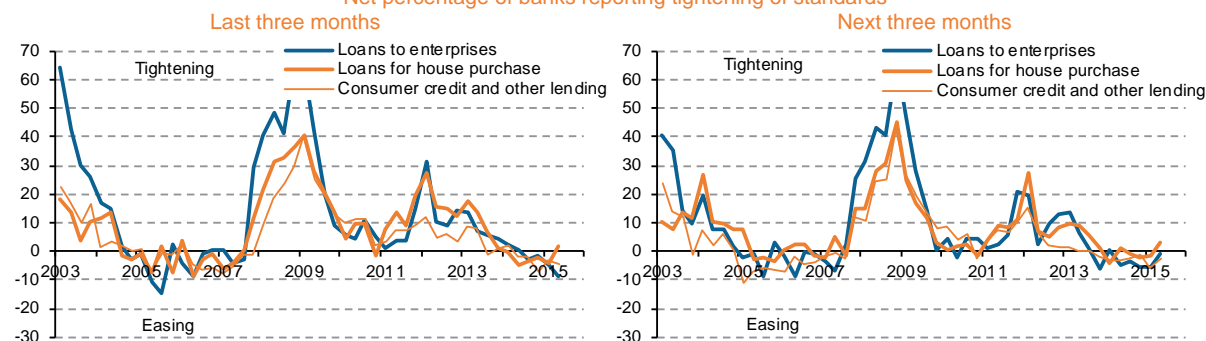
Bank loans are one of the main sources of financing for the non-financial part of the economy, but they are also important within the financial sector. About half of the loans provided by euro area banks financed non-financial corporations and households (€9 500 billion or 110 percent of euro area GDP) and the other half went to the financial sector and governments (€9 900 billion), including loans to non-euro area residents. These are, largely, financial institutions based in London, New York and other global financial centres (see Table A1 in the Annex for details).

3.2. Flow of loans

Throughout 2014, there was a positive trend in net flows of loans for most counterparts of euro area banks (Chart 11). Net loans to the financial sector, non-euro area residents and governments have returned to positive values since early to mid-2014. Net loans to non-financial companies (NFCs) have become less and less negative. However, net loans to households have remained flat, indicating that banks are merely replacing redemptions with new loans.

Cross-border lending is mainly to the financial sector (interbank loans or loans to other financial institutions). Market integration in the retail segment usually takes the form of cross-border ownership of banking assets, but loans provided by subsidiaries and branches of foreign groups to local households and non-financial corporations are counted as domestic in monetary statistics. Therefore, the data on domestic / cross-border loans fail to capture all the cross-border implications of these loans.

Chart 12: Changes in credit standards applied to the approval of loans and credit lines, euro area banks
Net percentage of banks reporting tightening of standards



Notes: Positive values represent net tightening and negative values net easing.
Source: ECB: Bank Lending Survey.

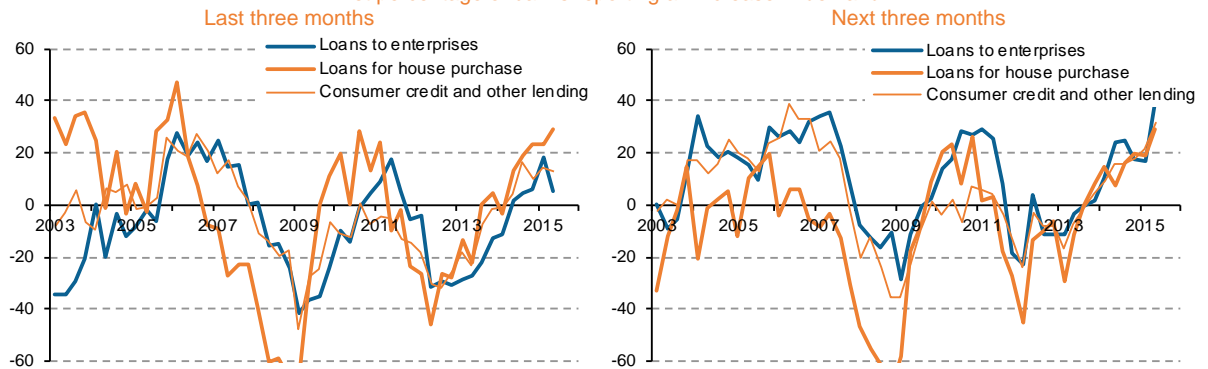
3.3. Interaction of credit supply and demand factors

In 2014 and early 2015, the ECB's bank lending survey highlights a turning point in supply and demand for loans. Lending standards (interest rates, collateral and guarantees required, fees and commissions, etc.) moved from net tightening to net easing (Chart 12) while demand for loans became positive for companies and households (Chart 13). The latest April 2015 edition of the bank lending survey confirms a gradual easing of lending conditions, in particular for enterprises. Credit standards continued to ease across firm size, driven by better bank liquidity positions and by increased competition. Contrasting with the developments for corporate loans, slight tightening was observed in credit standards on loans to households for house purchase. Credit demand continues to strengthen. The key force driving demand for corporate loans higher were factors related to inventories and working capital as well as the general level of interest rates.

In the second quarter of 2015, euro area banks expect more limited easing of credit standards on loans to enterprises and consumer credit and ongoing tightening of credit standards on housing loans.

The continued improvement in the April 2015 ECB bank lending survey is in line with the positive trends in bank lending volumes and flows (Chart 11) and suggests that banks are in a better position to support lending.

Chart 13: Changes in the demand of loans and credit lines, euro area banks
Net percentage of banks reporting an increase in demand



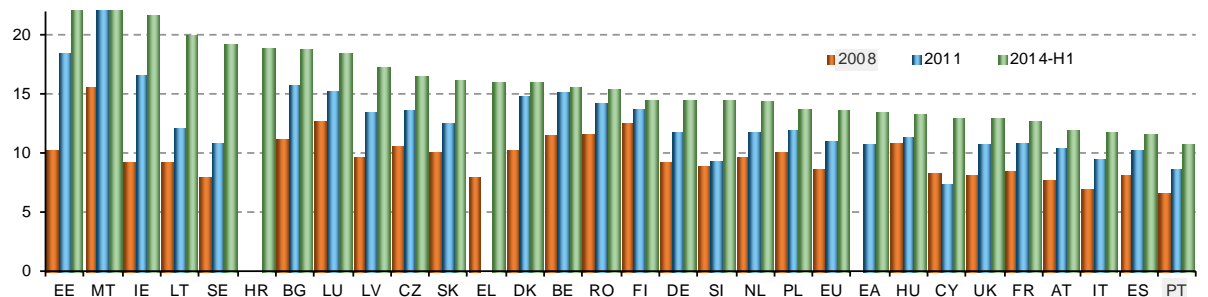
Source: ECB: Bank Lending Survey.

3.4. Solvency and asset quality

Capital ratios

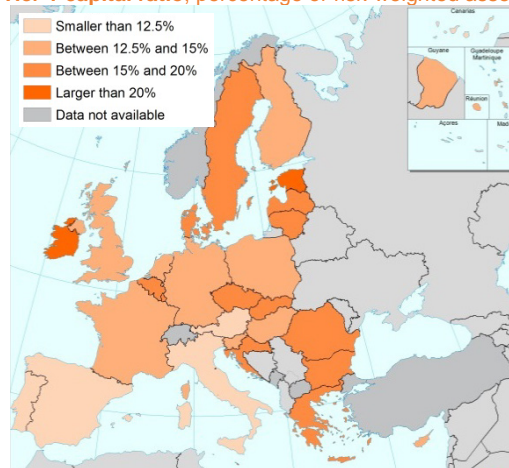
Banks' regulatory capital ratios improved significantly between 2008 and the first half of 2014 (Chart 14), increasing the system's capacity to withstand shocks. For instance, the average euro area Tier 1 ratio increased from 10.7 per cent in 2010 to 13.4 per cent by June 2014; overall capital ratios have also been improved. By June 2014, banking systems in all EU countries had Tier 1 capital ratios, well above regulatory requirements.

Chart 14: Tier 1 capital ratio, percentage of risk-weighted assets



Notes: Definitions of capital and risk-weighted assets may differ across countries and banks. Estonia: 2014-H1 = 31.5 per cent; Malta: 2011 = 52.2 per cent; 2014-H1 = 23.9 per cent. Comparisons of semi-annual data with annual data should be taken with caution
Source: ECB: Consolidated banking data

Chart 15: Tier 1 capital ratio, percentage of risk-weighted assets, 2014-H1



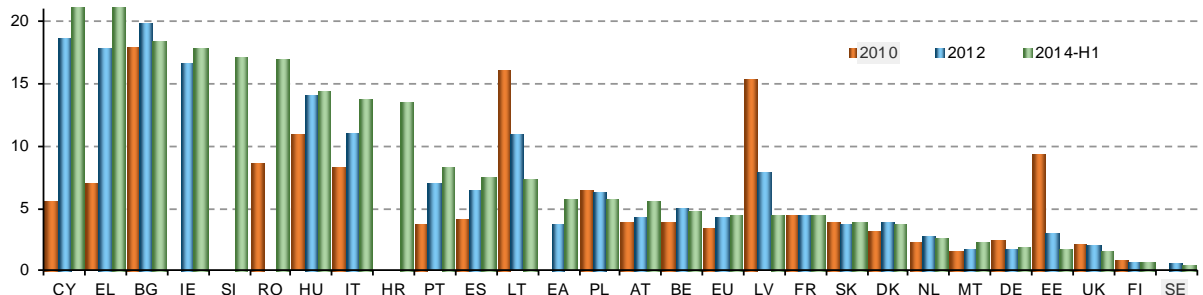
Source: ECB: Consolidated banking data.

The ECB's comprehensive assessment results (see ECB, 2014) were in line with expectations and showed that the banking system in the euro area is well capitalised overall and resilient to external shocks. Recent efforts by EU banks to increase their capital levels suggest that deleveraging pressures will be less acute in the near future.

Non-performing loans (NPLs)

Problems in the economy have impaired the capacity of households and NFCs to repay their debts and have led to significant increases in NPLs across the EU banking systems throughout the financial crisis. By June 2014, the average NPL ratio reached 5.6 per cent in the euro area and 4.5 per cent in the EU as a whole. Following the positive economic developments set out in section 2, the increase in NPLs has slowed down, halted or even reversed in most EU countries (Chart 16).

