EUROPEAN CENTRAL BANK

EUROSYSTEM

FINANCIAL INTEGRATION IN EUROPE

MARCH 2007

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In 2007 all ECB publications feature a motif taken from the €20 banknote.

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PREFACE

INTRODUCTION

This report "Financial Integration in Europe – March 2007" is the first issue of a new annual ECB publication. The main purpose of this Report is to enhance the contribution of the Eurosystem to the Community objective of advancing European financial integration. In addition, the report is designed to raise public awareness about the role of the Eurosystem in supporting financial integration.

Since central banks are at the core of financial systems, they closely follow developments in this field.[1] While financial integration is an important driver for increasing the efficiency of a financial system, the latter also depends on other factors such as the degree of its development and the quality of the fundamentals determining the framework conditions of the financial market. To capture all aspects of financial efficiency, it is therefore envisaged to widen this report's scope over time to encompass these factors as well. This is also in line with an invitation by the Council of Economic and Finance Ministers (the ECOFIN Council) to the ECB "to monitor and assess relevant institutional features that hinder the efficient functioning of the financial system, and to pursue efforts aimed at improving the financial market framework conditions."[2]

This report is structured into three main chapters. The first chapter provides the ECB's assessment of "The state of financial integration in the euro area", based on a set of quantitative indicators. The second chapter comprises Special Features which contain in-depth assessments of selected issues relating to financial integration. The third chapter on "Eurosystem activities for financial integration" provides an overview of the main activities in the reference period.

This report is expected to be released annually around the end of March. While the geographical scope of the report mainly pertains to the euro area, issues will also be addressed from an EU perspective, where relevant.

THE EUROSYSTEM'S INTEREST IN EUROPEAN FINANCIAL INTEGRATION

Against the background of its core tasks, the Eurosystem has a keen interest in financial integration and the efficient functioning of the financial system in Europe, particularly in the euro area.[3] Financial integration is of key importance for the conduct of the single monetary policy, as a well-integrated financial system enhances the smooth and effective transmission of monetary policy impulses throughout the euro area. Furthermore, financial integration is highly relevant to the Eurosystem's task of contributing to safeguarding financial stability. Financial integration is also fundamental to the Eurosystem's task of promoting the smooth operation of payment systems; the latter also relate to the safe and efficient functioning of securities clearing and settlement systems. Finally, in accordance with Article 105 of the Treaty, the Eurosystem supports, without prejudice to the objective of price stability, the general economic policies of the Community. Financial integration, which helps to promote the development of the financial system, thereby raising the potential for stronger non-inflationary economic growth, is a key component of the general economic policy of the EU.

To this end, in 1999 the European Commission initiated the Financial Services Action Plan (FSAP). The FSAP represented a major step forward in the further harmonisation of financial market legislation in the EU, which is an important element for fostering financial integration. Further initiatives are nevertheless

1 For example, since December 2004 the ECB has begun to publish twice a year the "Financial Stability Review", which monitors and assesses developments related to the stability of the euro area financial system.
2 See the press release of the ECOFIN Council meeting, Luxembourg, 10 October 2006. This request was also addressed to the European Commission.
3 The Governing Council of the ECB formulated the Eurosystem's mission statement: "We in the Eurosystem have as our primary objective the maintenance of price stability for the common good. Acting also as a leading financial authority, we aim to safeguard financial stability and promote European financial integration." (For more details: http://www.ecb.int/ecb/orga/escb/html/mission/eurosys.en.html.)

indispensable, as reflected in the Commission's White Paper on Financial Services Policy 2005-2010, which was released in December 2005. Also in 2005, following a mid-term review, the European Council re-launched the Lisbon Strategy, which aims at strengthening growth and increasing employment in Europe. The Eurosystem fully supports this initiative. Furthermore, a contribution from the ECB to the discussion at the September 2006 Informal ECOFIN meeting highlighted the benefits of complementing ongoing initiatives in the field of financial integration with measures promoting financial development.[4]

MAIN ELEMENTS OF THE ECB'S WORK ON FINANCIAL INTEGRATION

The ECB structures its work on European financial integration around three main elements.[5]

First, the ECB has adopted a definition of financial integration: it considers the market for a given set of financial instruments or services to be fully integrated when all potential market participants in such a market (i) are subject to a single set of rules when they decide to deal with those financial instruments or services, (ii) have equal access to this set of financial instruments or services, and (iii) are treated equally when they operate in the market.[6]

Second, building on this definition, the ECB has sought to devise a way to capture, in quantitative terms, the state of financial integration in the euro area. Quantitative indicators of financial integration in the euro area provide the basis for a comprehensive assessment of both the current level of financial integration and its evolution over time. Analysis of the state of European financial integration and the monitoring of its progress over time are prerequisites for targeted action designed to foster financial integration. Moreover, in view of the envisaged extension of the report's scope, ECB staff are working on additional quantitative indicators, capturing for example measures of financial development.

Third, the Eurosystem contributes to furthering the financial integration process in four main ways: (i) giving advice on the legislative and regulatory framework for the financial system and on direct rule-making; (ii) acting as a catalyst for private sector activities by facilitating collective action; (iii) enhancing knowledge, raising awareness and monitoring the state of European financial integration; and (iv) providing central bank services that also foster European financial integration.

4 See also "The role of financial markets and innovation for productivity and growth in Europe", ECB Occasional Paper No 55, forthcoming.

5 The ECB has explained its work in this respect in two Monthly Bulletin articles on European financial integration: "The integration of Europe's financial markets", published in October 2003, and "The contribution of the ECB and the Eurosystem to European financial integration", published in May 2006.

6 The term "market" is used in a broad sense, covering all possible exchanges of financial instruments or services, be these via an organised market, such as a stock exchange, or via an over-the-counter market created by a financial institution supplying a financial instrument or service.

EXECUTIVE SUMMARY

The report is structured into three main chapters.

Chapter 1 (and the annex) provides the ECB's assessment of the degree of financial integration in the different financial segments of the euro area. This is based on a set of financial integration indicators that are published semi-annually on the ECB website and annually in this report. The assessment covers many important dimensions of the financial system such as the money, bond, equity and banking markets, as well as market infrastructures. The available evidence suggests that the degree of integration varies depending on the market segment, and is correlated inter alia with the degree of integration of the underlying financial infrastructure. Generally, financial integration is more advanced in those market segments that are closer to the single monetary policy, especially the money market. The unsecured money market has been fully integrated since the introduction of the euro. The repo market is also highly integrated. The full integration of the large-value payment systems (LVPS) has been instrumental in achieving this result. Government bond markets became considerably integrated in the run-up to Economic and Monetary Union (EMU). Similarly, the corporate bond market received a major boost with the introduction of the euro and has subsequently achieved a high degree of integration. Progress has also been made in the integration of euro area equity markets, where equity returns are increasingly determined by specific factors that are common to euro area countries.

However, in other areas more needs to be done to further financial integration. The euro area securities infrastructure underpinning both bond and equity markets is not yet sufficiently integrated. Turning to the euro area banking sector, while interbank and capital market-related activities show signs of increasing integration, retail banking markets continue to be less integrated, which is also reflected in the fragmented underlying financial infrastructure.

Chapter 2 comprises three Special Features, which provide in-depth assessments of selected issues relating to financial integration. These Special Features will typically address major policy issues, but may also contain analytical articles on the subject of financial integration. The topics will mainly be selected on the basis of their importance regarding the EU's financial integration agenda and their relevance for the pursuit of the ECB's tasks.

The first Special Feature of this report, entitled "Monetary policy and financial integration", aims to show how important a well-integrated financial system is for the implementation and effectiveness of monetary policy in the euro area. Bearing in mind that the integration of financial markets across the euro area has a multi-dimensional significance, this Special Feature focuses on the impact of financial integration on the monetary transmission mechanism. Empirical research conducted a few years ago at the ECB indicated that the transmission mechanism operates in a broadly similar way across euro area countries, with the interest rate channel being generally dominant, especially via its impact on investment. However, this research also indicated that some differences remain concerning the impact of financial factors, which in turn are likely to be affected by the state of financial market integration. Over recent years, improvements in the integration of financial markets are likely to have reduced these asymmetries.

This Special Feature also considers how structural characteristics of the financial system may affect the way monetary policy impulses are transmitted to the real economy and ultimately impact on inflation. It qualitatively illustrates this, and reports on recent evidence concerning the role of financial factors with regard to the interest rate and credit channels. With regard to the interest rate channel, it is suggested that there may still be some degree of heterogeneity in the way banks across the euro area adjust their interest rates to monetary policy actions. While increased financial integration reduces the importance of differences, some persisting discrepancies may partly be attributed to the different structures of financial institutions and markets. However, to some extent, they could also underscore the need for further financial integration. Concerning the credit channel of the monetary policy transmission mechanism and the role played by the supply of bank credit, this Special Feature also looks at the degree of indebtedness of corporations. It sketches out some pertinent developments and differences across countries, and outlines those related to the process of financial integration.

Generally speaking, both the level and the type of indebtedness of non-financial corporations play a role in the transmission of monetary policy. In this respect, though, the significant changes that have occurred in the financial sector since the start of EMU have increased the choice of financial products and opportunities of finance, with beneficial effects on households and non-financial enterprises. Finally, it is argued that further financial integration may reduce the persisting differences in the composition of household net wealth across euro area countries, thus contributing to a smoother and more homogeneous monetary policy transmission mechanism.

Overall, the ongoing process of financial market integration, while not yet complete, does not hinder the smooth functioning of monetary policy across the euro area, as the transmission of monetary policy is not very dissimilar across euro area countries. Nevertheless, further advances in financial market integration could eliminate some of the remaining differences and therefore facilitate the transmission of monetary policy in the euro area.

The second Special Feature, entitled "Strengthening the EU framework for cross-border banks", focuses on the important role played by cross-border banking in fostering progress in banking integration. It provides both an empirical analysis of recent developments in cross-border banking in the euro area as well as a policy assessment of whether the EU framework for cross-border banks is adequate to support a market-led process of cross-border banking, focusing especially on the EU framework for prudential supervision.

As regards the developments in cross-border banking in the euro area, this Special Feature finds that several empirical indicators point to the growing role of cross-border banking activities and institutions in recent years. These include for example the rising cross-border share in the financial holdings of euro area banks and merger and acquisition (M&A) operations, as well as the rising share of major euro area banking groups in total euro area banking activity. In addition, cross-border banking groups are increasingly integrating some business functions across borders and legal entities. Several factors may influence further growth in cross-border banking in the coming years and determine the extent to which cross-border banking expansion is able to deliver the expected economic benefits for the respective institutions. The reduction of potential obstacles to cross-border M&A activity and the efficient operation of cross-border institutions will be of key importance. This Special Feature provides a short overview of the major prudential, fiscal and legal policy initiatives recently adopted or underway to enhance the EU framework for cross-border banks. Focusing in more detail on the measures to strengthen the EU framework for prudential supervision, it argues that recent improvements in the institutional setting and present efforts to ensure their effective implementation should spur significant progress in supervisory cooperation and convergence that are in line with the challenges posed by cross-border banking. In particular, the supervisory framework should deliver a more integrated supervisory interface for cross-border banks, enabling them to reduce their supervisory compliance burden significantly.

This Special Feature also briefly considers the current debate as to whether a move towards more integrated supervisory arrangements –

such as the lead supervisor approach – may be beneficial. It concludes that the possible need for further policy action to strengthen the EU supervisory framework for cross-border banks should be evaluated once the findings of the broad-based review of the EU supervisory framework – which will be carried out by several EU fora by the end of 2007 – become available.

The third Special Feature, entitled "The Single Euro Payments Area (SEPA) and its implications for financial integration", considers the European banking industry's initiative to enhance the integration of retail payment systems, which the Eurosystem supports in a catalyst role. It also follows up on the ECOFIN Council's October 2006 invitation to the ECB and other interested authorities "to continue monitoring the overall development" of SEPA and to "report back to the Council if progress is not satisfactory and at the latest in 2008".

The aim of the SEPA project is to enable customers to make more efficient cashless payments throughout the euro area from a single account, irrespective of their location. This project represents a logical step after the introduction of the euro to advance financial integration in Europe further by introducing a single retail payment market. SEPA will foster competition and innovation in this market by defining the basic conditions, rights and obligations for all retail payments in euro, thereby enhancing the transparency and comparability of services throughout Europe. In addition, SEPA will define the technical standards and access conditions to the market, thereby promoting interoperability and reachability of different participants. By creating a level playing-field, SEPA will ensure that market participants are treated equally in this market. So far, the banking industry has made substantial progress towards a more integrated retail payment market, committing itself to introducing SEPA instruments and procedures from January 2008, and to migrating a critical mass of its customer payments by end-2010.

Chapter 3 of the report on "Eurosystem activities for financial integration" provides an overview of the main activities which the Eurosystem pursued in 2006 with the aim of advancing the integration of the euro area financial system.[7] This chapter aims at raising the awareness of the general public with regard to the activities of the Eurosystem, and seeks to enhance their potential impact on the pursuit of the objective of financial integration. In 2006 four initiatives were of particular importance.

First, the Eurosystem continued to provide advice on the main policy reflections and initiatives underway with respect to the shaping of the legislative and regulatory framework for the financial system. In 2006 the main activities concerned the EU arrangements for financial supervision and the framework for cross-border bank M&As, the further integration of European mortgage markets, and the EU securities clearing and settlement infrastructure.

Second, the ECB continued to act as a catalyst for private sector activities, leading to a major achievement in 2006 with the launch of the "Short-term European Paper" (STEP) market after several years of preparation, during which time the ECB and the Eurosystem had supported the advancement of this market-led initiative. Furthermore, the Eurosystem continued to provide assistance to the banking industry's SEPA project.

Third, with regard to enhancing knowledge, raising awareness and monitoring the state of financial integration, in 2006 the ECB published an enhanced set of quantitative indicators on financial integration in the euro area. The ECB also continued work on quantitative indicators of financial development. In a contribution to the discussion of the September 2006 Informal ECOFIN meeting, ECB staff research highlighted the benefits of complementing ongoing initiatives with measures promoting financial development. As a further major

7 This chapter also expands the chapter on financial integration in the ECB Annual Report.

initiative, the ECB continued its activities with the Center for Financial Studies (CFS) in Frankfurt am Main regarding the joint Research Network on "Capital Markets and Financial Integration in Europe".

Fourth, regarding central bank services that also foster financial integration, activities mainly focused on making further progress with respect to the TARGET2 system, the "Single List of Collateral" project, the initiation of an investigation into possibly providing settlement services for securities transactions (the "TARGET2 Securities" project), and the further enhancement of the Eurosystem's reserve management services framework.

CHAPTER 1

THE STATE OF FINANCIAL INTEGRATION IN THE EURO AREA

This chapter presents the ECB's assessment of the degree of financial integration in the euro area, based on a set of financial integration indicators developed by the ECB.[1] The annex of this report also contains additional indicators and the methodological notes.

1 INTRODUCTION

This chapter is divided into two main sections. The first section briefly touches on the most significant developments that took place in 2006 in the money, bond and equity markets. While this section provides an overall assessment of the state of integration in these markets, the focus is mainly on those elements that are either not yet adequately integrated, or that exhibit interesting dynamics.

The second section discusses at greater length the state of integration in the banking market, in particular banks' cross-border presence and the retail banking segment. This section also serves as background documentation for the topics discussed in the Special Features of Chapter 2, which deal with retail bank interest rates, cross-border banking and the integration of the retail payment system.

The available evidence suggests that the degree of integration varies greatly depending on the market segment and is, inter alia, correlated with the degree of integration of the underlying infrastructure.

The unsecured money market became fully integrated shortly after the introduction of the euro. The repo market is, in terms of pricing, also highly integrated, with the full integration of the LVPS instrumental in achieving this result. Government bond markets became largely integrated in the run-up to EMU. In similar fashion, the corporate bond market received a major boost with the introduction of the euro and has since achieved a high degree of integration. Progress has also been made in the integration of the euro area equity markets, where equity returns are increasingly determined by euro area-specific factors. However, the euro area securities infrastructure underpinning bond and equity markets is still fragmented and therefore offers wide scope for further integration. By contrast, euro area banking markets, and in particular the retail banking markets continue to be rather fragmented. The lack of integration in retail banking markets is mirrored by a fragmented retail payments infrastructure.

2 OVERVIEW OF THE MAIN FINANCIAL MARKET SEGMENTS

MONEY MARKETS

The euro area money market, defined as the market for interbank short-term debt or deposits, is characterised by a high degree of integration.

The unsecured money market reached a stage of "near-perfect" integration almost immediately after the introduction of the euro. The cross-sectional standard deviation of the EONIA lending rates across euro area countries fell sharply to close to zero following the introduction of the euro, and has remained stable thereafter (see Chart C1 in the annex). The related indicator for the repo market – applied to the 1-month and 12-month EUREPO rates, which were created in 2002 – suggests that this segment, in terms of pricing, has also reached a high degree of integration (see Chart C2 in the annex).

The high level of integration suggested by price-based indicators for the euro area money market coexists with a limited degree of cross-

1 See the ECB report on "Indicators of financial integration in the euro area", September 2006, available from the ECB website. For a biannual update of the indicators, see the ECB website at http://www.ecb.int/stats/finint/ html/index.en.html. The ECB intends to amend the list of indicators further (e.g. on insurance markets).

border activity in the euro area short-term debt securities market (in particular when compared to the corresponding indicators for bond and equity markets). This may partly be due to the fact that short-term debt securities issued by euro area governments have very similar risk characteristics and therefore offer little scope for international diversification. Furthermore, money market instruments may often be considered by retail investors as an alternative to bank deposits as they offer higher interest rates for a similar risk exposure, whereas bank deposits tend to be of a more local nature. Chart 1 (see Chart C3 in the annex) shows the share of short-term debt securities issued by euro area residents and held by other euro area residents.

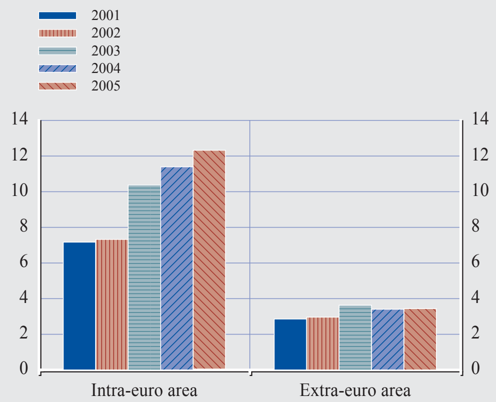
The level of integration in the money markets has been accompanied and sustained by the high degree of integration of the LVPS. LVPS are mostly used for interbank payment transactions, in particular to settle interbank money market operations. Before the introduction of the euro in 1999, the LVPS market was fragmented, with only domestic LVPS operating in legacy currencies. Inter-Member State payments – i.e. payments across national borders – were typically made via correspondent banking.[2]

With the introduction of the euro, the principles for the provision of payment services within the euro area changed. The existence of a single currency and the effective conduct of the single monetary policy required inter-Member State payments within the euro area to be in principle no different from payments within each country.

While in 1998 there were 17 LVPS, this number had declined one year later to five systems plus TARGET, the Trans-European Automated Real-time Gross settlement Express Transfer system (see Chart C4 in the annex), which currently links the national real-time gross settlement (RTGS) systems of 17 EU Member States and the ECB payment mechanism. TARGET is instrumental to the processing of inter-Member State payments between almost all credit institutions within the euro area in real time and at a harmonised transaction fee.

Chart 1 The degree of cross-border holdings of short-term debt securities issued by euro area residents

(as a percentage)



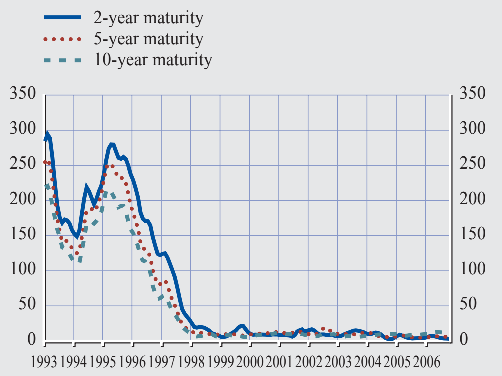
Sources: Bank for International Settlements (BIS), International Monetary Fund (IMF) and ECB calculations.
Note: "Intra-euro area" is defined as the share of short-term debt securities issued by euro area residents and held by residents (excluding central banks) in other euro area countries. "Extra-euro area" is defined as the share of short-term debt securities issued by euro area residents and held by non-residents (excluding central banks) of the euro area.

Since the introduction of the euro, two of the remaining systems have closed down. Among the current systems, most of the payment traffic is processed by TARGET and EURO1 (the private net settlement system) of which TARGET has the largest portion. The share of inter-Member State payments in the total number of payments processed by TARGET stood at about 17% in the first half of 1999. Since then, it has further increased, accounting for 23% in the second half of 2006 after having reached a peak of 25% in the first half of 2004 (see Chart C5 in the annex).

2 Correspondent banking is an arrangement whereby one credit institution provides payment and other services to another. Payments through correspondents are often executed through reciprocal accounts (nostro and loro accounts), to which standing credit lines may be attached.

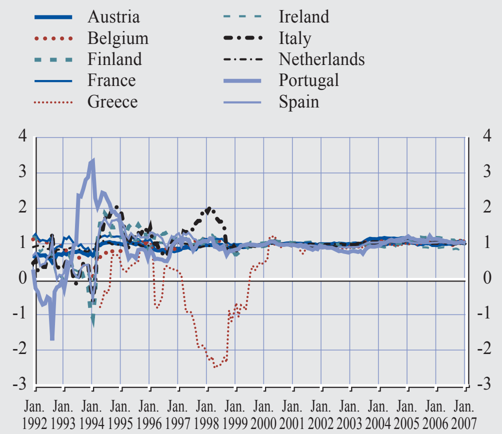
Chart 2 Cross-country standard deviation in government bond yield spreads for two, five and ten-year maturities

(61-day moving average, basis points)



Source: ECB
Note: As a benchmark, the German government bond yield is taken for ten-year maturity bonds, and the yield on a French government bond for two and five-year maturity bonds. Greece is included in the calculation of standard deviation for all maturities after joining the euro area.

Chart 3 Evolution of beta coefficients for ten-year government bond yields



Source: Reuters and ECB calculations.
Note: The benchmark bond is the ten-year German government bond.

BOND MARKETS

With the introduction of the euro and the removal of exchange rate risk, yields in the *government bond market* have converged in all countries and are increasingly driven by common factors, although the importance of local factors has not completely disappeared. Differences in liquidity as well as in the availability of developed derivatives markets tied to the various individual bond markets may partly account for these divergences. Additionally, bond yields in different countries also reflect differences in perceived credit risks – although this should not, however, be seen as an indication of a lack of integration.

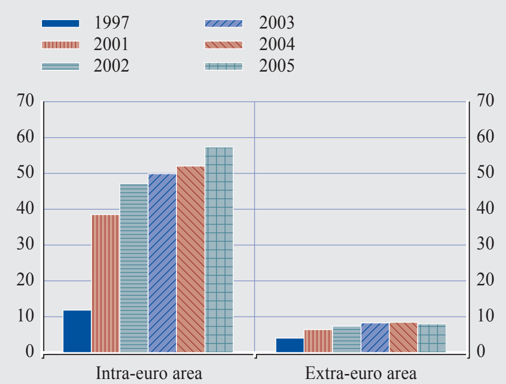
Chart 2 (see Chart C7 in the annex) shows the evolution over time of the standard deviations of the government yield spreads over benchmark bonds. After the significant drop in the run-up to EMU, the dispersion of yield differentials remained close to zero.

One way to test the idea that in integrated markets bond yields should react to common, rather than local, factors is to regress changes in bond yields of individual governments against changes in yields of the benchmark. Chart 3 (see Chart C8 in the annex) shows the evolution of the estimated slope coefficients of this regression. The coefficients varied substantially up to 1998, but converged afterwards towards 1, the level of perfect integration. Greek bond yields only converged after 2001, following the adoption of the euro. The developments in this indicator suggest that the euro area government bond market has reached a quite advanced stage of integration.

The introduction of the euro has also been one of the driving forces behind the strong development of the euro area *corporate bond market*. Corporate bond market integration may be measured by testing whether risk-adjusted yields have a systematic country component. In an integrated market, the proportion of the total yield spread variance that is explained by country effects should be close to zero. The respective indicator shows that the euro area corporate bond market is quite well integrated. Country effects explain only a very small and

Chart 4 The degree of cross-border holdings of long-term debt securities issued by euro area residents

(percentages)



Sources: BIS, IMF and ECB calculations.
Note: "Intra-euro area" is defined as the share of long-term debt securities issued by euro area residents and held by residents (excluding central banks) in other euro area countries. "Extra-euro area" is defined as the share of long-term debt securities issued by euro area residents and held by non-residents (excluding central banks) of the euro area.

constant proportion of the cross-sectional variance of corporate bond yield spreads (see Charts C11 and C13 in the annex).

The finding that bond markets are highly integrated is also broadly confirmed when looking at the share of cross-border activity (see Chart C14 in the annex). Furthermore, Chart 4 (see Chart C15 in the annex) shows the development of holdings of debt securities issued by governments and non-financial corporations from other euro area countries. Overall, monetary financial institutions (MFIs) have strongly increased their cross-border holdings of debt securities since the end of the 1990s, from about 10% to nearly 60%. In particular, the holding of debt securities issued by non-financial corporations has increased remarkably from a very low basis, suggesting that investors are increasingly diversifying their portfolios across the euro area.

An important factor contributing to the integration of financial markets is the development of synthetic credit risk transfer (CRT) products. The advent of synthetic CRT instruments such as credit derivatives and collateralised debt obligations (CDOs) promotes market completeness. As such, this affects the functioning and development of credit markets as well as the financial integration of euro area bond markets.

Box 1 highlights the importance of synthetic CRT instruments for the integration of bond markets.

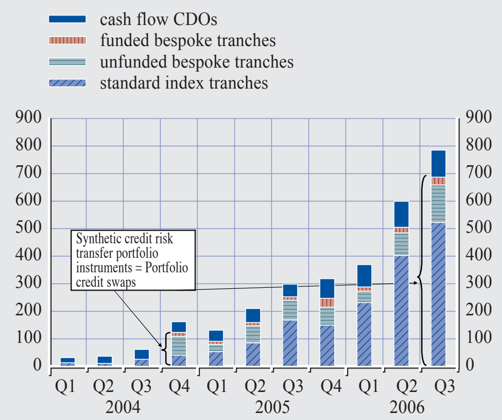
Box 1

THE IMPORTANCE OF SYNTHETIC CREDIT RISK TRANSFER INSTRUMENTS FOR THE INTEGRATION OF BOND MARKETS

Every bond consists of a portfolio of different risks, the most important ones being credit risk, interest rate risk and currency risk. These three risks can now be traded separately thanks to derivatives instruments. Synthetic CRT instruments have, like interest rate and currency derivatives, a global nature, and allow market participants to trade credit risk in a global market. In contrast to cash instruments, synthetic CDOs generate exposure to underlying assets not by buying bonds or loans outright, but by referencing names or assets through credit derivatives. This technique is particularly attractive in Europe because there continue to be some restrictions in the underlying cash market (e.g. national regulatory barriers, legal difficulties in transferring loans, limited issuance of corporate bonds, a less developed market infrastructure) that limit the capacity to diversify credit risk portfolios across countries. Synthetically, pan-European portfolios can easily be built up, since regulatory barriers are low, structuring is very flexible, and the market for credit risk is easily accessible. In fact, synthetic

Global CDO issuance in notional terms

(USD billions)



Sources: SIFMA (Securities Industry and Financial Markets Association) (cash flow CDOs) and CreditFlux (all other tranches).
Note: Notional amount, not adjusted for the risk of different tranches. Portfolio credit swaps mostly consist of synthetic CDOs. The term "unfunded" implies that the principal amount is not transferred between the two parties. The term "bespoke" means customised, tailor-made, non-index or non-standard.

CDOs tend to be backed by pan-European, often even global, portfolios of credit default swap (CDS) reference names.[1]

The rapid growth of synthetic CDOs in Europe demonstrates the strong desire of the market to find ways to circumvent the existing market segmentation and to build up a more integrated market for credit risk. CDOs are complex credit risk portfolio products that only make sense economically for the arranger and for the investor if the assets backing the obligation are highly diversified. In addition, the dominant players in this market are international institutions, which structure products according to their global needs and not according to national frameworks.

From a financial integration perspective, synthetic CRT instruments promote easier access to credit risk exposure, smoother links between markets, lower transaction costs and price transparency of credit risk. The impact of synthetic CRT instruments on the integration of credit markets is nevertheless difficult to assess in quantitative terms. The absolute size of the relevant markets, together with a careful assessment of different qualitative[2] indicators, may provide information on the relevance of these instruments. The chart displays global CDO issuance in notional terms. It shows that CDOs where underlying assets are sourced in the cash market, so-called cash flow CDOs, constitute a relatively small part of the synthetic CDO market. A further distinction can be made between highly customised synthetic CDOs, so-called bespoke CDOs, and highly standardised index products.

1 By contrast, the portfolios of cash CDOs do not have the same degree of geographical diversification, mainly because a number of jurisdictions do not facilitate the transfer of loans. Therefore the cash CDO and more generally the asset-backed securities market in Europe tend to be highly fragmented, and it is difficult or even impossible to assemble a pan-European portfolio.
2 E. g. common market standards, legal documentation, trading and post-trading market standards/infrastructure.

The integration of bond and equity markets relies greatly on the degree of integration of the underlying infrastructure, in particular of the *securities settlement systems* (SSSs) and central counterparties.[3]

The number of legal entities operating a central securities depository (CSD) in the euro area declined from 21 in 1998 to 19 in 2006, while the number of central counterparties (CCPs) for financial instruments (derivatives, securities) declined from 13 to 7 over the same period (see Charts C18 and C19 in the annex). Some consolidation activities in clearing and settlement infrastructures have been purely legal mergers, whereby the bodies involved still operate and serve their own market on separate technical platforms. Some initiatives

3 The SSSs also play a crucial role in the Eurosystem's collateral framework, as they provide the necessary infrastructure that allows counterparties to transfer collateral to the Eurosystem. It is interesting to note that the share of cross-border collateral held by the Eurosystem has increased significantly, from 28% in 2002 to 50% in 2006 (see Chart C20 in the annex).

to achieve technical integration of clearing and settlement processes are also underway.

SSSs may become better integrated not only through consolidation, but also by establishing links between different systems. The greater the number of links between SSSs and the value of securities held through links, the higher the degree of "interoperability and connectivity" between them, which therefore suggests a higher degree of integration. For Eurosystem credit operations within the euro area, the number of eligible links for SSSs increased considerably in the first two years of EMU. However, their total use for cross-border collateral purposes in the Eurosystem remains relatively limited.

EQUITY MARKETS

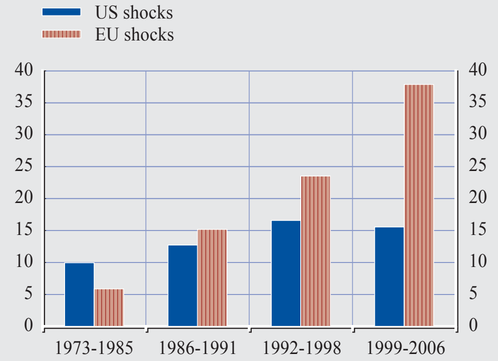
The measures of euro area equity market integration also indicate a rising degree of integration.

In an integrated equity market, prices should be mainly driven by common euro area factors, rather than country-specific ones. Under the assumption that equity returns in euro area countries react to both a local and a global factor – proxied respectively by shocks in aggregate euro area and US equity markets (whereby the latter also captures effects from globalisation) – it is possible to measure the proportion of the total domestic equity volatility that can be explained by local and global factors respectively ("variance ratios"). Ceteris paribus, a higher variance ratio associated with euro area-wide changes is an indication of a more integrated euro area equity market, signalling that national stock market returns are increasingly driven by common news.

