

EURO AREA MARKETS FOR BANKS' LONG-TERM DEBT FINANCING INSTRUMENTS: RECENT DEVELOPMENTS, STATE OF INTEGRATION AND IMPLICATIONS FOR MONETARY POLICY TRANSMISSION

ARTICLES

Euro area markets for banks' long-term debt financing instruments: recent developments, state of integration and implications for monetary policy transmission

Long-term debt financing instruments are an important source of stable funding for euro area banks. During the last decade euro area markets for banks' long-term debt financing grew and at the same time new market segments gained importance. However, since September 2008 these markets have suffered substantially as a result of the financial crisis, as well as subsequent sovereign debt market turbulence. Currently, the functioning of markets for banks' long-term debt differs across segments and banks' access to this source of funding also varies considerably across issuers. Many of the challenges faced by euro area banks in relation to obtaining long-term debt financing are to some extent faced also by banks in other advanced economies.

From the perspective of financial market integration, this article shows that while pricing differentiation is clearly visible—after a period of significant underpricing of risk in financial markets—evidence on international issuance does not point to a permanent segmentation in terms of primary market participation in the euro area. From the perspective of monetary policy transmission, unhampered and fairly priced access to long-term funding markets by banks plays a role in affecting the supply of credit. Currently there are signs of growing divergence in the lending rates charged by the MFIs situated in various euro area countries with different conditions in long-term funding markets. Against this backdrop, it is important from a monetary policy perspective to further monitor trends and conditions in these markets.

I INTRODUCTION

Banks finance themselves through a variety of different sources with different maturities and credit risk characteristics, for example through deposits, equity, short-term wholesale funding, long-term unsecured bonds, covered bonds, and asset-backed securities (ABSs). Heavy reliance on some of these funding sources in the years leading up to the financial crisis turned out to be an important source of the subsequent problems. On the one hand, a substantial amount of short-term funding resulted in high exposure to liquidity risks. On the other hand, opaque and complex structures of ABSs, combined with misalignments of incentives, led to high uncertainty about and mispricing of the credit risk of these securities. As a result of the developments observed during the last four years, enhancing the design and functioning of markets for long-term debt financing instruments as a stable source of funding available to banks is important from the perspectives of a proper functioning of the banking sector, financial integration, and a smooth transmission of monetary policy.

In recent years the markets for banks' long-term debt financing instruments have changed

significantly. The financial crisis has led to a repricing of risks, which may be a factor permanently affecting the demand for these securities. At the same time, the supply in these markets can be influenced by regulatory developments, for example related to capital and liquidity requirements focusing on improving banks' resilience to market tensions and increasing their reliance on stable funding sources. Apart from longer-lasting changes in the structure of these markets, the issuance and pricing behaviour has also been affected by the tensions in other markets and changes in investor sentiment.

Against this background, this article reviews recent developments in the euro area markets for banks' long-term debt instruments and discusses the implications for financial integration as well as monetary policy transmission.

The article is structured as follows. Section 2 presents a broad overview of the markets for banks' long-term debt instruments, focusing on banks' issuance activity and the impact of the sovereign debt market tensions on the perceived credit risk of banks. Section 3 discusses in more detail primary and secondary market developments in each of the market segments:

unsecured bank bonds, covered bonds and ABSs. Section 4 focuses on the implications for market integration, as well as monetary policy transmission and regulatory policies. Section 5 concludes.

2 EURO AREA MARKETS FOR BANKS' LONG-TERM DEBT FINANCING INSTRUMENTS: A BROAD OVERVIEW

Euro area banks' issuance of long-term debt instruments has undergone several dynamic changes during the last ten years. First, strong growth in issuance of unsecured bank bonds and securitised products was observed in the years leading up to the financial crisis (see Chart 1). For example, in the period from the first quarter of 2005 until the second quarter of 2007, banks' use of these funding sources more than doubled, compared with the levels observed during the period 2000-03. Furthermore, during the period

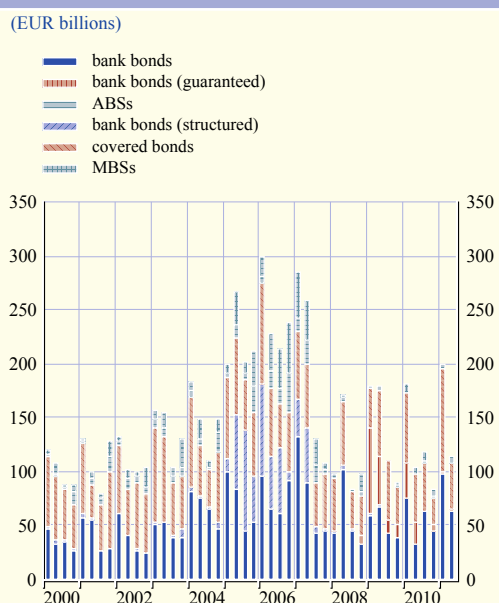
preceding the crisis, some large banks issued substantial amounts of bonds with payment structures linked to the price developments of other asset classes, especially equity or equity indices. In the third quarter of 2007 overall issuance dropped sharply by 50%, marking the beginning of a period when the levels of long-term market-based debt issued by banks became much more comparable to the issuance levels observed before the securitisation boom.

As market uncertainty related to funding and counterparty risks increased substantially following the bankruptcy of Lehman Brothers, various support schemes were put in place, under which banks were allowed to issue government-guaranteed debt securities. Consequently, in the first half of 2009 around 55% of all newly issued bank bonds were covered by government guarantees. Apart from the support measures introduced by individual governments, the ECB introduced the covered bond purchase programme (CBPP), announced on 7 May 2009 and active in the period from 2 July 2009 to 30 June 2010, which triggered a reactivation of the issuance of covered bonds in the euro area.¹

In more recent quarters turbulence in some euro area government bond markets has also been reflected in the markets for banks' long-term funding instruments. In some segments, banks may have increasingly sought to make use of periods of relatively tranquil market conditions to frontload future funding needs. Overall, the developments during the past four crisis years have been reflected in a highly volatile level of issuance.

Looking ahead, the overall issuance of long-term debt securities by euro area banks and their distribution across market segments will depend on the relative attractiveness of

Chart 1 Banks' long-term debt financing instruments – issuance activity

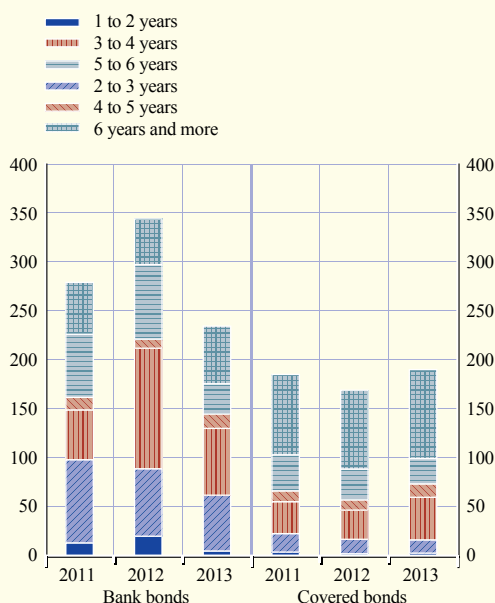


Sources: Dealogic DCM Analytics and ECB calculations.
Notes: Retained deals are not included. Bank bonds include non-subordinated unsecured bonds issued by financial corporations and classified as high-yield or investment-grade bonds or medium-term notes. Structured bank bonds are defined as bonds with cash flows linked to commodities, equities, derivatives, credit events, etc.