Chart 16: Non-performing loans (NPLs) ratio, percentage of total loans

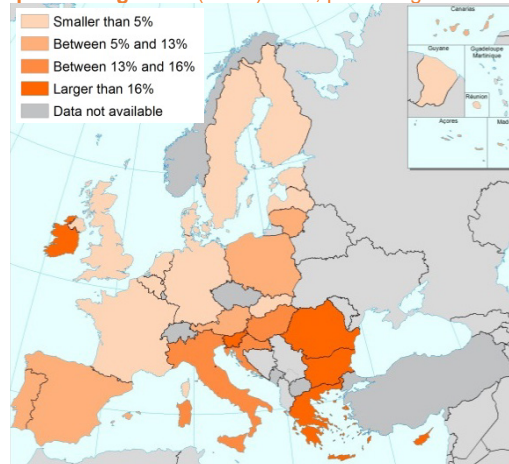


Notes: Definitions of NPLs may differ across countries. Data for LU are not available. EL: 2013-H1 = 21.9; SI: 2013-H1 = 20.5; BG: 2012 = 17.9%, 2013-H1 = 19.5; CY: 2013-H1 = 18.8%. Comparisons of semi-annual data with annual data should be taken with caution
Source: ECB: Consolidated banking data

However, there are significant differences between Member States. Even taking into consideration all caveats and possible biases in measuring NPLs,¹⁸ banking systems in Cyprus, Greece, Bulgaria, Ireland, Slovenia, Romania, Hungary, Italy or Croatia were strained by high levels of bad loans in the first semester of 2014 (over 10 per cent of gross loans), while banking systems in Sweden, Finland, the UK, Estonia, Germany, Malta and the Netherlands showed much lower levels (around or below 2 per cent). The three Baltic countries (Lithuania, Latvia and Estonia) show significant declines in NPLs between 2010 and early 2014.

¹⁸ There are large differences between countries in how NPLs are calculated (see last year's review for further details). The EBA (2013) proposed technical standards to harmonise the definition of NPLs at EU level. These came into force in late 2014 and they are not yet reflected in the statistics. As a result, international comparisons should be read with caution.

Chart 17: Non-performing loans (NPLs) ratio, percentage of total loans, 2014-H1



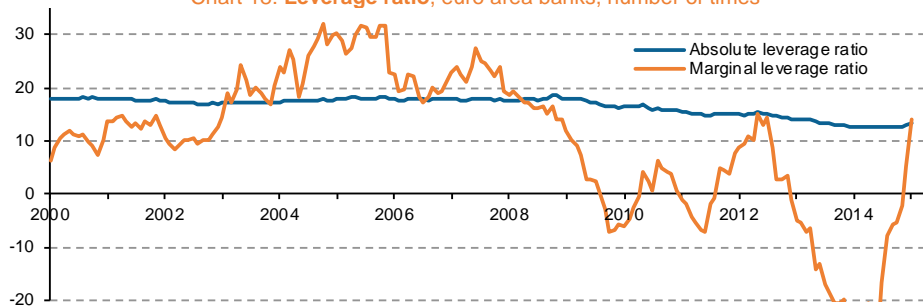
Note: Definitions of NPLs may differ across countries;
Source: ECB: Consolidated banking data

3.5. Leverage

A certain amount of leverage is needed for the well-functioning of an economy. Some authors¹⁹ argue that, within a certain range, increasing leverage is positive for welfare and growth. But, the relationship seems more like an 'inverse U' with the impact of increasing leverage being positive up to a certain level and negative beyond that.

Leverage accumulation in the run-up to the crisis led to excessive risk in the banking system.²⁰ Disorderly deleveraging could be a serious threat to macroeconomic and financial stability. However, deleveraging is necessary to correct the imbalances built prior to the crisis. The need to deleverage is intertwined with the need for banks to strengthen their capital positions. The leverage ratio provides valuable information about banks' risks and solvency from an 'unweighted' perspective, in addition to the one provided by regulatory capital ratios.

Chart 18: Leverage ratio, euro area banks, number of times



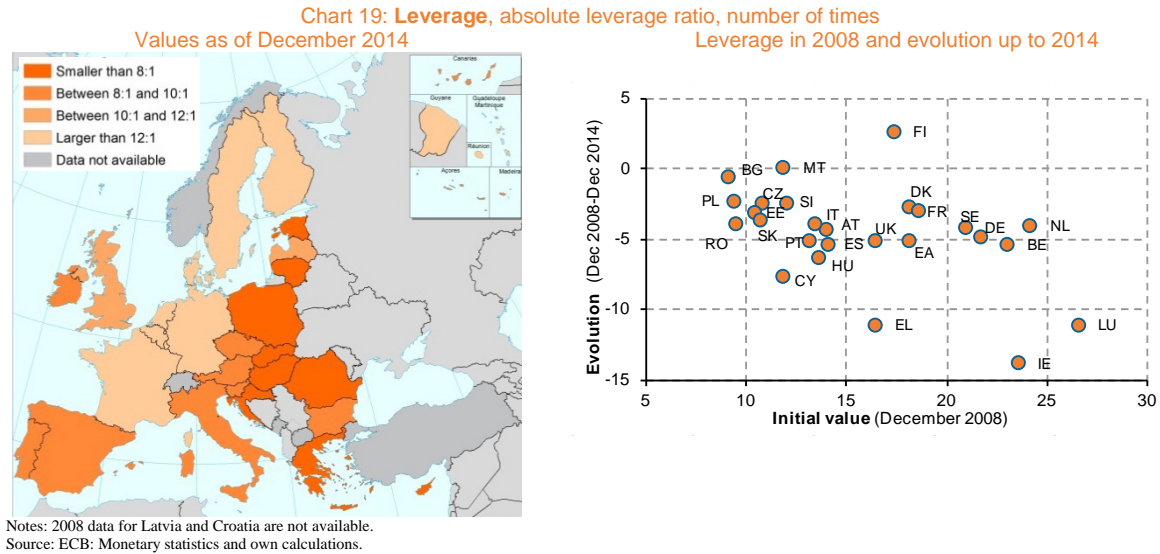
Notes: Leverage ratio is computed as the ratio of total assets to equity. The absolute ratios are computed from outstanding volumes of total assets and equity. The marginal ratios are computed from the respective annual flows. Annual flows are computed as the sum of net flows for 12 consecutive months through a rolling window. 'Net' refers to new transactions minus redemptions.

Source: ECB: Monetary statistics and own calculations.

Data show that bank leverage has declined from about 18:1 on the outbreak of the crisis to less than 13:1 by December 2013 (see absolute leverage ratio on Chart 18). This appears to have been achieved through a very aggressive policy on new activities: the marginal leverage ratio has remained below 10: 1 since early 2009 (except for a short period in 2012). Since early 2013, the marginal leverage has been ratio negative, indicating that the reduction in leverage is not only a result of increasing capital but also contracting total assets. After strengthening their positions throughout 2013 and 2014, banks' total assets started to grow again in late 2014. The results of the comprehensive assessments clarified the situation for banks and reduced pressure to continue with aggressive deleveraging and leverage even increased slightly in late 2014 and early 2015.

¹⁹ See, for instance, Cecchetti and Kharroubi (2012).

²⁰ See Basel III, paragraph 152.



While there has been a general trend towards declining leverage, the euro area average conceals significant differences between countries (Chart 19). Faced with market and regulatory pressures to deleverage, the banking systems with the highest initial leverage ratio would have been expected to be the ones that most reduced their leverage during the crisis. However, data suggest that this has not been the case. Between 2008 and 2014, countries reduced their leverage by between 2.5 and 6 points, regardless of the initial level of leverage. Exceptions to this generalised pattern would be Luxembourg, Ireland and Greece, where leverage decreased by more than 10 percentage points; and Finland, Bulgaria and Malta, where leverage hardly decreased or actually increased (Chart 19, right-hand panel). As a consequence, the ranking of countries has not substantially changed. The countries with the largest banks (Germany, France, the UK, the Netherlands, Sweden or Belgium) remain those with the highest levels of leverage (Chart 19, left-hand panel), while still complying with regulatory capital requirements through optimising the risk-weight of their assets. Banks in these countries are likely to be most affected by the introduction of a leverage ratio.

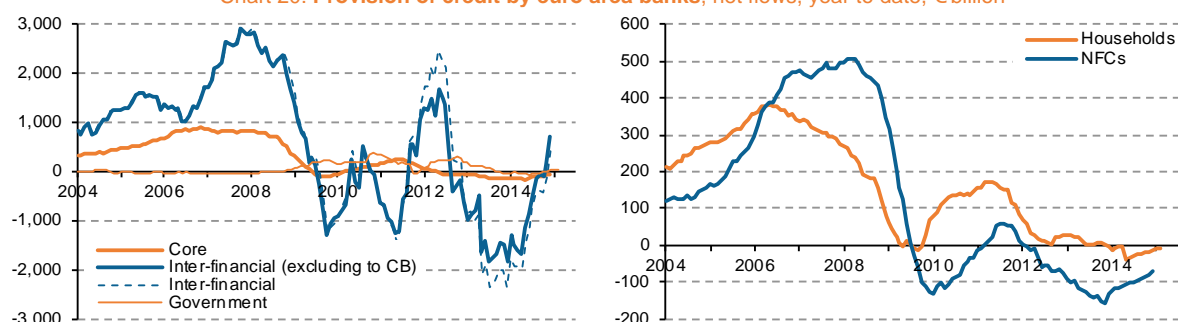
3.6. Overall provision of funding by banks

Several features stand out from the data on flows of credit provided by euro area banks (Chart 20). First, as noted in Section 3.2, flows of inter-financial credit are significantly larger than flows of credit provided to the non-financial parts of the economy.

Second, the build-up and burst of the financial bubble is more pronounced for inter-financial credit than for credit to the non-financial sectors of the economy. Throughout the crisis, flows of inter-financial credit have been very volatile while flows of credit to the non-financial economy have been less volatile. This can be explained, to a large extent, by the fact that credit to the non-financial economy typically has a long maturity period (e.g. a mortgage) while inter-financial credit typically has a very short maturity period (e.g. the bulk of unsecured interbank lending has a maturity period of a few days at most). In addition, inter-financial credit may formally have long maturity periods, but a much shorter effective maturity period (e.g. bond holdings, which can be divested at any time, regardless of their face maturity).

As a consequence, inter-financial credit can recover very quickly, but it can also be withdrawn more quickly. A series of regulatory reforms are being developed to address the financial instability generated by swings in inter-financial credit (see Chapter 2 of last year's review). Inter-financial credit has recovered strongly in 2014, while credit to the non-financial economy – although showing a positive trend – is still negative (loan redemptions are larger than 'fresh' new credit).

Chart 20: Provision of credit by euro area banks, net flows, year to date, € billion



Notes: Credit comprises loans and purchase of securities (equity, debt securities and derivatives). Core assets: credit provided to households and non-financial corporations. Inter-financial assets are computed by subtracting government and core assets to total assets.

Source: ECB: Monetary statistics and own calculations.

Third, within the producing sector, flows of credit to NFCs were more strongly affected by the crisis than flows of credit to households, which virtually always remained positive. This is driven by the fact that the bulk of credit to households is backed with collateral (e.g. mortgage credit) and therefore the borrower can usually get better financial conditions. Other factors may also have had an influence, such as capital requirement rules and a lower demand for credit from NFCs due to the slowdown in economic activity. However, in some cases, this may also reflect the difficulties faced by viable businesses in accessing affordable credit.