Chart 5 (see Chart C22 in the annex) shows that the variance ratios have increased over the past 30 years with respect to both euro area-wide and US shocks, although the rise has been the strongest for the former. This suggests that regional euro area integration has proceeded more quickly than worldwide integration, even

Chart 5 Proportion of variance in local equity returns explained by euro area and US shocks

(percentages)



Sources: Thomson Financial Datastream and ECB calculations.
Note: The first column shows the unweighted average of the relative importance of US equity market fluctuations for the variance of euro area equity market returns. For each period, the second column shows the unweighted average of the relative importance of euro area-wide factors, other than US equity market fluctuations, in the variance of individual euro area countries' equity market returns ("variance ratio").

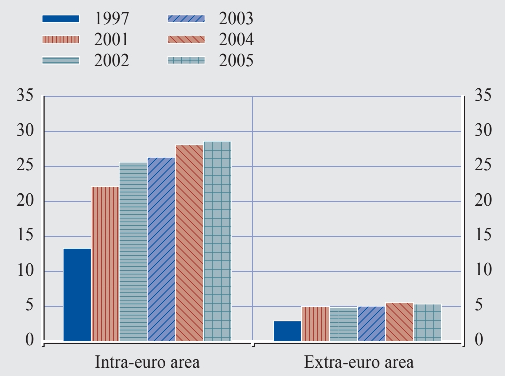
though the level of the variance explained by common factors (about 38% for euro area shocks and 15% for US shocks) reveals that local shocks are still important.

Quantity-based measures of euro area equity market integration also indicate a rising degree of integration in the equity markets (see Chart 6 and C24 in the annex). Between 1997 and 2005 euro area residents doubled their holdings of equity issued in another euro area country (as a share of their total portfolio of shares issued in their own country and elsewhere in the euro area) to reach 29%, whereas the share of euro area equity assets held outside the euro area remains much lower and increased only slightly. This implies that following the introduction of the euro, euro area investors have partially reallocated their equity portfolio from domestic holdings to holdings elsewhere within the euro area.

Regarding market infrastructures, the euro area securities settlement infrastructure for equities is even less integrated than that for bonds. For instance, while the cross-border settlement of bonds is largely concentrated in two international

Chart 6 The degree of cross-border holdings of equity issued by euro area residents

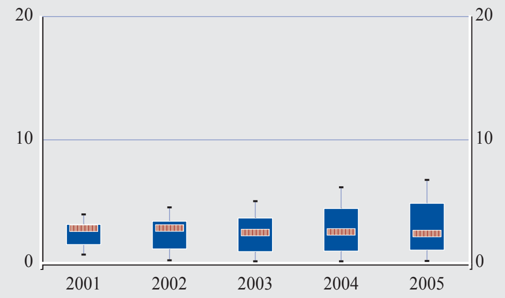
(percentages)



Sources: IMF, Thomson Financial Datastream and ECB calculations.
Note: "Intra-euro area" is defined as the share of equities issued by euro area residents and held by residents (excluding central banks) in other euro area countries. "Extra-euro area" is defined as the share of equities issued by euro area residents and held by non-residents (excluding central banks) of the euro area.

Chart 7 Dispersion of the total assets of euro area banks' branches across euro area countries

(as a percentage of the total assets of the euro area banking sector)



Source: ECB, Banking Supervision Committee.
Note: The lower and upper markers show the minimum and maximum observations among the 12 euro area countries. The bottom and top of the box provide the first and third quartile. The line shows the median share of assets of branches in all euro area countries.

CSDs, the international settlement of equities still heavily relies on national CSDs. In addition, other qualitative barriers – such as differences in settlement cycles or the handling of corporate events and taxation – continue to hinder progress considerably in the integration of equities infrastructures.

3 SPECIAL FOCUS: INTEGRATION IN THE BANKING MARKETS

Banking markets encompass interbank (or wholesale) activities, capital market-related activities and retail banking activities. The indicators reveal that the euro area retail banking markets continue to be fragmented, whereas the euro area interbank (or wholesale) market and capital market-related activities show solid signs of increasing integration. Quantity-based indicators for wholesale and capital market-related securities transactions indicate that the share of cross-border activity is rising. Corporate banking indicators suggest that this market segment also made progress, although further progress could still be beneficial. The low level of retail banking integration is associated with a relatively high level of fragmentation in retail payment infrastructures.

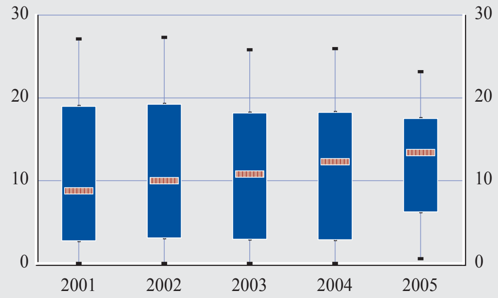
BANKS' CROSS-BORDER PRESENCE

The banks' euro area cross-border presence indicators measure their activity in euro area countries other than their home country. One possible way to measure this is to monitor the development of branch and subsidiary structures over time.

As Charts 7 and 8 (see Charts C28 and C29 in the annex) show, the share of assets of branches and subsidiaries in another euro area country generally is somehow limited in both cases. Nevertheless, the median share of assets of subsidiaries has been increasing over the past five years, in contrast to the median share of assets of branches, which has remained constant at low levels. This suggests that most of euro area banks' assets in other euro area countries are still related to the subsidiary rather than the branch banking structure.

Chart 8 Dispersion of total assets of euro area banks' subsidiaries across euro area countries

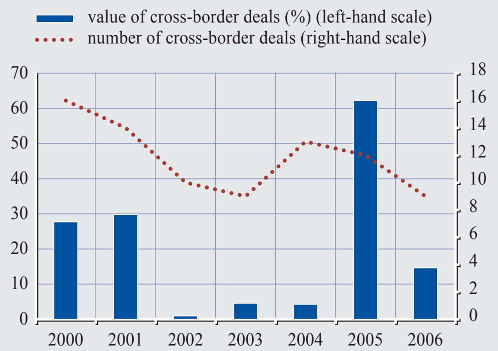
(as a percentage of the total assets of the euro area banking sector)



Source: ECB, Banking Supervision Committee.
Note: See Chart 7.

Chart 9 Euro area cross-border bank M&A deal values of assets purchased

(as a percentage of the total euro area banking system M&As), plus number of cross-border M&As



Sources: Bureau van Dijk (Zephyr database), ECB calculations.
Note: M&A deals include both controlling and minority stakes. In 2005, some large-value euro area cross-border M&A transactions were conducted.

Another indicator of the cross-border presence of euro area banks is their cross-border M&A activity, as displayed in Chart 9 (see Chart C30 in the annex). While on average over the past few years there has been much less cross-border banking consolidation than domestic consolidation, the indicator does reveal that there has been an increase in euro area cross-border M&A transactions, particularly in 2005 when several large-value transactions were conducted, amounting to over 50% of the total M&As in the euro area banking system.

QUANTITY AND PRICE-BASED INDICATORS OF BANKING INTEGRATION

Quantity-based indicators for wholesale and capital market-related securities transactions indicate a rising share of cross-border activity. Chart 10 (see Chart C34 in the annex) shows the outstanding amounts by residency of the issuer as a share of total holdings for MFI holdings of securities issued by MFIs.

The dispersion of interest rates on loans and deposits from banks to non-financial corporations and households can be taken as an indicator for the degree of integration in the retail banking market.

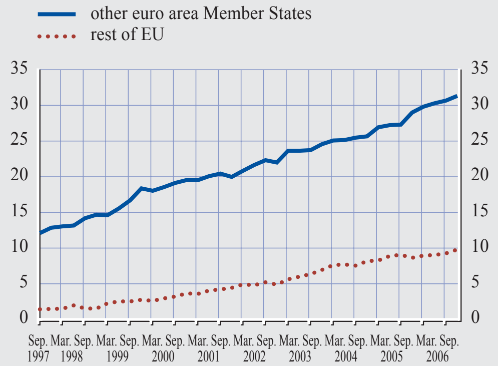
Chart 11 (see Chart C32 in the annex) shows that the euro area cross-country dispersion of bank interest rates, in particular interest rates on loans to households for consumption purposes, has remained relatively high (compared to the government bond market interest rates and interest rates on debt securities more generally) since January 2003. The dispersion of interest rates is lower in the case of loans for house purchase, suggesting that products and/or credit risks are more homogeneous. In this respect it should be noted that differences in bank interest rates can be due to other factors, such as different conditions in national economies (credit and interest rate risk, firm size, industrial structure, degree of capital market development), institutional factors (taxation, regulation, supervision), and financial structures (degree of bank/capital market financing, competitiveness, etc.).[4]

Turning to indicators about the *corporate banking industry*, Charts C37 and C39 in the annex report the cross-country dispersions of gross fees on bond issues and margins on syndicated loans charged to euro area resident firms. These indicators exhibit substantial variation over time, with no clear trend.

4 See "Differences in MFI interest rates across euro area countries", September 2006.

Chart 10 MFI holdings of securities issued by MFIs: outstanding amounts by residency of the issuer

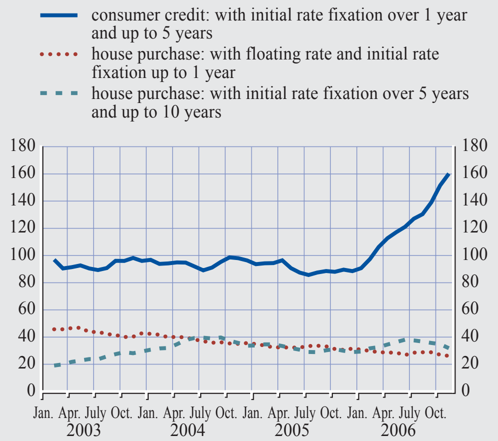
(as a share of total holdings, excluding the Eurosystem)



Source: ECB.

Chart 11 Cross-country standard deviation of MFI interest rates on loans to and deposits from households

(basis points)



Source: ECB.
Note: The measure is based on MFI interest rates on new business.

When evaluating these indicators, it should be kept in mind that the euro area syndicated loan market is undergoing a substantial change, evolving from a rarely used financing instrument that mainly involves domestic lenders, to a more mature financing instrument that benefits from an increase in liquidity and market integration. There have been signs that an increasing number of loans are arranged by euro area banks to borrowers located in another euro area country.[5] A BIS study on the degree of integration of this market reports that, for the euro area, the percentage of funds provided via syndicated lending by banks where the nationality was the same as that of the borrower decreased from 43% (in 1993-1998) to 38% (in 1999-2000).[6]

RETAIL PAYMENT SYSTEMS INFRASTRUCTURE

In 2006, there were 14 retail payment systems, compared to 19 in 1998 (see Chart C41 in the annex). Over the same period, the number of automated clearing houses decreased from seven in 1998 to six in 2006 (see Chart C42 in the annex). In contrast to the developments in the area of LVPS, the situation in the retail payment infrastructures today does not differ substantially from the time before EMU. The current retail payment systems are still tailored to the individual circumstances of the respective national markets.

Unlike large-value payments, procedures, instruments and services offered to customers in the field of retail payments have not yet been harmonised. These shortcomings are being addressed in the context of the SEPA project, which seeks to enable customers to make retail payments throughout the whole euro area as safely and efficiently as in the national context today.[7]

5 See for example the chapter entitled “The EU syndicated loan market” in the ECB report on “EU banking structures,” October 2005.

6 “The syndicated loan market: Structure, development and implications”, BIS Quarterly Review, December 2004, pp. 75-89.

7 See also the Special Feature entitled “The Single Euro Payments Area (SEPA) initiative and its implications for financial integration” in Chapter 2.C, and the respective description under the Eurosystem activities in Chapter 3 of this report.

CHAPTER 2

SPECIAL FEATURES

A. MONETARY POLICY AND FINANCIAL INTEGRATION

Highly integrated and deep financial markets enhance the efficiency of monetary policy in the euro area by ensuring a smooth transmission of monetary impulses across all market segments and countries.

1 INTRODUCTION

A well-integrated financial system is important for the implementation of monetary policy in the euro area, as it enhances the smooth and effective functioning of the market mechanism that lies at the heart of economic success. Highly integrated and developed financial markets allow economic agents to share risks more effectively, thus improving the ability of firms and households to offset the consequences of idiosyncratic shocks that could eventually affect the national economies of the euro area. Hence, the dynamic adjustments to such shocks are likely to be more similar across the euro area countries, which implies, ceteris paribus, lower output and inflation dispersion at a national level around the euro area average.

Since monetary policy decisions are implemented and transmitted through the financial system, the degree of financial integration affects the effectiveness of this transmission. Highly integrated financial markets also allow a more efficient sharing of financial risk that ultimately enhances the stability of the financial system itself, thus facilitating and therefore contributing to the pursuit of price stability, which is the ECB's primary objective.

Bearing in mind that the integration of financial markets across the euro area has a multi-dimensional significance, this Special Feature focuses on the impact of financial integration on the monetary transmission mechanism.

An in-depth analysis of the transmission mechanism was conducted by the Eurosystem Monetary Transmission Network several years ago.[1] Its main finding was that the monetary transmission mechanism operated in a broadly similar way in each euro area country. At the same time, the analysis suggested that some of the remaining differences could eventually be related to financial factors. Over the past four years, due to the significant progress achieved in the euro area in terms of financial market integration, it is very likely that the importance of such financial factors has diminished. However, some differences still remain, which may be related to the degree of integration of financial markets across the euro area.

Section 2 discusses how the structural characteristics of the financial system may affect the way monetary policy impulses are transmitted to the real economy and, ultimately impact on inflation. The discussion aims at highlighting which of the features of the financial system is particularly relevant in the context of two of the main monetary transmission channels described in the economic literature: the interest rate channel and the credit channel. The former works along three dimensions: a change in the policy interest rate induces three separate effects: a substitution effect that particularly affects both firms and households; an income effect; and a wealth effect that is mostly linked to the change in the value of the households' stock of wealth.

The next two sections provide a qualitative illustration of the functioning of the two channels mentioned above and report on recent evidence for the euro area in this regard. Starting with the interest rate channel, Section 3 suggests that some differences still remain in the way banks across the euro area adjust their interest rates to monetary policy actions which may, in part, be related to the state of financial market integration.

The section also presents and discusses some new evidence about the heterogeneity in the

1 See I. Angeloni, A. Kashyap and B. Mojon (2003), *"Monetary Policy Transmission in the Euro Area"*, Cambridge University Press, Cambridge.

"marginal propensity to consume" out of wealth across the euro area countries, as this is typically used in the literature to quantify the wealth effect induced by a policy interest rate change. This section does not try to disentangle the possible sources of heterogeneity. The evidence discussed is consistent either with a possible residual lack of financial integration within the euro area, or with different structures of financial institutions and markets (which could be due to heterogeneous consumers' preferences or the diversity in the national tax and welfare systems). Different degrees of developments of the supply of products and liquidity constraints could also contribute to explaining the heterogeneous response of consumption to interest rate changes across euro area countries.

With reference to the credit channel of the monetary policy mechanism and the role played by bank credit supply, Section 4 looks at the degree of indebtedness of corporations. It sketches out some major developments and differences across countries, by outlining those related to the process of financial integration. Section 5 concludes.

2 THE ROLE OF FINANCIAL MARKETS IN THE MONETARY POLICY TRANSMISSION MECHANISM

The so-called interest rate channel of monetary policy relates to the ability of central banks to influence directly aggregate demand components, GDP and prices via changes in policy controlled interest rates. While some of the determinants of the sensitivity of aggregate demand to changes in credit conditions (such as the intertemporal elasticity of substitution in consumption of the household sector) are not observable, it is very likely that this sensitivity is influenced by the efficiency with which the financial sector transmits changes in the monetary policy stance to the broad range of interest rates and yields.

A change in the interest rate has different effects on the economy. It can work through the cost of financing, and induce both intertemporal substitution in households' decision to consume, and a change in firms' decision to invest. For this reason, it is not surprising that central banks very carefully study the interest rate pass-through from interest rate decisions to market rates across the maturity spectrum, as well as bank lending rates.

In addition, a given financial structure may lead changes in interest rates to have different effects on expenditure (investment and consumption). For example, lower interest rates would make it less remunerative to withhold consumption today in order to consume more in the future. Thus, households will, ceteris paribus, decide to consume more today than they would have consumed at higher interest rates. Furthermore, at lower interest rates, firms will find less costly to acquire new debt to finance new capital expenditure.

A second effect consists in the income effect, which arises since movements in interest rates produce variations in financial revenue and expenses associated with financial assets and liabilities.

A third effect works through the variation in the value of households' net wealth that is induced by the change in the expected returns on assets, which is itself due to the change in the discount factor linked to the policy interest rate. For example, in a very simple world, where households are supposed to live just two periods, an increase in wealth induced by a lower interest rate would increase consumption in both periods. In general, the decision about the exact increase in consumption out of a unit increase in wealth – the "marginal propensity to consume" – will depend on the rates of return on asset wealth, households' impatience to consume and the length of the agents' planning horizon.[2]

2 Households' planning horizon may lengthen in a two-period model because agents want to leave a bequest. More generally, it is sufficient to assume that households live longer than two periods.

However, the marginal propensity to consume is only a synthetic measure of how households would react to a change in the value of their stock of wealth.[3] Underlying this synthetic measure are several factors that drive the overall response of consumption to a change in household wealth. Some of these are only related to households' preferences or fiscal and welfare institutions; while others, like the magnitude of the wealth-to-consumption ratio and the composition of households' assets and liabilities may also be related to the degree of integration of financial markets.[4]

For example, when there are multiple assets that differ in their degree of riskiness, liquidity and collateral value, the marginal propensity to consume should depend on the type of asset whose value changes. Riskiness raises return rates, and low liquidity or a low degree of usability of an asset as collateral for credit reduces the extent to which it can actually be counted as part of the buffer stock of wealth. This implies that from a theoretical viewpoint, the marginal propensity to consume out of long-term securities and shares may well be smaller than out of more liquid and less risky assets such as short-term deposits.

Furthermore, the risk sensitivity of households' liabilities – and the potential impact of a change in the policy interest rate on the value of households' stock of net wealth – will depend on households' debt structure. In particular, if the debt is held in the form of floating interest rate debt, it is more likely that a change in the policy interest rate will affect households' liability position – and thus change the value of their stock of net wealth – than when households hold their debt in fixed-rate instruments.

Hence, if the lack of financial market integration contributes to generating sustained differences in the level of the wealth-to-consumption ratios and the composition of net financial wealth across euro area countries, one should expect to find different marginal propensities to consume across countries and, thus, heterogeneous responses to a policy-induced change in the aggregate net wealth of the euro area.

The so-called credit channel of monetary policy amplifies the impact of the traditional interest rate channel and stresses the importance of asymmetric information between lenders and borrowers in that it possibly causes both the rationing of the quantities of credit that economic agents would in theory prefer to exchange, and an increase in risk premia. In a world of perfect information, monetary policy actions would only be transmitted to the economy through adjustments in interest rates. However, in reality information is not perfect, and it is a stylised fact observed in all developed economies that the slowdown in domestic demand following episodes of monetary contraction is too large to be strictly the result of unconstrained intertemporal expenditure transfers. The economic literature[5] has argued that this may be explained by the broader role that financial markets may play in the transmission of monetary policy impulses. Hence, the existence of this "credit channel" widens the scope for heterogeneity in the financial system across countries, and adds further reasons for the possible differences in the reactions of investment and consumption decisions to a change in the common policy interest rate. The credit channel itself involves two channels, the balance sheet channel and the bank lending channel.

The balance sheet channel corresponds closely to the financial accelerator mechanism: a monetary policy contraction may impact non-financial agents' balance sheets by influencing

3 Furthermore, marginal propensities to consume are reduced-form estimates that have limited information content for the policymaker. They cannot, by construction, disentangle the pure effect of the change in the households' net wealth on consumption. Being reduced forms, they would also incorporate the feedback of the economy including, for example, the reaction of monetary policy.

4 The liquidity, risk-return and interest rate sensitivity characteristics of households' assets and liabilities are important sources of possible differences in the way households react to a change in the value of their stock of wealth.

5 B. S. Bernanke and M. Gertler (1995), "Inside the black box: The credit channel of monetary policy transmission", *Journal of Economic Perspectives,* 9 (4), pp. 27-48.

the value of collateral that borrowers can put upfront for the purpose of drawing on banks' credit lines. The value of the collateral impacts on the borrowers' creditworthiness by shifting their liquidity constraints and thus forcing them to renounce their investment projects.

The existence of a bank lending channel is based on two conditions. First, it presumes that monetary policy affects the supply of loans by banks. A reduction in bank deposits will reduce lending if banks themselves face financial constraints when attempting to smoothen deposit outflows. Second, it assumes that the decline in the supply of loans affects borrowers.

Both the bank lending channel and the balance sheet channel are likely to be stronger for households and for those firms that are opaque in terms of information (in most cases small and medium-sized enterprises (SMEs)), and for which intermediated credit is the only available source of external finance.

A higher degree of financial integration would reduce the effect of limited information in the transmission mechanism of monetary policy in three main ways. First, liquidity constraints on borrowers should decrease as competition in the banking sector increases. Second, greater cross-border financial integration resulting from a broadening of the pool of available assets for investment may potentially provide an effective hedge for financial institutions, as this tends to reduce their exposure to interest rate changes. This would help protect banks with a healthy balance sheet position and which are better able to shield their loan portfolios from monetary policy shocks, and would therefore maintain the planned levels of loan supply in the wake of a monetary policy tightening.[6] Third, the development of an integrated corporate bond market could induce a shift from bank financing to market financing that may imply a diminished role for the credit channel of monetary policy.

3 EVIDENCE ON THE INTEREST RATE CHANNEL

THE SUBSTITUTION AND INCOME EFFECT

The analyses conducted by the ECB and the Eurosystem have already indicated the remarkable degree of convergence that has taken place in the euro area in recent years. Despite this, the levels and movements in bank interest rates vary in some instances across countries. This section focuses on differences with respect to the levels and the changes in the rates over time. In particular, it reviews the factors that are likely to explain the differences, focusing on those related to the process of financial integration. Most factors that exert an influence on interest rate levels are also likely to affect changes in interest rates, although the latter may be expected to be somewhat less sensitive to country-specific factors.[7]

ANALYSIS OF COUNTRY DIFFERENCES IN BANK INTEREST RATES

In a recent report published by the ECB,[8] as well as in Chapter 1 of this report, it has been highlighted that the dispersion across countries in the levels of MFI interest rates is generally higher for deposits than for loans. For loans, the highest cross-country differences have been found for loans to households for consumption, followed by loans to non-financial corporations. By contrast the dispersion of interest rates on housing loans is relatively low, although still higher than the intra-regional dispersion of these rates in the US.[9]

Turning to the changes over time, Chart 12 provides some evidence of the extent of

6 See Angeloni et al. (2003), ibid.

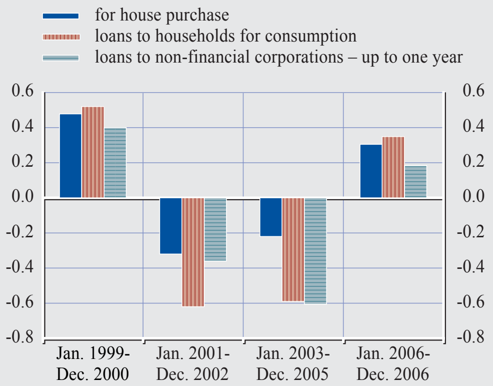
7 In the literature there are additional criteria that have been used to assess the heterogeneity of the interest rate channel, for instance, based on the leverage which represents the scaling factor from changes in interest rates to interest income flows or, for households, based on the proportion of household debt, where the contractual interest rate is either variable or can be revised in line with a short-term market interest rate.

8 See "Differences in MFI interest rates across euro area countries", September 2006.

9 See the Box entitled "Inter-regional comparison of mortgage rates in the euro area and in the United States" in the ECB Annual Report 2005.

Chart 12 Changes in retail bank interest rates, 1999-2005

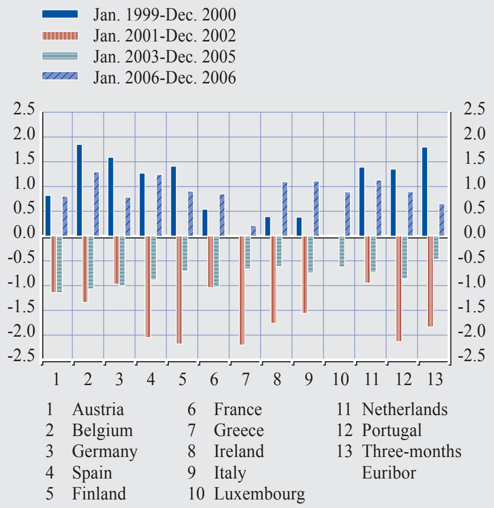
(coefficient of variations)



Source: ECB.
Note: Data covering the period 1999-2002 are based on the non-harmonised national retail bank interest rate statistics (NRIR). Data from January 2003 onwards are based on MFI interest rate statistics (MIR). For the MIR period, the rates used are at floating rates and up to one year initial rate fixation.

Chart 13 Changes in rates on loans to households for house purchase

(basis points)



Source: ECB.
Note: See Chart 12. For the MIR period, the rates used are on loans to households for house purchase at floating rates and up to one year initial rate fixation.

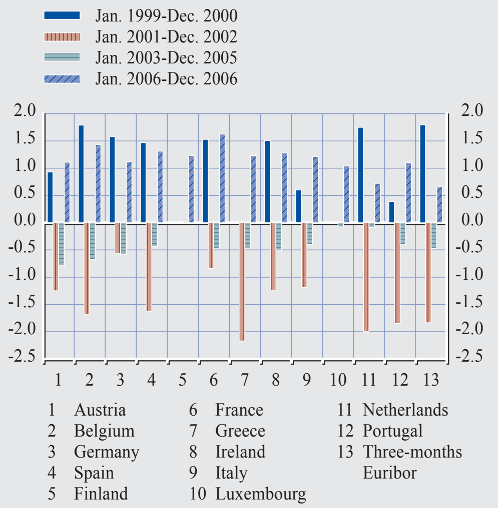
heterogeneity.[10] Looking at the variation coefficient, no significant decline in cross-country variation of changes in the various bank rates can be observed. However, between 1999 and 2005, the degree of heterogeneity for loans to households for house purchase has declined somewhat. Conversely, rates on loans for consumption tend to adjust to quite different degrees across countries.[11] The results are confirmed for 2006, whereby the heterogeneity for loans to non-financial corporations decreased in 2006.

Overall, this evidence seems to suggest that some degree of heterogeneity remains in the pass-through of market rates to bank rates.[12] Consequently the reactions of banks in different countries to changes in market rates tend to vary widely and only in some cases seem to adjust close to one-to-one (see Charts 13 and 14). While there seems to have been convergence over time with respect to bank interest rate changes for loans to households for house purchase,[13] this does not seem to have been the case for short-term loans to non-

10 It is important to note that there is a statistical break in January 2003 with the introduction of harmonised MFI interest rate statistics. Before that date, retail bank interest statistics were non-harmonised and included less detailed breakdowns. Comparisons between the two earlier periods (1999-2000 and 2001-2002) and the latest period (2003-2005) should be carried out with caution.
11 This may, however, be due to differences in the products included in this category from one country to the next.
12 This is also confirmed by econometric studies, see e.g. B. Mojon (2000), "Financial structure and the interest rate channel of ECB monetary policy", ECB Working Paper Series No 40; L. A. Toolsema, et al. (2002), "Convergence of pass-through from money market to lending rates in EMU countries: New evidence", University of Groningen, Mimeo; H. Sander et al. (2004), "Convergence in euro-zone retail banking? What interest rate pass-through tells us about monetary policy transmission, competition and integration", *Journal of International Money and Finance* 23, pp. 461-492; G. de Bondt (2005), "Interest rate pass-through: Empirical results for the euro area", *German Economic Review* 6 (1), pp. 37-78; G. de Bondt et al. (2005), "Term structure and the sluggishness of retail bank interest rates in euro area countries", ECB Working Paper Series No 518, and C. Kok Sørensen et al. (2006), "Bank interest rate pass-through in the euro area: A cross-country comparison", ECB Working Paper No 580.
13 Prior to 2003 there was no breakdown by maturity on loans for house purchase. This may explain part of the higher degree of heterogeneity in this period compared to the more detailed data for 2003 onwards. For example, mortgage loans in Germany, the Netherlands and to some extent France are predominantly with long-term fixation (and hence should be expected to react to a long-term market rate), while in the other countries mortgage loans are almost exclusively at short-term adjustable rates.

Chart 14 Changes in rates on loans to non-financial corporations

(basis points)



Source: ECB.
Note: Data covering the period 1999-2002 are based on the non-harmonised national retail bank interest rate statistics (NRIR). Data from January 2003 onwards are based on the MFI interest rate statistics (MIR). For the MIR period the rates used are on loans to non-financial corporations over €1 million at floating rates and up to one year initial rate fixation.

financial corporations (or other product categories).[14]

FACTORS THAT MAY EXPLAIN DIFFERENCES ACROSS COUNTRIES

For the sake of simplicity, the most important factors can be grouped under three categories, of which some are more related to the process of financial integration than others.[15]

The first group encompasses cyclical and economic structural factors (such as credit risk, firm size and industrial structure, capital market development, etc.). As the pricing of MFI loans should also reflect the perceived credit risk of borrowers, cross-country differences should be a cause of interest rates differences. If credit is not rationed, then the relationship between the level of interest rates and the perceived credit default risk of the borrowers should be positive. This first group of factors is not directly influenced by changes in the degree of financial integration. At the same time, differences in the capital market structure may reflect a lack of integration and could therefore affect the level of bank interest rates.

A second group of factors is related to institutional characteristics and banking structures (such as competition, the number of banks, government involvement in the banking sector). They may create heterogeneous bank rates, even though this should not exist in a perfectly integrated European banking sector. The report indicates that the regulatory framework has a direct impact on certain MFI interest rates. In some countries, for instance, the variability of interest rates on loans to households for house purchase is limited by law.[16] At the same time, a number of fiscal factors exert a potential influence on MFI interest rates in various ways. Some influence may be expected from (i) the tax treatment of income from deposits in comparison with substitute products, in particular bank bonds and certain life insurance and pension schemes; (ii) the extent to which mortgage interest payments can be deducted from the personal income tax base; and (iii) specific direct or indirect loan subsidy programmes, although this has a lesser effect.

Finally, product heterogeneity across countries constitutes a third group of factors. This is also likely to imply differences in bank rates, as banking products may not be comparable across countries. Such product heterogeneity may be caused either by the lack of supply of some products in certain countries (which may also be related to the degree of integration in the banking market) or by lack of demand for some products in certain countries (owing to cultural or economic preferences). Since it is inherently difficult to disentangle the influence of these various factors on bank interest rates, it is also difficult to draw any firm conclusions on the direct role played by the process of financial integration on monetary policy transmission.

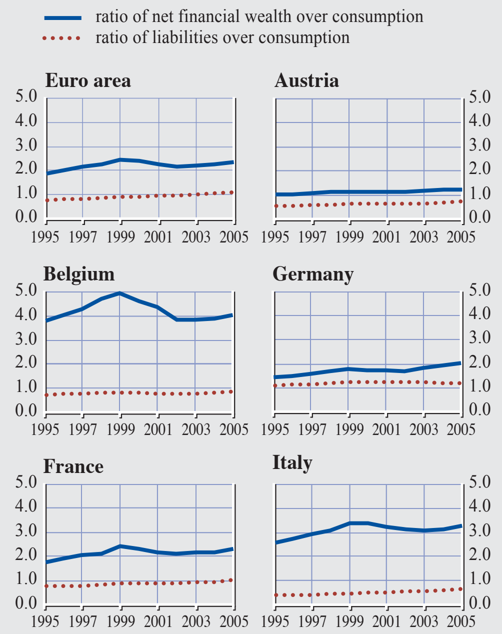
14 Greece should be disregarded in the first period, as at the time it was not participating in the third stage of EMU and was still on a convergence path.
15 See “Differences in MFI interest rates across euro area countries”, September 2006.
16 Ibid., Table 7b.

THE WEALTH EFFECT

Monetary policy could affect households' consumption dynamics by inducing, directly or indirectly, a change in the value of their portfolio. Furthermore, when it is possible to repay mortgage obligations before the maturity date and even extract equity from existing properties, the effects of monetary policy on the real economy could be further amplified. Hence, it is crucial to assess how likely it is that the propagation of monetary policy in the euro area could be heterogeneous due to asymmetric wealth effects. In this case, the progress of financial market integration in the euro area could contribute to limiting the possible lack of available products and to relieving the liquidity constraints imposed on households. It is highlighted that differences in the wealth effect across euro area countries are less likely to have a significant impact on the monetary policy transmission mechanism than in other economic areas where the wealth effect is much more relevant, such as the US. The interest rate channel in the euro area works predominantly through the substitution effect rather than through the income (or wealth) effect.