¹ For an analysis of the impact of the CBPP on the covered bond markets, see "Covered bond market developments and the covered bond purchase programme", *Monthly Bulletin*, ECB, August 2010, and Beirne, J., et al., "The impact of the Eurosystem's covered bond purchase programme on the primary and secondary markets", *Occasional Paper Series*, No 122, ECB, January 2011.

Chart 2 Amounts of maturing bonds broken down by initial time to maturity

(EUR billions)



Sources: Dealogic DCM Analytics and ECB calculations.
Notes: Retained deals are not included. Bank bonds are defined as in Chart 1 (including guaranteed and structured bonds).

these markets, as compared with alternative funding sources. Furthermore, changes in the overall size of banks' balance sheets may affect long-term debt issuance activity. Regulatory developments will also likely play an important role (see the box in Section 4). Beyond these factors, banks' future issuance will be influenced by the maturity structure of current outstanding instruments. As apparent in Chart 2, in 2012 the amount of bank bonds maturing will reach almost €350 billion, more than 20% higher than for 2011. This increase is mainly driven by the expiration of a relatively large amount of bonds with an initial time to maturity of three to four years, of which more than 60% are government-guaranteed. For covered bonds, the maturity profile is more stable and the amount of bonds maturing will decrease by around 9% in 2012 compared with 2011. Hence, in recent years, bank bonds were issued with a shorter time to maturity than covered bonds.

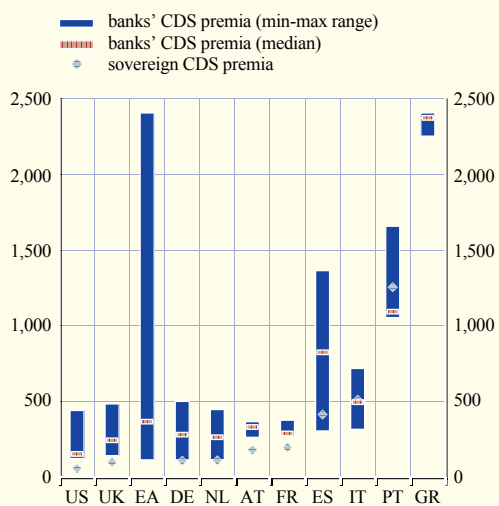
Consequently, euro area banks will need to access the market for unsecured debt for higher amounts, if they want to maintain a stable level of financing from this source.

Turning to the overall costs of accessing the markets for long-term debt instruments for euro area banks, a key challenge currently faced by some of them are the spillovers between sovereign bond markets and bank funding markets. There are several channels through which sovereign and bank debt markets may be closely correlated. For example, large holdings of sovereign debt by domestic banks may imply a higher credit risk of bank debt securities, when sovereign debt securities held by the banks become more risky. Another channel could be related to the bank exposure to the credit risk of domestic households and corporations. When sovereign risk increases and a significant tightening of government expenditures is needed, the income of some households and corporations may be negatively influenced in the short term, either directly or through an adverse short-term impact on economic growth. Furthermore, banks' access to long-term debt funding markets may be impaired in case of sovereign debt problems due to an adverse reaction and weak sentiment of portfolio investors, who might withdraw their funds from the whole region.² Keeping these channels in mind, a comparison of CDS premia of euro area banks shows a large dispersion across issuers, across countries and within some of them, also as compared with banks in the United States and United Kingdom (see Chart 3). Overall, this differentiated market assessment of the credit risk of euro area banks has spread to all segments for long-term debt financing, leading to large discrepancies in euro area banks' funding costs and, in some cases, in their ability to access certain market segments.

² For a further analysis of the possible channels, see, for example, Committee on the Global Financial System, "The impact of sovereign credit risk on bank funding conditions", *CGFS Papers*, No 43, July 2011.

Chart 3 Sovereign and bank CDS premia

(basis points; 23 September 2011)

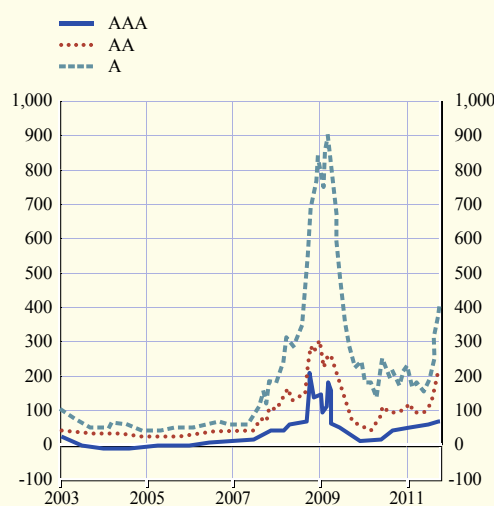


Source: Thomson Reuters.

Notes: CDS premia are on five-year senior unsecured debt. Only euro area countries for which CDS premia of at least three banks are available are shown separately. Greek sovereign CDS premia stood at 5,849 basis points on 23 September 2011 (not included in the chart).

Chart 4 Corporate bond spreads of financial institutions in the euro area

(basis points)



Source: Thomson Reuters.

Notes: Secured and unsecured bonds of maturities of over one year are included in the indices. The benchmark is the EMU AAA government bond index. All indices are calculated by Merrill Lynch.

3 RECENT DEVELOPMENTS IN DIFFERENT MARKET SEGMENTS

The segments of euro area markets for banks' long-term debt financing instruments, although all significantly affected by the crisis, differ substantially with respect to the current market functioning. This section reviews primary and secondary market developments in the major segments of euro area markets for banks' long-term debt: unsecured bonds, covered bonds and ABSs.

3.1 UNSECURED BONDS

Funding conditions of euro area banks, as reflected in corporate bond spreads of financial institutions vis-à-vis AAA-rated government bonds, have changed dramatically during the crisis years (see Chart 4). Not only has the overall level of spreads become much more volatile and fluctuated widely, but also the differentiation between issuers from different rating classes has increased markedly. During

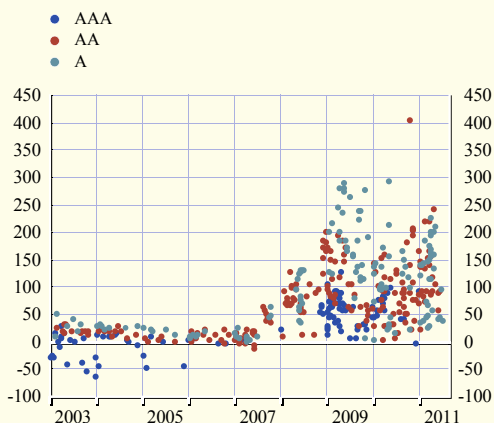
late 2008 and early 2009, the access to long-term debt financing, especially for lower-rated banks, became increasingly difficult and in some cases even impossible. Since then, the spreads have declined markedly, although recently spreads have increased somewhat again, especially for lower-rated classes.