4. CREDIT OBTAINED THROUGH BONDS

4.1. Bond volumes

Between 2006 and 2013, the euro area bond markets expanded by 50 per cent, compared to a 12 per cent increase in bank loans during the same period. The financing provided through bond markets in the euro area (€16 400 billion or 190 per cent of euro area GDP) is of a similar size to the financing provided through bank loans, but the sector composition is different (see Table A2 in the Annex). Bonds issued by NFCs represent about 7 per cent of the total, with the rest being distributed almost evenly between the financial sector (MFIs and other financial institutions) and governments.

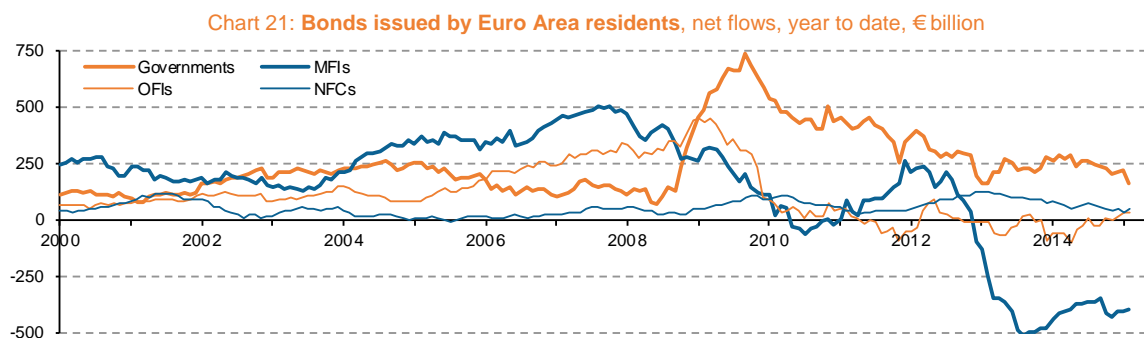
4.2. Net issues of bonds

The issuing of bonds has compensated, at least partly, for the financing gap arising from the collapse of the loan markets. Use of bonds as a source of funding by NFCs is relatively small (see Chart 13 in Chapter 2) and, as a result, migration from bank loans to market financing has mainly occurred within the financial system itself. Net annual government issue of bonds soared from about €150 billion before the crisis to over €700 billion in late 2009, and recently seems to have stabilised at around €250 billion annually (Chart 21).

Except for a short revival in 2012, net issuing of bonds by banks has declined since 2007 and this decline accelerated in 2013 and 2014. This negative net issuing of bonds by MFIs (i.e. bond redemptions being larger than new issues) reflects the need for banks to reduce their levels of wholesale funding and to deleverage, particularly prior to the ECB's comprehensive assessment. However, the contraction in the volume of bonds issued by MFIs continued even after the results of the comprehensive assessment were released. According to the ECB,²¹ market turmoil constrained banks to reduce their issuing of bonds. Data suggest that this was mainly true for medium-size and small banks but not for the bigger banks.²²

²¹ ECB (2013), p. 18.

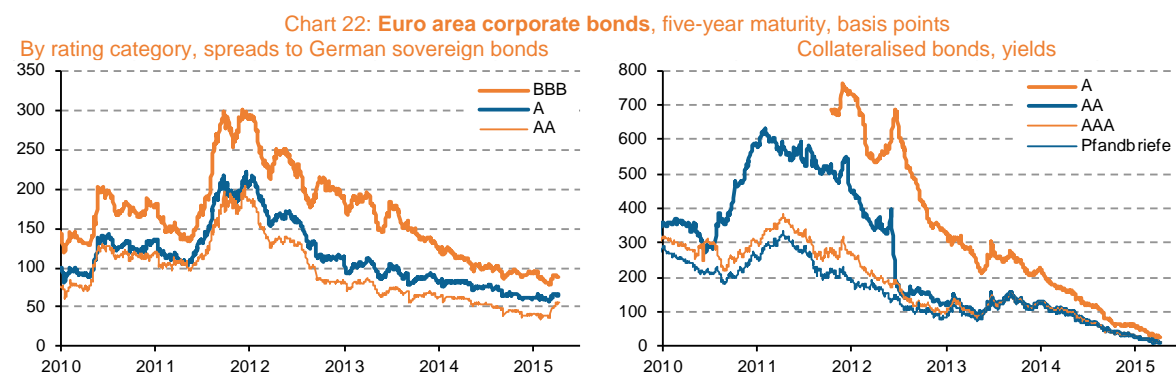
²² The median share of debt securities in total assets has significantly decreased (from 14 per cent to 7 per cent) while the average share only marginally declined (from 17 per cent to 15.5 per cent), see ECB (2013), p. 18, Chart 19.



Source: ECB: Securities statistics and own calculations.

Bonds issuing by NFCs is much rarer than in the three other sectors. However, it has significantly increased compared to the pre-crisis period and currently stands at levels last seen after the bursting of the dotcom bubble. A substitution effect²³ in favour of direct bond issuing by NFCs has been seen since the early 2009 and still continues, confirmed by a broader use of debt securities across rating classes and sectors, notably for lower-rated investment-grade issuers and more cyclical sectors.

The European Commission and the EIB aim to stimulate investment in key strategic EU infrastructure through the project bond initiative (PBI) launched in November 2012. The PBI covers transport, energy and broadband, and establishes debt capital markets as an additional source of financing for infrastructure projects in these areas. The initiative is currently in the pilot phase, with the projects approved by the EIB Board before end 2014 to be signed with project promoters before the end of 2016. A high leverage effect for EU funds is foreseen, i.e. the amount of €0.23 billion allocated from the EU budget is expected to leverage €0.70 billion of EIB credit enhancement which in turn can attract up to €4.0 billion of bond financing. As of the end of 2014, four projects in four different countries have been concluded under the PBI, covering all the three sectors, with an overall EIB credit enhancement of €0.293 billion for a total project capital cost of over €2 billion.



Source: Bloomberg.

4.3. Market developments in bond markets

The decline in sovereign yield has spurred demand for assets in the riskier parts of the spectrum. Reflecting the improvement in market confidence, euro area corporate bonds spreads have narrowed across rating categories since early 2012 (Chart 22). Volatility also declined. The narrowing of credit spreads was particularly pronounced in the higher yielding bond segment, generating strong mark-to market returns for investors. Declining risk premiums supported the increase in the issuing of bonds by EU NFCs (Chart 21) and allowed them to compensate, to a certain extent, for the decline in bank loans. Credit default rates declined, broadly in line with declining credit spreads. In a low growth environment, credit spreads tend to be high, as do credit default rates. Therefore, the sustainability of the declines in these areas may be tested when monetary policy normalises.

²³ ECB (2009), p. 22.

5. CAPITAL OBTAINED THROUGH QUOTED SHARES

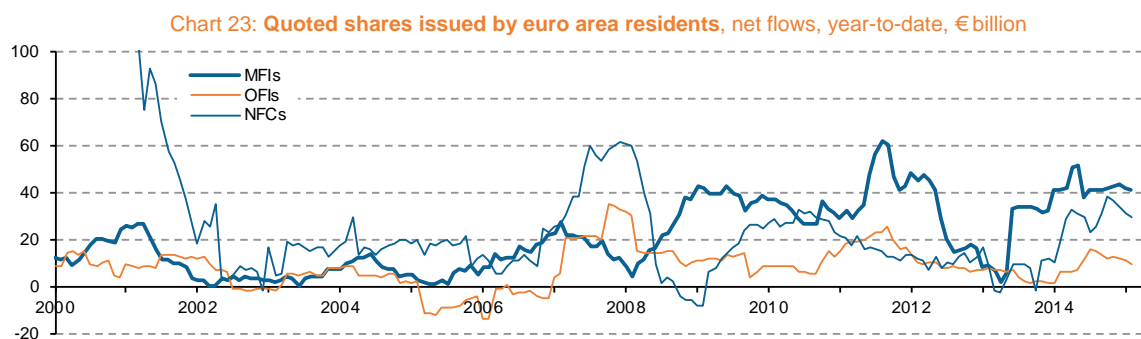
5.1. Volumes: market capitalisation of quoted shares

With a market capitalisation of €5 900 billion in December 2014 (see Table A3 in the Annex), the euro area equity markets (quoted shares) are three times smaller than bond markets (Section 4.1) or the financing provided through bank loans (Section 3.1). NFCs issue the bulk of quoted shares (over 80 per cent), while the market capitalisation of banks and other financial institutions is much smaller.

The use of equity as a source of financing has two main advantages over debt (loans, bonds or other types of debt). First, equity is usually permanent, so does not need to be reimbursed. Second, if the company incurs losses, equity does not need to be paid out. Thus, from an investor's point of view, equity can yield higher returns but it entails higher risks than debt: in economic downturns, dividends can fall to zero and the value of the equity can also be reduced. This latter risk materialised during the crisis. Following the collapse in markets (Chart 24), market capitalisation of quoted shares issued by euro area residents shrank by half, from €6 600 billion in 2007 to €3 500 in 2008. By late 2014, market capitalisation had recovered to pre-crisis levels.

5.2. Net issues of quoted shares

Net issue data provides information about the recourse to capital markets without the distortion of price movements (Chart 23). With the collapse of financial markets in late 2008, NFCs postponed their issuing of new shares until the situation improved in 2009. Thereafter, net issuing of shares by NFCs came down to pre-crisis levels. With the improvements in the markets in late 2013, NFCs issued increasing volumes of shares throughout 2014. As in the case of bonds, the issuing of shares has alleviated credit constraints. However, in the aggregate, it appears insufficient to compensate for the financing gap left by the drop in loans, in particular as capital markets are accessible to larger companies rather than smaller businesses.