Chart 15 Ratio of net financial wealth over consumption and ratio of liabilities over consumption

(selected euro area countries and euro area aggregate)



Source: Eurostat and ECB calculations.
Notes: Net wealth is defined as households‘ financial assets minus financial liabilities.

This section discusses the empirical evidence concerning the two main factors underlying the "wealth effect": the level of the household net wealth-to-consumption ratio, and the structure of the assets and liabilities in households' balance sheets. The level and dynamics of the net wealth-to-consumption ratio vary considerably across euro area countries. Chart 15 shows the ratio of net financial wealth over annual consumption, together with the ratio of liabilities over annual consumption for some euro area countries. To facilitate cross-country comparison, the analysis is restricted to the last ten years, for which financial accounts are widely available.

The highest value of net financial wealth over consumption is found in Belgium – where it has fluctuated between four and five – and Italy (about three). The lowest values (between one and two) are found in Austria and Germany. The euro area as a whole displays a ratio of slightly above two. The different dynamics of the net wealth-to-consumption ratio across the euro area countries signal that the composition of household wealth differs across countries. For example, the average proportion of wealth held in the form of currency and deposits is relatively high in Austria (56%), Greece (48%), Portugal (44%), Spain (40%) and Germany (37%), and relatively low in the Netherlands (20%). The proportion of securities other than shares is relatively high in Belgium and Italy at around 20%. Shares and other equity are high in Spain (40%), whereas the proportion of wealth in the form of insurance technical reserves is low as it is in Belgium, Greece, Italy and Portugal. The picture in the Netherlands is the diametric opposite with a high proportion of insurance technical reserves (55%) and a low proportion of shares and other equity (21%).[17] Germany is

17 The relatively high proportion of wealth in the form of insurance technical reserves in the Netherlands mainly reflects the existence of a funded pension system.

characterised by a low proportion of wealth retained in the form of shares and other equity (23%). A more detailed breakdown of this financial instrument reveals that almost half of it is in the form of mutual funds, thus making the proportion of directly owned shares by German households rather low.

In general, the Charts show that direct equity holding is largely a minority phenomenon in the euro area, although investment in financial instruments provided by intermediaries, primarily investment funds, has increased significantly over the last 20 years. Although differences exist within euro area countries, the largest differences are between the euro area and the UK and the US.[18] This difference partly reflects the different degree of development in terms of the supply of products, ranging from brokerage services to the range of mutual funds and insurance products on offer and their cost. In addition, the pronounced differences in the national systems of savings for retirement, which are likely to persist and cannot be directly linked to the process of financial integration, also significantly affect the different patterns of security holding across euro area countries.

Turning to housing wealth, estimates have been compiled by researchers and NCBs. In recent years, the proportion of housing wealth in euro area households' total asset wealth has generally stood at about 50%. There are sizeable cross-country differences, with the ratio ranging from around 40% in the Netherlands to approximately 70% in Spain. Accelerating financial innovation and loosened credit constraints have increased the degree of liquidity of housing wealth in some euro area countries, where it is becoming easier for households to borrow against housing wealth by taking out home equity loans.[19]

Indeed, mostly due to increased competition in European mortgage markets[20] and a relatively favourable credit risk outlook in recent years, mortgage lending margins have narrowed substantially. Furthermore, the ongoing introduction of new mortgage products may be indicative of the highly competitive nature of mortgage markets. However, these margins have remained substantially different across the EU. Thus, it seems that competition within the national mortgage markets has increased, while cross-border competition and market entry appear much more limited, pointing to the need for enhanced integration across national mortgage markets.[21] In this respect, some progress has been made in recent years, which has contributed to removing some of the former reasons for heterogeneity.

A refined and theoretically consistent measure of the marginal propensity to consume out of wealth increases should only take into consideration permanent changes in household wealth. This would be in line with the prediction of the permanent income theory, whereby only permanent changes in the household budget constraint would lead to a reassessment of the optimal consumption plan. Following work by Lettau and Ludvigson (2004)[22], Table 1 provides a cross-country comparison of the marginal propensity to consume (*mpc*) out of permanent changes in wealth.

The first row shows the "raw" *mpc* computed by estimating the elasticities with respect to "permanent" changes in the stock of household wealth, and weighting them by the ratio of consumption to total net asset wealth. The implied *mpc* out of a permanent increase in households' total net asset wealth for the euro area is found to be equal to 3.9 cents per euro. The cross-country comparison shows that it ranges from 2.3 cents to 7.9 cents. The second row shows the correction factor calculated using the Lettau and Ludvigson methodology, which

18 See A. Maddaloni et al. (2006), "Macroeconomic implications of demographic developments in the euro area", ECB Occasional Paper No 51.

19 However, a lack of harmonised data on mortgage equity withdrawal for the euro area prevents any cross-country comparisons.

20 See ECB, "EU banking structures", October 2005.

21 See Chapter 3 of this report for a review of the most recent initiatives designed to enhance the financial integration of the mortgage market in Europe.

22 M. Lettau and S. Ludvigson (2004), "Understanding trend and cycle in asset values: Revaluating the wealth effect on consumption", American Economic Review, Vol. 94, pp. 276-299.

Table 1 Implied mpc out of total net asset wealth

(cents per euro)

	Euro area	AT	BE	DE	FI	FR	IT	NL	SP
Implied *mpc*	3.9	6.3	4.5	4.5	7.9	3.3	5.9	2.9	2.3
"Correction" Factor	0.7	0.9	0.3	1.0	0.7	0.6	0.7	0.7	0.7
"Corrected" *mpc*	2.7	5.9	1.3	4.4	5.7	2.0	4.1	2.0	1.5

Sources: Eurostat and ECB calculations.
Note: The euro area aggregate is approximated by summing up data for the eight Member States listed in the table. The sample period is 1980-2004.

captures short-term movements in the stock of household wealth: the lower this factor is – whose range lies between 0 and 1 – the higher the proportion of transitory movements in wealth. The last row shows the "corrected" *mpc*, which could be interpreted as an "average" computed over the permanent and the transitory components of the changes in the stock of household wealth. Table 1 shows that the dispersion in the estimated mpcs across the largest euro area countries is significantly lower than the one produced by estimation methods that do not distinguish between "permanent" and "transitory" movements in households' net asset wealth.[23]

The integration, especially if accompanied by increased competition, of euro area financial markets would contribute to homogenising the marginal propensity to consume out of wealth. For example, the differences across euro area countries in the way households decide to finance their mortgages (fixed versus variable rate) are certainly due to their structure of preferences. However, frictions in the supply of loans may also play a role. Furthermore, there are many reasons why in Europe the market in financial instruments that could increase the liquidity of housing wealth – and thus increase its sensitivity to monetary policy impulses – is less developed than the ones in the US and the UK. The low level of cross-country integration across euro area mortgage markets could for example possibly be one of these factors that limit the development of financial instruments.

4 THE CREDIT CHANNEL: IMPACT ON NON-FINANCIAL CORPORATIONS

The importance of a broad credit channel may be indirectly derived by analysing cross-country differences with respect to the degree of the leverage of non-financial corporations or to the nature of their financing sources. In this respect, the availability and value of collateral can particularly affect how monetary policy changes have an impact on consumption and investment. In addition, the behaviour of banks in the cycle may significantly affect the availability of credit to enterprises.

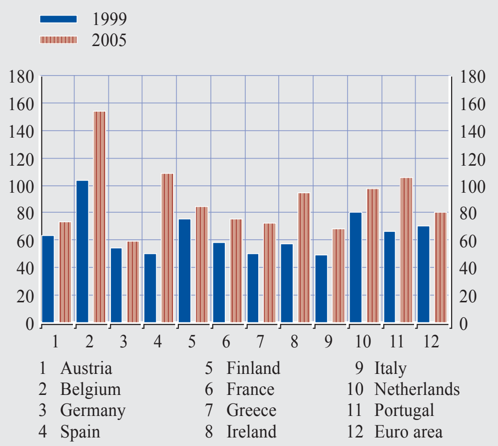
The findings of the ECB report on financial structures suggested that the financial systems in euro area countries are broadly similar. More importantly, they seem to follow the same overall trends. However, from a monetary policy transmission perspective, some divergent patterns in the structures of the national financial systems of the euro area are nevertheless worth noting.

Chart 16 shows that there are differences in terms of the debt level of non-financial corporations across euro area countries. Firms in Portugal, Spain and to some extent in the Netherlands and Ireland appear to be more sensitive to changes in interest rates, as their debt burden is relatively high from a euro area perspective. However, a high sensitivity to changes in interest rates can also indicate a well-developed financial system, which can more easily absorb macroeconomic shocks such as ones prompted by monetary policy. For instance, a high share of bank loans

23 It is interesting to note that the transitory component in euro area households' wealth is smaller than the one for US households' wealth (not reported in Table 1). This can be seen by comparing the "correction" factor reported in the second row with the value of 0.3 reported by Lettau and Ludvigson (2004, quoted above) for the US. Furthermore, the estimates presented in Table 1 show how the raw mpc may provide misleading information on the wealth effect. For example, Belgium and Germany present the same *mpc* despite the fact that, as shown in Chart 15, the ratio of net financial wealth to consumption in the former is twice as large as in the latter. This implies that the wealth elasticity of consumption in Germany must be about twice as high as the wealth elasticity of consumption in Belgium.

Chart 16 Debt-to-GDP ratios of non-financial corporations

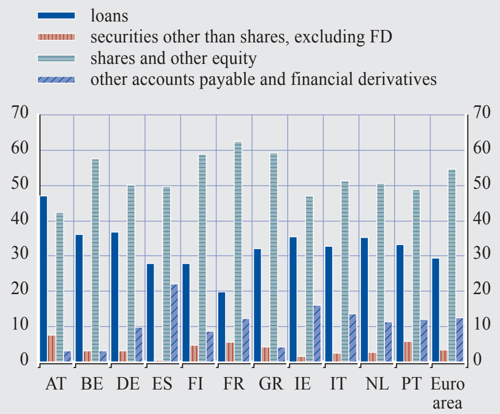
(1999 and 2005)



Sources: Eurostat and ECB calculations.
Note: Debt Charts for Belgium include inter-company loans. When excluding inter-company loans, the ratio is lower (71% in 1999 and 75% in 2005).

Chart 17 Financial liabilities of non-financial corporations

(% of total; end-2005)



Sources: Eurostat and ECB calculations.

can be interpreted as a strong dependence of firms on the behaviour of banks implying that the credit channel is highly relevant. But it may also mean that banks can more efficiently tackle the problem of asymmetric information owing to the closeness of their relationship with their customers, enabling them to mitigate the effects of monetary policy.

Measured by the coefficient of variation, the degree of heterogeneity in terms of non-financial corporate leverage ratios has remained rather constant since the start of EMU. Thus, the cross-country variation coefficient of the debt-to-GDP ratio was basically the same in 2005 as in 1999. However, the degree of corporate leverage in several countries has changed markedly over the period and seems largely to have been driven by cyclical factors, as debt ratios have risen strongly in countries experiencing relatively high economic growth, such as Ireland and Spain. As a more general phenomenon, the low level of interest rates in recent years seems to have played a role in most countries in keeping debt ratios high, as companies have only de-leveraged their balance sheets to a minor extent following the strong build-up of debt in the late 1990s and 2000.

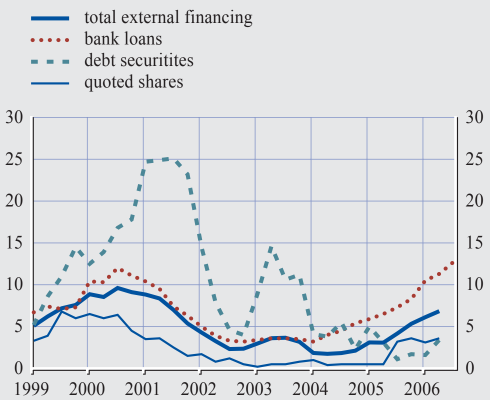
With respect to non-financial corporate external financing, bank loans are relatively important in Austria, Belgium, Germany, Ireland and the Netherlands (see Chart 17). "Shares and other equity" (unquoted shares are estimated to around 60% of all shares in the euro area) is a relatively important financing source in France, Greece and Belgium. In some countries, "other accounts payable" (mainly trade credit) is also an important source of funds.[24] Finally, corporate bond financing remains relatively unimportant, although slightly more so in France, Austria, Finland and Portugal.

Overall, there is some degree of heterogeneity across countries with regard to the nature of non-financial corporate finance sources. Banks are predominant in some countries, and capital market-based finance in others. This may reflect differences in firms' characteristics within

24 However, the importance of "other accounts payable and financial derivatives" is minor when netting it with "other accounts receivable".

Chart 18 External financing non-financial corporations

(annual growth rates)



Source: ECB.

countries (for instance, the presence of SMEs, or whether firms are mostly private or public). However, this might also reflect the different possibilities for firms in terms of accessing alternative sources of external finance.

In this respect, however, the significant changes that have occurred in the financial sector since the start of Monetary Union should be stressed. These have clearly increased the choice of financial products and finance available to non-financial enterprises. In particular, during a first phase that lasted approximately until 2001, access to market financing in the euro area increased significantly, with corporations benefiting from the development of corporate bond and equity markets.

In the first three years of EMU, favourable developments in equity markets and strong M&A activities acted as a catalyst for the development of market-based financing sources in the euro area (see Chart 18). Moreover, the removal of currency risk, in combination with the steady trend towards the integration of financial markets, also played a role. More recently, innovation in financial and credit markets has contributed to new patterns of financing for enterprises, whereby banks have again gained ground. Innovations included the development and diffusion of securitisation and of structured finance, plus the development of the syndicated loans markets. These new financial market features are all symptomatic of the vast structural changes which have occurred, and which have had a clear impact on the amount of finance available to euro area firms.

The case of SMEs is somewhat different,[25] since the traditional market alternative to bank lending, the corporate bond market, is almost completely inaccessible to SMEs, owing to much higher financing costs. It also remains to be seen how the changing landscape of corporate finance will affect financing of SMEs, as the securitisation of small loans is for example still less developed than for large firms.

Therefore, the relevant market alternative takes the form of private equity (venture capital and buy-outs) financing. However, the use of this means of market financing, whose main incentive is the eventual successful sale of the company in a public offering, is limited to a very narrow group of SMEs – those that operate in sectors with high growth prospects. In addition, a major difficulty faced by the euro area market for financing SMEs is the limited growth in European private equity markets and the fact that they are mostly focused on later-stage finance and management buyouts.

On account of the limited scope of market alternatives, it is therefore not surprising that the majority of SMEs meet their financial needs internally. A recent survey of the European Commission (Flash Eurobarometer, 2005) asked SMEs about the factors which would best ensure their development. Easy access to financing emerged as one of the key conditions. The financing characteristics of SMEs, namely extensive reliance on banks for external financing

25 SMEs – which are usually defined as firms with less than 250 employees – are key to the European economy, since they account for 99% of the number of firms and 60% of all private sector employment. See J. M. González-Páramo, "Corporate finance and monetary policy: The role of small and medium-sized enterprises", available at: http://www.ecb.int/events/conferences/html/cfmp.en.html #day2, 2006.

and a high overall dependence on internal funds, together with their significance for the euro area economy, have important consequences for the transmission of monetary policy. In this respect, the further integration of financial markets, which could lead to new avenues for the financing of SMEs, may have additional implications for the functioning of monetary policy.

An econometric analysis carried out in 2003 by the Eurosystem Monetary Transmission Network suggested that financial factors influence the monetary policy transmission mechanism with various degrees of importance across countries.[26]

Looking at the balance sheet channel, the analysis found that in some euro area countries, liquidity and cash flow effects appear to be important (for instance, in Austria, Italy, France and, to a lesser extent, in Belgium), whereas in others (Luxembourg, Finland and Spain) they appear hardly to matter. More interestingly, these balance sheet effects are found to operate in addition to any effect that is attributable to banks, or even in the absence of effects generated by bank loan supply. Furthermore, looking at the bank lending channel, the analysis found mixed evidence that the supply of loans has an effect on the transmission of monetary policy in France, Italy, Germany, the Netherlands and Portugal. Analyses using bank micro data have concluded that the usual indicators of the degree of asymmetric information (such as bank size) were only of minor importance for the reaction of bank loans to monetary policy in the euro area. Instead, in most euro area countries, the reaction of banks to monetary policy depends on their liquidity. However, the Eurosystem Monetary Transmission Network analysis concluded that the interest rate channel remains the most prominent channel in the transmission of monetary policy in the euro area. In addition, it should be borne in mind that, due to the progress made in financial integration, it is very likely that the differences in both balance sheet and loan supply effects are now much smaller than they were four years ago.

5 CONCLUSIONS

By looking at the role played by various financial factors in the monetary policy transmission mechanism, this Special Feature has focused on the relevance of financial integration for monetary policy.

In a well-integrated financial sector, cross-country differences in the way banks adjust their interest rates should be very limited. Indeed, thanks to increased financial integration, differences have diminished over time. However, some discrepancies seem to persist, which may reflect, in addition to the different structures of financial institutions and markets, a need for further financial integration. The level and the type of indebtedness of households and non-financial corporations both play a role in the transmission of monetary policy. Some of the differences across countries could be related to the degree of development and integration of the financial system. In this respect, however, the significant changes that have occurred in the financial sector since the start of Monetary Union have increased the choice of financial products and available finance, bringing beneficial effects for households and non-financial enterprises.

Finally, it has been argued that further financial integration may reduce the persisting differences in the composition of households' net wealth across euro area countries, thus contributing to a smoother and more homogeneous monetary policy transmission mechanism.

26 See Chapter 24 in Angeloni et al. (2003).

B. STRENGTHENING THE EU FRAMEWORK FOR CROSS-BORDER BANKS

As explained in Chapter 1 of this report, the integration of banking markets, in particular of the retail component, is less advanced than the integration of other segments of the euro area financial markets. Identifying and, where possible, reducing barriers to cross-border banking integration is therefore one of the policy priorities for the completion of the single financial market. This Special Feature provides an overview of recent developments in cross-border banking in the euro area and discusses current policy initiatives aimed at ensuring that the EU institutional framework supports the evolution of cross-border banking as a market-led process.

1 INTRODUCTION

Cross-border banks play an important role in the process of banking integration. They enhance competition in the euro area banking markets and provide a channel for the spreading of innovation in financial products and services via their expansion across jurisdictions – by providing cross-border banking products and services either directly or by means of foreign subsidiaries and branches, and by conducting cross-border M&As. In this fashion they promote convergence towards more efficient, lower-cost banking practices. With a view to supporting further progress in banking integration, the development of cross-border banking has therefore become an important issue.[27]

The role of public policy in this context is limited. In particular, it does not involve the promotion of a specific level or type of cross-border banking activity, as only the banks themselves are in a position to develop the underlying business strategies, to take the respective investment decisions and to assume responsibility for the economic consequences.

The development of cross-border banking is in addition affected by a number of structural factors that lie largely beyond the remit of public policy, such as geographical distance (and the related information barriers), differences in culture and language, and consumer preferences. Finally, enhanced cross-border banking activity is closely linked to other market developments (e.g. technological progress and financial innovation) as well as to progress in the integration of market infrastructures which have so far remained rather fragmented, especially in the retail segment.

Nevertheless, the public sector has an important contribution to make in terms of reducing potential obstacles to cross-border banking. With a view to supporting further banking integration via a market-led process of cross-border banking, the public sector should provide an adequate legal, regulatory, supervisory and fiscal framework for cross-border banks in order to foster equal market access and equal treatment of cross-border banks and their activities throughout the EU.[28]

Against this background, this Special Feature reviews the existing EU framework for cross-border banks and potential future developments. Given the ECB's specific statutory tasks in the area of prudential supervision,[29] the analysis will focus especially on the EU supervisory framework.

The Special Feature is divided into four sections. Section 2 describes how cross-border banking in the euro area has developed, building on the findings for the euro area presented in Chapter 1 of this report. Section 3 focuses on the existing EU framework for cross-border banks, providing a brief overview of the existing prudential, legal and fiscal obstacles

27 In addition, cross-border banking may facilitate the enhanced diversification of risk and revenues which, in turn, could contribute to the overall resilience of the financial system.

28 See the ECB definition of financial integration as set out in the Preface.

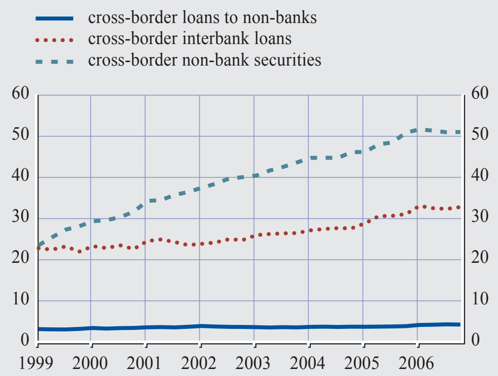
29 According to Art. 105(5) of the Treaty establishing the European Community, the European System of Central Banks (ESCB) shall contribute to the smooth conduct of policies pursued by the competent authorities relating to the prudential supervision of credit institutions and the stability of the financial system.

and the related policy initiatives. Section 4 analyses in greater detail the work underway to strengthen the prudential framework for cross-border banks. Section 5 concludes.

2 DEVELOPMENTS IN CROSS-BORDER BANKING

One key indicator for developments in cross-border banking is the evolving cross-border share in the financial holdings of euro area banks. Chart 19 shows that the cross-border component in banks' capital market-related holdings and interbank holdings has clearly increased in recent years, while their share in private holdings has more or less stagnated. This supports the findings of Chapter 1 regarding the diverging speed of progress in the integration of the different banking market segments.

Chart 19 Cross-border holdings of euro area banks



Source: ECB.
Note: Charts express cross-border holdings as a percentage of total holdings of euro area banks.

Cross-border banking is especially performed via foreign establishments – branches or subsidiaries – in the target jurisdiction. The direct provision of banking services is comparatively less developed owing to a number of difficulties such as differences in private law and diverging product definitions. Foreign establishments also play a key role as local distribution channels, especially in the retail sector, where sufficient proximity to customers and an established local reputation are important factors for effective market access.

The evolving share of foreign subsidiaries and branches in euro area banking markets is therefore another important indicator of developments in cross-border banking. Foreign establishments have gradually expanded their role in euro area countries in recent years, although they still only account for approximately 15% of total euro area banking assets.[30] Most of those assets are held by foreign subsidiaries. Moreover, while the median market share of foreign branches has more or less stagnated during the period between 2001 and 2005, the median market share of foreign subsidiaries has been increasing.

A key channel for the development of cross-border banking activities is that of cross-border M&A operations, for two main reasons. First, cross-border banks often prefer to expand via cross-border M&A activities into foreign jurisdictions, rather than establishing a local presence from scratch. In particular, cross-border M&A operations enable the acquirer to benefit from access to local distribution channels as well as from a ready-made customer base, and from operators that already fit into the local market, rendering it easier to achieve a significant market share within a short period of time. Cross-border M&As therefore comprise a major tool for market access. This is also an important reason for the greater prominence of foreign subsidiaries as compared to foreign branches mentioned above. Second, cross-border M&As are also gaining in importance as an avenue for banks to realise their optimal size, to reap economies of scale and scope, and to diversify risk and revenues. While domestic consolidation is still more pronounced, the share of cross-border M&As in the total value

30 As euro area countries are on average more affected by "outward" than by "inward" Europeanisation, the market share of foreign establishments is relatively low in the euro area banking markets when compared those of other EU countries. For instance, the share of foreign establishments in total EU banking assets is 26%, compared with 68% for the new Member States.

Table 2 Major cross-border M&As among euro area banks, 2000-2006

Date	Acquirer	Target	Value (€ billions)
2006	Credit Agricole (FR)	Emporiki (GR)	3.3
2006	BNP Paribas (FR)	Banca Nazionale del Lavoro (IT)	10.0
2005	Unicredito (IT)	HVB (DE)	13.3
2005	ABN Amro (NL)	Banca Antoveneta (IT)	6.1
2005	Unicredito (IT)	Bank Austria CA (AT)	2.1
2001	HVB (DE)	Bank Austria CA (AT)	7.8
2001	Dexia BIL (LU)	Kempen & Co. (NL)	1.1
2000	Fortis Bank (BE/NL)	BGL (LU)	1.6

Source: Zephyr database.
Note: Table shows deals between euro area banks of at least €1 billion.

of M&A transactions in the euro area banking sector has increased in recent years. Whereas during the period 2000-2004, cross-border M&As accounted on average for only 14% of the total value of euro area M&As, this percentage rose to 38% for the period from 2005-2006. It should be noted, however, that while the value of euro area cross-border M&As has been increasing in recent years, the number of cross-border deals has been declining (see also Chart 9 in Chapter 1). The reason for the increase in the value of cross-border M&As is that a few large-scale operations have played a key role in the recent surge in cross-border M&A activity, notably the 2005 acquisitions of Hypovereinsbank (HVB) by Unicredit and Banca Antoveneta by ABN-AMRO, and the takeover of Banca Nazionale del Lavoro by BNP Paribas in 2006. Table 2 provides an overview of major cross-border deals among euro area banks in recent years.

Nevertheless, some indicators support the expectation that cross-border M&A activity in the euro area banking sector may continue to thrive in the coming years. This includes the high degree of domestic concentration, especially in some smaller euro area countries;[31] growing competitive pressures among large players at European and global level; economic and regulatory incentives for the enhanced diversification of country and region-specific risks; the improved transparency and comparability of the relevant financial information;[32] continued technological progress;[33] and the present availability of substantial excess capital in the European banking sector which may at least partly be spent on further M&A activity, including on a cross-border basis. Indeed, an informal survey of around 100 major EU banks conducted in early 2005 by the Banking Supervision Committee (BSC) of the European System of Central Banks (ESCB) revealed strong interest in pursuing further cross-border expansion.

Another indicator of the increased role of cross-border banking in the euro area is the growing market share of major euro area cross-border banking groups. The BSC has carried out a mapping exercise of the geographical distribution of the activities of major EU banking groups with significant cross-border activity on three occasions, in 2001, 2003 and 2005.[34] According to the findings of the 2005 mapping exercise, there were 33 such groups in the euro area in 2005, with consolidated group assets accounting for 53% of total euro area banking assets.[35] In addition, 16 of these 33 groups were active in at least half of the euro area countries. These key cross-border players accounted for 38.7% of euro area banking assets. Chart 20 shows that both numbers have

31 See the findings of the 2006 ECB report on "EU banking structures" (see Annex 1, Table 3) on the degree of market concentration in EU countries.
32 Cf. the introduction of common reporting standards for listed companies (IFRS) in the EU as at 1 January 2005.
33 Technological progress is considered an important factor in terms of facilitating the realisation of economies of scale in cross-border banks, as it may reduce the share of fixed costs in banks' total costs per unit of output. It may also help banks make use of economies of scope by enabling them to use information across different business lines more efficiently and to cross-sell financial products.
34 Further information on the scope and results of these mapping exercises, notably for 2001 and 2003, is provided in the article "International activities of large EU banking groups" in the 2005 ECB Report on EU banking structures. The 2006 ECB Report on EU banking structures, published on 25 October 2006, lists the main results of the 2005 mapping exercise.
35 This includes all cross-border groups of which the parent bank is based in a euro area country and which conducts significant cross-border activities within other euro area countries. It should, however, be noted that the share of 53% is somewhat overstated as consolidated group assets also include assets held outside the euro area.

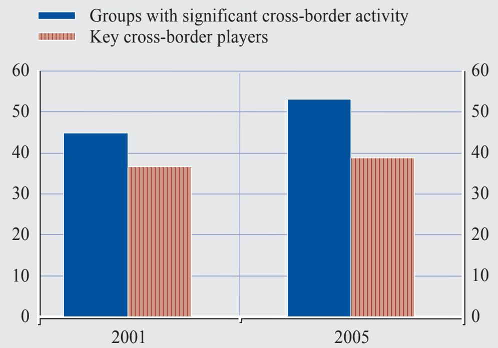
increased since 2001, when the respective shares stood at 44.9% and 36.8%.

The growing degree of organisational integration within banking groups is also an important development in cross-border banking.[36] In particular, banks have been increasingly centralising business functions across borders, often cutting across different legal entities. Informal surveys conducted by the BSC and the ECB have shown that typically centralised functions include strategic planning, treasury activity (such as funding and asset liability management), market risk management, parts of credit risk management, internal audit, legal services, wholesale banking and trading activities. Centralised back office platforms – e.g. for securities handling, payments and retail loans – are also becoming more prominent. It should be noted that centralised functions are not necessarily carried out at head office, but are also frequently performed by functionally specialised "centres of excellence" within the group. In addition, the degree of centralisation and the corresponding scope for local execution may vary across and also within groups.

According to the feedback received from the industry, there are a number of reasons why banks centralise business functions across borders, for example with a view to enhancing the overall stability and safety of the group, to reaping potential economies of scale (especially for sophisticated products which require significant technological investments), and to improving operational efficiency in terms of speed and quality via the standardisation of processes and rules. By contrast, business functions tend to remain decentralised when local regulatory and legal requirements, market practices and consumer preferences play a major role. Operational centralisation is therefore unlikely to deliver sufficient economic synergies in the areas of retail banking, marketing and distribution. In some cases, banks also wish to make effective use of specialised local or regional market know-how or to leave sufficient room for manoeuvre for larger-sized entities. In addition, legacy reasons may play a role, as the organisational infrastructure of different group entities may differ so much that centralisation could only be achieved at a very high price.

Chart 20 Market share of large euro area banking groups

(percentages)



Sources: BSC/ECB calculations.

Overall, several developments indicate that cross-border banking is growing in the euro area. While it is clear that cross-border banking is still far less developed than domestic banking activity (particularly in the area of retail holdings, M&A transactions and the establishment of subsidiaries and branches), it is nevertheless expected to continue to increase in coming years. In particular, recent large-scale cross-border M&As should provide additional stimulus for the expansion of cross-border banking activities. Several factors may also support a further increase in cross-border M&A activity.

However, much will depend on whether the recently executed large cross-border M&A transactions – and cross-border expansion in general – manage to deliver the expected economic benefits for the institutions concerned. The public policy framework for cross-border banks plays a key role in this regard, as it may present obstacles to the efficient operation of cross-border entities. In addition, further M&A

36 Functional integration is of course not restricted to cross-border banks, but also represents an important policy of banking groups that are primarily active at domestic level.

activity may also be impeded or discouraged by policy-related barriers. Against this background, policymakers have recently assessed the EU framework for cross-border banks in order to identify potential impediments, and have launched actions to address them.

3 OBSTACLES AND RELATED PUBLIC POLICY INITIATIVES

The main impetus for strengthening the policy framework for cross-border banks was provided by the ECOFIN Council at its informal meeting of September 2004 in Scheveningen, when the Council called upon the Commission to study possible obstacles to cross-border consolidation in the EU banking sector. Following up on this request, in April 2005 the Commission launched a wide-ranging survey of such barriers. This survey was targeted both at direct impediments to cross-border M&A operations and at obstacles to the efficient operation of the resulting entities. It took into account potential legal, fiscal, prudential, economic and attitudinal factors. The Commission presented the findings of its survey and a first assessment of the required policy response to the ECOFIN Council on 8 November 2005.[37] The suggested measures were included as part of the Commission's White Paper on its financial services policy strategy for the period 2005-2010.[38] The ECOFIN Council discussed the issue of cross-border consolidation again at its meeting in May 2006 in order to specify further the need and scope for policy action.[39]

The following sections provide an overview of the main obstacles to cross-border M&As and the efficient operation of cross-border entities and of the related policy initiatives.

OBSTACLES TO CROSS-BORDER M&As

Prudential obstacles

Cross-border M&As may be hampered by the lack of specificity of the existing rules regarding the supervisory approval process for acquisitions or increases of qualifying shareholdings in credit institutions, as set out in Article 19 of the Banking Directive.[40] The key concern is that the present wording of Article 19 may not be sufficiently clear to ensure that supervisory approval processes follow strictly prudential criteria, are consistently implemented across countries, and are sufficiently transparent vis-à-vis the applying institutions.

