



Capital Markets Union

An ambitious goal, but few quick wins

November 2, 2015

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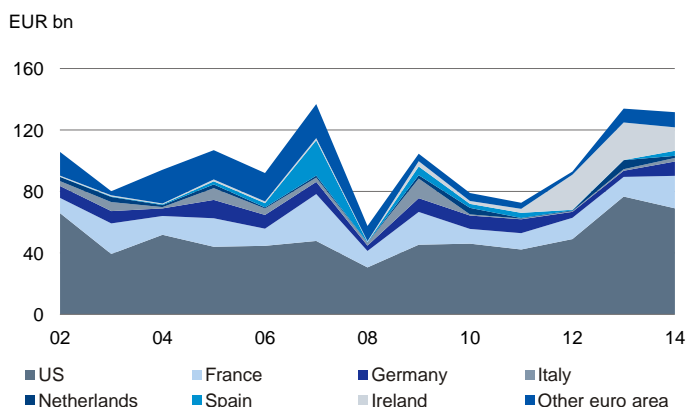
After years of comprehensive regulation that focused on reforming banks, regulators and politicians are increasingly shifting their attention to the creation of a single market for capital to complement bank financing of the real economy in Europe. The main undertaking in this respect is the Capital Markets Union (CMU) for which a broader quantitative assessment is so far lacking though. This paper therefore looks at European stock, bond and securitisation markets to shed some light on the CMU's potential.

With regard to stock markets, there is an enormous difference in size between the US and the EU. At the same time, broad liquidity and IPO trends are remarkably similar. However, European stock market integration has lost momentum in recent years and investment within the euro area has fallen. In this context, the CMU should focus on measures that reduce information asymmetries and transaction costs by introducing a single set of rules for capital markets. By harmonising rules and regulations that govern exchanges, stock market consolidation could gain some steam in the short run.

Corporate bond markets in Europe are also relatively small, but have been growing significantly since the financial crisis. The investor base remains rather narrow though, which impedes progress. Widening it, e.g. via a more active enrolment of pension funds – as in the US with funded defined contribution pension systems – could prove beneficial. CMU also offers a good opportunity to harmonise duplications and overlaps in disclosure regimes and to reduce a mechanistic reliance on ratings.

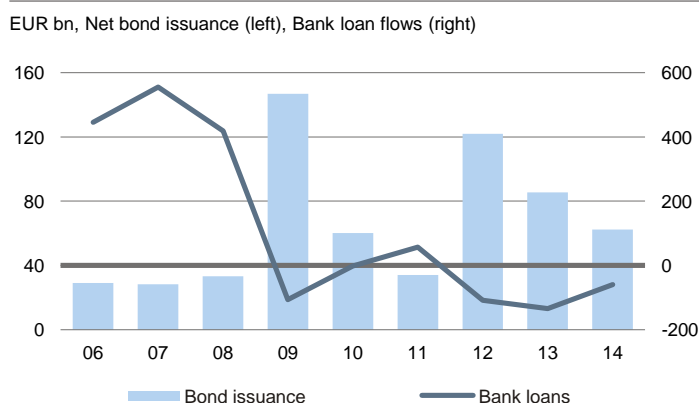
Compared with the US, securitisation markets in Europe are small, too. However, default rates in Europe have been significantly lower and securitisation acted as a viable funding tool even during the crisis. Currently, investor demand is stymied, but could possibly be reignited by less punitive regulatory treatment of securitised products. The revival of the MBS segment will play a particularly important role for SME lending. A credit risk database for SME loans could stimulate the SME-ABS segment by enabling greater standardisation and increasing transparency.