Turning to the primary market for issuance of unsecured debt instruments, Charts 5 and 6 show the spreads against swaps at issuance of selected³ unsecured bonds in the period 2003-11 according to ratings and the issuing banks' nationality of operations. Chart 6 also distinguishes the bonds covered by government guarantees. Before the crisis, issuers from all rating classes and euro area countries were able to get funding at levels very close to the swap rate (even below for some AAA-rated issuers). Also, before the crisis the differentiation between rating classes was relatively small, similar to the secondary market spreads. During

3 See the notes to Charts 5 and 6 for the selection criteria.

Chart 5 Bank bond spreads at issuance by rating class

(basis points)



Sources: Bloomberg, Dealogic DCM Analytics and ECB calculations.

Notes: Spreads are calculated as z-spreads vis-à-vis the swap curve. Data are based on the nationality of operations of the issuer and are therefore on an unconsolidated basis. The chart includes senior unsecured fixed rate investment-grade bullet bonds and medium-term notes with a time to maturity at issuance between one and ten years. Only euro-denominated issuances with a face value of at least €100 million are included.

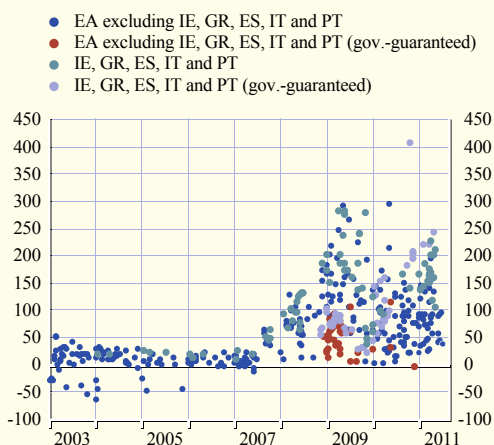
the crisis, in parallel to the developments in the secondary market, spreads at issuance increased. However, these increases were much more contained than for the secondary markets, probably reflecting that some issuers simply refrained from accessing the market during this period. It is also clearly visible how the issuance of government-guaranteed bonds allowed banks to obtain funding at relatively low spreads, although the differentiation based on the guarantor's nationality was already visible at this point in time.⁴ During 2010 and 2011 the range of spreads at which euro area banks issued long-term bonds was actually almost as high as during 2009. However, the large discrimination between different issuers in the latest episode of the crisis has mainly been driven by the issuer's nationality rather than by the instrument's credit quality, as measured by ratings.

3.2 COVERED BONDS

During the last ten years, covered bonds have developed from being a funding source for mortgages and public infrastructure projects in certain euro area countries to become an important source of long-term funding for banks in many euro area countries. Regional and issuer participation increased and currently between 40 and 50 issuers from euro area countries are active in this market each quarter (see Chart 7). In the months following the bankruptcy of Lehman Brothers, when very low issuance activity was observed in this market, the ECB decided to implement the covered bond purchase programme (CBPP), which resulted in enhancing banks' access to this source of funding.⁵ Participation in the market by both

Chart 6 Bank bond spreads at issuance by country group and government guarantee

(basis points)



Sources: Bloomberg, Dealogic DCM Analytics and ECB calculations.

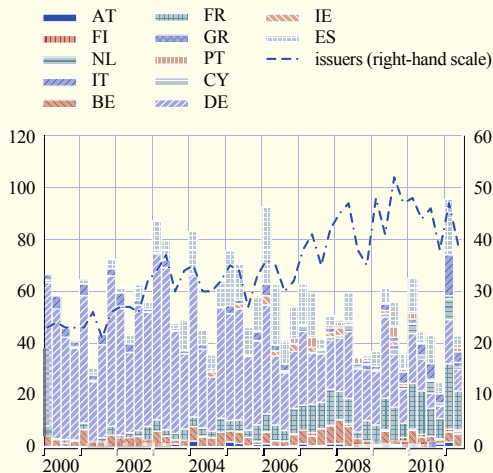
Notes: Spreads are calculated as z-spreads vis-à-vis the swap curve. Data are based on the nationality of operations of the issuer and are therefore on an unconsolidated basis. The chart includes senior unsecured fixed rate investment-grade bullet bonds and medium-term notes with a time to maturity at issuance between one and ten years. Only euro-denominated issuances with a face value of at least €100 million are included.

4 For an analysis of the pricing determinants of government-guaranteed bank bonds in the recent financial crisis, see Levy, A. and Zaghini, A., "The pricing of government-guaranteed bank bonds", *Temi di Discussione*, No 753, Banca d'Italia, March 2010.

5 See Beirne, J., et al., "The impact of the Eurosystem's covered bond purchase programme on the primary and secondary markets", *Occasional Paper Series*, No 122, ECB, January 2011.

Chart 7 Covered bond issuance by issuer nationality and quarterly number of issuers

(EUR billions; number of different issuers)



Sources: Dealogic DCM Analytics and ECB calculations.
Notes: Issuer nationality is determined by the nationality of the parent company. Retained deals are not included. The quarterly numbers of different issuers are for parent companies and are therefore on a consolidated level.

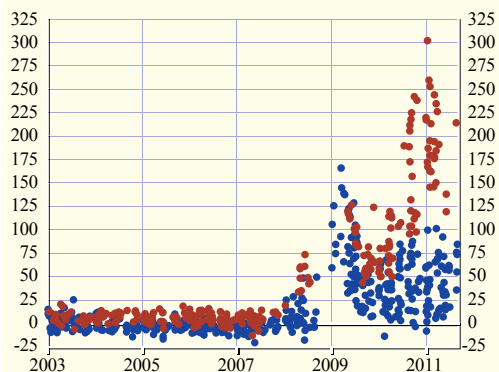
issuers and investors has also benefited from new liquidity requirements in Basel III encouraging banks to obtain more stable long-term funding. Moreover, the relative attractiveness of secured instruments like covered bonds was enhanced by considerations about potential loss absorbency of unsecured bank bonds, as can be seen, for example, in the working document of the European Commission's DG Internal Market and Services on the technical details of a possible EU framework for bank recovery and resolution of 6 January 2011 (see also the box in Section 4).

More recently, in the first quarter of 2011, as overall market conditions were better, although investor uncertainty about future developments still prevailed, issuance of covered bonds reached record highs with quarterly activity exceeding €95 billion. The issuance was broadly distributed across countries, for example with significant amounts from Italy

Chart 8 Covered bond spreads at issuance by issuer nationality

(basis points)

- DE, FR, NL and AT
- IE, ES, IT and PT



Sources: Dealogic DCM Analytics and ECB calculations.
Notes: Spreads are calculated as z-spreads vis-à-vis the swap curve. Retained deals are not included. Data are based on the nationality of operations of the issuer. Only fixed rate euro-denominated bonds with a time to maturity at issuance between 1.5 and 20 years and a face value of at least €500 million are included.

Chart 9 Five-year covered bond yields

(basis points)

- DE
- ... FR
- - - ES (large banks)
- ES (structured covered bonds)
- ... NL
- - - PT
- - - IE



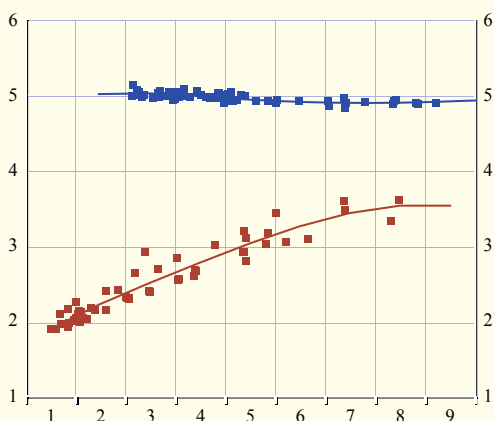
Sources: Bloomberg and ECB calculations.
Note: Five-year par yields calculated from estimated covered bond curves.