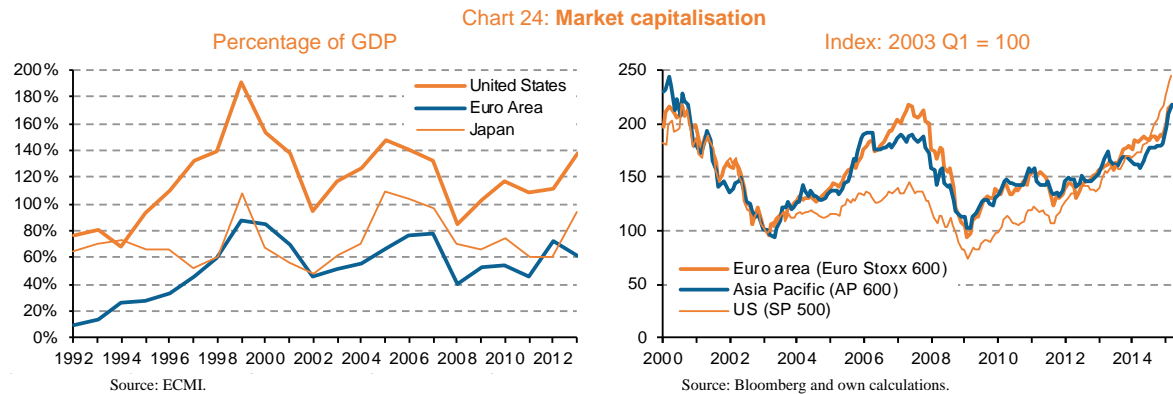
Source: ECB: Securities statistics and own calculations

The issuing of shares by MFIs followed a different pattern. In the 2000s, this was relatively limited but, since early 2008, banks have been issuing increasing volumes of shares. As discussed in Section 3, this was driven by the need to absorb incurred losses, provision expected losses and ease the deleveraging process, and the pressure from regulatory reforms and the markets, including several rounds of stress testing and capital and transparency exercises. The willingness of banks to strengthen their capital positions continued throughout 2014, even after the results of the ECB comprehensive assessment were released.

5.3. Market developments in equity markets

EU stock markets were more volatile than bond markets. European stocks continued to increase in the first half of 2014, supported by strong corporate earnings and price-earnings ratios for EU stock indices that were well below their long-term average. However, in the summer, stock indices struggled and volatility spiked amid mounting geopolitical tensions and disappointing macro-data. Towards the end of 2014, stock markets recovered but remained volatile, due to rising global macroeconomic concerns (e.g. China and the significant drop in oil

prices). Stock markets began 2015 on a rally, supported by both supplementary unconventional monetary policy stimulus and the pick-up of macroeconomic growth. The general increase was smooth and almost uninterrupted, while the market volatility index dropped significantly. Concerns may be raised with respect to the potential building of a bubble given such a rally and the historically high values of stock indices.



The banking sub-index increased more than the overall index over the last couple of years, but this trend stalled in the first quarters of 2014 and even reversed over summer. However, with speculation about QE gaining strength over the last few months of 2014 and later on, as QE was actually implemented, banking shares recovered strongly.

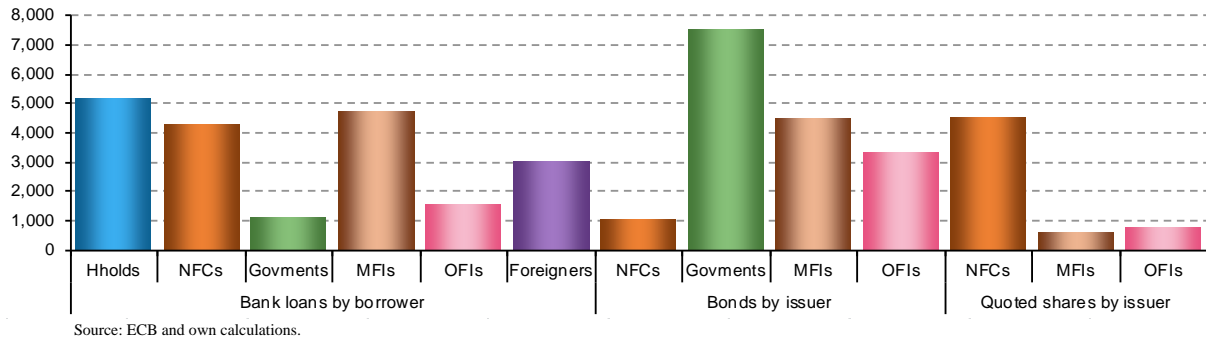
US stock market indices saw lower volatility than their EU equivalents despite higher valuations. Equity margin debt on the New York stock exchange has been at a new all-time height since 2014 (following previous peaks in 2001 and 2007), suggesting significant optimistic market sentiment.

6. CONCLUSIONS

This chapter shows how a series of economic indicators signal that the recovery of the EU economy is gaining traction. However, economic growth remains slow and output has yet to reach pre-crisis levels. Some risk and vulnerabilities of the European economy are to be noted. Firstly, despite many years of extraordinary monetary stimulus, structural reforms and regulatory reforms, the EU and many other economies remain in a low growth and low inflation environment (also influenced by demographic trends), while historical high debt levels have hardly come down. Secondly, financial markets and financial system in the EU and abroad have overall been resilient over the past several months; however, some short episodes of volatility have also been observed. Finally, the protracted low yield environment may generate some risks linked to the search for yield, a potential sharp and disorderly reversal in the assessment of risk, the build-up of bubbles in specific market segments, potential reduction of private sector consumption, compression of profit margins for financial institutions against the guaranteed returns to policy holders (insurance corporations and pension funds) or a false sense of security that may lead to delaying consolidation.

The chapter also analyses the developments in the different segments of the financial sector including bank loans, bonds and quoted shares. The distribution of the use of the different sources by each financial sector is summarised in Chart 25. An in-depth analysis of these and other sources of funding is further developed in Chapter 2.

Chart 25: Sources of funding used by the economy
 Loan intermediation and financial markets, outstanding amounts, December 2014, € billion



ANNEX: ADDITIONAL CHARTS AND TABLES

Chart A1: Financial markets liquidity indicator, euro area

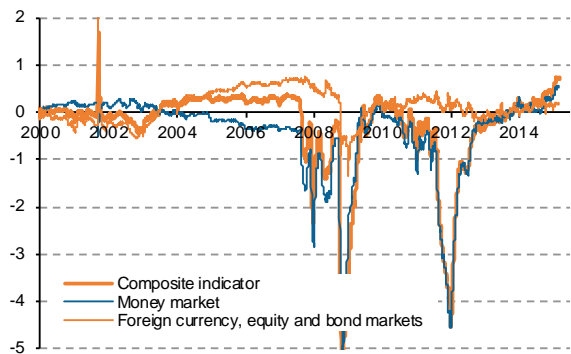


Chart A2: Global risk aversion indicator

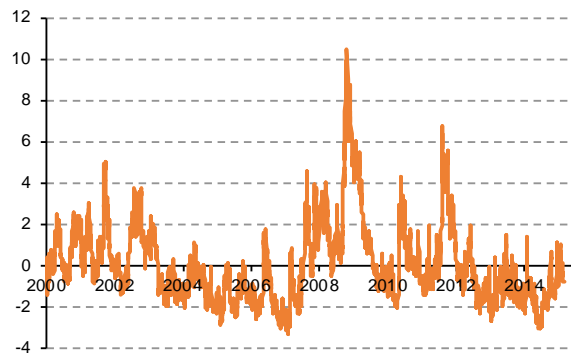


Chart A3: Yields, AAA-rated government bonds, euro area, percentage
 Yields curve (term structure) Slope of the yield curve, evolution

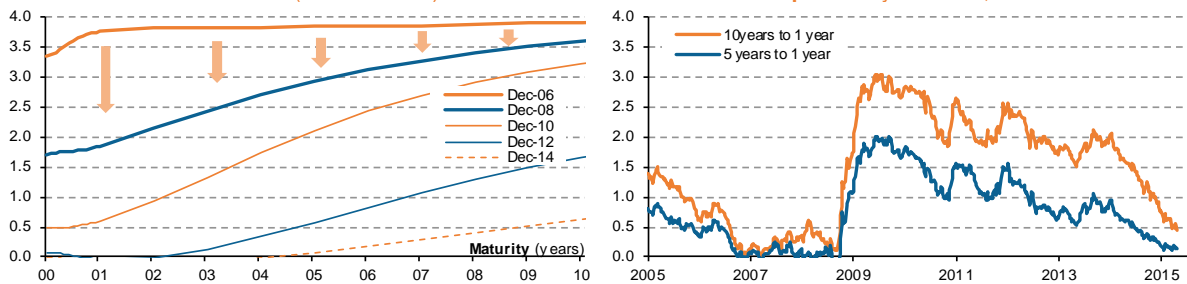


Chart A4: ECB policy rates and market rates, percentage

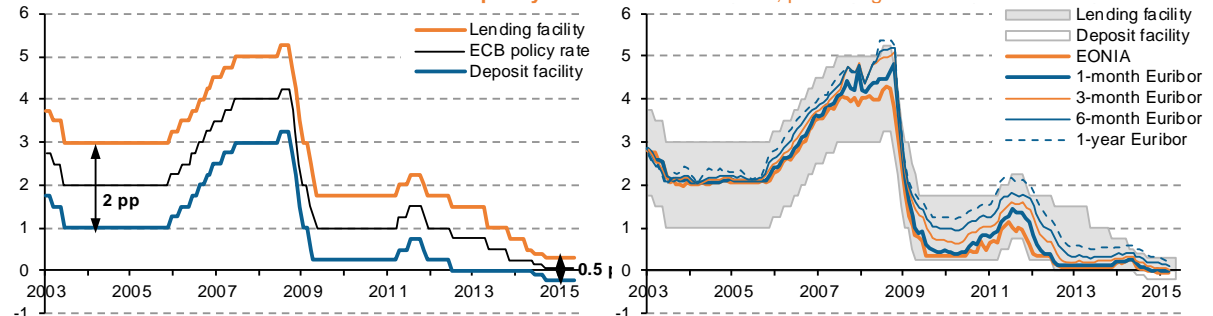
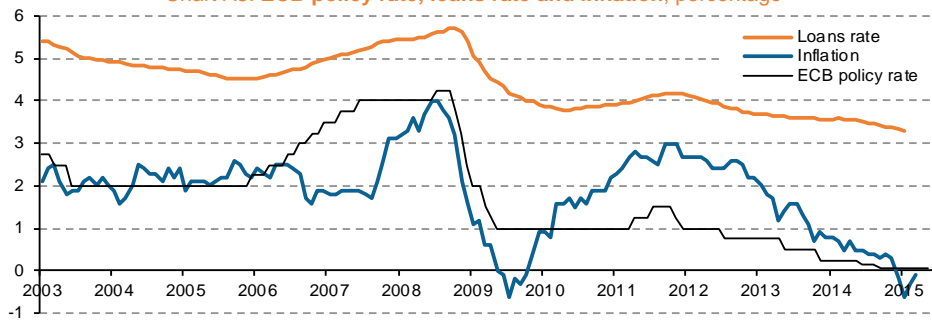
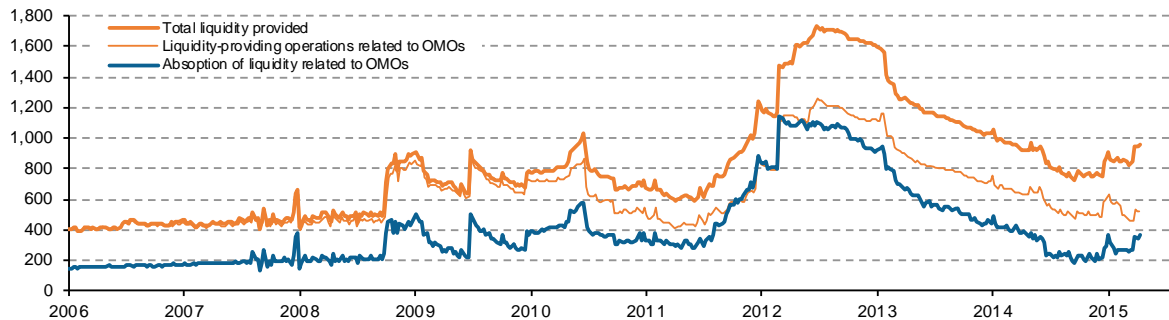