Among the respondents to the Commission survey of obstacles to cross-border consolidation, a number of those institutions which had already carried out cross-border M&A operations explicitly cited "misuse of supervisory powers" as an obstacle to cross-border M&As.

It should be noted that in response to the concerns voiced the Commission issued a formal proposal to revise the regulatory provisions with regard to the procedural rules and evaluation criteria for the prudential assessment of acquisitions, and of increases in shareholdings in the financial sector on 12 September 2006. In its Opinion of 18 December 2006, the ECB generally welcomed the proposed clarification of the legal framework, while at the same time noting that a number of specific elements in the proposal may warrant further consideration.[41] Negotiations at the Council of Ministers and the European Parliament on the Commission's proposal are well underway.

Legal obstacles

At present cross-border mergers are often difficult because of incompatibilities in national company laws. However, these difficulties will

37 The main findings and conclusions of the Commission survey were published as part of the Commission Staff Working Document "Cross-border consolidation in the EU financial sector" on 26 October 2005.
38 Commission "White Paper on Financial Services Policy 2005-2010", published on 5 December 2005.
39 See the Council's conclusions on "Cross-border consolidation in the financial sector", which were published as part of the press release on the 2,726th Council Meeting (8500/06 (Presse 110)).
40 Directive 2006/48/EC of the European Parliament and of the Council of 14 June 2006 relating to the taking up and pursuit of the business of credit institutions (recast), EU OJL 177 of 30 June 2006, p. 1.
41 See Chapter 3 for more details on the Eurosystem stance.

be significantly reduced as soon as the recently adopted Directive on cross-border mergers is transposed into national law.[42] The Directive states that cross-border mergers are to be treated according to the rules which would apply to such mergers at domestic level.

National company laws may also give rise to impediments to cross-border takeover bids, especially by allowing company boards to adopt defensive measures (i.e. "poison pills"[43] or restrictions on share transfers and ownership) to hamper either the acquisition process itself or the exercise of effective control following the acquisition. While the Commission proposal for the Takeover Directive had foreseen mandatory shareholder approval before company boards could set up such defence mechanisms, the final version of the Directive[44] only included this as an opt-in solution.

Fiscal obstacles

Several fiscal provisions may either give rise to significant execution costs for cross-border M&As or render it very difficult to estimate the prospective charges. Major concerns in this area relate to remaining gaps or a lack of clarity in domestic tax rules regarding the treatment of cross-border M&A operations, the possible application of an exit tax on capital gains and the value added tax (VAT) treatment of the transfer of financial assets. Concerning VAT issues, it should be noted that a comprehensive review of the cross-border VAT regime is currently underway. The ECOFIN Council expects to reach an agreement in June 2007.

OBSTACLES TO OPERATIONAL EFFICIENCY

Prudential obstacles

Intensified supervisory cooperation and the convergence of supervisory practices form the prerequisites of an efficient prudential framework for cross-border banks. Banks tend to argue that the present need to comply with different sets of rules and to interact with several authorities gives rise to substantial compliance costs and reduces the scope for reaping economic synergies via the closer integration of corporate processes and structures. However, with the adoption of the revised framework for home-host interaction under the Capital Requirements Directive (CRD)[45] and the extension of the Lamfalussy approach to the banking sector,[46] two important measures have recently been taken to enhance the EU framework to address the issues concerned.[47]

Legal obstacles

Insufficient legal harmonisation especially hampers the cross-border provision of retail financial services, where banks, owing to substantial differences (in the rules for consumer protection, liability and bankruptcy in particular), need to develop solutions that are specifically tailored to the local legal setting. They are therefore unable to standardise products and the related IT systems on a cross-border basis. Enhanced harmonisation of the legal framework for retail financial services via a carefully targeted approach – depending on the specific product and the respective distribution channels involved – is therefore also one of the Commission's priorities for the coming years in the field of financial services. Several initiatives are already underway, e.g. in the areas of payment services, consumer credit and mortgage credit.

42 Directive 2005/56/EC was adopted in October 2005. Transposition will be required by the end of 2007.

43 These refer to financial arrangements – such as a conditional sale of a core asset at a cheap price, or the issuance of shares – that would reduce the value of the target company in the event of a successful bid.

44 Directive 2004/25/EC was adopted in April 2004. While the formal transposition deadline expired in May 2006, transposition is still pending in some countries.

45 Encompassing Directives 2006/48/EC and 2006/49/EC, which were both adopted on 14 June 2006.

46 The Lamfalussy approach, which was developed in 2001, represented a major overhaul of the EU arrangements for financial regulation and supervision. While these changes were originally conceived purely for the securities sector, in December 2002 ECOFIN agreed to extend the new framework to all financial sectors. The Directive extending the Lamfalussy committee structure to the areas of banking, insurance and investment funds (2005/1/EC) was adopted on 9 March 2005.

47 See Section 3 for a more detailed discussion of the present strategy to strengthen the prudential framework.

Insufficient legal harmonisation may also present a barrier to the streamlining and reorganisation of corporate structures in line with evolving business needs. In addition to the general obstacles to cross-border M&As, the restructuring of cross-border banking groups is especially hampered by obstacles to the transformation of subsidiaries into branches and the cross-border transfer of the corporate seat. While the European Company Statute (ECS) in principle provides a legal framework for both operations, feedback from market participants suggests that it may involve a number of practical difficulties.[48] Indeed, the interest of cross-border banks in adopting this corporate form has been very limited so far.[49] It should be noted, however, that the ECS has only very recently become available in many Member States. Therefore, further experience should be gained before launching a full assessment and considering potential revisions, with a view to making the ECS an attractive option for cross-border institutions. In the meantime, the Commission is assessing the potential need for a specific Directive on the cross-border transfer of corporate seats.

Fiscal obstacles

A limited degree of harmonisation also gives rise to several fiscal obstacles to the operational efficiency of cross-border banks, relating in particular to VAT charges on intra-group services, transfer pricing and the treatment of cross-border losses. VAT issues are a particular concern, given the importance of the integration of business functions and the cooperation between different group entities in order to realise cost savings in banking groups. As set out above, a comprehensive review of the present VAT regime is currently underway. Initiatives are also ongoing to alleviate problems with regard to corporate taxation, such as the work of the Joint Transfer Pricing Forum and efforts to establish a common consolidated corporate tax base.

4 ENHANCING THE PRUDENTIAL FRAMEWORK FOR CROSS-BORDER BANKS

PRESENT POLICY PRIORITIES

The growth of cross-border banking has accentuated the need for a more integrated supervisory framework. Close cross-border cooperation and convergence is required to streamline the supervisory interface for cross-border banks, to rationalise their compliance burden, and to respond to the growing degree of functional integration within groups. With the adoption of the enhanced framework for home-host interaction under the revised EU capital requirements framework and the extension of the Lamfalussy approach to the banking sector, supervisory arrangements have been significantly strengthened in response to these challenges.

The EU *capital requirements framework* steps up the regulatory requirements for the exchange of information and cooperation between the consolidating supervisor and host supervisors of cross-border banking groups. In addition, it strengthens the role of the consolidating supervisor by entrusting that authority with coordinating responsibilities for the gathering and dissemination of relevant information about the banking group and for the planning and coordination of supervisory activities. The consolidating supervisor will also lead the consultation process among the college of supervisors with respect to the validation of group-wide approaches for the advanced measurement of credit risk and operational risk, and will have the ultimate say in those cases where the competent supervisors are unable to reach an agreement within a six-month period. The new framework for home-host interaction is expected to facilitate the coordination of supervisory measures to a considerable degree. This should therefore reduce the risk of potentially diverging or conflicting requirements for cross-border banks, and should render their interaction

48 See the Commission report on the "Consultation and Hearing on Future Priorities for the Action Plan on Modernising Company Law and Enhancing Corporate Governance in the European Union", published on 7 July 2006.

49 Only the Nordea group has so far declared its intention to transform itself into a European Company.

with the responsible supervisors more efficient. In addition, enhanced coordination should contribute to safeguarding a level playing-field in the EU banking sector.

The *extension of the Lamfalussy framework to the EU banking sector*, formally effective since March 2005, has established a new institutional infrastructure to facilitate the pursuit of supervisory convergence and to promote progress in supervisory cooperation and information-sharing. This relates especially to the work of the "level 3" supervisory committee in the banking sector, the Committee of European Banking Supervisors (CEBS). The CEBS is mandated to develop common standards, guidelines and interpretative recommendations for the practical performance of supervisory tasks on a day-to-day basis with a view to identifying and gradually converging towards best practices. Since the CEBS took up its responsibilities in early 2004, it has already delivered an impressive amount of work, notably as relates to implementation of the CRD, reporting requirements and supervisory disclosure.[50] The CEBS guidelines on "Supervisory Cooperation for Cross-border Banking and Investment Firm Groups" establish a principles-based framework for cross-border cooperation between home and host supervisors on the basis of the revised home-host framework established by the CRD.

In sum, the enhanced prudential framework is expected to provide an adequate institutional setting to foster closer information-sharing and coordination among supervisors and to promote progress in the convergence of supervisory practices and approaches. However, these benefits will only be reaped in full if the momentum is kept and the potential of the new setting is fully exploited. After the work to design and establish the enhanced institutional framework, the present policy priority is therefore to ensure its effective implementation in practice.

This work is embedded in the more general reflections on how to strengthen further the EU framework for supervision across financial sectors.[51]

The Financial Services Committee (FSC),[52] which is mandated to support the strategic discussion on financial services policy issues, has analysed this issue from a finance ministry perspective. The FSC report on Financial Supervision was finalised in February 2006 and approved by the May 2006 ECOFIN Council. The Commission also reviewed the priorities for the EU supervisory framework in the context of the development of its financial services policy strategy for the coming years, and specified the envisaged policy measures in its "White Paper on Financial Services Policy 2005-2010". Moreover, following the agreement between the European Parliament, the Council of the European Union and the European Commission, the Inter-Institutional Monitoring Group for Financial Services (IIMG) was re-established in July 2005 to assess the implementation of the Lamfalussy framework across sectors by December 2007.[53] In this context, the IIMG also analyses the specific challenges regarding the functioning of

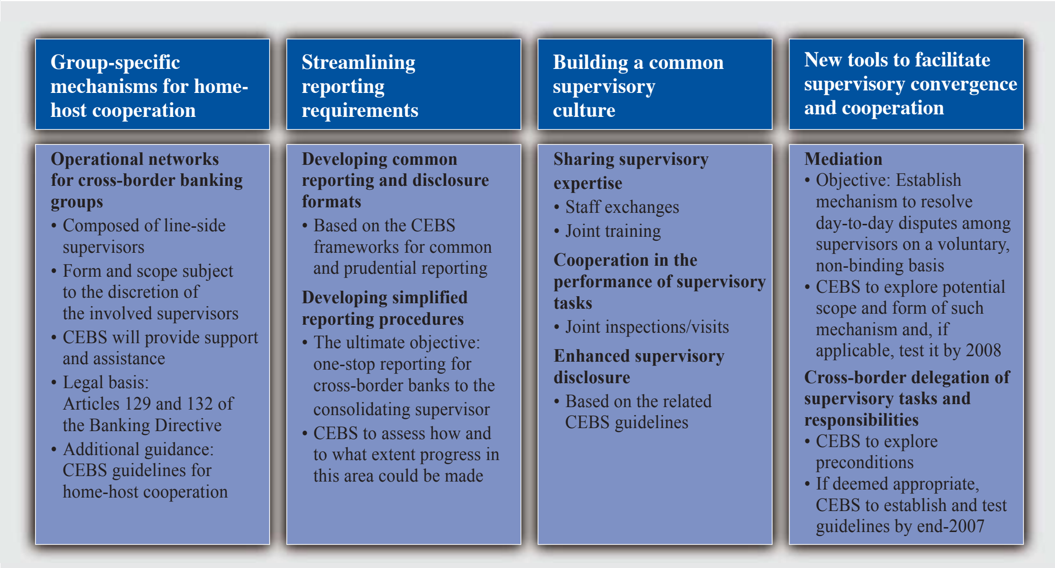
50 See the CEBS guidelines on validation (April 2006), supervisory cooperation (January 2006), the supervisory review process (January 2006), the recognition of external credit assessment institutions (January 2006), common reporting (January 2006), financial reporting (December 2005) and supervisory disclosure (November 2005).

51 Chapter 3 provides an overview of the ECB contribution to these issues.

52 The FSC, replacing the former Financial Services Policy Group (FSPG), was set up by a decision of the ECOFIN Council of 18 February 2003. Its establishment was based on the recommendations of the 2002 Economic and Financial Committee (EFC) to the ECOFIN Council on financial regulation, supervision and stability. The FSC comprises finance ministry representatives from each Member State plus a Commission representative, and is chaired by a Member State representative. The ECB and the chairs of the sectoral level 3 committees (CEBS, CESR and CEIOPS) participate in the capacity of observers. The FSC is mandated to analyse financial services policy issues especially from a cross-sectoral, medium to long-term perspective. More in general, it is expected to provide a bridge between the competent political and technical bodies. The FSC reports to the EFC with a view to facilitating the preparation of advice to the ECOFIN Council and to supporting the work of the EFC on an ad hoc basis.

53 From 2002-2004 the IIMG (comprising six independent experts nominated by the European Parliament, the Council and the Commission) assessed the functioning of the Lamfalussy approach in the securities sector. Following the extension of the Lamfalussy framework to all financial sectors which was formally completed in March 2005, a comprehensive, cross-sectoral assessment was deemed useful. In July 2005, the IIMG was re-established, again with six members nominated by the EU institutions.

Chart 21 Main building blocks in order to exploit the full potential of the strengthened prudential framework



supervisory cooperation at level 3 of the Lamfalussy process. The IIMG published its first interim report in March 2006 and a second in January 2007.

Taken together, the three initiatives in particular highlight the need to move towards establishing a common supervisory culture, as well as the potential usefulness of additional tools to foster convergence and cooperation (notably mediation and delegation), and the importance of further streamlining reporting requirements for cross-border institutions.

The progress made in these areas will be closely monitored. The Commission White Paper and the FSC report on financial supervision specify short and medium-term timelines for the expected deliverables, and require the level 3 committees to report regularly on the progress achieved. The Commission will issue detailed annual reports on the implementation of its White Paper priorities. Similarly, from 2007 the FSC will report annually to the ECOFIN Council on the progress made in putting the recommendations developed in its report on financial supervision into practice.

In addition to the above measures, another important strand of work will be pursued in the banking sector regarding the practical implementation of the enhanced framework for home-host cooperation on a group-specific basis via line-side networks of supervisors (so-called operational networks).

Chart 21 provides an overview of the four building blocks of the present strategy, which are designed to implement the revised supervisory arrangements in the banking sector as effectively as possible.

EMERGING POLICY ISSUES

Turning from immediate policy priorities to medium to longer-term considerations, three sets of issues can be identified.

First, the end of 2007, when the first reports of the Commission and the FSC and the final IIMG report on the implementation of the Lamfalussy approach become available, will mark a major milestone for a general assessment of the revised supervisory arrangements. It should be noted, however, that it may not yet be possible to draw any definite conclusions with regard to the functioning of the Lamfalussy approach in the banking sector at this juncture, as it coincides with the implementation date of the CRD.

Second, in light of the close links between prudential supervision and other policies safeguarding financial stability, the Commission intends to clarify the roles and responsibilities of home and host supervisors and their interaction with other authorities in the crisis prevention, management and resolution stages. The underlying objective is to ensure that the different policy arrangements move in step, both with a view to effectively monitoring and addressing potential financial stability risks, and to safeguarding the overall efficiency of the public policy framework. The Commission will especially analyse, together with the CEBS and the ECB/BSC, the cross-border arrangements for liquidity, crisis management, lender of last resort, winding-up and bankruptcy proceedings as part of its financial services policy for the coming years.

Third, there are some indications that the debate about the possible need for a more integrated supervisory framework in the EU may intensify in the years ahead. The European Parliament recently called for the establishment of a committee of "wise persons" to reflect on the ultimate needs and potential improvement of the current supervisory framework.[54]

Moreover, the cross-border banking industry has put forward different proposals for a possible revision of the existing arrangements, ranging from an extension of the coordinating role of the consolidating supervisor to the introduction of a federal EU system of financial supervision. The most prominent concept is an intermediate proposal, which foresees the establishment of a lead supervisor for cross-border banking groups. The lead supervisor concept has been developed by the European Financial Services Roundtable (EFR)[55] in three consecutive reports.[56] This concept foresees that the consolidating supervisor of a banking group would become responsible for the entire prudential supervision – including both solvency and liquidity matters – of its foreign subsidiaries and branches. The lead supervisor would also be the single point of contact for the banking group, coordinating the licensing (on the basis of fully standardised procedures), laying down the reporting schemes for all group entities, and deciding upon and coordinating all on-site inspections.

The new role of the lead supervisor would be complemented by enhanced home-host cooperation via group-specific colleges of supervisors to ensure the indispensable and active involvement of host country supervisors in the supervisory process and their adequate and timely information by the lead supervisor. The need for intense home-host cooperation would be particularly pronounced in those cases where foreign institutions hold a significant market share in the host country.

It should be noted that the lead supervisor approach – as well as other potential supervisory frameworks beyond the present legal and institutional setting – raises a number of major practical, legal and political issues relating to the implications of the concept for (1) the roles, powers and responsibilities of both home and host supervisors; and (2) political accountability and legal enforcement and liability.

In analysing the implications of the lead supervisor concept – or indeed of any other alternative arrangement – the ultimate concern should be that no proposal should be implemented that may impair the overall effectiveness, credibility, legal certainty and

54 The establishment of this committee would follow up on the respective recommendation of the report "Towards further consolidation in the financial services industry", as adopted by the European Parliament on 4 July 2006.

55 The EFR currently has 20 members, chairpersons or chief executives of major European banks and insurance companies. It was formed in 2001 in order to provide industry input on EU financial services policy issues, with the overall objective of supporting the completion of the single financial market.

56 "EFR recommendations on regulation and supervision" (2003); "Towards a lead supervisor for cross-border financial institutions in the EU" (2004) and "Third EFR report on the lead supervisor concept" (2005).

political legitimacy of the EU framework for financial supervision.

More generally, the principle should be stressed that the institutional setting has only recently been revised, and should thus be given sufficient time to show its effectiveness. In this context it should be noted that the work to implement the supervisory guidelines developed by the CEBS has only recently started, and that there is not yet any practical experience with the functioning of the revised home-host framework under the CRD. Moreover, efforts are already underway to ensure the effective implementation of the revised setting.

The broad-based review of the existing arrangements and the full implementation of the CRD, both of which are due by the end of 2007, as well as further developments in cross-border banking, will provide important input for the assessment as to whether the EU supervisory arrangements are adequate, or whether they need further revision.

5 CONCLUSIONS

Cross-border banking has increased in the euro area in recent years. The cross-border share in banks' financial holdings, M&A operations and permanent establishments has been growing. Large euro area banking groups account for an increasing share of total euro area banking assets. The growing degree of functional integration of cross-border banks, often cutting across different legal entities, is another important development.

While cross-border banking still lags behind the development of domestic banking activity, activity in this sector is expected to further intensify in the coming years.

With a view to supporting the evolution of cross-border banking as a market-led process, EU policymakers have adopted several initiatives to reduce potential obstacles to cross-border M&As and to the efficient operation of cross-border banking groups. Measures to strengthen supervisory convergence and cooperation form an important part of this work. Two major milestones in this regard have been the adoption of the revised framework for home-host cooperation under the CRD, and the extension of the Lamfalussy framework to the banking sector. If effectively exploited, the revised arrangements are expected to deliver the enhanced degree of cross-border cooperation and convergence which is required. Important initiatives are already underway in this respect. The wide-ranging review of the EU supervisory framework, which is scheduled for the end of 2007, will provide the opportunity to evaluate the progress made and to assess the potential need for further policy action.

C. THE SEPA INITIATIVE AND ITS IMPLICATIONS FOR FINANCIAL INTEGRATION

The ECB financial integration indicators in Chapter 1 of this report show that the integration of retail payment infrastructures is much less advanced than the integration of wholesale payment infrastructures. To this end, the banking industry has set up the Single Euro Payments Area (SEPA) initiative. The Eurosystem supports this initiative by acting as a catalyst for private sector activities. This Special Feature provides an overview of the main elements and objectives of the SEPA initiative, the progress achieved so far and the remaining challenges.

1 INTRODUCTION

The introduction of the euro provided a strong boost to the integration of wholesale payment services. While in 1998 there were still 18 LVPS, now there are only four, of which TARGET is clearly the largest. TARGET settles, on average, about €1.9 trillion in total payments value every day.

However, less progress has been made in the integration of retail payment services, where there is no equivalent to the TARGET system for low-value payments. Indeed, there were still 15 retail payment systems in 2005, only slightly fewer than the 19 that existed in 1998.

There are still significant differences in the handling of retail payments between the different euro area countries. National payment instruments, standards and infrastructures for retail payments are still as diverse as they were in 1998, with differences in execution times and prices, so a common retail payments market for euro payments is yet to emerge. Moreover, the quality of retail payment services offered today concerning cross-border transactions in the euro area is often still much lower than what is offered at domestic level. This difference in quality between domestic and cross-border euro transactions is related to transparency and time, as well as the effort needed to make electronic payments.

To address both these discrepancies and the lack of integration in the retail payments market, the European banking industry has set up the SEPA project. The SEPA project consists of a series of initiatives aiming at the introduction of common instruments, standards and infrastructures for euro area retail payments from 2008 onwards. As of this point in time, euro area citizens should be able to make payments throughout the euro area from a single bank account, using a single set of payment instruments as easily and safely as in the national context today. Companies and financial institutions will benefit from a streamlined handling of payments and a simplified pan-European outreach.

The SEPA project can be seen as the response of the European banking industry to the introduction of the euro notes and coins and the European Commission's endeavours to create the single market in Europe. SEPA complements the integration initiatives which were triggered by the Eurosystem and the Commission to remove any remaining technical, statutory and practical barriers for efficient payments in Europe.

The main focus of the SEPA project is on euro payments, and the project is therefore primarily of importance for the euro area. This distinguishes it from the Commission's initiatives, which are related to removing barriers that hamper a single payments market for the EU in general, covering all the currencies of the 27 Member States. The SEPA project, however, also reinforces the Commission's initiatives to create a single market for Europe, as other countries outside the euro area are also contributing to and adopting the work of the SEPA project.

The SEPA project will not only improve cross-border payments, but will also transform the retail payment markets in the euro area into a single euro area market. It aims at developing more effective competition in the payment services sector and at adopting new technologies and more efficient instruments. It will additionally contribute to the efficiency of, and offer further integration opportunities for, the euro area retail banking markets in general. In this respect, SEPA is consistent with the aim of the European Commission's financial services policy over the next years to foster the integration of retail financial services. The SEPA project also contributes to the Lisbon Agenda, which aims at fostering the competitiveness and development of the European economy.

This Special Feature is organised as follows. Section 2 provides an overview of the SEPA project and the achievements reached so far. Section 3 analyses some of the objectives and implications of SEPA, while Section 4 presents the next steps in the project and some of the challenges related to its implementation. Section 5 concludes.

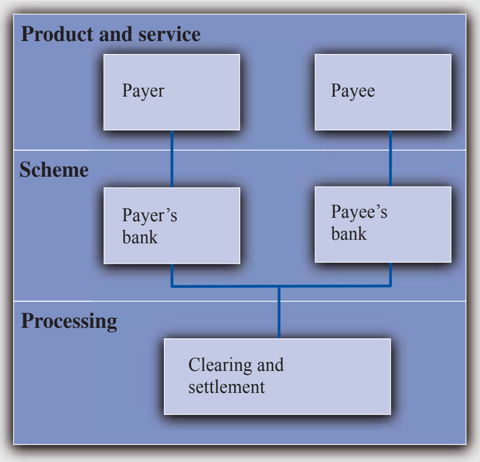
2 THE CREATION OF SEPA

The SEPA project was created to overcome the current state of fragmentation of the euro retail payment market, which can be attributed to three main factors.

First, retail payment systems have for historical reasons developed in a different way in individual countries, which have adopted different instruments, conventions, technologies and regulations to execute retail payments. As a consequence, transforming national payment schemes into common pan-European ones is rather difficult, as it requires changes in the rules and procedures of the schemes and habits of different stakeholder groups.

Second, for some time the situation has been uncertain with respect to the future development of the payment systems landscape in Europe and the type of pan-European system that would emerge. The payments industry was also not organised at the European level.

Chart 22 Main SEPA elements



Source: ECB.

Third, the interests of the different stakeholders are diverse and in some cases difficult to reconcile. Banks, for example, have different customer segments (such as corporates, merchants and private customers), and the requirements of these different segments influence the banks' behaviour. This difference in interests also makes it difficult to reach a SEPA-wide common basis, and often necessitates the development of different options for payment schemes, or different additional services on top of the core schemes.

THE MAIN ELEMENTS OF THE SEPA PROJECT

The SEPA project is organised into three layers (see Chart 22).

The first layer consists of the processing infrastructures, which provide operational services for the clearing and settlement of payments in euro.[57] For the processing infrastructure layer, the European Payments Council (EPC) has defined a framework which

57 Clearing is the process of transmitting, reconciling and confirming payment orders and establishing a final position for settlement (either on an individual transaction basis or on a periodic basis). Settlement is an act that discharges obligations in respect of fund transfers between two or more parties.

clarifies the roles and procedures for the processing infrastructures that provide clearing and settlement services. This framework provides the basis for cooperation between schemes and infrastructures. Traditionally, payment schemes in the national context often combined the management of the scheme and the processing infrastructures, and both were often part of the same company (e.g. automated clearing houses). In the new SEPA environment, the schemes will be separated from the infrastructures so that processing service providers can compete and offer their processing services to schemes across SEPA.

The second layer covers schemes, defining the new set of interbank rules, practices and standards for the execution of euro payments (e.g. direct debit and credit transfer schemes). The EPC has defined new SEPA schemes for credit transfers and direct debits. Each scheme consists of a mutually agreed rulebook which includes practices and standards to execute payments in euro. The current national schemes for credit transfers and direct debits, which had their own specific rules and agreements, will cease to exist and will be replaced by the SEPA schemes. On the basis of these new SEPA schemes, banks can offer tailored products to their clients anywhere in the euro area.

In addition, the EPC has also defined a framework for card payments, and one for cash payments. The cards framework is a policy document which states how card schemes, and their issuers, acquirers and operators should adapt their current operations to comply with the SEPA principles for card payments. Ultimately, the cards framework aims at achieving a euro area-wide acceptance of different card schemes. The cash payments framework was set up to improve cash handling services in the euro area.

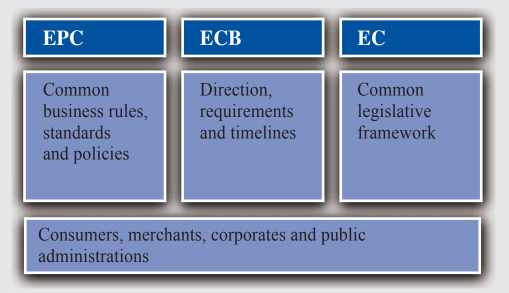
The third layer consists of new SEPA products and services which are offered by the banks and other service providers to their customers, based on the core schemes. The EPC has not defined common standards for this layer along the ECB recommendations of the 4th SEPA progress report. Banks and service providers can develop new banking products and services that suit their customers, based on the new instruments and processing functionalities. They can compete on prices, service levels or any other features of the products offered to potential clients.

STAKEHOLDERS IN THE CREATION OF THE SEPA PROJECT

The SEPA project was mainly initiated through the contribution and interaction of three key stakeholders: the banking industry, the Eurosystem and the European Commission. Furthermore, all three actors also involve in their preparations for SEPA the end-users themselves, which include consumers, merchants, corporates/SMEs and public administrations (see Chart 23).

The EPC is a self-regulatory body set up by the European banking industry to manage the SEPA project. It consists of some 65 banks, including several different types of European banks, the three European Credit Sector Associations, and the Euro Banking Association. The EPC Plenary is its decision-making and coordinating body. The Plenary's main tasks are related to the design and specification of a new pan-European framework which should foster integration for euro payments. The Plenary also provides guidance on common payment

Chart 23 Main stakeholders in the creation of SEPA



Source: ECB.

issues related to standardisation, best practices and implementation issues.

In order to design a SEPA framework which is acceptable to the industry, different working groups were set up, involving a wide range of national experts. In addition, national preparatory committees were created in different countries to implement the SEPA framework, and to ensure that the different banking communities are adequately represented and informed. The European and national banking associations are involved in the promotion of the new SEPA concepts within their constituencies. Infrastructure providers are also contributing to the SEPA preparations. Finally, to prepare the implementation of the agreed proposals, a dedicated Rollout Committee was set up.

The Eurosystem's involvement in the SEPA project and in the financial integration of payment systems in general is based on its statutory role to promote the smooth operation of payment systems and to contribute to safeguarding financial stability. The Eurosystem specifically supports the SEPA project by acting as a catalyst for private sector activities.[58] In several progress reports, the Eurosystem has provided guidance to the banks and the payments industry by setting the SEPA objectives and defining the high-level requirements.[59] The Eurosystem also has a coordinating role, as it brings together the different stakeholders. It has, for instance, consulted the banking industry, infrastructure providers and end-users (e.g. corporates, merchants SMEs, public administrations and consumers) on SEPA issues. The NCBs of the Eurosystem act at the country level as catalysts in the implementation process and with regard to the organisation of information campaigns. The Eurosystem has also stated that it could increase its current operational involvement if deemed necessary.[60]

Finally, the European Commission's involvement in the SEPA project stems from its efforts to create a single market in Europe. The Commission seeks to foster the creation of the single market in relation to banking and finance. By helping to remove legal barriers, seeking to establish a level playing-field and introducing harmonised rules for making payments, the Commission stimulates competition in the payment market and financial integration in general.[61]

REGULATORY DEVELOPMENTS

The European Commission has contributed to SEPA with several initiatives. In 2001 it launched Regulation 2560/2001/EC on cross-border payments in euro, which established the principle of equal charges for a cross-border transaction and a domestic transaction within the EU. The rule of equal charges applied as from 1 July 2002 for bank card payments and withdrawals from cash machines, and from 1 July 2003 for credit transfers. From 1 January 2006 it applied to transfers in euro of up to €50,000 made between two euro accounts within the EU. Regulation 2560/2001/EC was in fact crucial for the creation of the SEPA project.

In December 2005 the Commission made a proposal for a Directive on Payment Services in the Internal Market, which sought to create a comprehensive set of rules for all payment services in the EU. The aim of the proposed Directive is to bring down legal barriers and to provide a set of standardised consumer protection rules, both of which will facilitate the implementation of SEPA instruments. The proposed Directive applies to all Member States and all EU currencies.

58 See also Chapter 3 of this report.

59 The Eurosystem also provides guidance on specific issues and instruments. For example, in November 2006 the Eurosystem published its views on a "SEPA for cards".

60 See the report "Towards a Single Euro Payments Area – Progress Report", July 2003, which states "the Eurosystem does not exclude per se that it might become more actively involved in the provision of cross-border retail payment services, should its catalyst approach produce insufficient results and should banks fail to deliver efficient services on their own."

61 See also the Internal Market initiatives of the European Commission: http://ec.europa.eu/internal_market/index_en.htm

An important element of the Directive is to open up payment markets to other actors, not just banks and e-money institutions, as this should enhance competition within the European payments area. Another aim is to provide a simplified and highly harmonised set of rules on information requirements which should increase market transparency for both payment providers and users. Diverging national rules should also be replaced with a set of standardised rights and obligations for providers and users of payment services. The Eurosystem welcomed the Directive.[62] The proposal is the subject of ongoing discussion in the EU Parliament and in the EU Council. Ideally, to foster the SEPA project, the Directive should be adopted as soon as possible to enable a swift transposition into national legislation, as delays in this regard may lead to delays in the full implementation of SEPA.

3 HOW SEPA WILL CONTRIBUTE TO FINANCIAL INTEGRATION AND EFFICIENCY

This section explains how SEPA will foster the integration of retail payments in terms of harmonising and improving the level of service for payments in euro. Furthermore, it analyses the implications of a more integrated payments market, in particular the consequences of SEPA for competition and efficiency.