Chart 10 German covered bond yield curves in 2008 and 2011

(percentages per annum)

x-axis: years

— 7 July 2008
— 4 July 2011



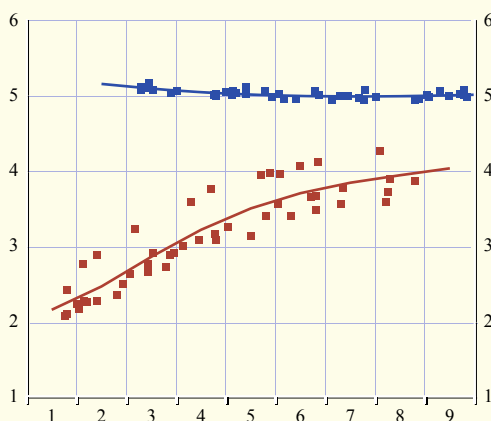
Sources: Bloomberg and ECB calculations.
Notes: For both years, the first Monday of the second half of the year (in July) is chosen. Estimated par yield curves (solid lines) and observed yields to maturity (points) are presented.

Chart 11 French covered bond yield curves in 2008 and 2011

(percentages per annum)

x-axis: years

— 7 July 2008
— 4 July 2011



Sources: Bloomberg and ECB calculations.
Notes: For both years, the first Monday of the second half of the year (in July) is chosen. Estimated par yield curves (solid lines) and observed yields to maturity (points) are presented.

and Spain, and included larger deal sizes and to some extent longer maturities. However, some of this high primary market activity may partly reflect frontloading of future funding needs as uncertainty remained elevated. In the second quarter of 2011 issuance was more than halved compared with the first quarter. Apart from the renewed tensions in sovereign debt markets, primary market activity in the second quarter usually tends to be weaker. Still, primary market activity is influenced by high volatility in secondary market prices, and market participants currently tend to wait for less volatile periods and frontload their issuance needs.

With respect to the market pricing, the cost structure at which banks were able to access the covered bond market to obtain long-term funding was substantially reshaped by the crisis. During 2008 primary and secondary market spreads increased and large issuances came to a halt after the bankruptcy of Lehman Brothers. After the reactivation of the market by the ECB's CBPP in 2009, covered bond market prices were increasingly influenced by the sovereign debt

crisis during 2010 and 2011 (see Charts 8 and 9). For some countries, secondary market yields strongly increased, indicating that primary market access was possible only at very high costs. Moreover, price differentiation on primary and secondary markets was observed not only across the groups of issuers from different countries, but also across individual issuers within each country, even in the case of countries less affected by the sovereign debt crisis like France and Germany (see Charts 10 and 11). In a historical comparison, such increased price differentiation in this market is a new phenomenon and might reflect higher investor awareness of credit risk and more rigorous pricing, as compared with the period of underpricing of risk observed before the financial crisis, when risk premia were exceptionally low.

3.3 ASSET-BACKED SECURITIES AND MORTGAGE-BACKED SECURITIES

After several years of increasing issuance levels, activity in the euro area ABS market came to a halt at the start of the turmoil in August 2007.

It did not take long, however, before originators began to retain their newly issued privately and publicly placed deals in order to create liquidity buffers and to use these assets as collateral with central banks (mainly Eurosystem central banks). As a result, securitisation activity increased substantially, in particular for publicly placed retained deals. In fact, issuance reached record levels in the last quarter of 2008 when banks cleaned up their balance sheets before the year-end. However, very few newly issued deals were bought by end-investors (see Charts 12 and 13).

According to market information, euro area issuance totalled €350 billion in 2009. It decreased to €269 billion in 2010 (with €137 billion from the Netherlands, €57 billion from Spain and €21 billion from Belgium), of which €37 billion was placed with end-investors. The lower amount in 2010 may reflect that: (i) the ability to securitise banks' balance sheets had been exhausted; (ii) regulatory uncertainty was continuing; and (iii) tighter Eurosystem collateral rules for ABSs made issuance of

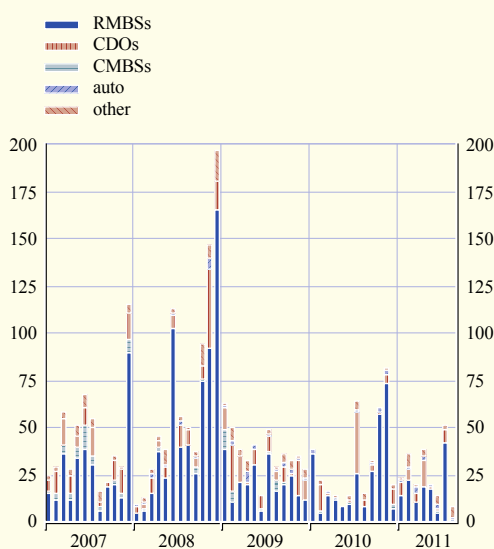
covered bonds more attractive from a collateral efficiency point of view.

The lower activity continued during the first half of 2011. Up until August, about €138 billion had been issued in the euro area during 2011, €18 billion of which had been placed with end-investors. This corresponds to a share of about 13%, which is in line with that for 2010. Seven countries were active in this period (2010 and 2011 year to date), and issuers with underlying assets domiciled in the Netherlands and Germany accounted for about 75% of the distributed deals. Although the amount of non-retained deals is far from satisfactory, the trajectory is positive with signs of moderate recovery, in particular for the prime residential mortgage-backed securitisation (RMBS) markets in the Netherlands and Belgium and the auto ABS market in Germany.

At the same time, ABSs started to be used frequently as a collateral asset type in Eurosystem credit operations (see Chart 14). Indeed, when the wholesale ABS market closed

Chart 12 European ABS issuance since January 2007

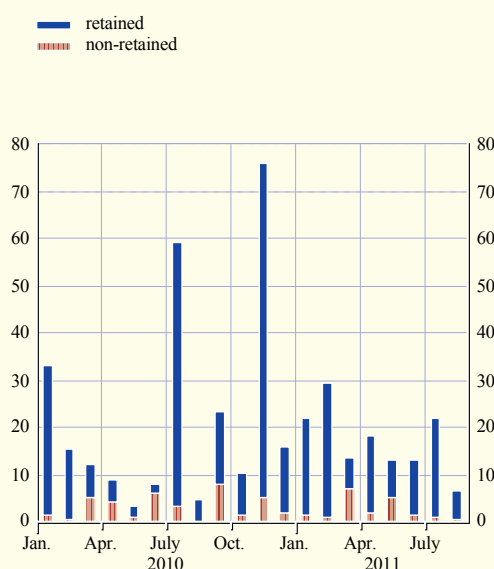
(EUR billions)



Sources: JP Morgan and ECB calculations.

Chart 13 Retained versus non-retained ABS issuance in the euro area

(EUR billions)



Sources: JP Morgan and ECB calculations.

in 2007 and 2008, the amount of ABSs used as collateral with the Eurosystem increased substantially and went from around €100 billion in 2006 to nearly €500 billion at the beginning of 2010. The amount in 2010 corresponds to a share of around 25% of total collateral put forward. Thus, over time, the former originate-to-distribute securitisation model has changed into originate-to-retain and originate-to-repo models, and securitisation has been used by banks as a backstop facility (via central banks) rather than a funding instrument (in the market).