Non-financial firms: Stock issuance trends in the US & euro area



Sources: FED, ECB, Deutsche Bank Research

Euro area: Non-financial firms' funding shifts from loans to bonds



Sources: ECB, Deutsche Bank Research



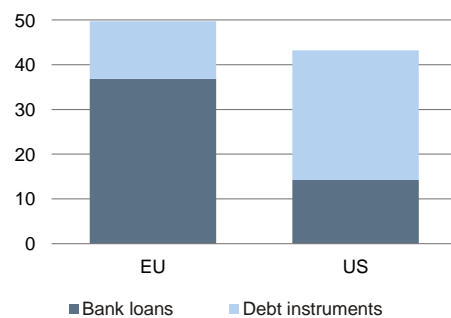
Capital Markets Union: An ambitious goal, but few quick wins

I. Introduction

Non-financial firms' balance sheet
Bank loans vs bond funding

1

% of GDP, end-2014



EU includes euro area 18, Denmark, Sweden and the UK

Sources: Fed, Eurostat, ECB, Deutsche Bank Research

Policy makers and market participants frequently use the expression “an airplane flying on one engine” as an analogy for corporate financing in Europe. It is indeed true that like a plane with only one engine, European corporations mainly rely on bank financing for their external funding (see chart 1). For example, the outstanding amount of bank loans to firms stands at around 37% of GDP in Europe. By contrast, bank lending is equivalent to only 14% of GDP in the US. European firms’ reliance on bank loans proves to be problematic when banks tighten credit conditions or deleverage their balance sheets. Against this background, creating a second engine – capital markets – has become the centre of attention.

To create deeper and more integrated capital markets in the EU, the European Commission (EC) has outlined a new blueprint: the Capital Markets Union (CMU). The overarching objective of the CMU is boosting growth and innovation in order to lift employment levels in Europe. To achieve its ambitious goals, the CMU intends:

- to develop a more diversified financial system complementing bank financing and to increase the sources of funding from investors in the EU;
- to improve access to finance for all businesses across Europe, in particular for start-ups, innovative firms, small and medium-sized enterprise (SMEs) and long-term projects; and
- to enhance the free flow of capital across borders to connect investors and those who need funding in a more efficient way.¹

The core idea of the CMU is not entirely new. It can be traced back to the single market programme in 1985 and the Financial Services Action Plan (FSAP) in 1999. The lack of financing for innovative start-ups and early-stage firms;² the fragmentation and small size of capital markets;³ and the overly bank-centred corporate financing structure of the EU⁴ are “evergreen” topics. Against this backdrop, the CMU’s target of more integrated and efficient European capital markets may be a welcome and necessary step in promoting a sustainable economic recovery. The current state of the CMU debate, however, is overly abstract and lacks a clear empirical assessment.

Capital markets in the EU are small compared with economies of similar scale. For example, stock and corporate bond markets in the EU are less than half the size of those in the US. That being said, the core problems of European capital markets are not only the size or accessibility of traditional corporate bond and equity markets. Europe’s capital markets suffer from other obstacles such as fragmentation, home bias and a restricted investor base, too. What is more, firms which are being denied access to bank loans are not necessarily the same firms that would be able to tap the capital markets. More specifically, capital market financing is by and large not a viable option for many traditional SMEs – which generate around 58% of the corporate sector’s gross value added and account for almost 67% of private-sector employment in Europe. In order to gauge the CMU’s potential for creating a second engine for corporate funding in Europe, a quantitative elaboration and a comprehensive root-cause analysis of strengths and weaknesses of EU capital markets is essential.

¹ See European Commission (2015).

² See European Commission (2014) for a detailed discussion.

³ See AFME (2015) for a detailed discussion.

⁴ See ESRB (2014) for a detailed discussion.



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In this paper, we delve deeper into the CMU debate and make an empirical assessment of its potential. In doing so, we give particular attention to the EU's stock, bond and securitisation markets. The results of our analysis highlight that in order to enhance **stock markets**, the focus of interest should be given to *measures that reduce information asymmetries and transaction costs*. To boost **corporate bond markets**, *widening the investor base via a more active enrolment of institutional investors such as pension funds and insurers is a sine qua non*. For **securitisation markets**, *less punitive regulatory treatment of securitised products and direct government involvement in the market* could possibly stimulate this segment.

To perform the above-mentioned analysis, we start our study with a short overview and timeline of the CMU. We continue with a discussion of the heavyweights of corporate financing: stock and bond markets. First, we focus on the typical characteristics of European stock markets such as size, valuation and liquidity. Second, we investigate the role of equity funding for European firms and stock market integration in Europe. Then we turn to the bond markets, paying particular attention to trends in bond funding in recent years. Additionally, we look closer at the bond market investor base. In the final section, we discuss developments in securitisation markets. Besides, we shed some light on global differences in the performance of this market segment and discuss the potential of securitisation to finance the real economy.