Chart A5: ECB policy rate, loans rate and inflation, percentage



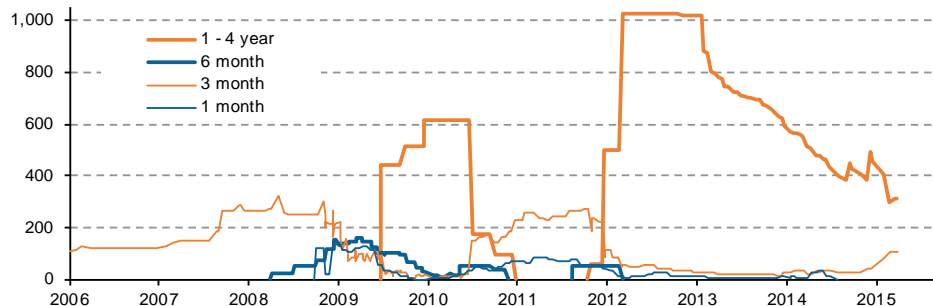
Note: 'Loans rate' is calculated as the weighted average of the rate charged on the different types of loans granted to households and non-financial corporations.
Source: ECB and own calculations.

Chart A6: Liquidity provided by the Eurosystem, € billion



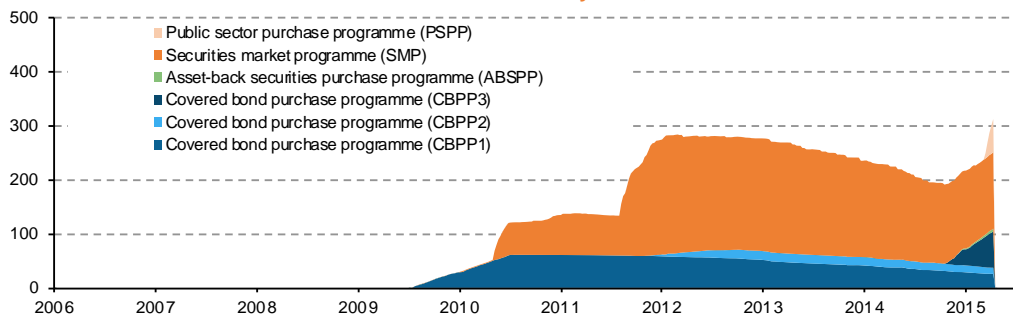
Notes: Total liquidity provided includes total lending to credit institutions related to MPOs, other claims on MFIs (this includes, inter alia, ELA provided by national central banks) and securities held for monetary policy purposes (see right-hand panel); Source: ECB: Monthly bulletin and own calculations.
Source: ECB: Monthly bulletin and own calculations.

Chart A7: Outstanding amounts allotted in LTROs: breakdown by maturity, € billion



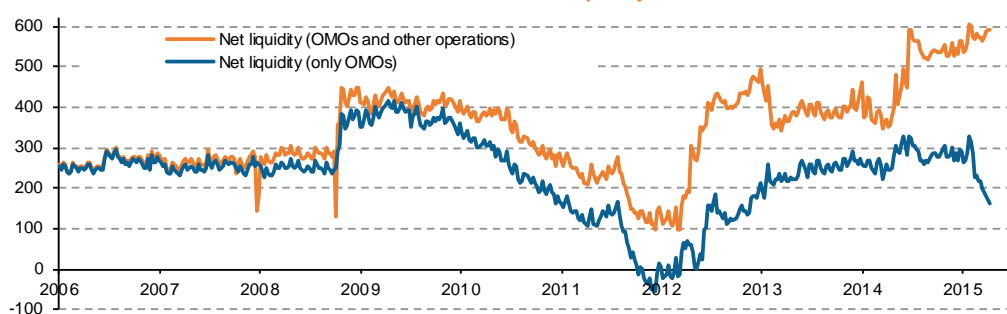
Source: ECB: Monthly bulletin and own calculations.

Chart A8: Securities held by ECB, € billion



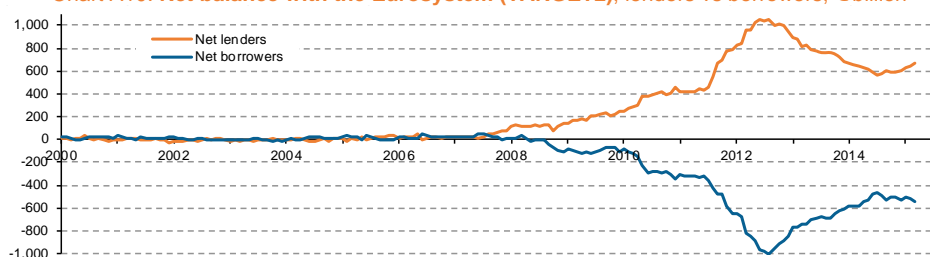
Note: Holdings for monetary policy purposes.
Source: ECB: Monthly bulletin and own calculations.

Chart A9: Net central bank liquidity, € billion



Notes: Net liquidity is calculated as the difference between total liquidity-providing operations related to OMOs and total absorption of liquidity related to OMOs. 'Other operations' include other claims on MFIs and securities held for monetary policy purposes. OMOs: open market operations.
Source: ECB and own calculations.

Chart A10: Net balance with the Eurosystem (TARGET2), lenders vs borrowers, € billion



Note: Net lenders: Germany, Netherlands, Luxembourg, Finland. Net borrowers: Portugal, Ireland, Greece, Italy and Spain
Source: Institute of Empirical Economic Research – Osnabrück University (www.eurocrisismonitor.com) and own calculations.

Table A1: Loans by counterparts granted by euro area banks (MFIs), outstanding volumes, € billion

Counterparty	2006	2007	2008	2009	2010	2011	2012	2013	2014
Interbank loans (excluding position at ECB)	4 763	5 412	5 824	5 511	5 126	5 295	4 851	4 766	4 764
Households	4 529	4 801	4 893	4 960	5 168	5 243	5 251	5 230	5 208
Non-financial corporations	3 840	4 389	4 827	4 691	4 668	4 720	4 536	4 345	4 275
Governments	814	959	973	1 002	1 218	1 160	1 153	1 082	1 117
Other financial institutions	771	958	1 055	1 132	1 196	1 203	1 256	1 074	1 152
Total loans to euro area residents	14 716	16 519	17 572	17 297	17 376	17 619	17 047	16 497	16 516
Loans to non-Euro area residents	2 927	3 295	3 242	2 822	2 963	3 022	2 868	2 726	3 014
Total loans provided by euro area banks	17 644	19 815	20 815	20 118	20 339	20 641	19 916	19 223	19 530

Notes: Other financial institutions include insurance corporations and pension funds, and other financial intermediaries. Interbank loans do not include the positions of the banks at the central bank.

Source: ECB: monetary statistics and own calculations.

Table A2: Bonds issued by euro area residents, outstanding volumes, € billion

Issuer	2006	2007	2008	2009	2010	2011	2012	2013	2014
Governments	4 729	4 859	5 282	5 901	6 499	6 853	6 991	7 263	7 505
Banks (MFIs)	4 548	5 037	5 265	5 367	5 234	5 514	5 397	4 883	4 510
Other financial institutions	1 237	1 553	2 214	3 156	3 216	3 209	3 282	3 210	3 325
Non-financial corporations	588	631	688	788	837	859	915	987	1 055
Total	11 102	12 081	13 449	15 212	15 786	16 435	16 586	16 342	16 394

Note: Other financial institutions include insurance corporations and pension funds, and other financial intermediaries.
Source: ECB: securities statistics and own calculations.

Table A3: Quoted shares issued by euro area residents, outstanding volumes (market capitalisation), € billion

Issuer	2006	2007	2008	2009	2010	2011	2012	2013	2014
Non-financial corporations	4,466	5,001	2,851	3,493	3,792	3,275	3,571	4,314	4,567
Banks (MFIs)	1,046	985	373	565	458	339	405	569	591
Other financial institutions	699	607	299	375	385	325	618	751	788
Total	6,211	6,592	3,523	4,433	4,635	3,939	4,593	5,634	5,945

Source: ECB: securities statistics and own calculations.

Table A4: Credit provided by banks in the form of holdings of bonds, euro area MFIs, outstanding volumes, € billion

Issuer	2006	2007	2008	2009	2010	2011	2012	2013	2014
Banks (MFIs)	1 637	1 740	1 976	2 080	1 886	1 852	1 852	1 643	1 427

Governments	1 278	1 197	1 245	1 482	1 524	1 396	1 627	1 694	1 848
Other financial institutions	428	767	1 150	1 280	1 358	1 353	1 267	1 191	1 116
Non-financial corporations	228	246	256	218	180	164	156	145	151
Total (euro area bonds)	3 571	3 949	4 628	5 060	4 949	4 765	4 902	4 673	4 543
Non-Euro area issuers	1 109	1 234	1 227	1 148	1 052	932	873	799	936
Total	4 680	5 183	5 855	6 207	6 001	5 697	5 775	5 472	5 479

Source: ECB: monetary statistics and own calculations.