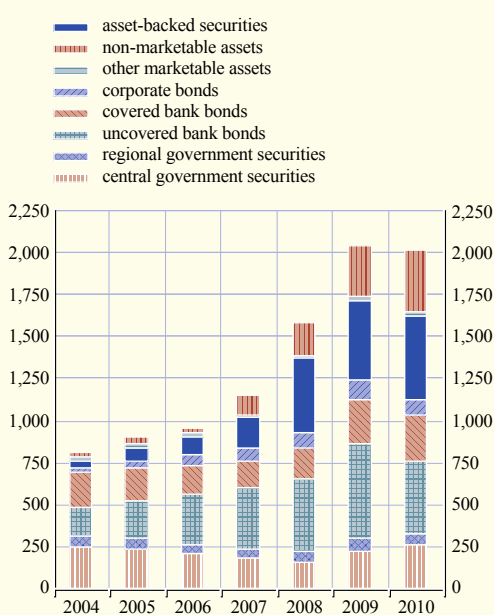
Several factors explain this behaviour in the ABS market. First, rating downgrades, backed by revised rating agency criteria, and negative credit trends contributed to the negative sentiment towards this market. Second, special investment vehicles (SIVs) and conduits were a large investor group. These quasi-investors were significantly less active during the crisis. Third, as the turmoil continued, investors concentrated

more on their current asset portfolio rather than purchasing newly issued assets from the primary market. Finally, ongoing credit risk concerns, price volatility and headline risks fuelled concerns regarding ABS products. This increased risk aversion has been reflected in higher spreads in the secondary market (see Chart 15). Some of the secondary spreads on specific asset classes reached elevated levels during 2009 before gradually tightening. Amid the sovereign debt crisis and higher risk aversion, spreads started to widen again in mid-2011.

Reflecting continued risk aversion, demand focused on prime collateral that exhibited low risks and good performance and came mainly from countries with low sovereign credit risk. Only plain-vanilla structures with significant credit enhancement from originators with repeated issuances and a good reputation could be placed in the market.

Chart 14 Assets posted as collateral with the Eurosystem

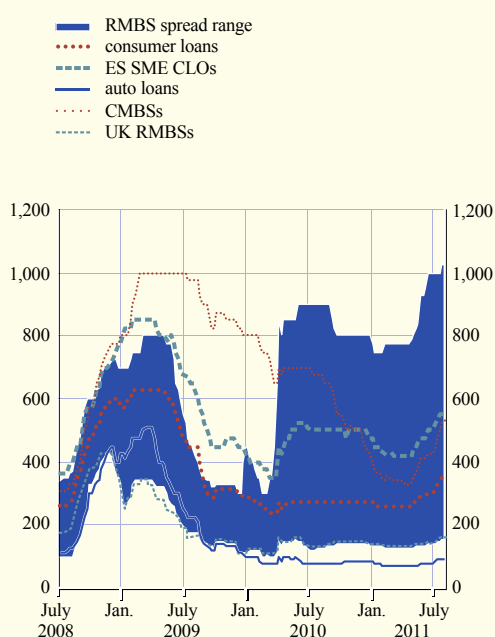
(EUR billions)



Source: ECB.

Chart 15 Secondary market spreads vis-à-vis EURIBOR

(basis points)



Sources: JP Morgan and ECB calculations.
Note: ES SME CLOs stands for collateralised loan obligations to Spanish small and medium-sized enterprises.

Overall, the relatively slow re-start of the ABS markets could be related to many problems in certain jurisdictions (e.g. weak fundamentals like negative GDP growth, weak fiscal conditions, an uncertain macroeconomic situation, rising unemployment, austerity measures), as well as to the generally prevailing uncertainty and risk aversion. With respect to the future potential of the ABS markets, anecdotal evidence from market participants' commentaries suggests that there is a certain degree of uncertainty as regards the final outcome of EU regulations, including CRD IV and Solvency II. This regulatory uncertainty makes both issuers and investors unsure about the future market environment. Some commentators even say that without a holistic view, the recent regulatory incentives may in fact create an obstacle to the market's recovery.

Securitised deals are almost by nature unique assets, based on domestic securitisation laws. Some common features between assets are present but the asset class and the market segment need more standardisation and harmonisation before such assets can contribute to an enhanced financial integration in the euro area. The shrinking investor base since the start of the turmoil has not improved the situation from an integration perspective. The increasing amount of retained issuance since the outbreak of the turmoil also points to the fact that newly issued deals in the primary market are not sold across domestic borders. Whilst public information on sellers and buyers of ABSs as well as data on ABS holdings are scarce and incomplete, anecdotal evidence from market participants points to a geographically biased market.⁶

In this respect, and to increase transparency and standardisation in the area of ABSs, the Governing Council of the ECB decided in December 2010 to introduce progressively a requirement in its collateral framework for ABS originators to provide loan-level data on the assets underlying such instruments, based on an agreed set of templates, should these assets be used as collateral in credit operations with the Eurosystem. This initiative is an attempt to standardise the ABS market in Europe, which

will also make a lot more information available to market participants and may thus contribute to the completeness of the European financial system, enhance funding possibilities beyond national borders and foster integration through the improved comparability of instruments across countries.

4 IMPLICATIONS FOR MARKET INTEGRATION, MONETARY POLICY TRANSMISSION AND REGULATORY POLICIES

4.1 STATE OF MARKET INTEGRATION

Sound market functioning and financial integration foster a smooth and balanced transmission of monetary policy in the euro area. In particular, given the role of banks in the transmission mechanism, the state of integration of bank funding markets is of high importance. The integration of these markets in the euro area does not necessarily imply a unification of primary and secondary market prices across issuers. Since various banks have different credit quality, the pricing of the respective risk premia is warranted. Financial integration is only hampered when, beyond the banks' individual credit risk as perceived by investors, issuers experience problems or additional costs in accessing the market for long-term debt financing due to their country of origin. Although such hampered market access or additional costs may be difficult to exactly identify, some price-based and volume-based indicators can be quite informative.

The overview of primary and secondary market prices presented in the previous sections shows that during the financial crisis prices diverged in various segments of banks' long-term funding markets. As a result, access to these markets became more expensive for some issuers. First of all, some of this divergence clearly reflects a better risk assessment and pricing, not related to the issuers' country of origin – as presented by the price differentiation even across individual

⁶ See "European Securities Products Weekly", Barclays Capital, 23 May 2011.

issuers from the same AAA-rated countries (see the price dispersion in Charts 10 and 11). However, currently there are also signs of country-dependent price differentiation on the banks' long-term debt primary market, which started with the sovereign debt crisis. As presented in Charts 5 and 6, during 2009, banks' costs of accessing the primary bond market for long-term debt depended on the rating class. Also, bonds with government guarantees were cheaper to issue, with small differences due to the origin of the guaranteed bond. In 2011 the costs of issuing in the primary market have depended clearly on the country of origin, rather than on the rating. In addition, the differences in the costs of guaranteed bonds have increased across countries. This evidence, although clearly suggesting a somewhat more hampered access to long-term debt financing for banks originating from the countries strongly affected by the sovereign debt crisis, may be to some extent a result of investors' perception that the credit quality of banks is dependent on the strength of the sovereign, instead of a pure signal of less integration in this market (see also Section 2). Furthermore, the fact that the issuer's nationality

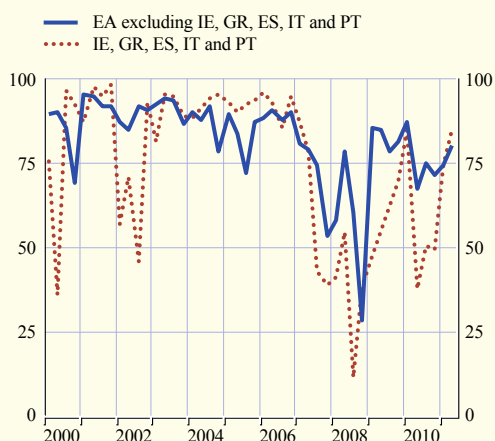
is currently more important for the pricing than ratings may also partially reflect that investors' views are not fully aligned with the assessment of credit rating agencies.