The Banking Union

2

In June 2012, the EC proposed the establishment of a **Banking Union** to centralise the supervision and resolution framework for euro area banks. The primary objective of the BU is to achieve a robust and integrated financial system through stronger, unified governance of the European banks and to break the vicious circle between banking and sovereign risks.

With the first pillar of the BU, the Single Supervisory Mechanism (SSM), the ECB was assigned the main responsibility for monitoring and maintaining financial stability of the largest banks in the participating countries (participation is voluntary for EU members outside the euro area). The SSM came into force in November 2014 and the ECB became the direct supervisor of the 123 largest banks in the euro area. The supervision of more than 3,400 smaller banks (of which 1,600 are German banks) is left primarily to national authorities.

The second pillar of the BU, the Single Resolution Mechanism (SRM), is designed to deal with troubled banks. The SRM aims to protect financial stability in Europe and to minimise the reliance on taxpayers' money while protecting depositors during a possible orderly restructuring or resolution of a failing bank. In doing so, it may utilise, among other funds, the Single Resolution Fund. This fund will be financed by banks participating in the BU. The SRM will become fully operational in January 2016.

Both the SSM and the SRM are underpinned by the "single rulebook", which is a set of common rules for EU banks. The rules aim to prevent bank failures in the first place and to protect customers in case a bank is shut down.

II. The CMU in a nutshell

On November 26, 2014, the EC announced a major investment plan to stimulate growth and employment in Europe.⁵ The plan's main objective is to improve the business environment and financing conditions across all 28 EU member states by establishing a union for capital markets. In February 2015, the EC released a green paper that specifies targets in achieving the ambitious objectives of the CMU. In the green paper, the EC set some priorities for early action and identified a number of areas that should potentially bring early benefits. Among these priorities are:

- 1) lowering barriers for accessing capital markets
- 2) widening the investor base for SMEs
- 3) building sustainable securitisation
- 4) boosting long-term investment
- 5) developing European private placement markets.⁶

Among these short-term goals, the first three are – to a large extent – about financing existing firms via capital markets. The last two concentrate more on the establishment of new firms and innovative start-ups in particular. Considering the notable differences between the two concepts, we focus in this publication on the financing of existing firms via capital markets.⁷ The deadline to reach the CMU's targets is set to 2019. Then, the EC intends to evaluate whether the EU has moved closer from 28 fragmented national markets towards a single market for capital.

In a nutshell, the overarching objective of the CMU is enhancing the supply of capital to EU firms and to some degree complementing the Banking Union (BU) (see box 2). The primary objective of the BU is to achieve a sounder financial system through stronger, unified governance of the European banks. Therefore, the BU entailed the transfer of the authority for banking supervision in the euro area to the European Central Bank (ECB). The CMU, on the other hand,

⁵ European Commission - Press release 26 November 2014.

⁶ On July 9, 2015, the European Parliament adopted its first resolution regarding the CMU.

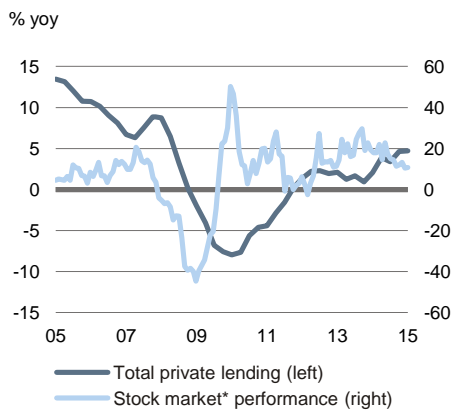
⁷ See Beck and Levine (2000) for a detailed discussion.



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Bank lending growth vis-à-vis stock market performance in the US

3



*S&P 500

Sources: Bloomberg, FDIC, Deutsche Bank Research

concentrates on the resilience of corporate funding through the capital markets. More specifically, the CMU aims to ensure that the corporate funding framework is robust to economic shocks via deeper and more diversified capital markets. Unlike the BU, the CMU covers all 28 EU countries and not only the euro area.