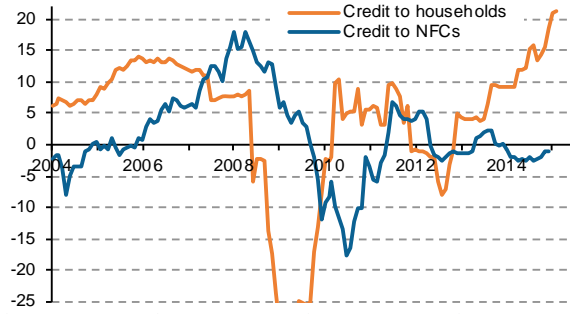
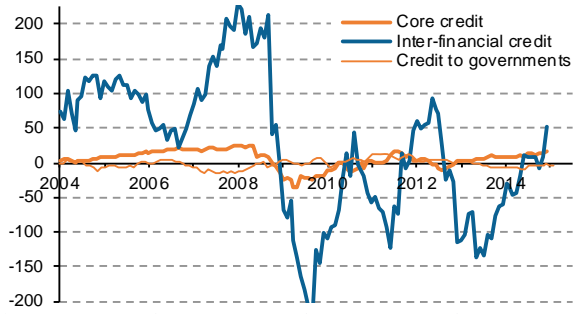
Table A5: Credit provided by banks in the form of holdings of equity, euro area MFIs, outstanding volumes, € billion

Issuer	2006	2007	2008	2009	2010	2011	2012	2013	2014
Banks (MFIs)	373	424	422	435	445	484	476	456	423
Other financial institutions	302	374	306	340	481	444	444	451	488
Non-financial corporations	500	497	469	461	308	284	309	325	268
Total (euro area shares)	1 173	1 295	1 197	1 236	1 233	1 212	1 228	1 232	1 174
Non-euro area issuers	293	342	276	280	303	295	301	328	335
Total	1 466	1 636	1 473	1 516	1 536	1 507	1 528	1 560	1 508

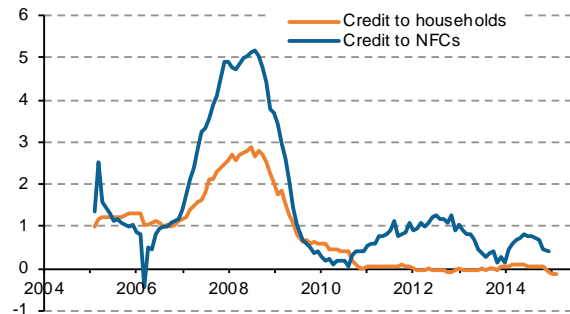
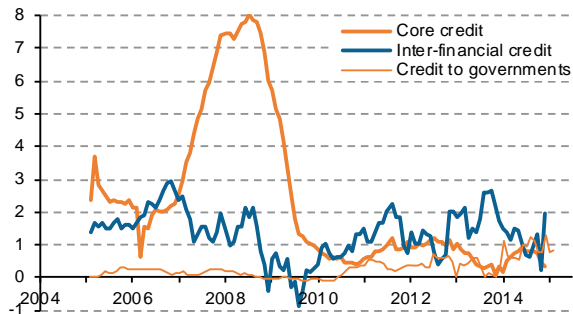
Notes: Includes all equity: quoted shares, non-negotiated shares and other types of equity. The Eurosystem is excluded from MFIs.

Source: ECB: monetary statistics and own calculations.

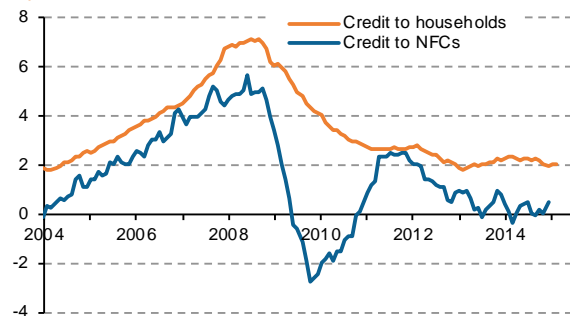
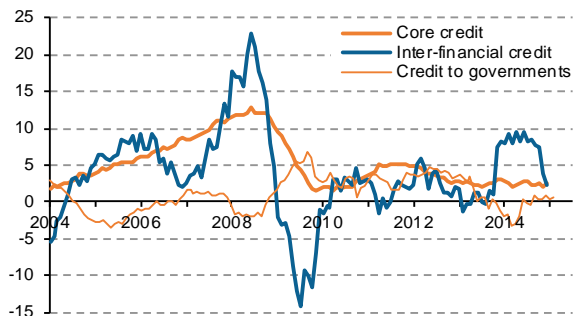
Chart A11: Credit provided by banks, net annual flows, € billion
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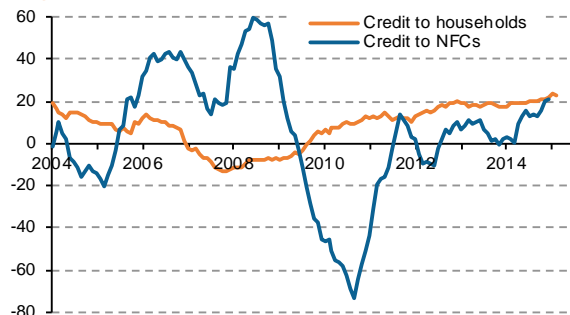
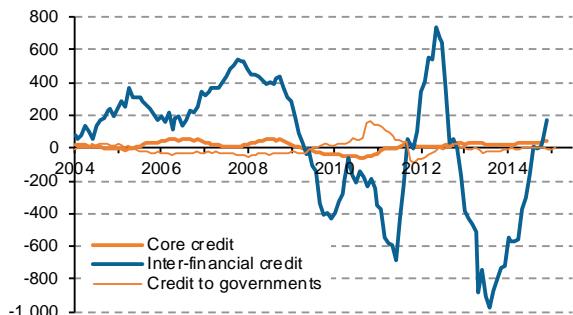
Bulgaria



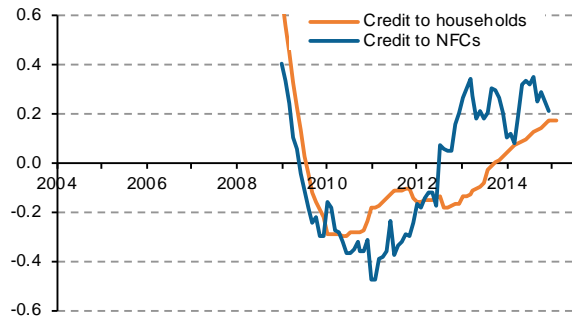
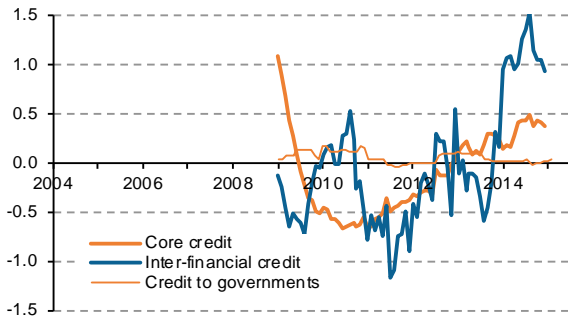
Czech Republic



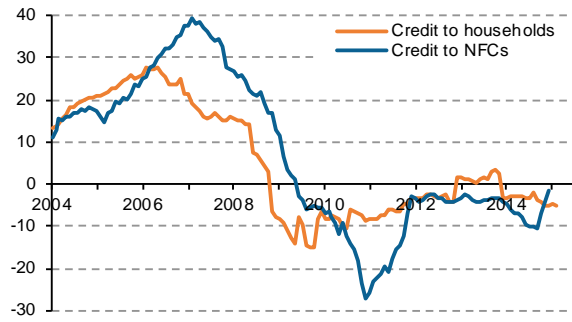
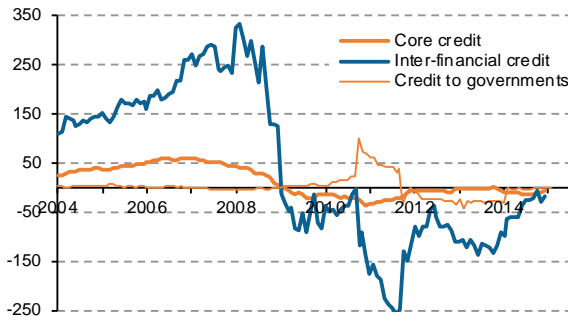
Germany



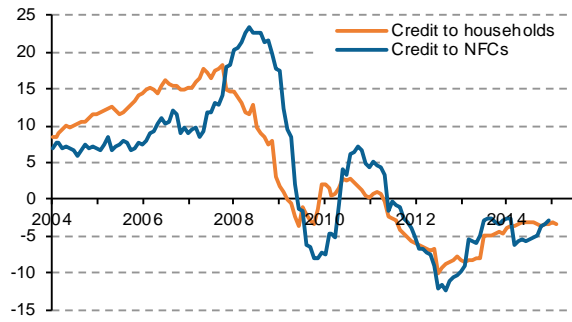
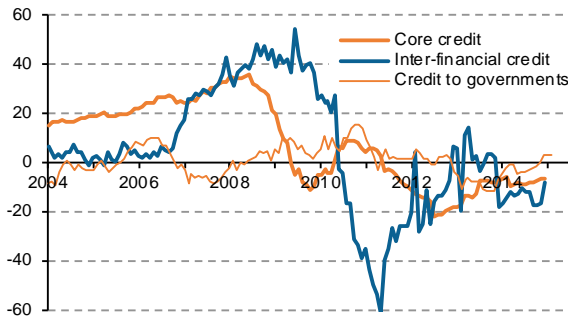
Estonia



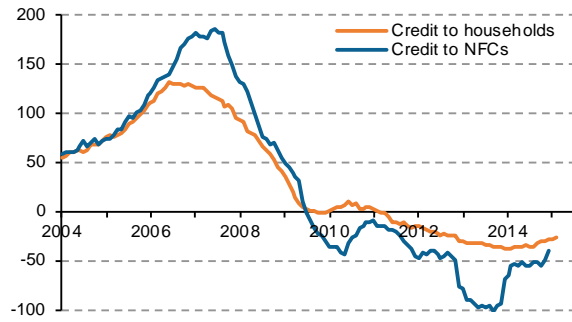
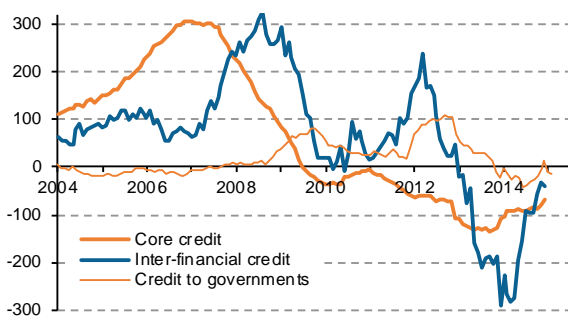
Ireland



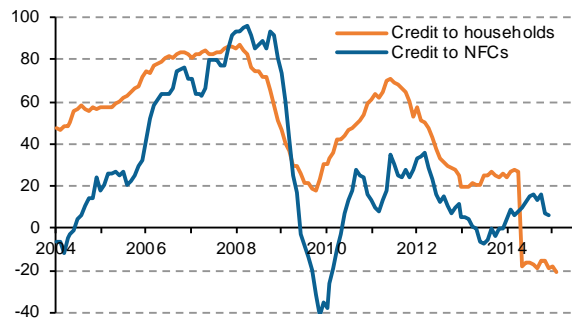
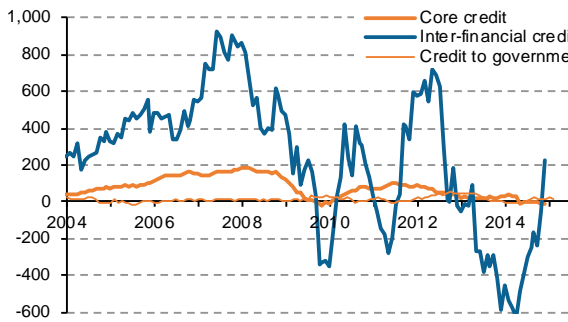
Greece