From the perspective of financial integration, the access to the whole euro area market for all issuers is important. Beyond the risk pricing dimension, indicators of quantities issued on the international market are thus very informative. Along these lines, Charts 16 and 17 show the percentage of bonds issued internationally, i.e. bonds sold to investors in at least one other country besides the issuer's home country.⁷ Until mid-2007 this indicator had generally pointed towards a high international issuance of both unsecured and covered bank bonds. In fact, almost all bonds issued by countries which are today strongly affected by the sovereign crisis were issued internationally. Comparing issuance volumes in 2006 and 2008 (i.e. the last full year before the crisis and the first full crisis year), the overall issuance in euro area countries of

7 A caveat of this measure is that it only indicates whether any part of a bond issue was sold to at least one non-domestic investor.

Chart 16 Share of bank bonds issued internationally

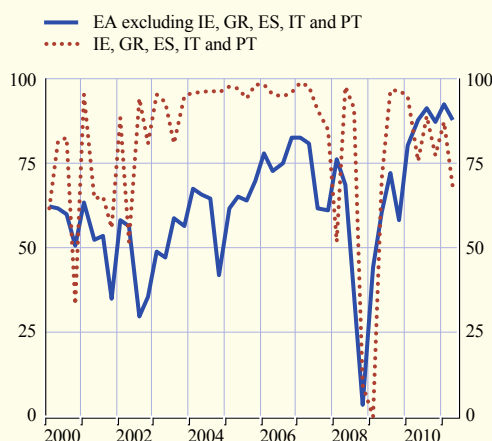
(share of total issuance; percentages)



Sources: Dealogic DCM Analytics and ECB calculations.
Notes: Issuer nationality is determined by the nationality of the parent company or, if the bond is guaranteed, by the nationality of the guarantor. Retained deals and structured bonds are not included (see also the notes to Charts 1 and 2).

Chart 17 Share of covered bonds issued internationally

(share of total issuance; percentages)



Sources: Dealogic DCM Analytics and ECB calculations.
Notes: Issuer nationality is determined by the nationality of the parent company. Retained deals are not included.

international bank bonds declined by €156 billion (by €42 billion for covered bonds) and the issuance of domestic bonds increased by €72 billion (by €113 billion for covered bonds). This evidence suggests that banks actively sought to compensate for the deterioration in international funding markets by turning to domestic investors.

Since mid-2007, looking beyond a drop in the international (and overall) issuance after the bankruptcy of Lehman Brothers,⁸ the share of internationally placed bonds has tended to be somewhat lower for unsecured bonds, but not for covered bonds. For the euro area countries less affected by the sovereign debt crisis, the share of international bank bond issuance normalised to a large degree as of the first quarter of 2009. This normalisation was at first driven by strong issuance of government-guaranteed bonds, which for these countries were mostly internationally placed.⁹ For the countries more affected by the sovereign debt crisis, the return to the international market was more gradual, as the effect of international government-guaranteed issuances was overshadowed by a very strong increase in domestically placed non-guaranteed bonds. In the last three quarters of 2010 this group of countries saw a new fall in the share of international issuances as the sovereign debt crisis intensified. In this period, as much as half of the amount of government-guaranteed bonds from these countries were domestic issuances, compared with less than 10% in the earlier part of the crisis.

With respect to the covered bond market, the share of international issuances improved as of the second quarter of 2009, sparked by the strongly increased primary market activity following the announcement and implementation of the ECB's CBPP. Overall, the international issuance in the covered bond markets of the countries least affected by the sovereign debt crisis actually seems to be higher than before the crisis, probably reflecting the increased investor awareness of and interest in this product today compared with before the crisis. In contrast, there seems to be some tendency for banks located in countries currently experiencing tense

conditions in sovereign debt markets to rely more on domestic investors than was the case before the crisis.

Overall, large fluctuations in the rate of cross-border investor participation may amplify fluctuations in individual markets through their effects on demand. Furthermore, prolonged periods of low cross-border activity may lead to permanent non-credit-related price differentials as they may adversely affect liquidity conditions in market segments effectively cut off from the rest of the euro area. Based on the share of international issuances, it cannot be excluded that low levels of cross-border investor participation, especially in periods of acute tensions stemming either from the banking sector or from sovereign debt markets, may have added to the differences in long-term funding costs between euro area countries. However, there is no strong evidence that the crisis has led to a permanent segmentation in terms of primary market participation within the euro area.

In addition to the costs and availability of banks' access to the euro area long-term debt funding markets, cross-border holdings of banks' long-term debt are an important indicator of market integration. To review this aspect, Chart 18 shows the share of cross-border holdings in euro area MFIs' holdings of debt securities issued by euro area MFIs. The chart shows an increasing trend in euro area cross-border holdings between 2000 and 2007. During the crisis, the share of euro area cross-border holdings has declined somewhat, but has remained high compared with the beginning of the last decade.

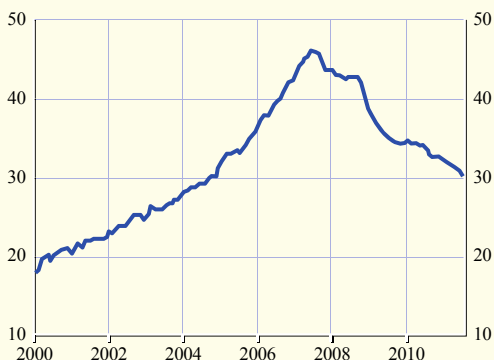
Overall, summarising the evidence from indicators on pricing, issuance and holdings of banks' long-term debt securities, there

8 Some of these drops reflect the fact that the subdued issuance activity in this period led to an almost complete stop in large international deals. For example, for Jumbo covered bonds, which are almost entirely international placements, there was practically no primary market activity in the last quarter of 2008 and only very limited activity in the first quarter of 2009.

9 For countries less affected by the sovereign debt crisis, some cross-border participation may also be related to flight-to-quality effects.

Chart 18 Share of cross-border holdings in euro area MFI holdings of euro area MFI debt securities

(share of holdings; excluding the Eurosystem; percentages)



Source: ECB.

Notes: Shares of euro area cross-border holdings are calculated as all euro area MFIs' (excluding the Eurosystem) holdings of debt securities issued by MFIs from all euro area countries excluding issuances from the home country, divided by the same holdings but including also issuances from the home country. Only securities with over two years to maturity are included.

is evidence of some problems in accessing the market for issuers from some countries, especially in terms of pricing. However, financial integration does not imply an absence of spreads and overall there are no strong indications that the euro area market for banks' long-term debt is currently less integrated than during the years prior to the securities issuance boom.