Following the consultation period that ended in May 2015, the EC in September adopted an implementation strategy for the CMU based on the input received. It set out an action plan, including an indicative timeline, to be carried out over the next five years. The action plan is accompanied by a securitisation proposal and legislation on Solvency II. It also includes two public consultations on venture capital and covered bonds. The EC is also looking for concrete feedback on rules affecting the ability of the economy to finance itself and growth.

Moving beyond the one-sided reliance on bank financing towards a more diversified financial system is undoubtedly a necessary step for Europe. An overview of bank lending growth vis-à-vis stock market performance in the US reveals this potential well. As seen in chart 3, not only bank lending growth but also stock markets contracted sharply with the onset of the financial crisis. However, stock markets recovered much faster, thus functioning as a second engine for a number of firms that were potentially not able to get a bank loan. In light of the US example, the idea of developing larger and more efficient capital markets in Europe received strong support from a broad spectrum of observers. And there is general agreement that the proposed early action steps of the CMU project are well-designed and some low-hanging fruit could be picked. However, market participants and policy makers also point out weaknesses of the CMU in being able to tackle differences for which rule making has been a national competence of the member states so far. The CMU has also met with scepticism regarding its potential to meet the expectations considering the long-term nature of the project.

III. Stock markets

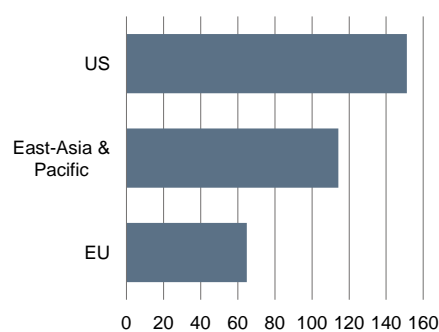
At the core of the CMU discussion is the argument that European capital markets are underdeveloped compared to capital markets of economies of similar size. This leads to a heavy reliance on bank lending for corporate financing in Europe. In this vein, an elaboration of the depth of European capital markets is a sine qua non to gauge the CMU's potential. We start our analysis with a discussion of one of the heavyweights of corporate financing, the stock markets, where certificates of company ownership are issued and traded.

Small stock market size in the EU

Market capitalisation of listed companies

4

% of GDP, end-2014



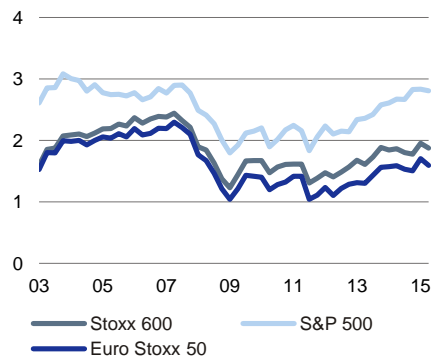
Sources: WFE, Deutsche Bank Research

To shed light on the depth of stock markets, a widely used proxy is the market value of listed companies relative to GDP, i.e. the value of tradable equity. As shown in chart 4, stock markets in the US have by far the largest size with a market cap to GDP ratio of around 150%. The Asia & Pacific region follows the US with a market cap to GDP of 114%. At around 65% of EU GDP, the market cap in Europe falls behind compared with economies of similar scale. Within the EU, there is large heterogeneity as well. For example, while the UK has a ratio of 127%, market capitalisation to GDP in France, the Netherlands, Belgium and Portugal combined stands at around 74% in total. At the other extreme are Poland and Austria with 31% and 22% respectively. The economic heavyweight of the EU, Germany, also has a market cap ratio of only 46%. This is a fairly small value especially considering the fact that Germany has many mid-cap firms that are large enough to face few size-related restrictions in tapping the capital markets. All in all, there is a huge difference between the US and the EU



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Market-to-book value is higher in the US 5



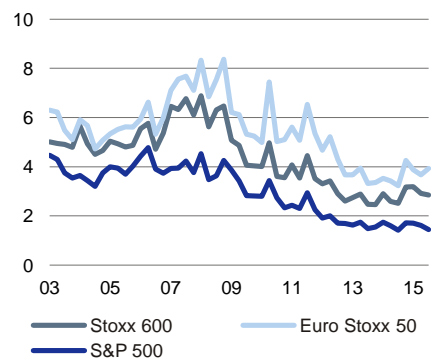
Sources: Bloomberg, Deutsche Bank Research

in terms of stock market size, with euro area stock markets being particularly small.