CONTRIBUTION OF THE SEPA PROJECT TO AN INTEGRATED RETAIL PAYMENT INFRASTRUCTURE

Generally speaking, the SEPA project aims to create retail payment schemes where participants would (i) be subject to a single set of rules; (ii) have equal and open access to these schemes; (iii) be reachable; (iv) be subject to transparent conditions; and (v) be offered interoperable infrastructures.[63] The following paragraphs further elaborate on how the SEPA framework has so far contributed to the achievement of these objectives.

Single set of rules: A single set of rules for all participants in the retail payment system would create equal opportunities regarding the use of payment instruments and services at the euro area level right from the start. A single set of rules would also foster a level playing-field between financial institutions when they provide retail payment services, irrespective of their location within the euro area. Moreover, it would enhance the comparability of services. Rulebooks have been created for the SEPA schemes for credit transfers and direct debits. These define a single set of business rules and practices, allowing these electronic payment instruments to be processed consistently throughout the euro area. The frameworks for card payments and infrastructures also define a single set of rules and requirements, but they are less detailed than the rulebooks. Having a single set of rules for SEPA, however, does not prohibit the existence of different solutions or different end-products as long as the rules and standards are followed. The SEPA schemes could still entail different options as additional services, and banks are free to enhance the SEPA instruments in order to provide suitable solutions for different customer needs.

Equal and open access: Access criteria to payment systems should generally be equal and open to eligible institutions in order to encourage competition among participants and to promote efficient and low-cost payment services.[64] Imposing restrictions on access may, however, be warranted in order to protect participants against undue risks resulting from the participation of other parties or unforeseen risks. The SEPA project fosters equal and open access, so that a credit institution or other payment service provider would have the possibility of becoming a (direct or indirect) member of a SEPA scheme or infrastructure irrespective of its location within the euro area. The separation of the schemes from the

62 See also Chapter 3 of this report.
63 See also the ECB's definition of financial integration as provided in the Preface.
64 In many systems, a two-tier membership is implemented to allow both direct and indirect access. It is therefore not a necessity to allow all participants to have direct membership, as long as appropriate rules are set which define the objective access conditions for indirect participants.

processing infrastructures will open up access to national markets for other processors to offer their services to the schemes. Concerning card payments, for example, the SEPA cards framework explicitly states that cross-border issuance and acquiring should be possible in SEPA and ought not to be subject to any restrictions. After the launch of the SEPA schemes in 2008, the public authorities will analyse whether the rules and management of the scheme are clear and accessible, and whether the membership conditions are fair and open. Based on its oversight role, the Eurosystem will analyse the access criteria of retail payment systems that are systemically important.

Reachability: The concept of reachability suggests that payers in the euro area could pay with one single instrument irrespective of the payee's location within the euro area. This implies that all euro area banks should at least be reachable as a receiving bank for credit transfers and for direct debits. Reachability can be achieved either directly through links between institutions and infrastructures, or indirectly through intermediary banks or other infrastructures. Reachability is important for direct debit schemes and for credit transfer schemes, as payment initiators want to ensure that their counterparts are reachable for any SEPA-transaction. Larger creditors for example (such as utility companies) would be particularly interested in a payment instrument that can cover all their debtors. However, such an instrument would clearly be less valuable for the creditor if separate instruments with limited reachability had to be used. The successful adoption of the SEPA schemes therefore depends on reachability. The schemes will only be a success if all banks participate in them. An overall adherence process is being considered by the EPC to commit all stakeholders and to ensure reachability. The market-driven process is expected to encourage other infrastructures to merge and to form alliances or links to ensure reachability.

Transparency: Transparent prices, fees and rules would allow users to compare products and services more effectively. Some of the relevant market infrastructures already disclose their different policies on clearing and settlement services on their websites. Peer pressure through SEPA and political pressure will most likely encourage other infrastructure providers to undertake similar initiatives. Transparency is also related to the effective and clear organisation of schemes or infrastructures and their governance. SEPA allows for a more transparent organisation of schemes or infrastructures. For example, it permits participants to evaluate and compare the performance of their scheme against other schemes, or to determine more easily whether operators of schemes fulfil their functions. Another aspect of transparency is the involvement of users in the design, implementation and migration of the SEPA project. The EPC has involved corporates in the development of some aspects of the SEPA framework, and will set up a structured dialogue with different user groups. For example, the SEPA direct debit schemes have benefited from user input in terms of developing business-to-business functionalities. A far-reaching involvement of the users is beneficial as it will permit the development of services that add value to the customer. For example, the joint efforts of the industry and users would allow invoices to be processed more automatically and paperless throughout the euro area.

Interoperability: Interoperability could be defined between participants (at the scheme level), or between different processing infrastructures (at the infrastructure level). Common standards are needed so that participants and processing infrastructures can interoperate. As part of the SEPA project, the rulebooks, standards and a mutually agreed set of data requirements define the interoperability between participants. At a technical level, infrastructures would for example have to adopt common connecting procedures and authentication and other security solutions. Agreements are also needed to define the legal basis and commercial arrangements, such as the determination of liability conditions, charging options, the choice of settlement agent or the applicable legal system. In this respect it is worth mentioning that infrastructure providers have formed a working group to develop a framework focusing on the technical interoperability of automated clearing houses (ACHs).[65] On the basis of this framework, they will define the different linkages, procedures and agreements that they want to offer to their clients. In practice, infrastructures in Europe are taking different approaches. Some are positioning themselves as pan-European infrastructures for SEPA, while others are forming alliances or are even merging to ensure reachability across SEPA and the interoperability of scheme participants.

To sum up, over the last two years real progress has been made on the five objectives towards achieving a more integrated retail payment area. There have been substantial achievements with regard to the development of single sets of rules for schemes, and the EPC is strongly committed to ensuring open access. Concerning reachability, however, the progress achieved is still limited. Concerning transparency, some progress has been made, but more involvement of users would bring further benefits to the SEPA project. Finally, on the subject of interoperability, a working group has been set up by infrastructure providers to address this issue, although some of the work is still outstanding.

IMPLICATIONS OF SEPA FOR COMPETITION AND EFFICIENCY

The implementation of the SEPA components as of January 2008 will have implications for competition and efficiency.

Implications of SEPA for competition: The right balance has to be found between cooperation and competition. A certain degree of cooperation and collective action between payment services providers is needed to establish the necessary interbank rulings, standards and infrastructures. The SEPA framework has increased cooperation on a pan-European level, inter alia by mutually defining the roles and responsibilities of participants.

SEPA also increases competition in the banking industry as it removes the barriers that formerly protected national markets. Consumers, companies and merchants are no longer bound to the services offered by their national banks and card schemes. Banks will be able to enter new markets by offering potential new clients more competitive products and services. SEPA will also enable banks to concentrate their payment flows and, due to the interoperability of infrastructures, select the most competitive operator for their payments. This will reduce the current fragmentation in the processing of euro payments. With the separation of the schemes from the processing infrastructures, competition among infrastructure providers will increase, which should have a positive effect on efficiency and prices for participants.

Nevertheless, SEPA could have some potentially negative effects on the development of schemes and infrastructures, particularly in the area of card payment schemes, and these are being monitored by the public authorities, including competition authorities and central banks. For example, in the card business, card schemes may choose only processing infrastructures that are closely related to the scheme and their participants. This could lead to issuers and acquirers having reduced possibilities to choose their infrastructure providers.

Implications of SEPA for efficiency: Efficiency will only improve if SEPA payment instruments and services introduce superior characteristics in terms of time, cost and quality. SEPA should therefore aim to accelerate and automate the processing of payments, to reduce their cost, and to increase convenience and transparency.

At the interbank level, the selected mandatory SEPA standards will allow for a continuation

65 The European Automated Clearing Houses Association (EACHA) has set up a working group involving the major infrastructure providers in Europe in order to work on standards which would allow interoperability.

of straight-through-processing (STP), thereby increasing efficiency. At the customer-to-bank level, however, the EPC will only foster the use of common standards and will not make their use mandatory. Standardisation, in combination with the use of electronic payment instruments, is crucial if payment processing is to be accelerated. In addition, new technology will be introduced with new value-added services that allow services to be automated before and after payment, and potentially could introduce full end-to-end STP solutions. These value-added services should complement payment processing and make the whole payment chain more efficient. As Box 2 suggests, the SEPA project could bring different benefits for different stakeholder groups.

In order to achieve the full range of benefits, substantial investments are needed concerning technology and legacy systems, which would largely have to be supported by the banking industry and corporates. In the short term there could be some hesitation on the part of the banking industry to finance these investments, and pricing strategies could be changed. The Eurosystem will monitor these developments, but overall expects that in the long term, SEPA will bring benefits for all stakeholders, and prices should come down.

To reap the full benefit of SEPA, the banking industry should focus on innovative solutions. Those countries where initial services are already very efficient should set an example for the rest of the industry. Public authorities thus have the key tasks of monitoring the SEPA migration and of fostering a market-based approach so that the most efficient infrastructures and schemes prevail. The

Box 2

MAIN SEPA BENEFITS FOR DIFFERENT STAKEHOLDERS

For consumers, payment services across SEPA will cover the whole euro area, presupposing of course that all banks participate. From a single account it will be possible to reach all other accounts SEPA-wide. Citizens who are particularly mobile or would like to make transactions abroad will find it easier to do so. In addition, payment cards with a chip will displace cash for many purchases, thus improving customer safety and security. Services will also become comparable, and the most efficient solutions will be chosen. More uniform payment services and instruments could also enhance price transparency.

For merchants and corporates, faster settlement and simplified processing will improve cash flow and reduce costs, and will enable SEPA-wide payments to be received. Common formats and standards for euro payments will result in efficient processes and procurement. Of particular importance for corporates are value-added services provided with payment services. Electronic invoice services, for example, would allow invoices to be distributed in a more efficient way. In addition, electronic reconciliation would permit companies to verify customer payments automatically after settlement. For business-to-business trade, electronic authentication would allow further automation of payments.

For banks, new and innovative products, new markets and new relationships could bring new sources of revenues, at the same time ultimately permitting efficiency gains for their customers. Common processing platforms for euro payments could concentrate payment flows, and an increase of choice among payment solution providers will decrease costs. Banks may therefore be able to exploit both economies of scale and scope.

Eurosystem has continued to encourage the EPC to develop SEPA instruments that take full advantage of the latest technological developments. Users will only be attracted to SEPA when SEPA instruments are at least at the same level as the most efficient national schemes.

To sum up, the SEPA framework will clearly increase both the cooperation and the competition for payment services in the euro area. The banking industry should consequently opt for the most innovative and technologically advanced solutions. The involvement of users and public authorities is crucial in order to steer the discussions in that direction.

4 NEXT STEPS TOWARDS THE IMPLEMENTATION OF SEPA

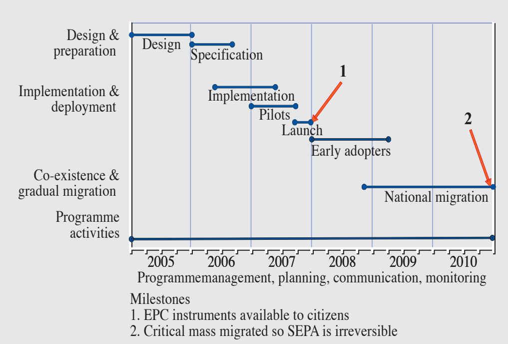
The market integration of the retail payment systems will need time to take effect. The Eurosystem and the European Commission have set the final objectives concerning the safety and efficiency of the SEPA instruments and infrastructures.[66] To respond to these objectives, the EPC in coordination with the ECB has set up a timeline with concrete deliverables until the end of 2010. The paragraphs below present these milestones along with some of the challenges that should be addressed in order to ensure successful implementation.

TIMELINE OF THE SEPA PROJECT

The timeline of the SEPA project is designed around three main phases: the design of the framework, its implementation, and migration (see Chart 24).

The first phase, the design and preparation phase, will soon be completed. It started in 2004 and involved the design of the new credit transfer and direct debit schemes and the frameworks for cards, cash and processing infrastructures. It also included the development of the necessary standards and specification of security solutions.

Chart 24 SEPA implementation steps



Source: EPC, "Making SEPA a reality".

The second phase, the implementation and deployment phase, started in mid-2006 and will last until end-2007. It will include the development of pilot programmes and preparations for the launch of the new framework, which is foreseen for 1 January 2008. A communication strategy and monitoring process will accompany the launch of the SEPA schemes. The EPC will perform a coordinating role, while the individual banks, national communities, associations and regulators will ensure the deployment of the SEPA instruments.

Finally, there will be a migration phase with a transitional period in which national schemes and SEPA schemes will coexist. This phase should be far advanced by end-2010, by which time a critical mass of participants should have migrated to SEPA products and services owing to political pressure, market forces and network effects.

IMPLEMENTATION OF AND MIGRATION TO SEPA

The successful rollout of SEPA could be endangered in the absence of effective project management if the users are not fully involved, or if the rollout is not well prepared.

66 See the joint statement issued by the ECB and the European Commission on 4 May 2006. See also Chapter 3 of this report.

Concerning effective project management, the Eurosystem has contributed to the SEPA project by providing a clear vision of a euro area domestic payments system.[67] The Eurosystem has also ensured continuity for the process by setting milestones and providing effective discussion fora. The EPC has established a governance structure that allows the banking industry to move from national infrastructures to pan-EU infrastructures and schemes. As in every project, at certain points difficulties arose in terms of finding collective agreements. Payment providers, for example, are faced with costly investments which have to fit into investment cycles. Due to different time horizons between investment and returns, some institutions could delay necessary changes.

The involvement of end-users is important in order to identify their needs and preferences, and to develop the options that suit best different kinds of user groups. So far, the EPC has defined the building blocks for basic payment instruments, which implies that only basic payment services will be offered as of 2008. Users that are accustomed to fast and efficient electronic payments could find the SEPA payment schemes less attractive, as they only define a basic level of service. It is up to the banks to offer additional services based on the needs of their customers and on the provisions of the SEPA rulebooks. Similarly, corporates may well expect direct debit schemes to provide euro area-wide coverage. It is therefore important that debtor banks are persuaded to join the scheme(s) at an early stage, to allow that full reach can be provided as soon as possible after the start of SEPA. In this context, it should also be borne in mind that users often resist changes or prefer traditional contractual provisions and business practices. It is therefore a challenge for the banks to offer attractive products and services for their customers, which can be used throughout the euro area, as soon as possible.

Concerning the rollout of the SEPA project, a sufficiently large number of early adapters should commit to its adoption from the start of 2008, thereby convincing other users to join the new products and services. Public authorities and their agencies are initiators and recipients of a large number of payment transactions, such as taxes, salaries, subsidies, pensions, social benefits or the payment of bills. They should therefore express political support for the project and consider an early adoption of SEPA products.

5 CONCLUSIONS

Unlike LVPS, retail payment systems have remained fragmented since the introduction of the euro. To address this issue, the European banking industry, with the support of the EU authorities, set up the SEPA project to enable the convergence of business rules and practices for retail payments in the euro area. The banking industry has since made substantial progress towards achieving a more integrated retail payment market. From January 2008 onwards, the introduction of pan-European credit transfers, direct debits and cards will commence. From end-2010 onwards, the majority of bank customers should be using SEPA payment instruments. Several issues still require further work, such as transparency and interoperability aspects, but work has already started on these issues. A more positive approach towards innovation would most likely further increase the benefits of the project. The realisation of SEPA is of major importance for the euro area, as it will result in more competition in the market for retail payment services and in a more integrated retail payment infrastructure. The SEPA project will ensure cost savings in payment processing and will widen business opportunities. Overall, SEPA will contribute to the enhanced integration and efficiency of the euro area financial system.

67 See the report "Towards a Single Euro Payments Area – Objectives and deadlines", Fourth Progress Report, February 2006, which states: "The Eurosystem has a vision for the Single Euro Payments Area: a euro area in which all payments are domestic, where the current differentiation between national and cross-border payments no longer exists."

CHAPTER 3

EUROSYSTEM ACTIVITIES FOR FINANCIAL INTEGRATION

The Eurosystem generally distinguishes between four types of activity through which it contributes to enhancing financial integration: (i) giving advice on the legislative and regulatory framework for the financial system and direct rule-making; (ii) acting as a catalyst for private sector activities by facilitating collective action; (iii) enhancing knowledge, raising awareness and monitoring the state of European financial integration; and (iv) providing central bank services that also foster European financial integration. The following sections provide an overview of the Eurosystem's contributions in these areas, focusing on the initiatives pursued during 2006.

1 LEGISLATIVE AND REGULATORY FRAMEWORK FOR THE FINANCIAL SYSTEM

The legislative and regulatory framework for the financial system plays an important role in the financial integration process. In particular, it should reduce obstacles to cross-border finance and safeguard a level playing-field among market participants. If this framework is fully exploited by market participants for the expansion of their cross-border activities, progress in financial integration will be achieved.

The ECB and the Eurosystem regularly contribute to the development of the EU legislative and regulatory framework by providing advice on the main policy reflections and initiatives underway. This particularly concerns those issues that relate to the pursuit of the ECB's and the Eurosystem's statutory tasks as set out in Article 105 of the Treaty establishing the European Community, namely: (i) to support, without prejudice to the objective of price stability, the general economic policies of the Community; (ii) to promote the smooth operation of payment systems; and (iii) to contribute to the smooth conduct of policies relating to the prudential supervision of credit institutions and the stability of the financial system. Moreover, the ECB is to be consulted, within its fields of competence, on any Community act or draft legislative provision proposed by national authorities. The ECB has also the right to issue regulations in certain areas, for example in the fields of payment systems and statistics.[1]

During 2006, the advisory and rule-making activities of the ECB and the Eurosystem were mainly focused on the following issues:

EU STRATEGY FOR FINANCIAL SERVICES POLICY

Two major initiatives have been adopted in recent years to enhance the EU framework for financial services.

First, the FSAP[2] established a modernised and more comprehensive set of EU rules. Second, with the extension of the Lamfalussy framework[3] to all financial sectors,[4] the institutional

1 See for example the ECB Regulation concerning statistics on interest rates applied by MFIs to deposits and loans vis-à-vis households and non-financial corporations, ECB/2001/18, dated 20 December 2001, as amended by ECB/2004/21.

2 European Commission Communication of 11 May 1999 entitled "Implementing the framework for financial markets: Action plan" (COM (1999) 232).

3 The Lamfalussy framework was set out by the Committee of Wise Men on the Regulation of European Securities Markets, chaired by Baron Alexandre Lamfalussy, in its "Final Report" of February 2001. Its establishment was endorsed by the European Council at its 2001 Stockholm Summit.
With the objective of rendering the EU's legislative decision-making process more efficient and flexible, and of ensuring a more consistent regulatory and supervisory framework across Member States, the Lamfalussy framework provides for four levels of financial services legislation. At level 1, the basic principles of the legislation, which are expected to remain relatively stable over time, are laid down via the normal legislative process. At level 2, implementing measures for level 1 legislation are adopted, including technical measures that would need to keep step with market and regulatory developments. This process benefits from the input of a special regulatory committee, comprising the relevant national and European authorities. Level 3 encompasses initiatives by national supervisors to ensure a consistent and timely implementation of level 1 and level 2 measures at the national level; this process is assisted by a committee of supervisors. Finally, level 4 relates to Commission measures to strengthen the enforcement of EU law, underpinned by enhanced cooperation between Member States, their regulatory bodies and the private sector.

4 While the Lamfalussy approach was originally conceived only for the securities sector, the ECOFIN Council agreed in December 2002 that the new framework should be extended to all financial sectors. The Directive extending the Lamfalussy committee structure to the areas of banking, insurance and investment funds (2005/1/EC) was adopted on 9 March 2005.

arrangements for financial regulation and supervision have been significantly enhanced. Building on these accomplishments, in December 2005 the Commission adopted its strategy for EU financial services policy during the period 2005-2010.[5]

The ECB, in cooperation with the other members of the Eurosystem, has been closely involved in these developments. The Eurosystem in particular contributed to the European Commission's consultation regarding the strategic priorities for EU financial services policy during the next five years[6] by supporting the broad policy orientations of the Commission, namely the need to focus primarily on ensuring the effective and consistent implementation of the FSAP measures, and on consolidating and simplifying existing Community legislation, making full use of the strengthened institutional arrangements put in place with the Lamfalussy framework. The Eurosystem also contributed to the Commission's review of the application of the Lamfalussy framework to securities markets legislation.[7] In addition, the Eurosystem supported the Commission's reflections on the potential need for further policy initiatives in carefully targeted areas, notably in the areas of clearing and settlement and retail financial services. Against this background, the Eurosystem also responded to the Green Paper consultations regarding investment funds[8] and mortgage credits.[9]

The ECB and the Eurosystem continue to make their input and expertise available during the process of implementing the White Paper priorities. This includes the provision of both formal opinions and informal input (via the relevant regulatory and supervisory committees) with regard to new draft Community legislation in the area of financial services as well as participation in public policy consultations issued by the Commission. The ECB and the Eurosystem may also contribute to the ex post technical evaluation of regulatory measures in their main fields of interest.

EU ARRANGEMENTS FOR FINANCIAL SUPERVISION

With the shift in focus towards the consistent implementation of the enhanced regulatory framework, coupled with the growing prominence of cross-border finance, a sufficiently integrated EU framework for financial supervision has become increasingly important. In particular, the close convergence of supervisory practices and approaches and a smooth interplay between home and host supervisors are required in order to enable financial institutions to develop their activities in an integrated way across the EU, to reduce their respective compliance costs, and to safeguard an effective level playing-field.

The EU framework has been significantly strengthened along these lines in two ways. First, several measures adopted under the FSAP have stepped up the requirements for home-host cooperation.[10] Second, in all financial sectors, Lamfalussy "level 3" committees of supervisors have been established to pursue closer supervisory convergence, coordination and information-sharing. During 2006, policy efforts focused on safeguarding the effective implementation of the revised institutional framework with a view to reaping its full benefits.

5 European Commission "White Paper on Financial Services Policy 2005-2010", published on 5 December 2005.

6 "Eurosystem contribution to the public consultation by the European Commission on the Green Paper on Financial Services Policy (2005-2010)", 1 August 2005. The results of the Green Paper consultation formed the basis for the development of the Commission White Paper on Financial Services Policy 2005-2010.

7 "Review of the application of the Lamfalussy framework to EU securities markets legislation. Contribution to the Commission's Public Consultation", 17 February 2005.

8 "Green Paper on the enhancement of the EU framework for investment funds. Eurosystem contribution to the Commission's public consultation", 17 November 2005.

9 "Green Paper on mortgage credit in the EU. Eurosystem contribution to the public consultation", 1 December 2005.

10 See the revised framework for home-host interaction in the banking sector adopted under the CRD (see Chapter 2.B). In the securities sector, enhanced requirements for supervisory cooperation form part of several major Directives, e.g. the Transparency Directive, the Markets in Financial Instruments Directive, the Market Abuse Directive and the Prospectus Directive. Cross-border cooperation is also enhanced at the cross-sectoral level, where the Financial Conglomerates Directive has enhanced the role of the coordinating supervisor.

The EU Commission's White Paper on Financial Services Policy, the FSC's Report on Financial Supervision, and the first interim report of the IIMG have all highlighted adequate policy measures in this regard.[11]

The Eurosystem, which contributed to the development of both the Commission's White Paper and the FSC Report on Financial Supervision, broadly agrees with the respective findings. In addition, the Eurosystem has highlighted the importance of implementing the revised regulatory requirements for supervisory cooperation effectively and consistently across countries, notably regarding the revised home-host framework in the banking sector, as established under the CRD. In this context the Eurosystem welcomes the work of the Lamfalussy level 3 committee in the banking sector, the CEBS, to support the development of group-specific cooperation mechanisms. Furthermore, the Eurosystem has underlined that new tools designed to foster supervisory cooperation and convergence – such as mediation and delegation – may not impinge on the effectiveness of supervisory action, with a view to pre-empting any potentially negative effects for financial stability.[12] During 2007, the Commission will issue its first annual report on the implementation of its White Paper priorities; the FSC will report to the ECOFIN Council on the progress made in response to the recommendations set out in its report on financial supervision; and the IIMG will deliver its final assessment of the implementation of the Lamfalussy approach across sectors. The findings of this wide-ranging review should be awaited before embarking on another major assessment exercise, also with a view to avoiding a duplication of efforts. Also the ECB will follow this monitoring process via its participation in the competent institutional fora, notably the CEBS, the FSC and the Economic and Financial Committee (EFC).

EU FRAMEWORK FOR CROSS-BORDER M&As

The share of cross-border M&As in the EU financial sector has been relatively low, both compared to domestic operations and to cross-border M&As in other economic sectors.[13] In view of the important role that cross-border M&A operations play as a tool for cross-border expansion and market access, reducing potential policy-related impediments has become an important issue in recent years. In response to the request of the September 2004 ECOFIN Council, the EU Commission carried out a broad-based review of both direct obstacles to the execution of cross-border M&As and of indirect obstacles which may lower the value of such transactions. The Commission's findings highlighted several prudential, legal and fiscal barriers.[14] The Eurosystem has been closely involved, especially in the consideration of prudential obstacles, given its statutory tasks in this area.

Direct prudential obstacles to cross-border M&A operations may result from the conduct of the related supervisory approval process. The main concern in this regard is that Article 19 of the Banking Directive[15] does not sufficiently specify the prudential criteria to be considered by supervisors when assessing the suitability of a prospective qualifying shareholder in a credit institution, and that therefore the implementation of the respective provisions has not been sufficiently consistent across Member States. Against this background, on 12 September 2006 the EU Commission

11 These include steps towards building a common supervisory culture, analysis of the potential benefits and feasibility of mediation and delegation mechanisms among supervisors, the streamlining of reporting requirements, and the close monitoring of the overall progress achieved. See also Chapter 2.B.

12 In recent months, calls have intensified to launch an assessment of the longer-term challenges to the EU supervisory framework, including the potential need for a further revision of the present institutional set-up. See also Chapter 2.B.

13 The EU Commission has found that between 1999-2004, cross-border M&As in the EU financial sector only accounted for around 20% of the total value of M&As, compared to a share of around 45% in other economic sectors ("Cross-border consolidation in the EU financial sector", Commission Staff Working Document, 25 October 2005).

14 Ibid.

15 Directive 2006/48/EC of the European Parliament and of the Council of 14 June 2006 relating to the taking up and pursuit of the business of credit institutions (recast), EU OJ L177/1 of 30 June 2006.

published a proposal to revise the framework for the prudential assessment of qualifying shareholdings in the financial sector.[16] The ECB issued a formal Opinion on this proposal on 18 December 2006.[17]

The ECB generally supported the proposed clarification of the legal framework as an important measure designed to ensure that supervisory approval processes strictly follow prudential criteria, are consistently implemented across countries, and provide adequate transparency vis-à-vis the proposed acquirers. In particular, the ECB supported the proposed specification of the prudential assessment criteria, the clarification of notification requirements and procedures, the enhanced transparency requirements regarding the prudential rationale for negative decisions, and strengthened requirements for home-host cooperation. The ECB also agreed that the Commission should be granted an explicit right of access to the information on which supervisory authorities have based their assessment, provided that such access would be circumscribed by strictly defined circumstances.

At the same time, the ECB noted that the regulatory framework needs to be revised in such a way that it does not compromise the supervisory tools to ensure the safety and soundness of credit institutions in which the acquisition is sought. Against this background, the ECB argued in particular that the proposed prudential assessment criteria should be more closely aligned with the criteria considered during the authorisation process. The ECB also recommended that the proposed time limits for the supervisory assessment would merit further consideration, in order to ensure that supervisory authorities are given sufficient time to take correct and reasoned decisions.

Moreover, the ECB argued that consideration could be given to extending the scope of the comitology provisions and making it possible to adopt level 2 measures to refine further more technical regulatory aspects. This could include the introduction of more differentiated timelines in the proposed directive, which would be proportionate to the complexity of the application under consideration.

Indirect prudential obstacles to cross-border M&A may arise especially from lack of supervisory convergence and cooperation, which could hamper the efficient operation of the resulting entities. However, as set out in the preceding section, efforts to enhance the EU supervisory framework in this respect are well underway.

INTEGRATION OF EUROPEAN MORTGAGE MARKETS

The ECB financial integration indicators have confirmed that financial integration in retail financial markets substantially lags behind the degree of integration that has been reached in the wholesale and capital-market related segments. From the ECB perspective, one particular area of attention relates to the integration of mortgage markets, given the outstanding size of this market segment and its implications for the ECB's major tasks. Mortgage markets are relevant for the transmission and implementation of the single monetary policy and may have important financial stability implications. Relevant issues could additionally arise from supervisory, research, legal and statistical perspectives.

Against this background, in December 2005 the Eurosystem provided its contribution to the European Commission's Green Paper on mortgage credit in the EU. The Eurosystem expressed its broad support for the Commission's initiative to review the existing situation regarding the integration of European mortgage markets and the potential benefits of market-led and regulatory measures to address them.

16 In addition to amending the prudential rules and evaluation criteria for the assessment of acquisitions (or increases) in qualifying shareholdings in the banking sector, the proposed Directive would also revise the respective provisions in the securities and insurance sectors which are set out in Directives 92/49/EEC, 2002/83/EC, 2004/39/EC and 2005/68/EC.

17 CON/2006/60.

Such an investigation is also in line with the European Commission's overall strategy for financial services policy over the next years, as explained in the respective White Paper. In addition, the Eurosystem contribution highlighted a number of specific aspects related to the transmission of monetary policy, financial stability, and the funding of mortgage credits from a financial integration perspective. It was also noted that any possible regulatory intervention would benefit from a careful ex ante impact assessment.

Following up on its Green Paper consultation, the Commission is currently developing a White Paper on the integration of European mortgage markets, which is expected to be published in June 2007. For this, the Commission will also take into account the reports provided by two expert groups. The ECB participated as an observer in the Commission's expert group, which was asked to identify barriers to cross-border activity in mortgage funding markets and to propose possible solutions.[18] Indeed, the integration of European mortgage funding markets is considered a crucial element in the overall integration of mortgage markets.

During 2006 the ECB also continued its own work related to the integration of mortgage markets. Given the interrelations, the findings of this analysis were also discussed at high-level meetings with the European Commission and with a representative from ECON, the latter having prepared an ECON report on mortgage credit in the EU.

SECURITIES CLEARING AND SETTLEMENT SYSTEMS

One important element of financial market integration is the integration of the underlying infrastructures. As highlighted by the "Giovannini Group", cross-border securities clearing and settlement is presently hampered by a number of market-based, legal, fiscal and technical barriers.[19]

The current fragmentation in the EU securities clearing and settlement infrastructure presents a major obstacle to the further integration of European securities markets, as is the case in the bonds and equity markets.[20] Greater integration of securities clearing and settlement systems will be crucial in terms of lowering the post-trading costs of cross-border securities transactions, exploiting the potential economies of scale and establishing a European level playing-field. Moreover, it is directly relevant to the performance of the ECB's major tasks relating to the implementation of monetary policy via the framework for the collateralisation of monetary policy (and intraday credit) operations, the safeguarding of financial stability, and the promotion of the smooth operation of payment systems.

Several public sector initiatives aim at achieving an efficient, safe and integrated post-trading market infrastructure in the EU. A major strand of work in this respect relates to the reduction of legal and fiscal barriers and to the coordination of public and private measures. The ECB is closely involved in this work via its participation in the Clearing and Settlement Advisory Monitoring Expert Group (CESAME) and in the Legal Certainty Group.

Cesame was established in July 2004, following the publication of the Giovannini reports, with the mandate (i) to provide an interface between

18 Report of the Mortgage Funding Expert Group, 22 December 2006, at: http://ec.europa.eu/internal_market/ finservices-retail/docs/home-loans/mfeg/final_report-en.pdf

19 The Giovannini group, under the chairmanship of Alberto Giovannini, was composed of experts from the private sector who advised the European Commission on financial sector matters. It was mandated by the Commission to conduct work on clearing and settlement issues in 2001. The group has published two reports on EU clearing and settlement arrangements, one in 2001 and the other in 2003. While the former identified 15 key barriers to cross-border clearing and settlement – stemming from differences in market practices, legal, regulatory and fiscal provisions – the latter focused on possible actions to address these impediments.