4.2 IMPLICATIONS FOR MONETARY POLICY TRANSMISSION

In contrast to the view that banks do not play an active role but serve as passive intermediaries through which central banks influence the broader economy, the ongoing crisis has highlighted the importance of soundly functioning financial intermediaries in supporting a smooth transmission of monetary policy. Thus, the so-called "credit view"¹⁰ assigning a special role to banks in monetary policy transmission processes may be the most promising avenue for explaining and understanding the experiences of the recent years.

A key component of the credit view is the existence of frictions in credit markets, e.g. stemming from imperfect information,

driving a wedge between the costs of raising funds internally and externally. By affecting broad economic conditions and expectations of future growth and profitability, monetary policy may influence the costs of raising funds externally by more than the change in the expected path of future short-term interest rates. This channel may work through the premium paid by non-financial borrowers when raising either market- or bank-based funding. For example, the fact that the banks have private information from screening and monitoring borrowers influences the premium paid by the borrowers to the bank, compared with the costs of accessing market-based funding. Moreover, the transmission channel may also work through the premium which banks have to pay for market-based funding.

By assigning an important role to banks in the transmission mechanism of monetary policy, it becomes important from a central bank perspective to monitor trends and conditions in bank funding markets, as these may in certain periods weaken or amplify the effect of monetary policy actions on the real economy. In order to get a more complete picture of both the current conditions and expected future conditions in banks' funding markets and the influences that these conditions may have on banks' supply of credit, central banks may also conduct surveys asking banks to quantify these effects. For example, the euro area bank lending survey (BLS) relates banks' ability to access market financing to the banks' credit standards.¹¹ Furthermore, during the crisis a number of ad hoc questions dealing specifically with the implications of the situation in financial markets have been included in the BLS.

10 See Bernanke, B. S. and Gertler, M., "Inside the black box: the credit channel of monetary policy transmission", *Journal of Economic Perspectives*, Vol. 9, No 4, Fall 1995, pp. 27-48.

11 For an empirical study making use of the information in the euro area BLS (and the US Senior Loan Officer Survey) to identify changes in loan demand and loan supply, see Ciccarelli, M., Maddaloni, A. and Peydró, J.-L., "Trusting the bankers – A new look at the credit channel of monetary policy", *Working Paper Series*, No 1228, ECB, July 2010.

As banks' funding markets may be hit by shocks other than monetary policy actions, such shocks may lead to changes in the flow of credit different than those resulting from the monetary policy stance. For example, during the recent crisis, although demand for loans was certainly weaker than usual, concerns about the supply of credit resulting from banks' high risk aversion, the malfunctioning of funding markets and the need to deleverage were widespread in many economies. While it is not warranted for a central bank to seek to counter every shock or inefficiency in any specific market, in extreme situations, the importance of market-based funding may mean that it is warranted for a central bank to resort to non-standard measures targeting specific market segments in order to ensure that the flow of credit is not hampered by the malfunctioning of these markets. For example, one of the objectives of the ECB's CBPP was to "encourage credit institutions to maintain and expand their lending to clients".¹²

Turning to the empirical evidence, the analysis in the previous sections shows that currently euro area markets for banks' long-term funding instruments are characterised by considerable heterogeneity among issuers and countries. As shown in the table below, the premium that investors charge banks from various countries is larger than two years ago, during the recovery phase after the Lehman crisis.¹³ The differentiation across countries has also

increased markedly. Correspondingly, there are signs of growing divergence in the lending rates charged by the MFIs situated in various euro area countries. Against this background, from a monetary policy perspective, it is highly important to monitor the trends and conditions in banks' long-term funding markets.

4.3 IMPLICATIONS FOR STABILITY AND BANK REGULATION

One key lesson from the crisis is the need to regulate banks so as to avoid excessive liquidity risks through a disproportionately high reliance on short-term funding. Still, long-term funding by banks may involve other risks to the economy. By locking in high funding costs for an extended period of time, there is a risk that banks will pass these costs on to borrowers for a significant period into the future.¹⁴ Nevertheless, banks' recourse to long-term debt financing should reduce their exposure to short-term volatile market movements, especially in periods of

12 Decision of the European Central Bank of 2 July 2009 on the implementation of the covered bond purchase programme (ECB/2009/16).

13 For better comparability, the table presents the CDS premia, which are in most cases similar to the secondary market spreads of the corresponding bank bonds vis-à-vis swap rates.

14 For empirical evidence that banks relying on bond market financing pass shocks in the bond markets on to borrowers, see for example Hale, G. and Santos, J. A. C., "Do Banks Propagate Debt Market Shocks?", *Working Paper Series*, No 2010-08, Federal Reserve Bank of San Francisco, 2010.

CDS premia on banks and short-term MFI interest rates on loans to non-financial corporations in selected euro area countries

(interest rates in percentages per annum; new business; CDS premia in basis points)

	CDS premia September 2009	CDS premia September 2011	Interest rates September 2009	Interest rates July 2011
Germany	91	271	2.43	3.13
France	81	284	1.84	2.94
Italy	58	472	2.28	3.32
Spain	152	823	2.66	3.68
Portugal	87	1,066	4.36	6.14
Ireland	631	514	2.82	3.81
Greece	144	2,246	3.62	5.91
<i>Difference (max-min)</i>	<i>573</i>	<i>1,975</i>	<i>2.51</i>	<i>3.19</i>

Sources: Datastream, ECB and ECB calculations.

Notes: Short-term rates refer to the 'up to 1 year' maturity. For interest rates the latest available data are for July 2011, CDS premia of banks refer to the median premium of 5-day moving averages at the end of the fourth week of September. For Ireland data are only available for one bank.

frequently changing investor sentiment and risk appetite. Therefore, active use of the long-term debt funding markets by banks in euro area countries should be endorsed and the smooth functioning of these markets should be an important objective for regulators and supervisors (see Box 1 for an overview of recent regulatory developments and their implications for markets for banks' long-term debt financing instruments).

With respect to the current situation in these markets, especially comparing the costs across different euro area countries, the substantial level of dispersion in funding costs is to a

large extent related to the sovereign debt crisis. This highlights the importance of sovereigns bringing their fiscal situations onto a sustainable path, also from the perspective of reducing the divergence in banks' funding costs. Also, proper risk management practices in banks should weaken the link between sovereign and banking sector risk. As cost dispersion is also clearly visible within countries, suggesting that market participants are more aware of assessing and pricing the credit risk, banks should, where needed, raise their capital base, so as to decrease the financing premium required by investors in long-term bank debt.

Box 1

IMPLICATIONS OF REGULATORY DEVELOPMENTS FOR MARKETS FOR BANKS' LONG-TERM DEBT FINANCING INSTRUMENTS

A significant amount of work has been done in the recent years, under the leadership of the G20, by the Financial Stability Board (FSB) and the Basel Committee on Banking Supervision (BCBS) regarding financial sector regulatory reform. Notably, Basel III constitutes the cornerstone of regulatory reform for the banking sector, strengthening the armoury of previous prudential requirements by tightening existing measures and introducing entirely new standards, such as liquidity requirements and a non-risk-based leverage ratio.