Another measure of stock market depth is the valuation of existing stocks. To illustrate valuation levels, the market-to-book ratio serves as a good indicator. Chart 5 presents the market-to-book value of three benchmark indices: S&P 500 for the US, Stoxx 600 for the EU and Euro Stoxx 50 for the euro area. As seen in the chart, European and US stock valuation trends are by and large in line with each other. Valuations were elevated in the period before the crisis, corrected significantly in 2008 and went into a sideways movement from 2009 to 2011, before finally recovering in recent years. That being said, the EU stock market valuation remains relatively depressed in nominal terms and stocks are valued substantially lower in Europe than in the US. For example, as of mid-2015, European stocks traded at a discount of nearly 50% to US stocks, based on this measure. Compared to the European aggregate, euro area stocks are even more undervalued and display a discount of 75%. There are several propositions offering a plausible explanation for the depressed market-to-book value. Among these are differences i) in the accounting rules, ii) in the weight of the financial sector (which usually has a lower market-to-book ratio) in an index, iii) in investors' expectations regarding the structural growth prospects of certain stock markets, iv) in profitability and/or v) in the capital intensity of the underlying companies (i.e. the more capital is invested in machinery and infrastructure, the lower the market-to-book value tends to be) etc.⁸ A comprehensive analysis of the depressed market valuation in the euro area is beyond the scope of this publication. However, the fact that euro area stocks tend to be cheaper contributes to the lower market cap in the euro area.

Stock market turnover 6

Quarterly turnover divided by market cap

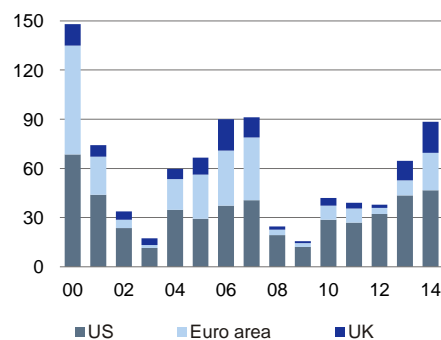


Sources: Bloomberg, Deutsche Bank Research

It is also important to note that the market cap and market-to-book ratio are aggregate measures of stock market size and valuation. They provide little information on the ease of trading or the ability of individual firms to issue stocks. A pre-condition for a well-functioning and efficient equity market is that existing stocks can change hands easily. To throw some light on this, market turnover is a complementary measure of stock market depth which illustrates whether size is matched by liquidity (see chart 6). Similar to the market-to-book ratio, the stock market turnover (relative to market cap) has recently followed similar trends in Europe and in the US with a slump in the aftermath of the financial upheaval (during the boom years, it had surged in Europe but not changed much in the US). More specifically, in the EU as well as in the euro area, stock markets suffered from a significant deterioration in liquidity and the turnover dropped around 50% between 2008 and 2012. Yet, broad liquidity trends in the euro area are largely similar to those in the US – in fact, relative turnover is even higher in Europe. In short, the small stock market size does not necessarily indicate that the ease of trading is an issue in euro area equity markets.

IPOs over time 7

EUR bn



Sources: Dealogic, Deutsche Bank Research

Equity funding is pivotal for euro area firms, too

Both market size and turnover indicators give only a partial glimpse of the ease of issuing stocks. In order to illustrate the degree of accessibility of equity markets, initial public offerings (IPOs) may be more meaningful. Chart 7 presents the IPO trends in the US, the euro area and the UK over time. It shows that IPOs largely move in tandem on both sides of the Atlantic. They peaked in 2000 at EUR 69 bn in the US and almost EUR 66 bn in the euro area (in addition, EUR 13 bn came from the UK). 2007 was the peak of another rally, before offerings took a drastic hit with the outbreak of the financial crisis. The rebound in the US took IPO volumes to EUR 47 bn last year and thereby even outstripped pre-crisis levels; the trend was similar in the UK, where they