20 It should also be noted in this context that the Economic and Financial Committee, with its sub-group (the "Thomsen Group") in which the ECB also participates, in 2006 prepared a report on "Restrictions on the location of clearing and settlement in the EU government bond markets".

the private and public sector bodies involved in the process of removing the "Giovannini barriers"; (ii) to informally assist the Commission through the provision, on request, of advice on specific technical issues; (iii) to liaise with the Legal Certainty Group and the Clearing and Settlement Fiscal Compliance expert group (FISCO); and (iv) to liaise with the Group of 30 and other international bodies to ensure the consistency of initiatives in the EU with those developed at international level. In particular, the work of CESAME plays an important role in monitoring and fostering the reduction of those private sector barriers to cross-border clearing and settlement where progress, though achieved in some areas such as market practices for corporate actions and the definition of the so-called Giovannini Protocol (a standardised communication protocol that uses the ISO 20022 data dictionary), has been much slower than expected.

The Legal Certainty Group, which started its work in January 2005, focuses on analysing the legal barriers to a more integrated securities clearing and settlement infrastructure, especially the current lack of an EU wide framework for the treatment of securities held through intermediaries. By mid 2006, the Group had completed a stock-taking of the existing legal regimes in EU Member States and published its advice to the Commission concerning legislation on the legal effects of book entries made on intermediated accounts. In September 2006, the Commission requested the Group to continue its work in more detail. In response to the Commission's request, the Group has set up three sub-groups; one to assess in further detail what such legislation should entail, and two to look in detail at differences in national legal provisions affecting the processing of corporate actions, and at restrictions on an issuer's ability to choose the location of its securities. The ECB is represented in the Group and in its sub-groups.

The ECB also closely monitors the work of FISCO, which advises the Commission on possible ways to overcome tax related barriers to cross-border clearing and settlement in the EU. In April 2006 FISCO finalised a fact-finding study on the main obstacles in this regard, which was published at end 2006. Further advice is planned for mid 2007.

Market-led initiatives are extremely important in achieving rapid progress in the reduction of market-based barriers. Following up on the request of Commissioner McCreevy of 11 July 2006, the European industry associations for exchanges and post-trading infrastructures[21] and their members signed a "European Code of Conduct for Clearing and Settlement" on 7 November 2006. The Code essentially aims at fostering competition and improving the efficiency of clearing and settlement in the EU by ensuring (i) the transparency of prices and services; (ii) effective rights of access and interoperability between exchanges, CCPs and CSDs; (iii) separate accounting of the main activities; and (iv) price and service unbundling of the main activities. The signatories have committed themselves to completing the phased implementation of the Code by 31 December 2006 regarding transparency of prices and services, 30 June 2007 regarding access and interoperability, and 1 January 2008 regarding price and service unbundling. External auditors appointed by the signatories will support the effective and timely implementation of all measures. These auditors will liaise closely with the Monitoring Group, chaired by the Commission, in which the ECB will also participate. With regard to the implementation of price transparency, the Monitoring Group welcomed the publication of a large amount of price-related information, although it noted that further improvements are still warranted to enhance price comparability.

Another major initiative aims at promoting the development of a common framework for the regulation, supervision and oversight of securities clearing and settlement systems in

21 Including FESE, EACH and the European Central Securities Depositories Association (ECSDA).

the EU. Since 2001 the ESCB and the Committee of European Securities Regulators (CESR, the Lamfalussy level 3 committee in the securities sector) have cooperated on developing standards for securities clearing and settlement systems in the EU. The ESCB-CESR Working Group also held meetings with representatives of the banking and securities clearing and settlement industry to foster better mutual understanding of industry practices and the risk concerns of public authorities. A first version of the draft standards was issued for public consultation in September 2004.[22] The 19 standards build on the CPSS-IOSCO recommendations for SSSs, but adapt them to the specific features of the EU environment. Their overall objective is to promote closer convergence of national SSSs towards the highest standards of safety and efficiency. Subsequently, draft standards for CCPs were also developed, building on the CPSS-IOSCO recommendations issued in 2004. These standards are intended to complement the industry Code of Conduct given that the latter does not cover prudential aspects and thus would not contribute to an enhanced regulatory level playing-field. At the same time, several of the envisaged standards would support the objectives of the Code, namely to achieve greater price transparency and interoperability.

Moreover, the ECB continued to contribute to several strands of work that are being pursued at international level in this field (e.g. Unidroit, Uncitral and the G30), with a view to ensuring that EU initiatives in the area of securities clearing and settlement both complement and are consistent with the approaches developed by international bodies. An important related matter is the development of a common EU response to the so-called Hague Convention on the law applicable to proprietary and related rights resulting from the holding, transfer and collateralisation of indirectly held securities. On 17 March 2005 the ECB issued an Opinion[23] on a proposal for a Council Decision concerning the signing of the Hague Convention. Following up on this, the ECB also analysed the European Commission's legal assessment of the Hague Convention of 5 July 2006, in which the Commission recommended that Member States should sign the convention. In line with its earlier position, and with a view to safeguarding legal certainty and systemic stability, the ECB believes that a high degree of certainty as to the effects and a common interpretation of the provisions of the Convention should be achieved before the Convention can be signed.

EU LEGAL FRAMEWORK FOR PAYMENT SERVICES

In contrast to the developments in LVPS, retail payment systems in the EU have not become substantially more integrated since the introduction of the euro.[24] Progress in this area continues to be hampered by a large number of differences in legal requirements, technical standards and commercial practices; however, these barriers are being addressed in the context of the market-based project for SEPA.[25]

With a view to removing any legal obstacles to the cross-border provision of payment services, on 1 December 2005 the EU Commission issued a proposal for a Directive on payment services in the internal market.[26]

On 26 April 2006 the ECB issued its Opinion on the proposed Directive,[27] welcoming it to the extent that it would establish a comprehensive legal framework for payment services in the EU. The harmonisation of regulatory requirements for payment services would provide legal certainty for their expanded cross-border provision. Moreover, if a timely and balanced adoption and transposition of the rules regarding transparency, authorisation, execution and liability[28] were to be achieved,

22 The consultation involved the two documents entitled "Standards for securities clearing and settlement systems in the European Union" and "The scope of application of the ESCB-CESR standards", both of which were made available on the ECB website.
23 CON/2005/7, EU OJ C 81/10, 2.4.2005.
24 See also Chapter 1.
25 See the section on the SEPA project below.
26 COM (2005) 603 final.
27 CON/2006/21, EU OJ C 109/10, 9.5.2006.
28 The respective requirements are set out in Titles III and IV of the Proposal.

this would considerably support the efforts of the banking industry to establish SEPA. Finally, the ECB considered that the concept of "payment institutions" provided for in the proposed Directive represents a step towards harmonising market access rules for payment services providers. At the same time, however, the ECB stressed that it would be necessary to clarify the kinds of activities that such payment institutions may perform as well as the related supervisory requirements, which should be proportionate to the scope and risk of the activities conducted.

LEVEL 2 REGULATION FOR FINANCIAL SERVICES

Legal acts adopted at level 2 of the Lamfalussy approach implement measures for level 1 directives and regulations. They are adopted under a specifically designed comitology procedure to facilitate their swift adoption and possible amendment in response to new market developments. Level 2 acts also offer particular benefits from a financial integration perspective. More specifically, the Eurosystem considers that level 2 acts provide an important tool for fostering effective regulatory convergence via the gradual development of a common body of technical rules for the cross-border provision of financial services in the EU.[29]

As part of its advisory role under Article 105(4) of the Treaty, the ECB regularly provides advice on Commission proposals for level 2 legal acts. The procedure for the exercise of this advisory role was approved by the Governing Council in May 2004, and implies a periodic assessment, with the assistance of the ESCB's BSC, of the regulatory agenda of the level 2 committees. Three assessments were provided to the Governing Council regarding the ECB's advisory function in relation to certain measures implementing the Markets in Financial Instruments Directive (MiFID) in July 2005 and May 2006, and the Transparency Directive and Prospectus Directive in August 2006, confirming that no particular advice had to be issued. There was also an assessment of the UCITS (Undertakings for Collective Investment in Transferable Securities) Directive in November 2006. In the case of the UCITS draft implementing measures, and in the absence of a formal consultation by the Commission, the ECB issued its own initiative Opinion, as the proposed level 2 Directive is linked to the implementation of the monetary policy in the euro area, particularly with regard to the functioning of European money markets.[30] The ECB considered that a regulation could more appropriately remedy the current uneven application of the general rules contained in the UCITS Directive, and suggested specific amendments regarding the eligibility of money market instruments.

In the securities field, the ECB also provides regular technical input to assist in the design of implementing measures via its participation in the European Securities Committee (ESC). In 2006 this was particularly the case for the implementing measures relating to the MiFID and the UCITS Directive.

STATISTICS ON INSTITUTIONAL INVESTORS

In addition to the statistics collected on MFIs, the ECB also compiles and develops statistical information on non-MFIs, such as investment funds, insurance corporations and pension funds. Given the growing role of institutional investors in financial activity in the euro area, improved statistics on these actors are not only increasingly relevant from a monetary policy perspective, but will also assist in the monitoring of the financial integration process.

Against this background, in 2006 the ECB continued, with the assistance of the NCBs, to work on establishing a harmonised framework for euro area statistics on investment funds. Investment funds already hold over 15% of total financial sector assets in the euro area. The ECB has recently completed a cost-benefit

29 The ECB contribution to the Commission review of the application of the Lamfalussy framework to EU securities markets legislation, published on 17 February 2005, further elaborates on this issue.
30 CON/2006/57.

analysis which confirmed the need to collect detailed statistics on these institutions, focusing on the composition of assets. An ECB Regulation on the respective reporting requirements for investment funds is currently under preparation.

Efforts are also underway to enhance the available statistical information on insurance corporations and pension funds. Owing to the ageing progress and reforms made to national pension schemes, the importance of accurate data on these institutions has risen dramatically. Following up on the joint work undertaken by the ECB and the European Commission's Statistical Office, the ECB is presently undertaking work – together with the NCBs and national statistical institutes – to define requirements for intra-annual financial statistics which may be collected from these institutions or alternatively made available from other existing data sources.

2 CATALYST FOR PRIVATE SECTOR ACTIVITIES

While public authorities have the responsibility to provide an adequate framework conducive to financial integration, progress in European financial integration ultimately depends on private sector initiatives making full use of the existing cross-border business opportunities. Competition among market players is a major driving force in this regard. In addition, progress made in the field of financial integration also depends on effective collective action, notably where heterogeneous market practices and standards need to be overcome. However, possible coordination problems may hamper such cooperative approaches among market participants. In such cases, public sector support for private coordination efforts may help to overcome possible difficulties.

Given its institutional characteristics, the ECB is particularly well placed to play an active role as a catalyst for private sector activities in the field of European financial integration. The ECB is both a public authority with a pan-European remit and, in its capacity as the central bank of the euro area, also an active market participant as well, with the respective knowledge and the business contacts within the financial markets.

Over the past few years, the ECB has acted as a catalyst in many fields. For example, the ECB calculates and provides the EONIA reference rate for the unsecured money market. The ECB also participated in the drafting of the European Master Agreement – an initiative to permit cross-border trading on the basis of a legal master agreement – which the ECB also uses for its European foreign reserve management and own funds repo counterparties, as well as for its derivatives operations. Furthermore, the ECB has been active in various initiatives of the European Financial Markets Lawyers Group (EFMLG) to overcome legal barriers to financial integration, such as through the closer harmonisation of netting and securitisation laws in the EU. The ECB contributed inter alia to the EFMLG report on cross-border legal obstacles to securitisation, which is expected to be published in the second quarter of 2007.

Moreover, the ECB has sought to give new impetus to the removal of private sector barriers to clearing and settlement via the Contact Group on Euro Securities Infrastructures (COGESI) as well as to the removal of barriers to payment systems via the Contact Group on Euro Payments Strategy (COGEPS).

In 2006 the ECB and the Eurosystem mainly focused their efforts on two areas: the Short-term European Paper (STEP) initiative, and SEPA.

SHORT-TERM EUROPEAN PAPER (STEP) INITIATIVE

Compared to other segments of the euro area money market, the market for short-term securities has remained much more fragmented largely owing to differences in market standards and practices relating to short-term debt instruments.[31] The STEP initiative, which was initiated within the ECB Money Market Contact Group and led by ACI – The Financial Markets Association and the European Banking Federation (FBE), with legal assistance provided by the EFMLG, aims at overcoming these barriers.

More specifically, the STEP initiative seeks to promote the development of a pan-European short-term paper market through market players' voluntary compliance with a core set of standards encompassed in the STEP Market Convention. This Convention was signed by Euribor ACI and Euribor FBE on 9 June 2006. The STEP Market Convention sets out criteria and requirements for information disclosure, documentation, settlement, and the provision of data to the ESCB for the production of statistics. It does not refer to the financial soundness of the issuer or the accuracy of the presented information. Euribor ACI and Euribor FBE have formed the STEP Secretariat to manage the STEP label, which will be granted to those issuance programmes that are compliant with the standards of the STEP convention, subject to the respective application of the issuer.

The ECB has supported the STEP initiative since its inception in 2001. During the preparatory phase, the ECB acted as a catalyst by facilitating coordination among market players, contributing to the ACI STEP Task Force, and providing legal assistance. On 11 July 2006 the ECB held a press conference together with the ACI and FBE to mark the official launch of the STEP market. On this occasion, the ECB's President explained the Eurosystem's ongoing contribution to the STEP market, which focuses on two main activities.

First, until June 2008, the ECB and nine NCBs of the Eurosystem will provide technical assistance to the STEP Secretariat concerning the STEP labelling process. The ultimate responsibility for granting and withdrawing the STEP label rests fully with the STEP Secretariat.

Second, the ECB regularly produces statistics on yields and volumes in the STEP market and publishes these Charts on its website. By enhancing market transparency, these statistics are expected to play an important role in fostering the integration of the European short-term securities markets. For example, in February 2007 the outstanding amount of euro-denominated STEP securities reached €165.6 billion in 32 STEP-compliant programmes, the overwhelming part of which was denominated in euro. Among the issuers, ten were entities other than credit institutions.

The ECB follows a step-by-step approach with regard to the publication of statistics. The ECB has published monthly outstanding amounts of STEP paper since September 2006, and is working towards publishing STEP statistics on volumes and yields on a daily basis with selected data providers. As from 2008, daily statistics with all data providers are planned to be published.

The ECB's Governing Council also decided that as soon as the STEP statistics on yields are published on the ECB website as of 2 April 2007, the STEP market will be accepted as a non-regulated market for collateral purposes in Eurosystem credit operations. To be eligible as collateral for Eurosystem operations, securities issued under STEP-compliant programmes will have to be issued by entities other than credit institutions, and must comply with the Eurosystem's eligibility criteria.

SINGLE EURO PAYMENTS AREA (SEPA) INITIATIVE

The initiative to establish SEPA is another major private sector project which is actively supported by the ECB.[32] The SEPA initiative, led by the EPC, aims at achieving a fully

31 See also Chapter 1.
32 See the Special Feature on "The SEPA initiative and its implications for financial integration" in Chapter 2C of this report. It is noted that whereas the proposed Directive on Payment Services targets the existing legal barriers to the cross-border provision of payment services, the SEPA initiative aims at harmonising technical standards and market practices to support those activities.

integrated market for retail payment services in the euro area which makes no distinction between cross-border and national payments.

Since its inception, the Eurosystem has played a catalyst role with regard to the SEPA project. Indeed, the launch of the SEPA initiative in 2002 was itself inspired by the shared vision of the Eurosystem and the European Commission to reap the full benefits of a single currency via the establishment of a fully integrated market for cashless retail payments.[33]

Concerning the activities undertaken during 2006, in February 2006 the Eurosystem provided an updated overview of the progress achieved so far towards the completion of SEPA, and specified its expectations for the coming period.[34] On 4 May 2006 the ECB issued a joint statement with the European Commission on the way forward towards realising SEPA. In particular, the European banking industry and the other relevant stakeholders are encouraged to create the technical conditions for the realisation of SEPA by the beginning of 2008, and to reach a critical mass of SEPA transactions by the end of 2010.

To facilitate progress on the SEPA project, in 2006 the ECB organised a number of meetings with different stakeholders. Strategic issues were addressed by the SEPA high-level meetings, attended by board members of euro area NCBs and commercial banks, while a broad range of other issues were addressed in meetings with different end-users, infrastructure providers and with card schemes. The ECB also participates as an observer in EPC Plenary meetings and in the working groups that report to the Plenary. In addition, the ECB contributed to the organisation of the "SEPA Summit", which took place as part of the Euro Finance Week on 13-14 November 2006 in Frankfurt am Main.

Throughout 2006, the Eurosystem continued to provide assistance to the banking industry regarding the design and preparation of the new SEPA instruments and frameworks. The Eurosystem contributed to the creation of a common set of rules for SEPA credit transfer and direct debit instruments, and assisted in the development of different options for the basic schemes. The Eurosystem also supported the development of the SEPA frameworks for card payments and clearing and settlement infrastructures. Concerning card payments, the Eurosystem developed detailed guidance for the banking industry in the second half of 2006.[35]

In addition, the Eurosystem assisted the banking industry on a range of horizontal issues related to SEPA, especially relating to the required aspects of standardisation and governance. The technical standards and implementation guidelines needed to ensure a smooth and secure functioning of the different schemes were agreed by mid-2006. Throughout 2006, a range of governance arrangements were agreed so as to clarify the procedures and rules of the different SEPA bodies.

Finally, the Eurosystem also contributed to the preparations for the implementation of SEPA schemes and for the migration from national instruments towards SEPA-compliant practices. The NCBs have supported the establishment of national migration plans, and those with an operational role in retail payments will be involved in the testing procedures of the different schemes.

3 KNOWLEDGE ABOUT THE STATE OF FINANCIAL INTEGRATION

A sound analysis of the economic benefits of financial integration and its development over time forms a prerequisite for effectively targeted action that can support further progress.

33 Detailed information about the activities of the Eurosystem in this regard is provided at http://www.ecb.int/paym/pol/sepa/html/index.en.html.

34 "Towards a Single Euro Payments Area: Objectives and deadlines. Fourth progress report", February 2006.

35 See "The Eurosystem's view of a SEPA for cards", November 2006.

The ECB is in a unique position to provide in-depth economic analysis and comprehensive statistics regarding the state of financial integration in the euro area and its development. In particular the ECB is able to sponsor coordinated analytical research – together with other members of the Eurosystem and academics – and can benefit from its experience and knowledge as an active market participant. Enhancing knowledge and raising awareness regarding the need for European financial integration, and measuring the progress achieved in this regard, therefore form a major part of the ECB's contribution to fostering financial integration.

In addition to several regular or ad hoc publications in this field, speeches by Eurosystem representatives present a major channel for communicating the main findings of the various strands of work and for explaining the Eurosystem's stance.

During 2006 the activities of the Eurosystem with respect to enhancing knowledge, raising awareness and monitoring the state of financial integration were mainly focused on the following series of initiatives.

INDICATORS OF FINANCIAL INTEGRATION IN THE EURO AREA

Quantitative measures of financial integration allow both the current level of financial integration and its evolution over time to be illustrated, thereby providing essential tools for monitoring the progress made in financial integration.

In September 2005 the ECB published a report on quantitative indicators of integration in the euro area financial and banking markets. These indicators covered the money market, the government and corporate bond markets, the equity market and the banking markets. One year later, the ECB published a second report which has extended the scope of the analysis in three main ways.[36] First, quantity-based indicators of financial integration have been systematically computed for the main market segments. Quantity-based indicators usefully complement price-based indicators of financial integration, as in increasingly integrated financial markets, not only will the prices of assets with the same risks and returns converge, but investors will also raise their holdings of non-domestic assets to benefit fully from international diversification. Second, the report includes indicators on the market infrastructures. These have been allocated to the main financial market that they serve in recognition of the fact that financial infrastructures play a significant role in the ongoing process of financial integration. Third, the indicators related to banking markets have been enhanced, in particular by adding indicators on the cross-border presence of euro area banks and on corporate banking.

The range of indicators is expected to be extended further in the future based on the assumption of further advances in research and economic analysis, together with improved availability of statistics. It is envisaged in particular to add indicators on the integration of insurance markets. All indicators are updated and published semi-annually on the ECB website.

ECB-CFS RESEARCH NETWORK ON CAPITAL MARKETS AND FINANCIAL INTEGRATION IN EUROPE

In April 2002 the ECB and the CFS in Frankfurt launched the ECB-CFS Research Network to promote research on "Capital markets and financial integration in Europe".[37] The Research Network aims at coordinating and stimulating top-level and policy-relevant research that significantly contributes to the understanding of the European financial system and its international linkages. European financial integration is one of the three main focal areas in this regard.[38]

36 See Chapter 1.
37 http://www.eu-financial-system.org
38 In addition, the ECB-CFS studies financial system structures in Europe, and financial linkages between the euro area/EU, the US and Japan.

The Research Network has successfully established itself as a highly dynamic network of researchers working in various areas related to financial integration. It plays an important role in raising awareness about the benefits of European financial integration and related market developments. The current second phase of research activity – lasting from 2005 to 2007 – focuses on three priority areas: (i) the relationship between financial integration and financial stability; (ii) EU accession, financial development and financial integration; and (iii) financial system modernisation and economic growth in Europe.

In 2006 the Research Network organised a series of conferences attended by academics, market participants and policymakers. The seventh Research Network conference, hosted by the Deutsche Bundesbank on 28-29 September in Berlin, focused on "Financial System Modernisation and Economic Growth" and was followed later in the year by the eighth conference, on "Financial Integration and Stability in Europe", which was hosted by Banco de España on 30 November-1 December 2006 in Madrid. Every year the ECB-CFS Research Network also awards five "Lamfalussy fellowships" to promising young researchers whose projects are related to financial integration.

Furthermore, the Steering Committee of the Research Network convened in July to discuss its future organisation and research priorities. Two events are planned for 2007, namely a conference with the Central Bank and Financial Services Authority of Ireland, and a large symposium at the ECB's premises in Frankfurt am Main that will conclude the network's second phase. For the third phase, which is planned to start in 2008, the Steering Committee feels that a number of new priorities should be considered, such as the role of the financial system as a risk allocator and distributor, or the increasingly blurred dividing lines between financial markets and financial intermediaries.

MONITORING DEVELOPMENTS IN CROSS-BORDER BANKING

Since November 2002, the ECB has released an annual report on structural developments in the EU banking sector. The report, which is prepared by the ESCB's BSC, builds on quantitative indicators as well as on the exchange and assessment of qualitative information among the NCBs and supervisory authorities that are represented in the BSC. The monitoring of structural developments relating to cross-border banking – i.e. notably with regard to consolidation and market structures, internationalisation and integration – forms an integral part of the report.

In 2001, 2003 and 2005 the BSC carried out mapping exercises of the main characteristics and activities of large cross-border banking groups in the EU. An overview of the findings for 2005 is presented in the 2006 ECB report on EU banking structures, which was published on 25 October 2006.

DIFFERENCES IN MFI INTEREST RATES ACROSS EURO AREA COUNTRIES

On 20 September 2006 the ECB published a report on differences in MFI interest rates across euro area countries, which was prepared by experts from the ECB and NCBs within the Monetary Policy Committee and the Statistics Committee. Harmonised statistics on interest rates on loans and deposits of MFIs vis-à-vis households and non-financial corporations of the euro area have been made available by the Eurosystem since January 2003. These statistics were primarily designed to facilitate the monitoring of interest rate developments in the euro area, which is essential for monetary policy decision-making and analysis. The purpose of the ECB report was to extend earlier research, which had indicated that MFI interest rates in the euro area, despite making considerable progress in terms of convergence in recent years, still vary substantially across countries. The report provided a detailed review of the factors – particularly ones of an institutional nature – that could potentially explain the differences in the main instrument categories. The analysis, carried out jointly by experts from the ECB and other Eurosystem NCBs, shows that several factors, in many cases operating simultaneously, contribute to cross-country differences in MFI interest rates. For example, one such factor might be remaining product heterogeneity, which could reflect differences in national commercial conventions and practices, as well as in regulatory and fiscal arrangements. Other factors – such as differences in credit risk (including differences in collateral practices) and market structure – may also play a role.

As a follow-up to the report, the Eurosystem subsequently decided to release tables which give an overview of 15 types of average deposit and lending interest rates in each country. By making available detailed and comprehensive information on average MFI interest rates, the Eurosystem aims to ensure that comparisons across countries are made on a well-informed basis.

POSSIBLE EXTENSION OF TRANSPARENCY REQUIREMENTS TO MARKETS OTHER THAN EQUITIES

Article 65(1) of the MiFID requires the European Commission to submit a review to the European Parliament by October 2007 on the possible extension of the transparency provisions set out in the Directive to financial instruments other than equities, in particular to bond markets. Since the adoption of the MiFID in April 2004, the debate among regulators and market participants as to whether or not such an extension is advisable has intensified. While a closer harmonisation of transparency requirements may in principle be supported from a financial integration perspective, market participants have expressed concerns because it may have negative implications for market liquidity and price discovery. Market participants recently confirmed their assessment in response to the Commission's call for evidence on this matter, which was closed in September 2006. Given the importance of the efficient functioning of bond markets for the implementation of monetary policy regarding the collateralisation of the ECB's monetary policy operations, the ECB has a strong interest in making a sound assessment of the issue.

In view of this, the ECB has since February 2005 been hosting a series of seminars with market participants to foster exchanges of views and expertise. Complementary to this ongoing dialogue, the ECB has also conducted analytical work in this area. In particular, an ECB Occasional Paper on "The implications for liquidity from innovation and transparency in the European corporate bond market", published in August 2006, presents a framework for the assessment of the relationship between liquidity and transparency, which are linked to market efficiency and integration. As such, this work also contributes to the current debate on the possible extension of the scope of transparency provisions to financial instruments other than equities.

The European Securities Market expert group (ESME) has recently been mandated by the European Commission to report by 30 June 2007 on this issue. The ECB participates in this group as an observer.

ASSESSING THE PERFORMANCE OF THE FINANCIAL SYSTEM

One important underlying motive of the ECB's interest in fostering financial integration is the expected positive implications of financial integration for the development and the modernisation of the financial system, and the resulting benefits in terms of an increased potential for economic growth. The ECB's work on financial integration is therefore closely linked to its wider analysis of factors supporting the adequate functioning of financial systems. In October 2005 the ECB published a Monthly Bulletin article entitled "Assessing the performance of financial systems", which sets out a comprehensive conceptual framework for measuring the performance of the financial system, reflecting its main functions.

The illustrative application of the framework to euro area countries indicated a fair amount of heterogeneity in terms of financial system performance across euro area countries. The article concluded that further structural reforms in euro area financial systems could provide considerable efficiency gains.

Work on this topic was continued in 2006. A background paper prepared by ECB staff was provided for the preparation of the informal ECOFIN meeting in Helsinki on 8-9 September 2006. This paper, entitled "The role of financial markets and innovation for productivity and growth in Europe", built on the above-mentioned framework for measuring financial system performance. In addition, it pointed to a number of issues that could warrant further analysis, such as the protection of minority shareholders, the efficiency of legal systems, and the securitisation of illiquid assets. An ECB Occasional Paper entitled "The role of financial markets and innovation for productivity and growth in Europe" also addresses this issue.[39]

4 CENTRAL BANK SERVICES THAT FOSTER INTEGRATION

The provision of central bank services is another channel through which the Eurosystem seeks to promote financial integration. Although the main purpose of such services is the pursuit of the ECB's basic central banking tasks, the ECB also pays close attention to ensuring that such services, where possible, are specified in such a way that they are also conducive to supporting the financial integration process.

During 2006 the Eurosystem mainly focused its activities in the area of central bank services on the following initiatives:

TARGET AND TARGET2

The rapid integration of the euro area money markets has been closely related to the establishment of the related payment system infrastructure, i.e. TARGET, the RTGS system for the euro that has been operational since the first day of Monetary Union.[40] With €1.9 trillion settled every day, TARGET is one of the three largest wholesale payment systems in the world, alongside Fedwire in the US and Continuous Linked Settlement (CLS), the international system for settling foreign exchange transactions. Since its inception, TARGET has formed a benchmark for processing euro payments in terms of speed, reliability and service levels, and has contributed to the integration of financial markets in Europe by providing its users with a common payment and settlement infrastructure.

The planned launch of the single technical platform TARGET2 on 19 November 2007 will introduce an even more uniform wholesale payment infrastructure, thus promoting further integration in the related financial markets. A harmonised service level will be offered to TARGET2 participants to ensure a level playing-field for banks across Europe. A single price structure will apply to both domestic and cross-border transactions. TARGET2 will also provide a harmonised set of cash settlement services in central bank money for all kinds of ancillary systems, such as retail payment systems, money market systems, clearing houses and SSSs. The main advantage for ancillary systems is that they will be able to access any account in TARGET2 via a standardised interface. While there are currently more than 70 ancillary systems, each settling in its own way, TARGET2 will offer six generic procedures for settlement (two real-time and four batch procedures), thus resulting in a substantial harmonisation of current practices.

39 See footnote 4.
40 See also Chapter 1.

Moreover, the new functionalities of TARGET2 will enable cross-border banks to consolidate their internal processes, such as treasury and back office functions, and to integrate more successfully their euro liquidity management. For example, participants will be able to group some of their accounts and to pool the available intraday liquidity for the benefit of all members of the group. In addition, TARGET2 users will have uniform access to comprehensive online information, as well as to easy-to-use liquidity control measures.

Although TARGET2 will legally be set up as a multitude of systems under national law, the conditions applicable to TARGET2 users will be harmonised to the maximum extent possible.

During 2006 the Eurosystem continued to work on the new system, notably regarding the clarification of participation and pricing issues. The latter benefited from an extensive consultation that the Eurosystem held with the banking community.

On 21 July 2006 the ECB issued a "Communication on TARGET2"[41] to update market participants on the final details of the core pricing scheme and liquidity pooling service, the basic elements of the pricing scheme for ancillary system services, and the different ways of participating in TARGET2.

On 22 November 2006 the Eurosystem published its third progress report on TARGET2[42] with a view to informing market participants about the Eurosystem's decisions regarding pricing and legal issues, contingency procedures, and the testing and migration activities. The report also stated that preparatory work had proceeded as envisaged, and confirmed that 19 November 2007 would be the start date for TARGET2. Furthermore, it reminded market participants about the two subsequent migration waves (18 February 2008 and 19 May 2008), by which time all central banks and TARGET users will have migrated to TARGET2.

TARGET2-SECURITIES

Despite the demand on the part of users who want to benefit from the economies of scale offered by the euro, the clearing and settlement infrastructure for euro-denominated securities still offers an insufficient degree of integration and interoperability. Integration has proceeded more slowly than expected and cross-border settlement of securities remains considerably more costly than domestic settlement. However, users increasingly need to access securities (often used as collateral) in a way that is as efficient and as swift as is already possible for cash. This need will become particularly evident once TARGET2 becomes operational, with its even more enhanced efficiency and integration of cash settlement.

With a view to maximising the benefits from the establishment of TARGET2, in 2006 the Eurosystem started to explore the possibility of providing settlement services in central bank money for securities transactions in euro. The objective of the new service – the so-called TARGET2-Securities (T2S) project – would be to harmonise the settlement of securities transactions and, ultimately, to process both securities and cash settlements on a single platform through common procedures. Synergies will be sought with other facilities operated by the Eurosystem, in particular in connection with the future TARGET2 payment system. Such an integrated facility, which will be fully owned and operated by the Eurosystem, would not only entail efficiency gains and related cost savings for market participants, but would also represent a major step forward towards establishing a single Eurosystem interface with the market.

The objective of T2S is to maximise safety and efficiency in the settlement of securities transactions. Safety is maximised by using the

41 http://www.ecb.int/press/pr/date/2006/html/pr060721.en.html
42 http://www.ecb.int/press/pr/date/2006/html/pr061120_1.en.html

delivery versus payment mechanism in central bank money. Efficiency is maximised by settling cash and securities on the same IT platform.

The main benefit to the users is technical access to a wider range of settlement counterparts and securities. Users of CSDs should ideally be able to settle any euro-denominated securities transaction in central bank money, regardless of the CSD in which the security has been issued or acquired or the CSD in which the user holds a securities account. From the issuers' point of view, this should also maximise the liquidity of the securities they issue, irrespective of the CSD they choose to issue in.