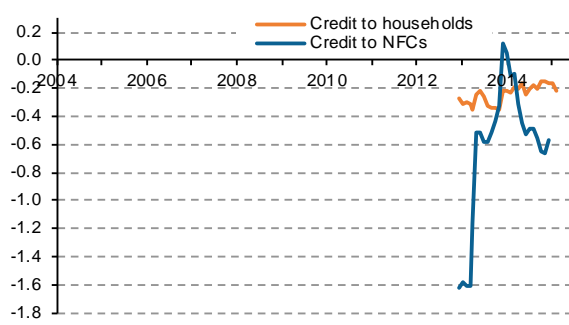
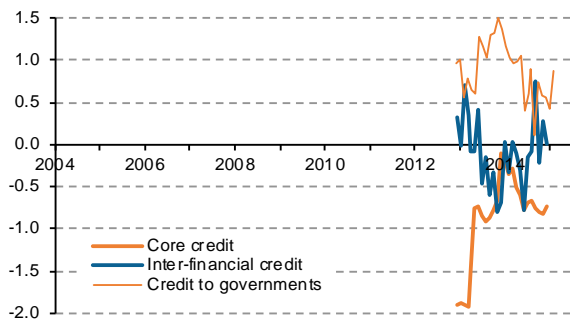
Spain



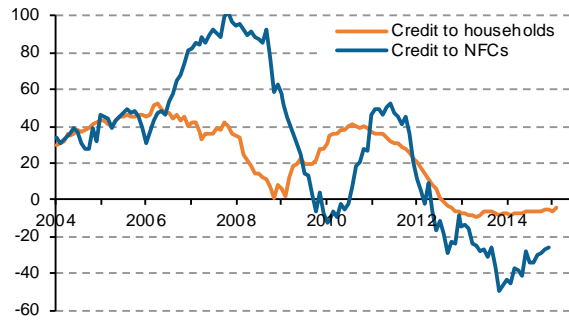
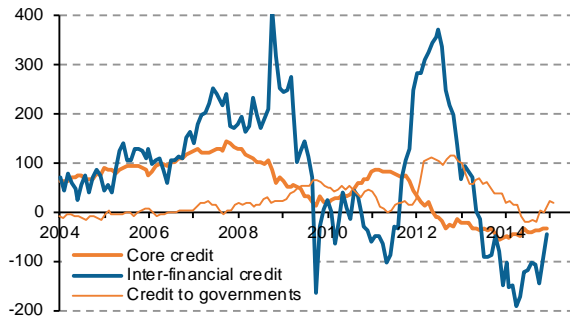
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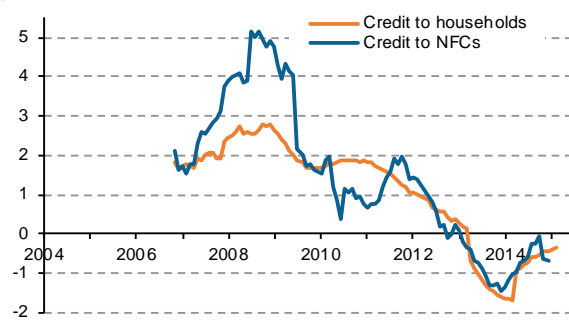
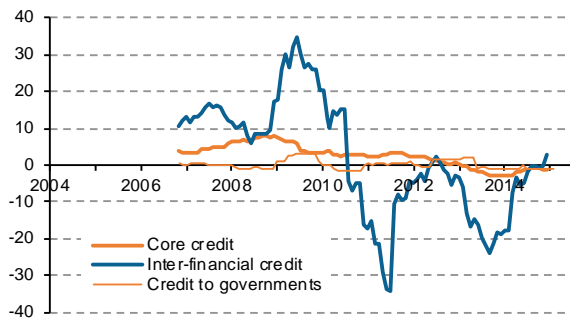
Croatia



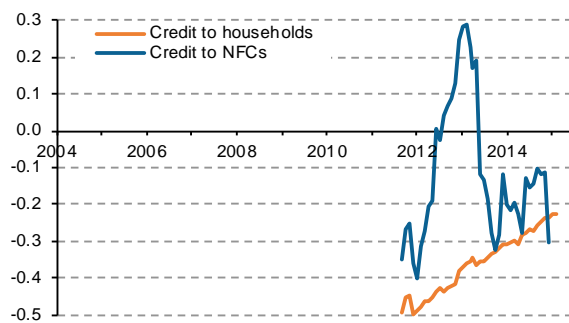
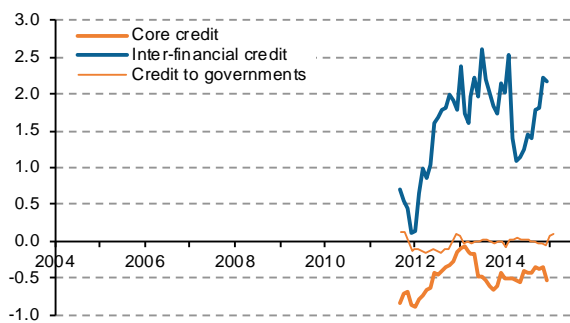
Italy



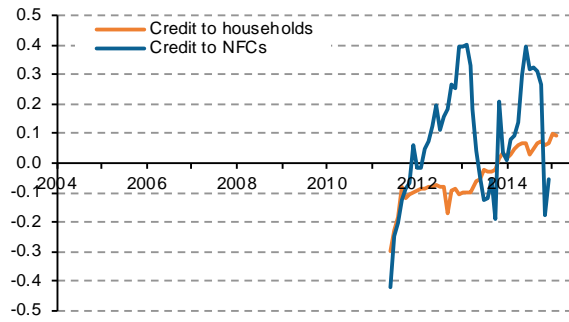
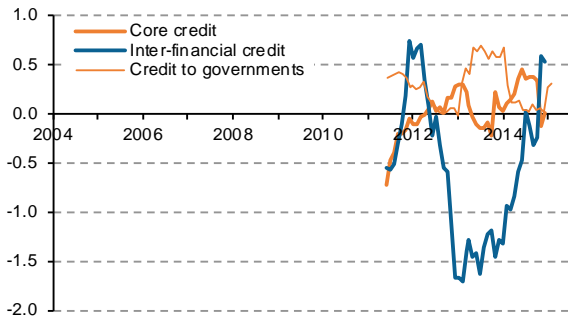
Cyprus



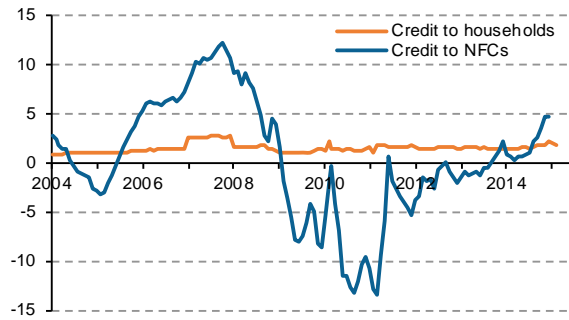
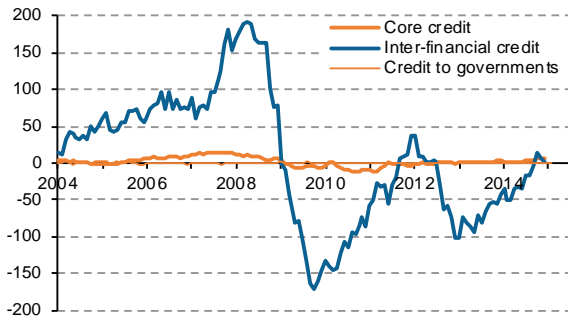
Latvia



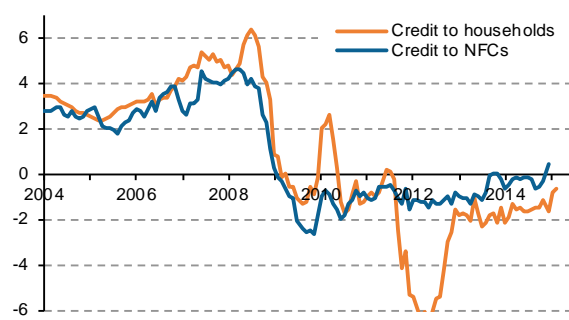
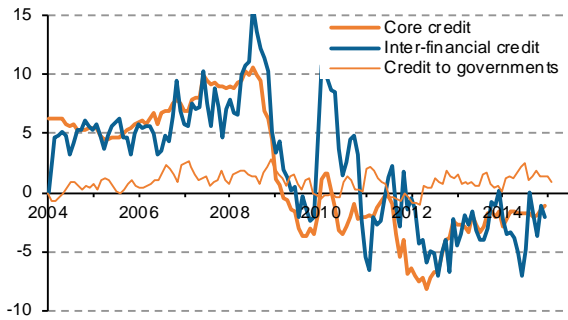
Lithuania



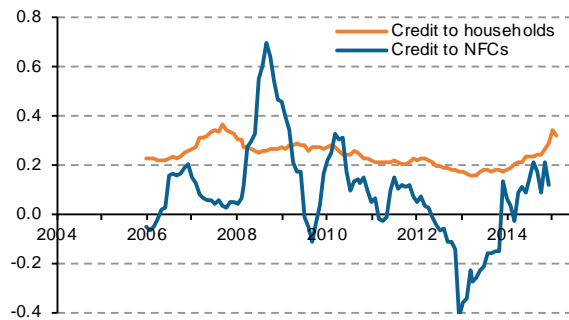
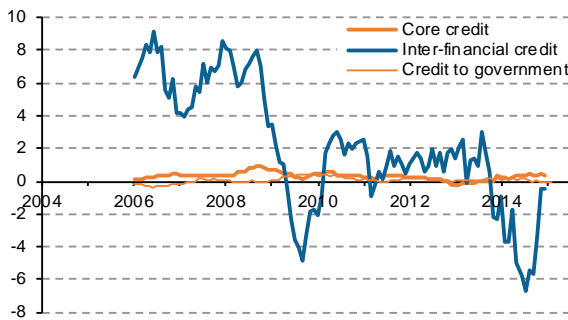
Luxembourg