The introduction of these new standards is expected to lead to significant improvements in the resilience of the banking system. At the same time, the possible implications that the rules may have for both the supply and demand sides of various financial market segments need to be carefully studied and monitored.

This box analyses, in particular, the implications of the new liquidity standards for banks' long-term debt financing instruments. In contrast with bank solvency standards (which are laid down in the Basel II framework and transposed into European law), liquidity requirements have so far escaped international harmonisation, with national prudential rules on liquidity (where they exist) differing substantially from country to country. The new liquidity standards therefore constitute the first instance of international consensus on liquidity requirements.

In reaction to the inadequacy of banks' liquidity risk management practices exposed by the financial crisis, the BCBS proposed in December 2010 two new standards establishing minimum levels of liquidity: (a) in the short term, the liquidity coverage ratio (LCR) aims to ensure that banks hold sufficient high-quality liquid assets to withstand an acute stress scenario lasting one month; (b) in the longer term, the net stable funding ratio (NSFR) increases incentives for banks to fund themselves using more stable sources on a structural basis.

The starting point for the analysis of the impact of the new liquidity risk regulation on capital markets is the “segmentation points” with respect to (i) the liquid asset definition and (ii) the definition of “long-term maturity” (30 days for the LCR and 1 year for the NSFR). These segmentation points (or thresholds) define which type of assets banks will have incentives/disincentives to invest in and which type of funding sources banks will have incentives/disincentives to employ. Overall, the liquidity requirements are likely to affect both sides of the banking system’s balance sheets, as banks will be required both to hold more liquid assets, as well as to term out their debt structure by issuing longer-term debt. Although the exact way the banking system’s balance sheets will adjust is not fully known at the current juncture, the following may be expected:

- *First, higher required holdings of liquid assets under the LCR will need to be funded:* on the *assets side* of the balance sheet, banks would likely attempt to acquire more eligible liquid assets, such as highly rated (AA- or above) and liquid government bonds and also highly rated covered and non-financial corporate bonds. Assuming a constant size of the bank balance sheet, such acquisitions would have to be matched with a reduction in other, “non-liquid” assets, such as lower-rated sovereign and corporate bonds as well as non-marketable assets (e.g. loans). At a more structural level, it cannot be excluded that the overall activity of certain capital market segments will decline if banks have strong disincentives to acquire specific capital market instruments, such as lower-rated sovereign bonds, covered bonds and corporate bonds, bonds issued by financial institutions as well as shares and other equity.

Alternatively, on the *liabilities side*, banks could try to reduce the “net cash outflows” of the stressed 30-day period (the denominator of the LCR). This could be done in several ways, such as by lowering their reliance on short-term wholesale funding, cutting down liquidity commitments to off-balance-sheet vehicles, and relying more on “stable” deposit funding and longer-term issuance.

- *Second, increased demand for longer-term liquidity funding instruments under the NSFR:* in addition to the positive spillover effect on the NSFR from LCR fulfilment, banks would need to undertake a number of steps to reach a satisfactory structural funding ratio. A plausible series of actions could be: first, to hold more equity relative to debt by increasing Tier 1 capital and reducing short-term wholesale funding. The plausibility of this scenario increases further in connection with the revised capital framework that requires banks to hold more Tier 1 capital (see below). Second, banks could lengthen the maturity of wholesale funding beyond one year by for example issuing more long-term bonds. Both the first and the second steps would increase the “available amount of stable funding” – the numerator of the NSFR ratio. Third, complementary to the LCR fulfilment, banks could replace lower-rated bonds with more highly rated, qualifying bonds in their investment portfolios. But also other types of assets, long-term private sector loans included, could be replaced/reduced in this process. The third step would reduce the amount of “required stable funding” – the denominator of the NSFR ratio.

All in all, markets involving short-term unsecured wholesale funding or “non-liquid” assets, such as other bank bonds and low-quality non-financial corporate bonds, are likely to be curtailed, while demand for longer-term funding markets and more liquid assets such as sovereign debt and high-quality covered bonds is likely to increase. At the same time,

regulation-induced financial innovations may emerge, tailored to the time horizons stipulated in the liquidity regulation.

In addition to the new liquidity standards, other aspects of the regulatory reform may affect the banks' demand for and supply of certain types of debt instruments. On the one hand, higher capital requirements will provide a greater cushion against debt default and therefore (all other things equal) reduce the riskiness of bondholders' investments. On the other hand, to reduce the likelihood of disruptive and highly costly bank failures, regulators are evaluating whether bail-in¹ forms of capital might be used to help recapitalise banks at times of stress. Such an approach could increase funding pressures for banks as investors are likely to demand an additional risk premium to invest in banks' debt financing instruments.

Some reforms are also under way affecting non-bank financial institutions, which are likely to impact the demand for banks' debt instruments. European insurance companies, for example, will find it more costly to hold both bonds and equity issued by banks under the new Solvency II² proposals, scheduled for introduction at the beginning of 2013. In broad terms, Solvency II may result in a preference for sovereign debt and short-dated and higher-rated bank debt (especially covered bonds), relative to other corporates, and could reduce the ability of banks to issue unsecured debt.

The new liquidity requirements are also subject to a long observation period during which a careful assessment of unintended effects is to be carried out, and that may allow for further fine-tuning. In Europe, the European Commission has proposed (on 20 July 2011) a revision of the Capital Requirements Directive to implement Basel III into EU law. On the liquidity requirements, the Commission proposes the introduction of a liquidity coverage ratio – after an observation and review period – in 2015, in line with the Basel III requirements. As regards the net stable funding ratio, the Commission will use the longer Basel observation period (until 2018) to prepare a legislative proposal.

¹ “Bail-in” is the concept that bank debt holders would risk having certain tranches restructured (i.e. subject to write-down or conversion to equity) if a set of trigger conditions were met. Regulators are still debating how effective bail-in debt would be and how it would be structured.

² Solvency II originated from the European Commission and not from the International Association of Insurance Supervisors, the insurance equivalent of the BCBS. The influence of Solvency II outside the European Union, relative to Basel III, is therefore less certain.

5 CONCLUSIONS

This article reviews the current state of euro area markets for banks' long-term debt financing instruments and discusses implications for financial integration, monetary policy and regulation.

In the first part, the article shows that most of the segments of the long-term debt funding markets have recovered from the tensions experienced during the crisis. However, this recovery is still only partial with respect to some aspects. At the

same time, the markets were again influenced by the sovereign debt crisis as well as by the overall increased awareness of investors with respect to the assessment and pricing of credit risk.

In the second part, the article concludes that, from the perspective of financial integration, although the market pricing is currently related to the banks' country of origin, there is no evidence that the crisis has led to a permanent segmentation in terms of primary market participation within the euro area. From the monetary policy perspective, the divergence

in the access to and costs of long-term funding by banks can have a negative impact on banks' lending activity, and thus impair the transmission of monetary policy in the euro area.

Overall, it should be expected that the removal of negative factors currently affecting euro area markets for banks' long-term debt financing would bring these markets into a state where divergence across issuers reflects only fundamental differences in risk factors. The differences across issuers may, of course, still persist within a healthy financial system consisting of banks pursuing different business models. However, the objective for the regulators and euro area banks themselves should be to reduce these discrepancies to sustainable levels by focusing on reducing the overall level of credit risk by increasing the capital base and enhancing risk management frameworks.