T2S will not be a CSD itself, but only a technical "settlement platform". All the other functions traditionally performed by CSDs (i.e. managing legal and commercial relationships with issuers, intermediaries and investors and handling corporate actions) would remain their responsibility.

Concerning the organisation of work on T2S, on 7 July 2006 the ECB issued a press release regarding the ECB Governing Council's decision to assess further the matter in close cooperation with CSDs and other market participants. On 20 October 2006 the Governing Council invited its Payments and Settlement Systems Committee to prepare a detailed feasibility study on the project by the beginning of 2007. In the meantime, a number of consultations with banks and CSDs have taken place. Throughout the process the Eurosystem aimed at providing as much transparency as possible vis-à-vis all stakeholders. After consideration by the Governing Council in March 2007, a public market consultation for the preparation of user requirements is planned to be launched.

SINGLE LIST OF COLLATERAL

In August 2002, the ECB's Governing Council decided to revise the Eurosystem's collateral framework for monetary policy and intraday credit operations and gradually to replace the current two-tier system that had been in place since the start of EMU by a single framework for eligible collateral uniform across the euro area. The original two-tier collateral framework was adopted by the Eurosystem to ensure a smooth transition to the euro. Assets were divided into two tiers in order to accommodate differences in financial structures between Member States at the beginning of EMU. Tier one assets consisted of marketable assets that fulfilled euro area-wide eligibility criteria, while tier two assets comprised assets deemed of particular importance at the national level, for which specific eligibility criteria were established by the NCBs. One important objective in creating a single collateral framework (also referred to as the "Single List of Collateral") is to foster financial integration by increasing the transparency of the collateral framework and by creating a level playing-field among euro area banks.

The first milestone towards implementing the single list was reached in 2005 with the phasing out of equities from the tier-two list and the introduction of a new category of marketable assets in the tier-one list of eligible collateral, namely euro-denominated debt instruments issued by entities established in those G10 countries which are not part of the European Economic Area.[43]

The introduction of non-marketable assets in the Eurosystem's collateral framework in January 2007 represents the final step in the gradual introduction of the single framework for eligible collateral and the replacement of the two-tier collateral system. Non-marketable assets consist of credit claims and non-marketable retail mortgage-backed debt instruments. These assets are already accepted as tier two collateral by some Eurosystem NCBs, which apply different eligibility criteria reflecting national, legal and market practices. The phasing out by 31 May 2007 of the tier-two

43 Non-European Economic Area G10 countries currently include the US, Canada, Japan and Switzerland. For more details, see http://www.ecb.int/press/pr/date/2005/html/pr050221.en.html.

eligible assets that do not qualify under the eligibility criteria for the single framework will complete the replacement of the two-tier system.

During 2006 the Eurosystem defined specific eligibility criteria for non-marketable assets and a common framework for the credit assessment of assets, the so-called Eurosystem Credit Assessment Framework (ECAF). The ECAF encompasses the procedures and rules establishing the Eurosystem's requirement of high credit standards for all eligible collateral in the Single List, to ensure the consistency, accuracy and comparability of the credit quality assessment sources used. The ECAF is thereby an essential element in creating the Single List of Collateral, as it allows flexibility in the credit assessment of assets, while simultaneously enhancing the transparency of the overall framework.

The new Eurosystem collateral framework was outlined in the revised version of "The implementation of monetary policy in the euro area: General documentation on Eurosystem monetary policy instruments and procedures", published on 15 September 2006. Some national differences (e.g. minimum size of the credit claim, additional legal and operational requirements) are still allowed during an intermediate period until end-2011, after which a unified regime will be introduced.[44]

With the introduction of the single collateral framework, all Eurosystem counterparties will operate under a unified regime which applies common eligibility criteria, and minimises national differences. By treating counterparties and issuers equally, the new framework will enhance the level playing-field in the euro area and will foster financial integration.

CORRESPONDENT CENTRAL BANKING MODEL (CCBM)

Another Eurosystem service conducive to fostering financial integration is the Correspondent Central Banking Model (CCBM) for the cross-border transfer of collateral within the Eurosystem, which was established in 1999. Under this scheme, NCBs act as custodians (or "correspondents") for each other and for the ECB in respect of assets accepted in their local depository or settlement system. The CCBM thereby ensures that all assets eligible for the collateralisation of monetary policy operations and intraday credit in the TARGET system are available to all counterparties, irrespective of the country of issue.

The CCBM was first introduced on a provisional basis by the Eurosystem to preserve a minimum level playing-field for its counterparties when using collateral in Eurosystem credit operations. As efficient alternatives have not been developed by the market, the Eurosystem has enhanced its procedures over the years to increase the level of straight-through-processing in order to reduce the time needed to mobilise collateral on a cross-border basis.

In light of the above-mentioned revision of the Eurosystem's collateral framework, the technical and operational procedures of the CCBM are presently under review. Moreover, initial steps have been taken to integrate some of the new EU Member States into the CCBM framework in view of the future enlargement of the euro area. On 28 December 2006 the ECB published the "Correspondent Central Banking Model (CCBM) – Procedures for Eurosystem counterparties". The purpose of this brochure is to explain to Eurosystem counterparties and other market participants involved in CCBM procedures how the CCBM works, and to give them a general overview of the main features of the model.

In October 2006 the Governing Council of the ECB also decided to upgrade the infrastructure for Eurosystem collateral management, following a request from the market. It agreed

44 See http://www.ecb.int/press/pr/date/2005/html/pr050722.en.html, and http://www.ecb.int/press/pr/date/2006/html/pr060915_1.en.html.

that a wide public market consultation on the next generation of CCBM (CCBM2) would be conducted with a view to ensuring that the new system properly addresses market needs.

EUROSYSTEM RESERVE MANAGEMENT SERVICES

In January 2005 a new framework was introduced for the management of Eurosystem customers' euro-denominated reserve assets. The framework, which was further enhanced in July 2006, has been developed in response to the continuously increasing use of the euro as an international reserve currency, and is available to central banks, monetary authorities and government agencies located outside the euro area, as well as to international organisations. The services covered by the framework range from the provision of custody accounts and related custodian (safe-keeping) and settlement services, to cash and investment services.

In developing the new framework, the Eurosystem has taken an approach to the provision of central bank services that is consistent with the concept of European financial integration. One of the framework's key aspects is the provision of services via a single access point in the euro area, through which individual Eurosystem central banks act as dedicated service providers (or "Eurosystem service providers"). As a result, customers can settle and hold in safekeeping an extensive range of fixed income euro-denominated securities, issued across the entire euro area, using a single custody account. The range of securities for which such services are provided includes almost all securities that will be contained in the Eurosystem's Single List of Collateral. Furthermore, a high degree of harmonisation has been established, with each of the Eurosystem service providers offering the same set of reserve management services, subject to harmonised terms and conditions and in line with general market standards.

STATISTICAL ANNEX

MONEY MARKET INDICATORS

Price-based indicators

Quantity-based indicators

Infrastructure indicators for large-value payment systems (LVPS)

BOND MARKET INDICATORS

GOVERNMENT BOND MARKET

Price-based indicators

CORPORATE BOND MARKET

Price-based indicators

Quantity-based indicators for government and corporate bond markets

Infrastructure indicators

EQUITY MARKET INDICATORS

Price-based indicators

Quantity-based indicators

BANKING MARKET INDICATORS

Cross-border presence indicators

Price-based indicators

Quantity-based indicators

Corporate banking indicators

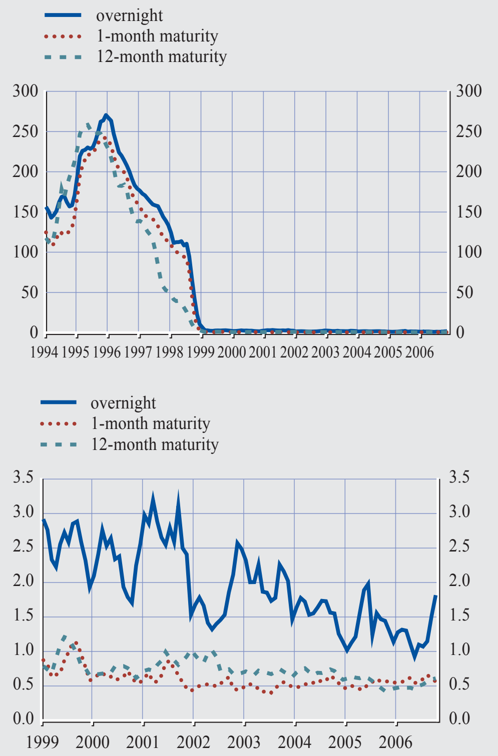
Infrastructure indicators for retail payment systems

MONEY MARKET INDICATORS

PRICE-BASED INDICATORS

Chart C1 Cross-country standard deviation of the average unsecured interbank lending rates across euro area countries

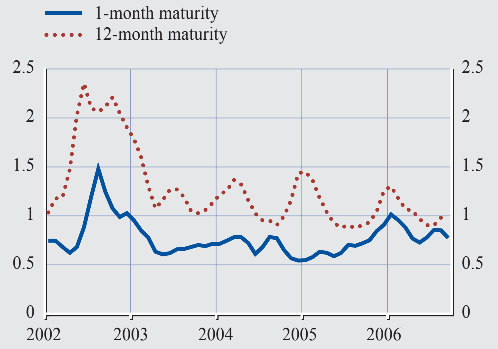
(61-day moving average, basis points)



Sources: EBF, ECB calculations.

Chart C2 Cross-country standard deviation of the average interbank repo rates across euro area countries

(61-day moving average, basis points)



Sources: EBF, ECB calculations.

Description

The European Banking Federation (EBF) makes available business frequency (daily) data at the level of individual institutions, contained in a panel, for both unsecured and secured interbank short-term debt or deposits. These data cover the EONIA (euro overnight index average) and the EURIBOR (euro interbank offered rate) (unsecured lending) as well as the EUREPO (the repo market reference rate for the euro) for different maturities.[1] Data on the EONIA SWAP INDEX can also be used.

For each dataset, the indicator is the unweighted standard deviation (D_t) of the average daily interest rates prevailing in each euro area country. Reported rates are considered to be the national rates of country c if the reporting bank is located there. However, the counterparty of the transaction is not known, and the reported interest rate could thus potentially (in part) refer to transactions with a bank outside that country c.

The number of euro area countries (n_t in the formula below) reflects the number of countries that had adopted the euro in the reference period:

$$D_t = \sqrt{\frac{1}{n_t}\sum_c (r_{c,t} - r_t)^2} \qquad (1)$$

where $r_{c,t}$ is the unweighted average of the interest rate $r_{i,t}^c$ reported by each of the m_c panel banks at time t in a given country c:

$$r_{c,t} = \frac{1}{m_c}\sum_i r_{i,t}^c \qquad (2)$$

The euro area average r_t is calculated as the unweighted average of the national average interest rates $r_{c,t}$.

The data are smoothed by calculating a 61-(business) day centred moving average of the standard deviation, transformed into

1 For further information, see http://www.euribor.org/default.htm and http://www.eurepo.org/. See ECB Monthly Bulletin, May 2006, “The contribution of the ECB and the Eurosystem to European financial integration”, p. 67.

monthly figures taking the end-of-month observation of the smoothed series.

For the indicative series prices (EURIBOR, EUREPO), the data are corrected for obvious outliers.

The computed indicator has a monthly frequency.

Additional information

The EONIA is the effective overnight reference rate for the euro. The banks contributing to the EONIA are the same as the EURIBOR panel banks (composed of banks resident in the euro area and in other EU Member States, as well as some international banks).

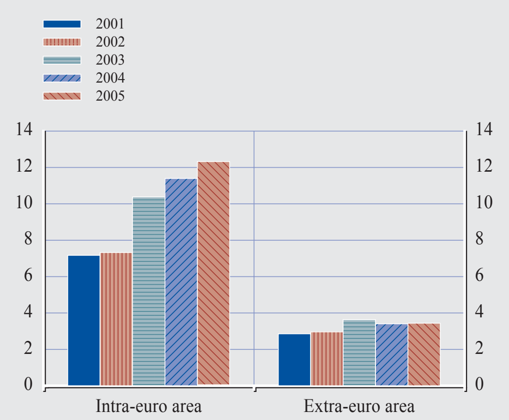
The EURIBOR is the benchmark rate of the large unsecured euro money market for maturities longer than overnight that has emerged since 1999.

The EUREPO is the benchmark rate of the euro repo market, and has been released since March 2002. It is the rate at which one prime bank offers funds in euro to another prime bank when the funds are secured by a repo transaction using general collateral.

QUANTITY-BASED INDICATORS

Chart C3 The degree of cross-border holdings of short-term debt securities issued by euro area residents

(percentages)



Sources: BIS, IMF and ECB calculations.

Description

This indicator measures the degree of cross-border allocation of short-term debt securities, i.e. securities with an original maturity of up to one year among euro area Member States.

Intra-euro area is defined as the share of short-term debt securities issued by euro area residents and held by other euro area residents (excluding central banks):

$$\frac{\sum_i \sum_{j \neq i} Outstock_{ij,t}}{\sum_i MKT_{i,t} + \sum_i TOutstock_{i,t} - \sum_i TInstock_{i,t}} \qquad (3)$$

$$i, j \in \{euro\ area\ countries\}$$

where $Outstock_{ij}$ denotes the value of assets issued by residents of euro area Member State i and held by residents of euro area Member State j $(i \neq j)$; MKT_i stands for market capitalisation in country i; $TOutstock_i$ is the total foreign assets held by country i; and $TInstock_i$ is the total foreign liabilities of country i.

Extra-euro area is defined as the share of euro area short-term debt securities held by non-residents of the euro area (excluding central banks). The measure takes the following form:

$$\frac{\sum_i \sum_r Outstock_{ir,t}}{\sum_r MKT_{r,t} + \sum_r TOutstock_{r,t} - \sum_r TInstock_{r,t}}$$

$$i \in \{euro\ area\ countries\} \qquad (4)$$
$$r \in \{rest\ of\ the\ world\}$$

where $Outstock_{ir}$ denotes the value of assets issued by residents of euro area Member State i and held by non-residents of the euro area r (*rest of the world*); MKT_r stands for market capitalisation in country r; $TOutstock_r$ is the total foreign assets held by country r; and $TInstock_r$ is the total foreign liabilities of country r.

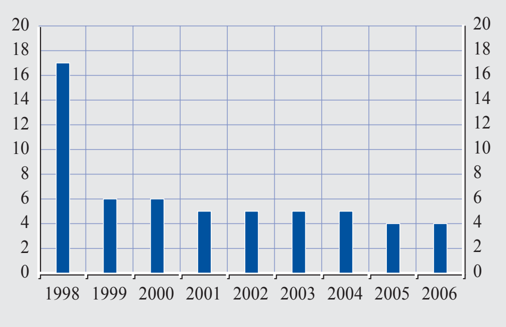
The computed indicator has a yearly frequency.

Additional information

The indicators are built on the basis of the Coordinated Portfolio Investment Survey (CPIS) of the International Monetary Fund (IMF), which is conducted on an annual basis and undertaken by national statistics compilers. Short-term debt securities encompass Treasury bills, commercial paper and bankers' acceptances that usually give the holder the unconditional right to a fixed sum of money on a specified date. These instruments are usually traded on organised markets at a discount and have an original term to maturity of one year or less.

INFRASTRUCTURE INDICATORS FOR LARGE-VALUE PAYMENT SYSTEMS (LVPS)

Chart C4 The number of large-value payment systems (LVPS) in the euro area



Source: ECB.

Description

This indicator counts the absolute number of LVPS in the euro area at the end of each year. The indicator covers the Member States of the euro area that had adopted the euro at the time to which the statistics relate for the whole series.

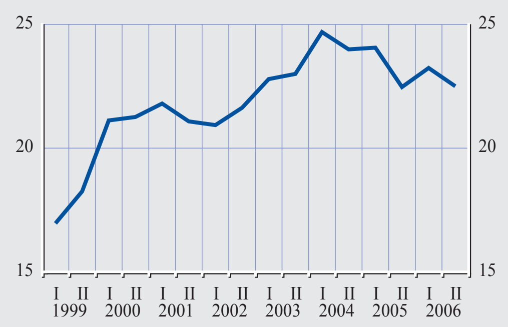
The computed indicator has a yearly frequency.

Additional information

LVPS, also known as wholesale systems, can be defined as systems that generally process payments of very large amounts. Such payments are mainly exchanged between banks or participants in the financial markets, and usually require urgent and timely settlement.

Chart C5 TARGET: the share of payments among Member States in total payments (in volume)

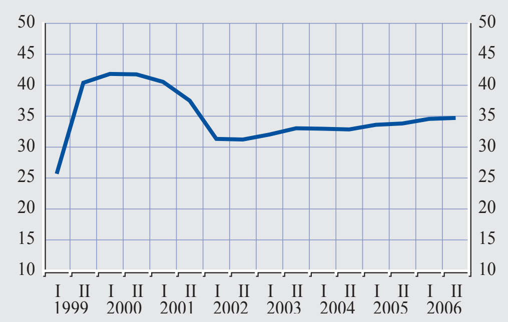
(percentages)



Source: ECB.

Chart C6 TARGET: the share of payments among Member States in total payments (in value)

(percentages)



Source: ECB.

Description

The first indicator shows the share of the volume of payments among euro area Member States (inter-Member State payments) in the total number of payments processed in the TARGET system.

The second indicator shows the share of the value of payments among euro area Member States (inter-Member State payments) in the total value of payments processed in the TARGET system.

Both indicators have a half-yearly frequency.

Additional information

The TARGET system is the Real-time Gross Settlement (RTGS) system of the euro. TARGET consists of the national RTGS systems of the 13 euro area countries and of the ECB payment mechanism (EPM). In addition, the national euro RTGS systems of Denmark, Poland and the United Kingdom are connected to TARGET. These 17 systems are all interlinked in order to provide a uniform platform for the processing of euro payments.

A TARGET inter-Member State payment is defined as a payment between counterparties which maintain an account with different central banks that participate in TARGET. The remainder of TARGET payments are intra-Member State payments. An intra-Member State payment is defined as a payment between counterparties that maintain an account with the same central bank.

The expected launch in November 2007 of TARGET2, which will replace the current decentralised system with a single technical platform, means that the concept of inter-Member State traffic will be reviewed.

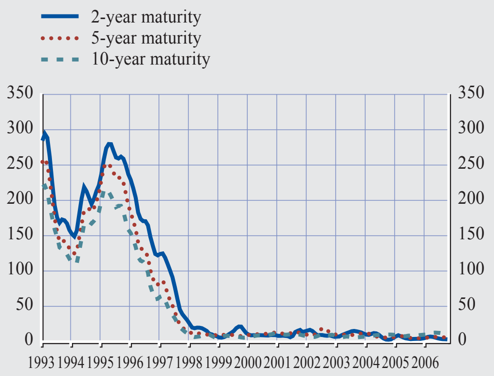
BOND MARKET INDICATORS

GOVERNMENT BOND MARKET

PRICE-BASED INDICATORS

Chart C7 Cross-country standard deviation of government bond yield spreads for two, five and ten-year maturities

(61-day moving average, basis points)



Source: ECB.

Description

The cross-country standard deviations of government bond yield spreads for two, five and ten-year maturities are calculated on the basis of daily data for the government bond yield spreads relative to the government bond yield in the country selected as a benchmark for the calculation (Germany for ten-year maturities and France for two and five-year maturities).

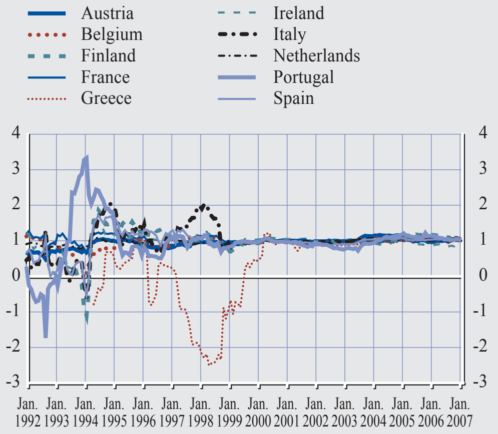
In a second step, data are smoothed by calculating a 61-(business) day centred moving average of the standard deviation, transformed into monthly figures by taking the end-of-month observation of the smoothed series.

The standard deviation of ten-year government bond yield spreads is based on bonds from Belgium, Greece, Spain, France, Ireland, Italy, the Netherlands, Austria, Portugal and Finland. For the five-year maturities, the government bonds of Belgium, Germany, Greece, Spain, Ireland, Italy, the Netherlands, Austria, Portugal and Finland are used. For the two-year maturities, the measure is based on bonds from Belgium, Germany, Greece, Spain, Italy, the Netherlands, Austria, Portugal and Finland. Greece enters the standard deviation calculations for all maturities upon the date of its entry into the euro area. In the case of Luxembourg, no benchmark bond exists for the residual maturities of close to two, five or ten years.

Additional information

Not all government debt in the euro area is fully substitutable in terms of perceived credit risk or liquidity of the relevant bonds. This might affect the yields of the selected bonds and thus the computed indicator.

Chart C8 Evolution of beta coefficients for ten-year government bond yields



Sources: Reuters and ECB calculations.

Description

If bond markets are fully integrated and no country-specific changes in perceived credit risk occur, bond yields should only react to news common to all markets. That is, changes in the bond yields of individual countries should react exclusively to common news, which is reflected by a change in the benchmark government bond yield. To separate common from local influences, the following regression is run:

$$\Delta R_{c,t} = \alpha_{c,t} + \beta_{c,t} \Delta R_{ger,t} + \varepsilon_{c,t} \qquad (5)$$

where α denotes a country-varying and time-varying intercept; β is a country-dependent and time-dependent beta with respect to the benchmark (German) bond yield; ΔR is the change in the bond yield; and ε is a country-specific shock.

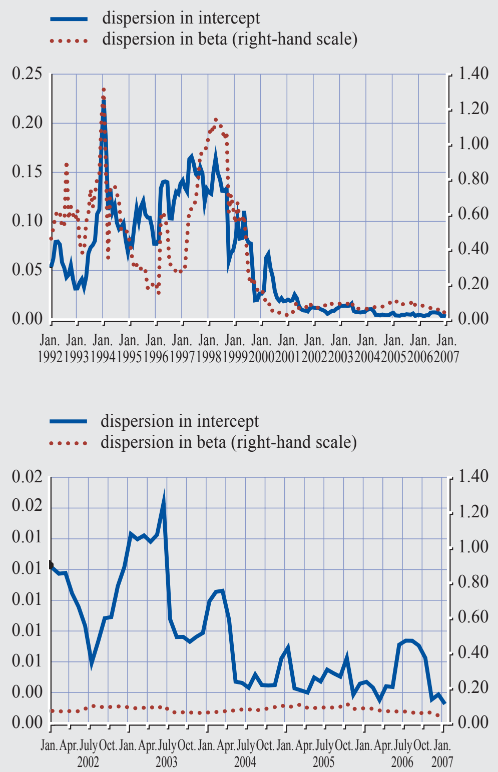
The conditional betas are derived by estimating the above regression using the first 18 months of monthly averages. Subsequently, the data window is moved one month ahead and the equation is re-estimated until the last observation is reached. A time series for $\beta_{c,t}$ is then obtained.

The model-based indicator has a monthly frequency.

Additional information

The outcome of the econometric specification depends on the selection of the most appropriate benchmark bond, in this case the ten-year German government bond. In addition, one should not expect that common factors can fully explain changes in local bond yields, as "local news" concerning credit and liquidity risks will continue to have an impact on local yields.

Chart C9 Average distance of intercept/beta from the values implied by complete integration for ten-year government bond yields



Sources: Reuters and ECB calculations.

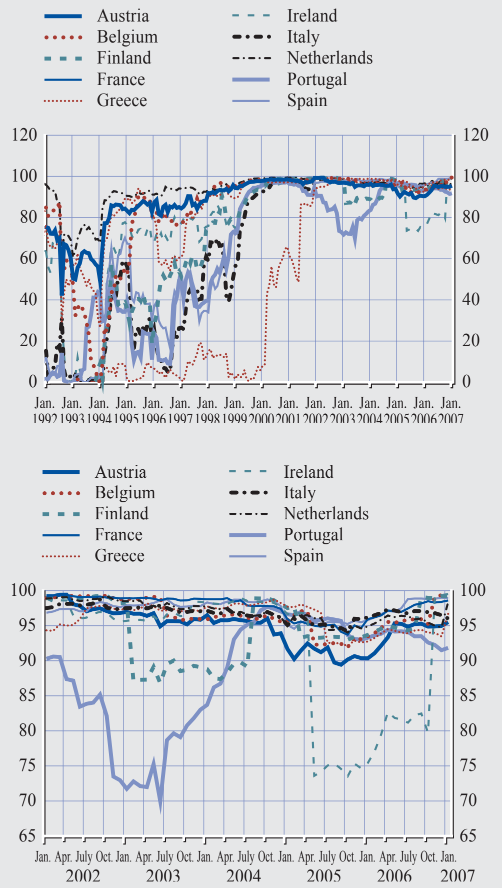
Description

This indicator is derived using regression (5), as for the previous indicator. From the individual country regressions, the unweighted average $\alpha_{c,t}$ and $\beta_{c,t}$ values are calculated and measured in proportion to the values implied by complete market integration (0 and 1 respectively). The analysis is based on monthly averages of government bond yields.

The model-based indicator has a monthly frequency.

Chart C10 Variance ratio for ten-year euro area government bond yields

(multiplied by 100)



Sources: Reuters and ECB calculations.

Description

This indicator measures the proportion of the variance of local (country-specific) yields that can be explained by the variance of the benchmark (German) ten-year government bond yields, i.e. the “variance ratio”. The indicator is derived from the same 18-month rolling regression as for the previous two indicators (see equation (5) above). The total variance of local yields is given by:

$$Var\left(\Delta R_{c,t}\right) = \beta_{c,t}^{2} Var\left(\Delta R_{b,t}\right) + Var\left(\varepsilon_{c,t}\right) \tag{6}$$

and the variance ratio by:

$$VR_{c,t} = \frac{\beta_{c,t}^{2} Var\left(\Delta R_{b,t}\right)}{Var\left(\Delta R_{c,t}\right)} \tag{7}$$

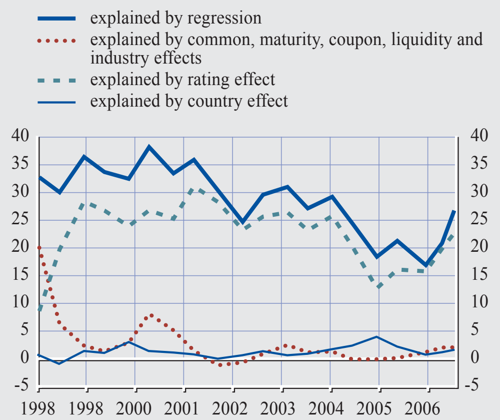
Hence, a variance ratio close to one is obtained when the beta approaches one and when the volatilities of the local and the benchmark bond yield changes are of a similar magnitude. The analysis is based on monthly averages of government bond yields.

The model-based indicator has a monthly frequency.

CORPORATE BOND MARKET

PRICE-BASED INDICATORS

Chart C11 Proportion of cross-sectional variance explained by various factors



Sources: Merrill Lynch, Bloomberg, ECB calculations.

Description

This indicator is derived by estimating the following equation using Ordinary Least Squares (OLS) regression technique:

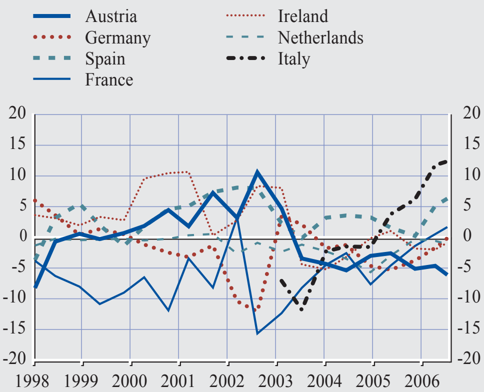
$$SP_{c,r}^{i}\left(\tau,t,z_{t}\right) = \alpha_{t} + \sum_{r=1}^{K}\gamma_{r,t}CR_{i,t}^{r} + \sum_{s=1}^{2}\delta_{s,t}S_{i,t}^{s} + \varphi_{t}z_{t}^{i} + \sum_{c=1}^{N}\beta_{c,t}C_{i,c,t} + e_{i,t} \tag{8}$$

where $SP^{i}_{c,r}(\tau,t,z_t)$ is the yield spread for corporate bond i at time t issued in country c with τ years to maturity, with credit rating r and set of instruments z_t. α is an intercept common to all corporate bonds, $CR^{r}_{i,t}$ is a rating dummy which takes a value of one when corporate bond i belongs to rating category r at time t, and zero otherwise, and $S^{s}_{i,t}$ is a sector dummy which takes a value of one for financial corporations and zero for non-financial corporations. The parameter vector φ groups the sensitivities of the various corporate bonds to the instruments contained in z^{i}_{t}, namely time to maturity, liquidity, and coupon of the ith bond. As a proxy of liquidity, we use the ratio of days that the bond has been traded relative to the total number of trading days within every time interval. $C_{i,c,t}$ is a country dummy that equals one when corporate bond i belongs to country c at time t, and zero otherwise.

The sample is composed of 2,242 individual bonds incorporating euro-denominated investment-grade bonds with a minimum issue size of €100 million. Bonds rated below investment grade and asset-backed bonds are excluded from the analysis. In addition, bonds with less than one year to maturity and bonds which were traded less than once per week in a given four-week time interval are excluded. All euro-denominated bonds not issued in a euro area country are eliminated, as well as data for countries that do not have at least ten corporate bonds at every time interval. This results in an analysis based on a sample of bonds issued in seven countries: Austria, France, Germany, Ireland, Italy, the Netherlands and Spain. Italy has been included in the regression analysis since June 2003.

The indicator represents the six-month average of the proportion of cross-sectional variance that can be explained by the various components (common, rating, sector, maturity, liquidity coupon and country effects) over time.

Chart C12 Estimated coefficients of country dummies

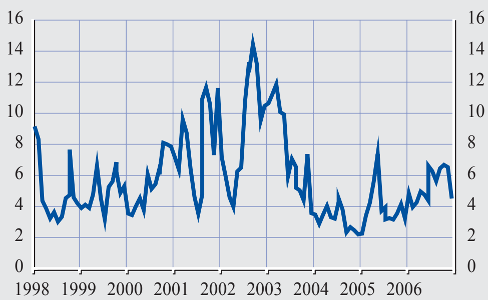


Sources: Merrill Lynch, Bloomberg, ECB calculations.

Description

As a test for integration, it is tested whether the country parameters $\beta_{c,t}$ in equation (9) are zero, or at least converge towards zero.

Chart C13 Cross-sectional dispersion of country parameters



Sources: Merrill Lynch, Bloomberg, ECB calculations.

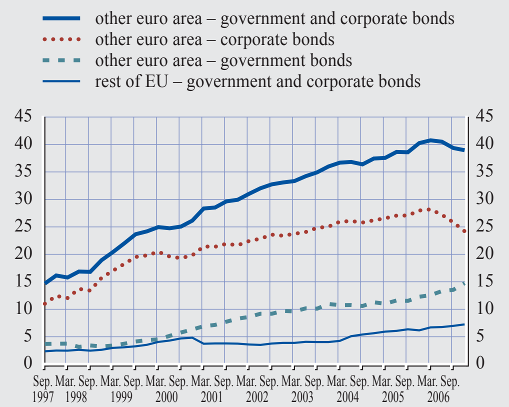
Description

This indicator is derived by calculating the average size of the estimated country dummies derived from equation (9). An overall decrease in the dispersion of the country effects would be an indication of increasing integration in the corporate bond market.

QUANTITY-BASED INDICATORS FOR GOVERNMENT AND CORPORATE BOND MARKETS

Chart C14 Share of MFI cross-border holdings of debt securities issued by euro area and EU non-MFIs: outstanding amounts by residency of the issuer

(percentages)



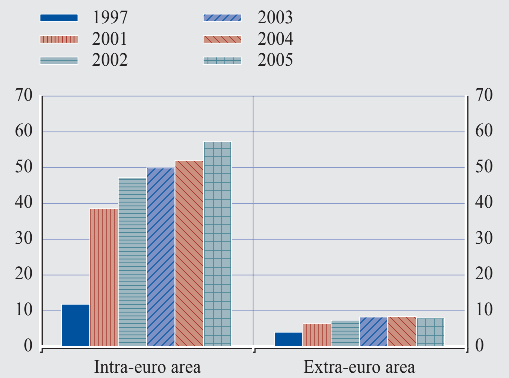
Source: ECB.