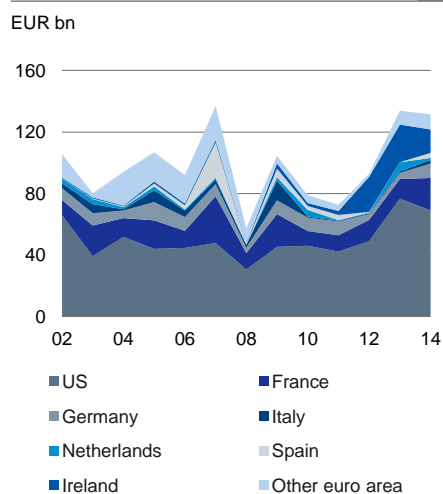
⁸ See seminal papers by Fama and French (1992) and Fama and French (1995) for more detail.



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Non-financial firms: Stock issuance trends in the US & euro area

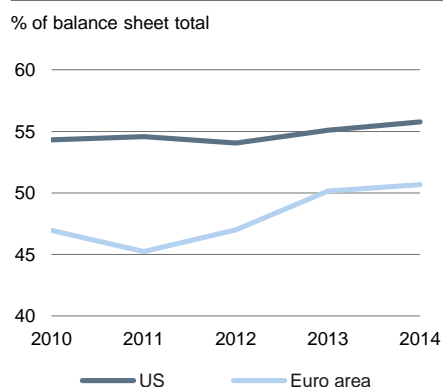
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Sources: Fed, ECB, Deutsche Bank Research

Equity funding is pivotal for euro area non-financial firms

9



Sources: Fed, Eurostat, Deutsche Bank Research

EU financial centres losing ground

10

Rank	GFCI 2015	GFCI 2007
London	1	1
Frankfurt	14	6
Luxembourg	19	26
Vienna	30	35
Stockholm	32	29
Amsterdam	36	23
Paris	37	11
Munich	40	-
Milan	65	30
Madrid	79	28

GFCI: Global Financial Centres Index 18 for 2015 rankings
Sources: Z/Yen, Deutsche Bank Research

recovered to EUR 19 bn. In the euro area, there was a pronounced increase in IPOs in 2014 as well. However, volumes still amounted to only EUR 23 bn – a relatively disappointing result.

A complementary figure is aggregate stock issuance (IPOs plus secondary offerings) (see chart 8), which also presents intriguing patterns. Between 2002 and 2008, non-financial firms in the US raised EUR 324 bn through stock issuance. Over the same period, stock issuance was even higher in the euro area, reaching EUR 349 bn. After the crisis, equity issuance in the US rebounded relatively fast and amounted to EUR 69 bn in 2014. Similarly, in the euro area, it reached some EUR 63 bn, of which EUR 21 bn and EUR 9 bn came from France and Germany, respectively. Taken together, despite differences in the pace of the recovery, stock issuance volumes are largely in line in the EU and in the US.

In order to illustrate the role of stock issuance for firms, one good indicator is non-financial corporations' equity funding as a percentage of their balance sheet total. As seen in chart 9, equity funding plays a pivotal role in the euro area and in the US alike. For instance, equity funding accounts for around 50% of non-financial corporations' total assets in the euro area, a slightly smaller figure than in the US. What is more, the relative share of equities in the balance sheet total has been increasing in recent years. Of course, equity includes not only accumulated stock issuance but also other items such as internal funds, i.e. retained earnings. Nevertheless, the amount of internal funds available to US or to euro area firms may not differ markedly either. More specifically, as of 2014, non-financial firms' net operating surplus in the US, a measure of profitability which is a benchmark of internal funds available, was slightly less than 10% of US GDP. The same proxy stood at 14% in the euro area. All in all, available data suggests that, despite the smaller stock market size in the euro area, stock financing is an important funding alternative for euro area corporations, at least for those that are large enough to issue stocks.