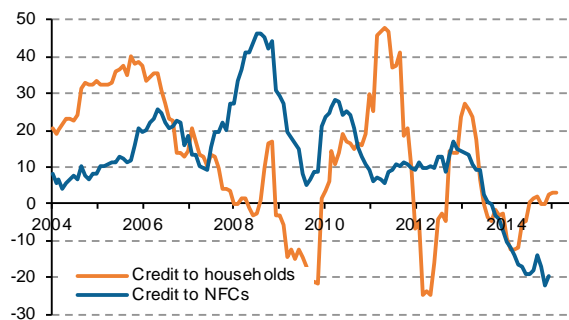
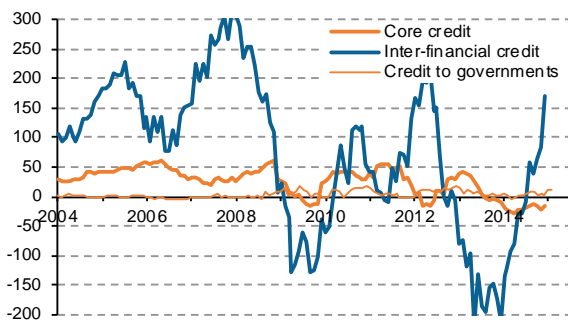
Hungary

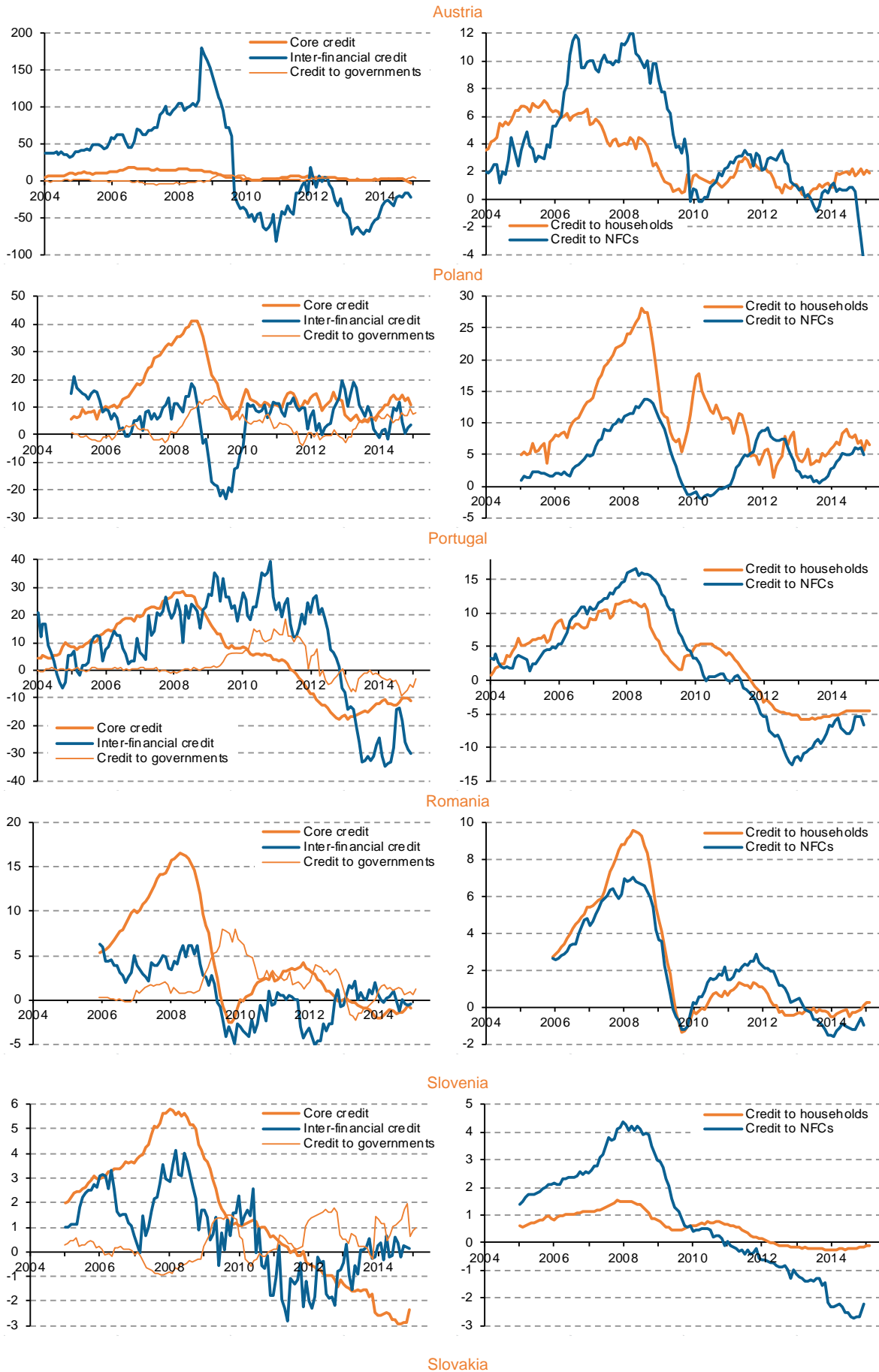


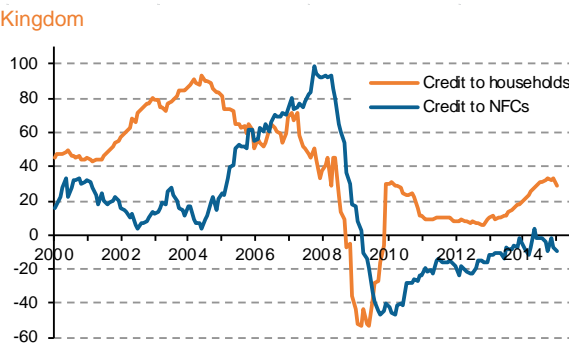
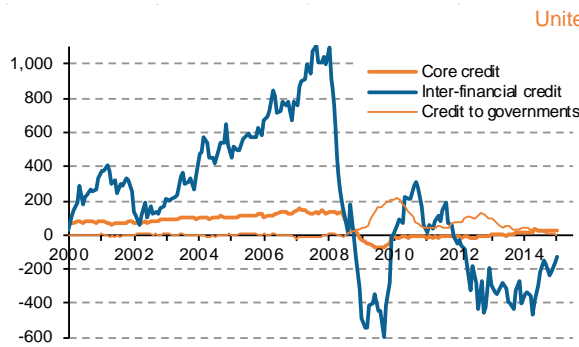
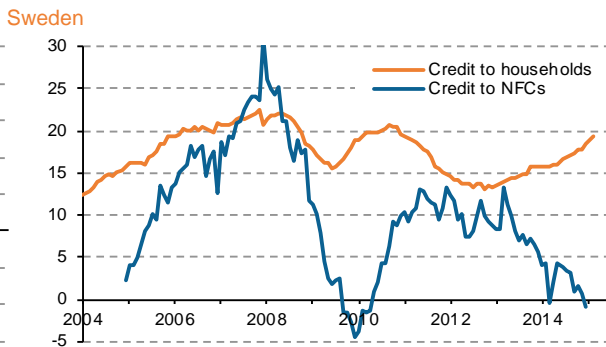
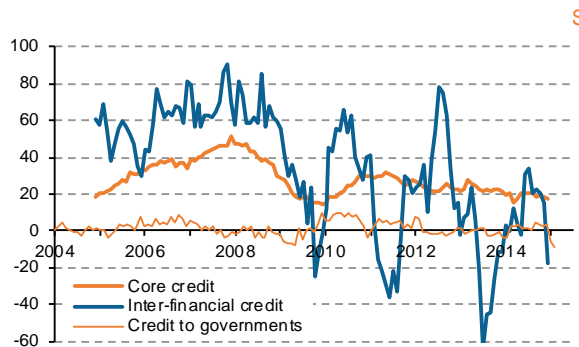
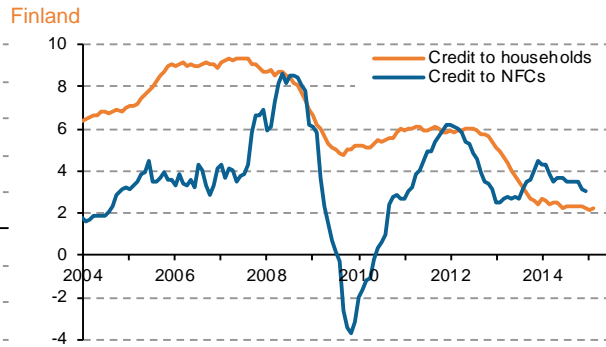
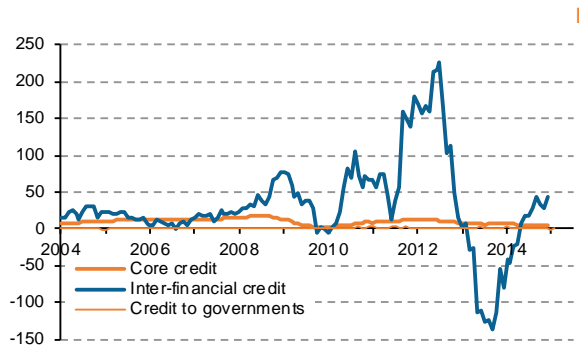
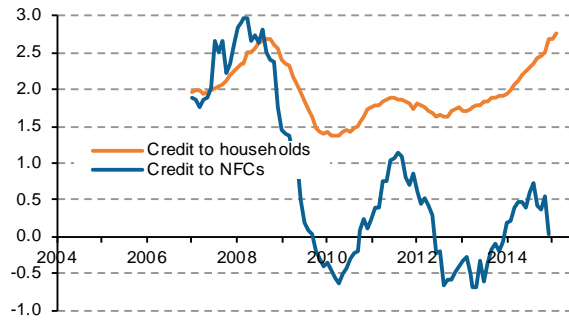
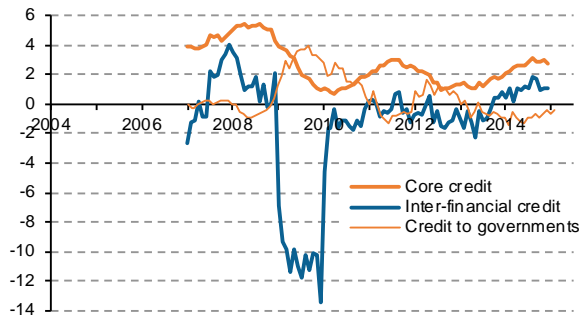
Malta



Netherlands







Notes: Net annual flows are calculated as new credits minus redemptions. Credit comprises loans and purchase of securities (equity, debt securities and derivatives). Core credit: credit provided to households and non-financial corporations. Inter-financial credit is computed by subtracting government and core credit to total assets. Inter-financial credit includes both private inter-financial credit and the positions of banks in the Central Bank (current accounts, deposit facility and fixed term deposits). Data for UK are in £ billion. Data for Denmark are not available.
Source: ECB: Monetary statistics, Bank of England and own calculations.

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