Description

For this indicator, see the indicators on the cross-border securities holdings of the banking markets below.

Chart C15 The degree of cross-border holdings of long-term debt securities issued by euro area residents

(percentages)



Sources: BIS, IMF and ECB calculations.

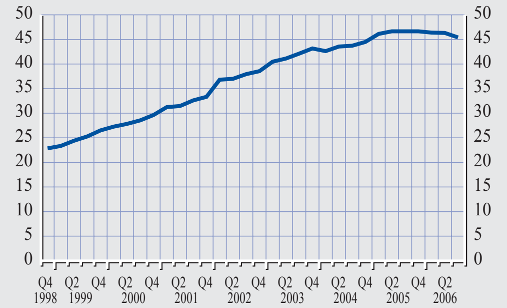
Description

This indicator, which measures the degree of cross-border holdings among euro area Member States of long-term debt securities, i.e. debt securities with an original maturity of above one year, is derived in the same way as the similar indicators on the cross-border holding of short-term debt securities.

The indicator has an annual frequency.

Chart C16 Investment funds' holdings of debt securities issued in other euro area countries

(percentages)



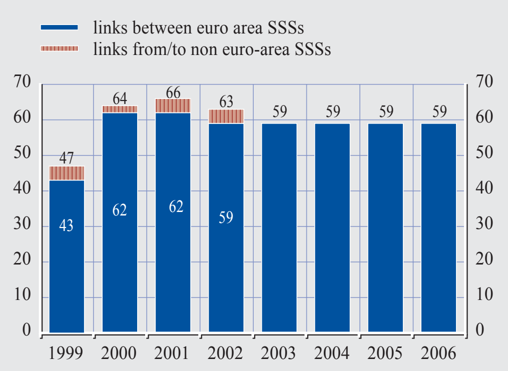
Source: ECB.

Description

This indicator shows the share of total investment funds' holdings of all securities other than shares (including money market paper) issued by residents of the euro area outside the Member States in which the investment fund is located. The composition of the euro area is the one prevailing during the reference period.

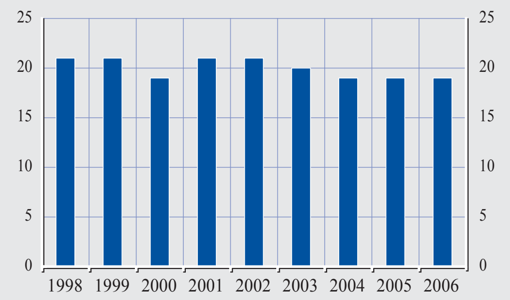
The computed indicator has a quarterly frequency.

Chart C17 Total number of eligible links for Eurosystem credit operations in the euro area



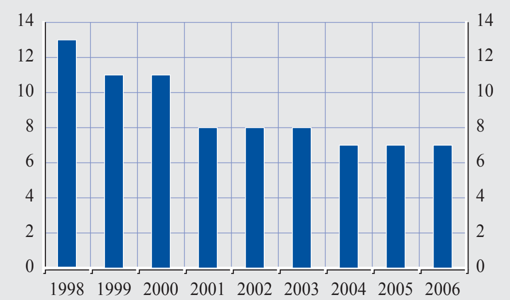
Source: ECB.

Chart C18 Number of CSDs in the euro area



Source: ECB.

Chart C19 Number of CCPs in the euro area



Source: ECB.

Description

This indicator counts the absolute number of eligible links used between securities settlement systems (SSSs) for Eurosystem credit operations. The indicator refers to the eligible links in operation at the end of each year.

Additional information

To be eligible, links have to comply with the ECB Standards for the use of EU SSSs in Eurosystem credit operations. The figures provided reflect the outcome of the assessment of links between SSSs carried out by the Eurosystem at the request of an SSS. As from 2003, figures refer only to eligible links between SSSs located in the euro area, as the ECB Governing Council has decided that, since 1 July 2003, only securities issued and held in an SSS located in the euro area are eligible for Eurosystem credit operations.

Description

The first indicator counts the total number of legal entities located in the euro area that operate a central securities depository (CSD). A CSD is an entity which holds and administers securities or other financial assets, holds issuance accounts and enables transactions to be processed by book-entry. Assets may exist either in a physical but immobilised form, or in an electronically dematerialised form within the CSD.

The second indicator counts the total number of euro area legal entities that operate a central counterparty (CCP). A CCP is an entity that interposes itself between the counterparties to trades, acting as a buyer to every seller and seller to every buyer of a specified set of contracts.

The frequency of both indicators is annual.

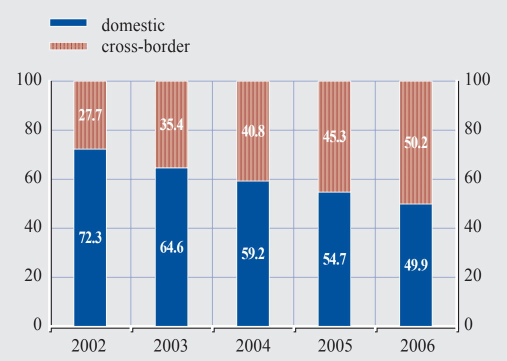
Additional information

These indicators represent integration activities that can be observed at the euro area level. However, when interpreting these indicators, it should be borne in mind that integration has occurred not only between entities operating in the euro area, but also at the EU level.

These indicators are based on information published in the ECB Blue Book for the respective years.

Chart C20 Share of domestic and cross-border collateral used for Eurosystem credit operations

(as a percentage of the total collateral provided to the Eurosystem)



Source: ECB.

Description

This indicator measures the proportion of eligible assets used domestically – i.e. within the same country – and across national borders – i.e. between euro area countries – to collateralise Eurosystem credit operations. This indicator aggregates the data reported monthly by the Eurosystem national central banks (NCBs) to the ECB on the domestic use and cross-border use (composed of both the Correspondent Central Banking Model (CCBM) and links data). The computed indicator has an annual frequency.

Additional information

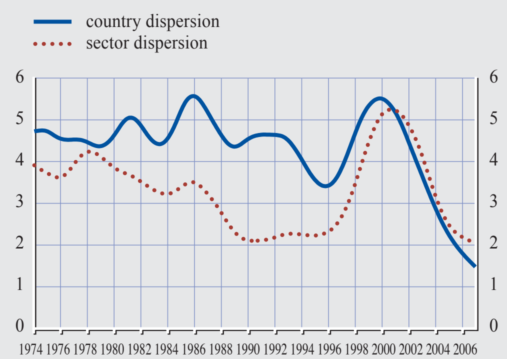
In the current framework, counterparties may transfer cross-border collateral to the Eurosystem via two main channels: the CCBM, which is provided by the Eurosystem; and the links, which represent a market-led solution. The CCBM remains the principal channel, even if the proportion of collateral held through links has increased.

EQUITY MARKET INDICATORS

PRICE-BASED INDICATORS

Chart C21 Filtered cross-country and cross-sector dispersions in euro area equity returns

(percentages)



Sources: Thomson Financial Datastream and ECB calculations.

Description

This indicator is derived by calculating the cross-sectional dispersion in both sector and country index returns for the euro area countries.[2] Data are calculated on a weekly basis from January 1973 onwards. They include (reinvested) dividends, and are denominated in euro. The indicator has a monthly frequency.

The cross-sectional dispersions are filtered using the Hodrick-Prescott smoothing technique, which provides a smooth estimate of the long-term trend component of the series.

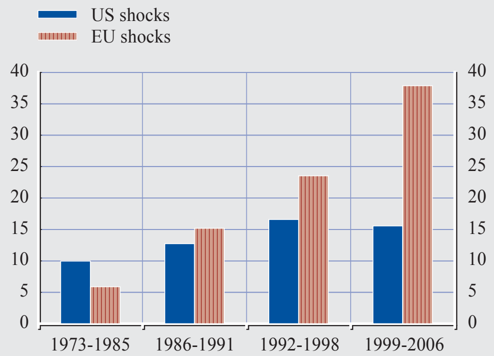
2 This indicator is based on an approach first presented by K. Adjaouté and J.-P. Danthine (2003), "European financial integration and equity returns: A theory-based assessment", in V. Gaspar et al., "The transformation of the European financial system", Second ECB Central Banking Conference.

Additional information

The indicator displays structural changes in the aggregate euro area equity market.

Chart C22 Proportion of variance in local equity returns explained by euro area and US shocks

(percentages)



Sources: Thomson Financial Datastream and ECB calculations.

Description

To compare the relevance of euro area and US shocks across average changes in country returns, the indicators report the variance ratios, i.e. the proportion of total domestic equity volatility explained by euro area and US shocks, respectively. The model-based indicator is derived by assuming that the total variance of individual country-specific returns is given by:

$$\sigma^2_{c,t} = h_{c,t} + \left(\beta^{eu}_t\right)^2 \sigma^2_{eu,t} + \left(\beta^{us}_t\right)^2 \sigma^2_{us,t} \qquad (9)$$

where $h_{c,t}$ is the variance of the local shock component. The euro area variance ratio is then given by:

$$VR^{eu}_{c,t} = \frac{\left(\beta^{eu}_t\right)^2 \sigma^2_{eu,t}}{\sigma^2_{c,t}} \qquad (10)$$

and correspondingly for the US. The conditional variances are obtained from a standard asymmetric GARCH (1,1) model.

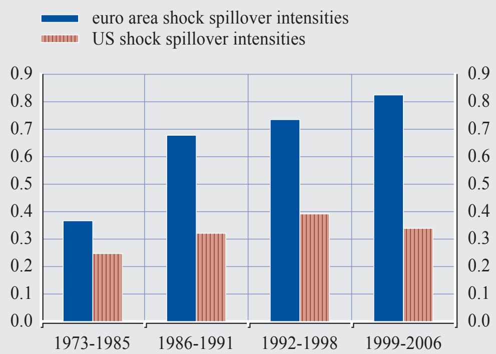
For each period, the indicators report the unweighted average of the relative importance of euro area-wide factors, other than US equity market fluctuations, for the variance of individual euro area countries' equity market indexes (the "variance ratio"), and the unweighted average of the relative importance of US equity market fluctuations for the variance of euro area equity markets.

Data refer to the Economic and Monetary Union (EMU) global sector indices, and have been calculated on a weekly basis from January 1973 onwards.

Additional information

The variance ratio is derived by assuming that local shocks are uncorrelated across countries and that they are similarly not correlated with the euro area and US benchmark indices.

Chart C23 Euro area and US shock spillover intensity



Sources: Thomson Financial Datastream and ECB calculations.

Description

This measure is equivalent to the news-based indicators for the bond market. However, empirical evidence suggests that equity returns are significantly driven by global factors. For this reason, both euro area-wide shocks and US shocks (as a proxy for global factors) are included in the assessment of common news.

To calculate the relative importance of euro area-wide and US stock market fluctuations for local stock market returns, the stock market returns of individual countries are modelled as having both an expected component as well as an unexpected one, $\varepsilon_{c,t}$.[3] The unexpected component is then decomposed into a purely local shock ($e_{c,t}$) and a reaction to euro area ($\varepsilon_{eu,t}$) news as well as world (US) news ($\varepsilon_{us,t}$):

$$\varepsilon_{c,t} = e_{c,t} + \beta^{eu}_{c,t}\varepsilon_{eu,t} + \beta^{us}_{c,t}\varepsilon_{us,t} \quad (11)$$

where β represents the country-dependent sensitivity to euro area and US market changes (of the unexpected component of equity returns), respectively.

In order to investigate the development of the betas over time, three dummy variables are introduced representing the periods 1986-1991, 1992-1998 and 1999-2006.

For each period, the indicators report the unweighted average intensity by which euro area-wide equity market shocks, other than those from the US, are transmitted to local euro area equity markets, as well as the unweighted average intensity by which US equity market shocks are transmitted to local euro area equity markets.

Data refer to the EMU global sector indices, and are calculated on a weekly basis from January 1973 onwards.

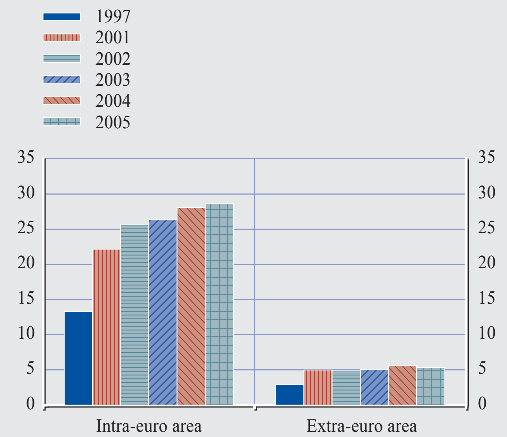
Additional information

To distinguish global shocks from purely euro area shocks, it is assumed that euro area equity market developments are partly driven by events in the US market. It is furthermore assumed that the proportion of local returns that is not explained by common factors is entirely due to local news.

QUANTITY-BASED INDICATORS

Chart C24 The degree of cross-border holdings of equity issued by euro area residents

(percentages)



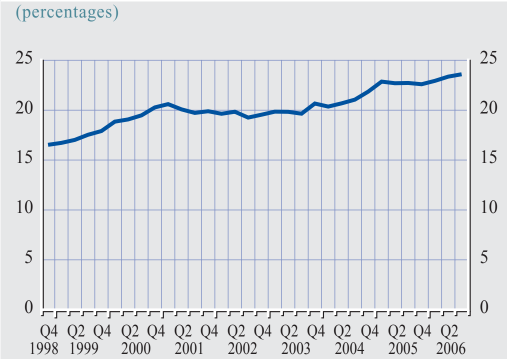
Sources: IMF, Thomson Financial Datastream and ECB calculations.

Description

This indicator measures the degree of cross-border holdings of equity securities among euro area Member States, and is derived in the same way as the respective indicators for short-term and long-term debt securities. The computed indicator has an annual frequency.

Chart C25 Investment funds' holdings of equity issued in other euro area countries

(percentages)



Source: ECB.

3 The expected return is obtained by relating euro area and US returns to a constant term and to the returns in the previous period. The conditional variance of the error terms is governed by a bivariate asymmetric GARCH (1,1) model.

Description

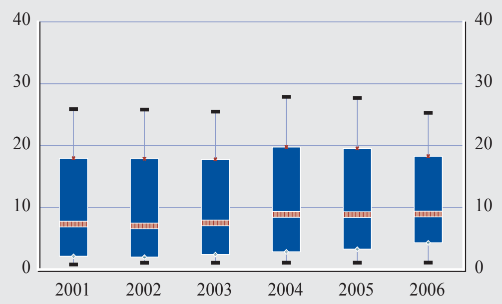
The indicator shows the share of investment funds' total holdings of all shares and other equity (excluding investment fund shares/units) issued by residents of the euro area outside the Member States in which the investment fund is located. The composition of the euro area is the one prevailing during the reference period. The indicator has a quarterly frequency.

BANKING MARKET INDICATORS

CROSS-BORDER PRESENCE INDICATORS

Chart C26 Dispersion of the number of euro area bank branches across euro area countries

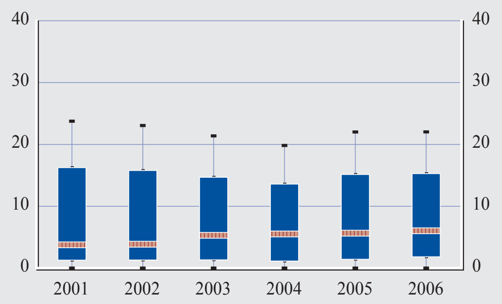
(as a percentage of the total number of banks)



Source: ECB.

Chart C27 Dispersion of the number of euro area bank subsidiaries across euro area countries

(as a percentage of the total number of banks)



Source: ECB.

Description

These two indicators describe the development over time of the share of the number of branches/subsidiaries of euro area banks (credit institutions) within euro area countries in the total number of domestic credit institutions. Setting up branches or subsidiaries is one way of integrating the euro area banking markets across borders. The level and dispersion of the country data are described by the following dispersion measures: the first quartile (25th percentile), the median value (50th percentile) and the third quartile (75th percentile). These computed indicators have an annual frequency.

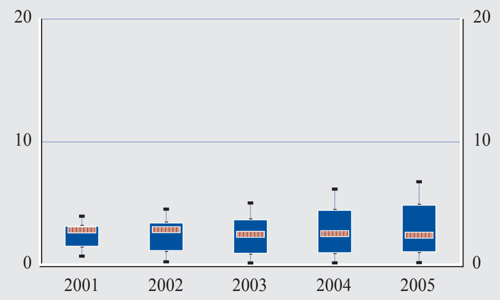
They complement the information on the assets of branches and subsidiaries, as provided by the following two indicators (C28 and C29).

Additional information

The measures have been corrected for outliers.

Chart C28 Dispersion of the total assets of euro area bank branches across euro area countries

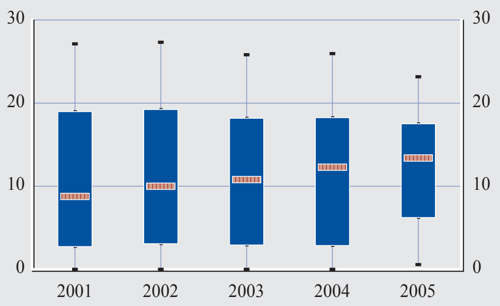
(as a percentage of the total assets of the euro area banking sector)



Source: ECB.

Chart C29 Dispersion of the total assets of euro area bank subsidiaries across euro area countries

(as a percentage of the total assets of the euro area banking sector)



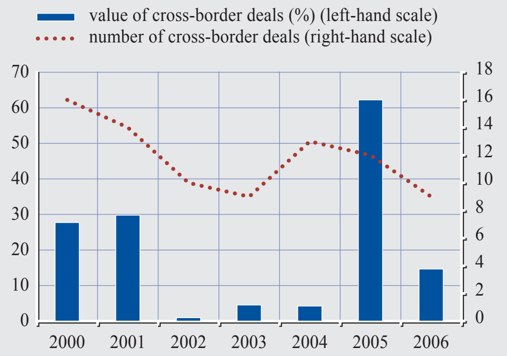
Source: ECB.

Description

These two indicators describe the development over time of the share of assets of branches and subsidiaries of euro area banks within euro area countries other than the home country in the total amount of the euro area banking sector's assets. These computed indicators have an annual frequency.

Chart C30 Cross-border bank M&A deal values of assets purchased and number of euro area cross-border M&As

(as a percentage of the total euro area banking system M&As and absolute numbers, respectively)



Sources: Bureau van Dijk (Zephyr database) and ECB calculations.

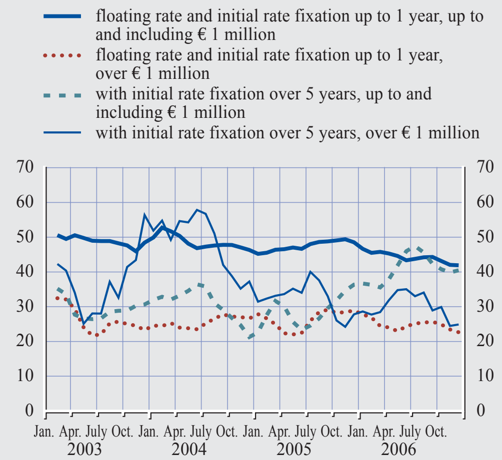
Description

This indicator provides euro area bank M&A activities as a further measure of the degree of the euro area cross-border integration of banking markets. The numerator is composed of the value of all intra-euro area cross-border bank M&As. The denominator is composed of the value of all euro area banking system M&As, i.e. domestic, intra-euro area cross-border, and M&As where the acquirer is resident in the euro area and the counterpart is outside the euro area. The absolute number of euro area cross-border M&As per year is also displayed. M&A deals include both controlling and minority stakes. All acquisitions transactions are taken into account provided the resulting stake is above 10%. This also applies to transactions where no value is provided as long as the resulting stake is published (and amounts to more than 10%). Acquisitions carried out in multiple transactions are reported in the year in which the ownership exceeded 50%.

PRICE-BASED INDICATORS

Chart C31 Cross-country standard deviation of MFI interest rates on loans to non-financial corporations

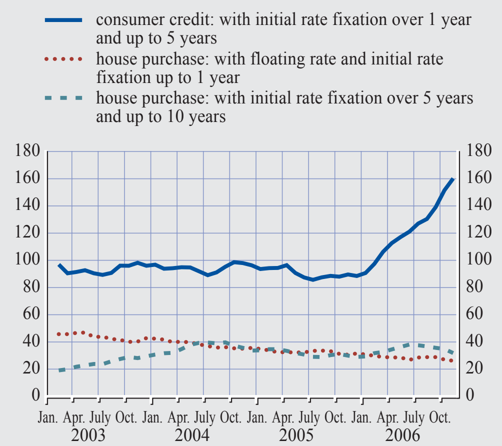
(basis points)



Source: ECB.

Chart C32 Cross-country standard deviation of MFI interest rates on loans to and deposits from households

(basis points)



Source: ECB.

Description

The price measures for credit market integration are based on monetary financial institution (MFI) interest rates (MIR) on new business reported to the ECB, at monthly frequency as from January 2003.

For the purpose of measuring financial integration, it might be preferable to compute the dispersion of rates as measured by the standard deviation using unweighted interest rates at the level of individual MFIs. However, these data are not available at the ECB, and therefore weighted rates and standard deviations are calculated instead.

The following general notation is used for each of the above categories of loans or deposits:

$r_{c,t}$ = the interest rate prevailing in country c in month t

$b_{c,t}$ = business volume in country c corresponding to $r_{c,t}$

$w_{c,t} = \frac{b_{c,t}}{B_t}$ is the weight of country c in the total euro area business volume B

$$B_t = \sum_c b_{c,t}$$

The euro area MIR is computed as the weighted average of country interest rates $r_{c,t}$, taking the country weights $w_{c,t}$

$$r_t = \sum_c w_{c,t} r_{c,t} \qquad (12)$$

The euro area weighted standard deviation takes the following form:

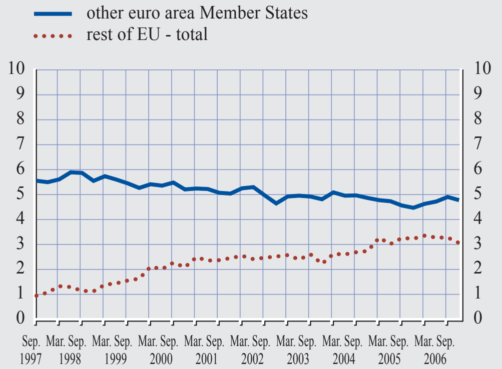
$$M_t = \sqrt{\sum_c (r_{c,t} - r_t)^2 w_{c,t}} \qquad (13)$$

The monthly data are smoothed by calculating a three-month centred moving average of the standard deviation.

QUANTITY-BASED INDICATORS

Chart C33 Non-interbank deposits – percentage of business with other euro area countries and EU Member States

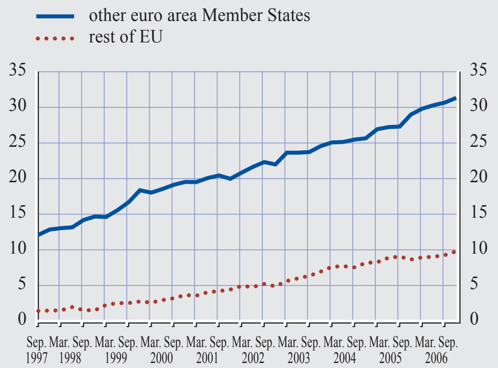
(percentages)



Source: ECB.

Chart C34 MFI holdings of securities issued by MFIs: outstanding amounts by residency of the issuer

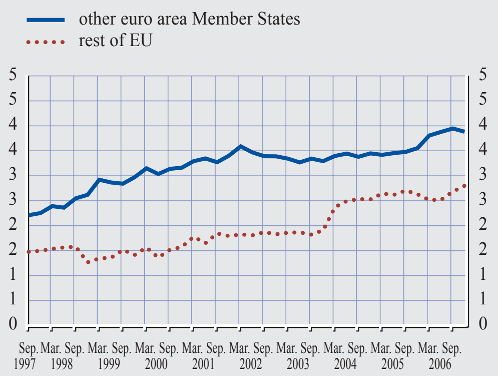
(percentages)



Source: ECB.

Chart C35 MFI loans to non-MFIs: outstanding amounts by residency of the counterpart

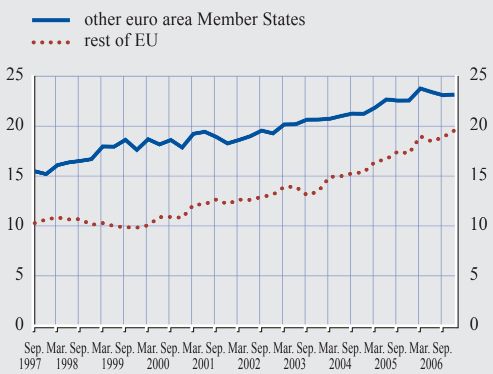
(percentages)



Source: ECB.

Chart C36 MFI loans to MFIs: outstanding amounts by residency of the counterparty

(percentages)



Source: ECB.

Description

These indicators display the geographical counterparty diversification of loans granted by euro area MFIs (excluding central banks) to the general government, to non-MFI counterparties resident in other euro area countries and to other MFIs resident in non-euro area EU Member States.[4] Similar indicators are computed for deposits with non-MFIs and securities held by euro area MFIs and issued by non-MFIs and MFIs, respectively. They have a quarterly frequency.

Additional information

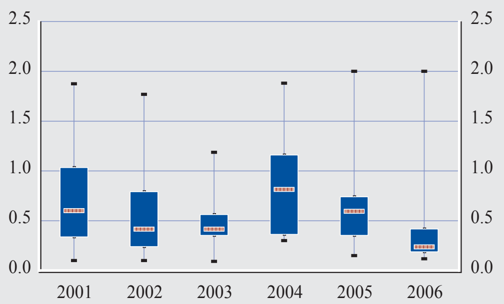
These indicators are built on the basis of the national aggregated MFI balance sheet statistics reported to the ECB, at a monthly and quarterly frequency.[5]

These balance sheet items are transmitted on a non-consolidated basis. This means that the positions with foreign counterparties include those with foreign-controlled branches and subsidiaries.

CORPORATE BANKING INDICATORS

Chart C37 Cross-country dispersion measures of gross fees on bond issues charged to euro area resident firms

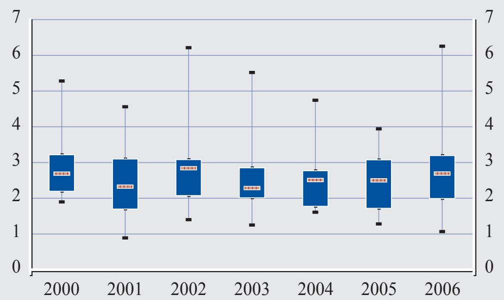
(percentage points)



Source: Bondware

Chart C38 Cross-country dispersion measures of gross fees on equity issues charged to euro area resident firms

(percentage points)



Source: Bondware

4 As applicable during the reference period.
5 These data cover the MFI sector excluding the Eurosystem and also include data on money market funds (MMFs). It is not yet possible to derive indicators that strictly refer to banking markets. Consequently, as MMFs typically invest in inter-MFI deposits and short-term securities, the indicators displaying data for these assets are somewhat affected by the MMFs' balance sheet items. Only for the indicator showing loans to non-MFIs are the statistics for MFIs and for credit institutions the same.

Description

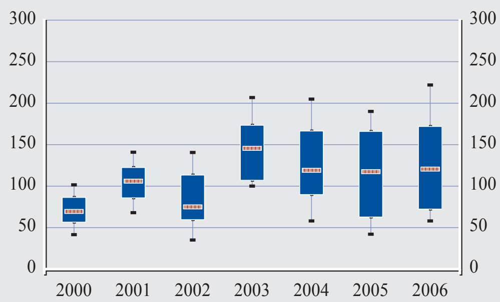
These indicators display the cross-country dispersion of gross fees on bond and equity issues, respectively, charged to euro area resident firms, whereby the gross fees are composed of total commissions for management, underwriting and selling a new issue, expressed as a percentage of the nominal amount of the issue. The level and dispersion of the country data are described by the following dispersion measures: the first quartile (25th percentile), the median value (50th percentile) and the third quartile (75th percentile). Each transaction is weighted by the size of its nominal amount. The computed indicators have an annual frequency.[6]

Description

These indicators display the cross-country dispersion measures of the weighted average of margins and fees, respectively, on syndicated loans where the borrower is from a euro area country. The average margin is the spread, in basis points, over the base rates (e.g. LIBOR, the London interbank offered rate). The average fee is calculated as a difference between the average all-in pricing and the margin. The presentation is similar to the one chosen for the previous indicators. Each transaction is weighted by the size of its nominal amount.

Chart C39 Euro area cross-country dispersion measures of spreads on syndicated loans charged to euro area resident firms

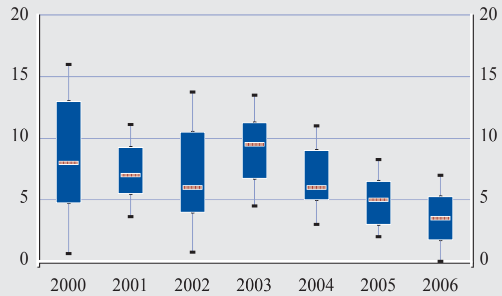
(basis points)



Sources: Dealogic (Loanware) and ECB calculations.

Chart C40 Cross-country dispersion measures of fees on syndicated loans charged to euro area resident firms

(basis points)



Sources: Dealogic (Loanware) and ECB calculations.

INFRASTRUCTURE INDICATORS FOR RETAIL PAYMENT SYSTEMS

Description

The first indicator counts the total number of retail payment systems in the euro area. A retail payment system is viewed as a funds transfer system which handles large volumes of payments of relatively low value in such forms as cheques, credit transfers, direct debits and Automated Teller Machine (ATM) and electronic funds transfer at point of sale (EFTPOS) transactions.

The second indicator counts the total number of retail payment systems which operate in the form of an automated clearing house (ACH) in the euro area. Contrary to those retail payment systems that operate manually or in real-time processing mode, an ACH is viewed as an electronic clearing system in which payment orders are exchanged among financial institutions at a central data processing centre.

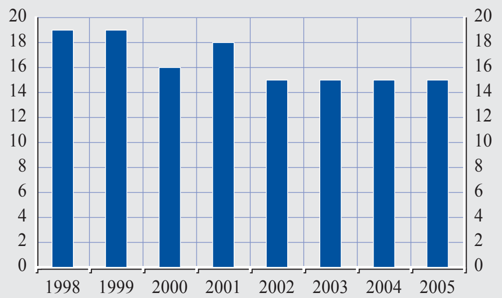
The frequency of both indicators is annual.

6 For the calculation of these two indicators private and public corporates and private and public utilities have been used. The same applies to indicators 39 and 40.

Additional information

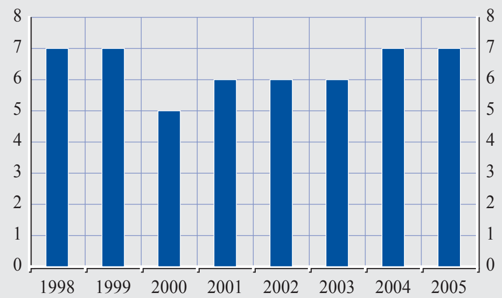
These two indicators are based on the information and definitions reported in the ECB Blue Book for the respective years. When interpreting these statistics, it should be borne in mind that the data collection for the ECB Blue Book is currently voluntary.[7] It is at the discretion of the respective NCBs to select which systems should be reported for the Blue Book on the basis of their significance in the national context.

Chart C41 Number of retail payment systems in the euro area



Source: ECB.

Chart C42 Number of automated clearing houses in the euro area



Source: ECB.

7 It is foreseen that from 2007 onwards, the data requirements will be included in an ECB Guideline.

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