EU financial centres are losing ground

The issuance and trading of stocks, in turn, benefit if they take place in larger and more international financial hubs. In particular, global financial centres attract outside investment to local markets and thereby increase the investor base. They also attract listings from foreign companies, thus increasing the spectrum of available stocks in local markets.⁹

In terms of key financial market places, Europe has well-established, credible financial centres. Yet, their importance is falling and the European financial hubs are losing ground. A ranking of financial centres that takes financial sector development and infrastructure as well as additional factors into account reveals this decline well (see table 10). In 2015, London stands out as the only European financial centre that is a global leader. Among the most important financial hubs of the euro area, Frankfurt has a global ranking of only 14, down from 6 in 2007, and Paris has a ranking of 37, down from 11. By and large, euro area financial centres have become less competitive since the crisis and their historical prominence seems to be fading. This may imply that European financial centres are less able to attract international investors and companies now than they were in the pre-crisis period. The declining role of European financial hubs is detrimental to establishing sound networks for capital transactions and to stock market liquidity. It may even make it more difficult for regulators and supervisors to manage crises efficiently as fragmentation could limit regulatory oversight.

⁹ See Kern (2010) for a detailed discussion.



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Euro area stock market integration is stagnating

Major stock exchanges in the EU

11

Name of exchange	Market cap in USD bn
London SE Group	4013
NYSE Euronext	3319
Deutsche Börse	1739
NASDAQ OMX Nordic	1197
BME Spanish Exchanges	993
Warsaw Stock Exchange	169
Irish Stock Exchange	143
Wiener Börse	97
Luxembourg Stock Exchange	63
Athens Exchange	55
Zagreb Stock Exchange	26
Prague Stock Exchange	25
Bucharest Stock Exchange	21
Budapest Stock Exchange	15
Bulgarian Stock Exchange	6
Bratislava Stock Exchange	5

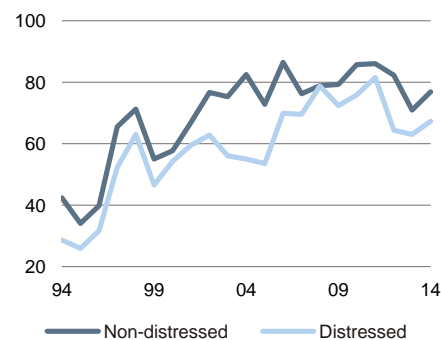
Figures as of end-2014.

Sources: WEF, FESE, ZSE, Deutsche Bank Research

Euro area equity market integration

12

Index in %, 100% implies perfect integration



Non-distressed countries: Austria, Belgium, Estonia, Finland, France, Germany, Luxembourg, Malta, the Netherlands and Slovakia
Distressed countries: Cyprus, Greece, Ireland, Italy, Portugal, Slovenia and Spain

Sources: ECB, Deutsche Bank Research

Similarly, internationally integrated stock markets are beneficial for the issuance of stocks. Deeper-integrated capital markets allow the free flow of capital between countries. This provides firms with easier access to foreign capital and at the same time enables investors to diversify their portfolios. During the past half-century, the EU was relatively successful in setting and harmonising standards and in establishing a single market in several dimensions. However, the EU still hosts 16 different, independent main national stock exchanges (see table 11), despite significant consolidation in recent years. Compared with the US, which has two national stock exchanges, the number of stock exchanges in the EU seems to be unreasonably high. That being said, the plethora of exchanges does not necessarily pose obstacles for already listed companies for which multiple listings are an option. What is more, competition between exchanges might reduce fees and improve services offered for issuers. Yet, IPOs usually take place on domestic exchanges, and especially smaller firms have a tendency to favour tapping the local stock market. In this vein, the multitude of exchanges may limit the investor base for IPOs and for smaller companies' stocks.¹⁰ Obviously, the heritage of each country having its own stock exchange largely explains the high number of exchanges in Europe. Nevertheless, after more than fifty years of integration in other fields, equity trading venues remain surprisingly fragmented in the EU.

How has market integration "on the ground" evolved in the euro area? Stock market returns can provide some insights into this. Indeed, in integrated markets, returns should be relatively robust to country-specific shocks and exhibit tighter correlations with each other. Market performance should be mostly driven by common factors. Expressed differently, it is reasonable to expect a more synchronised stock market performance over time as the financial and economic linkages among EU countries became stronger. To put the co-movement in numbers, the ECB provides an index based on a principal component analysis framework for distressed and non-distressed countries of the euro area (see chart 12). It can be seen that a significant wave of integration took place among the (currently) non-distressed countries in the last 20 years. To be more specific, common factors explain on average 75% of the stock market variation in non-distressed countries between 2000 and 2008. A notable upward move in stock market integration is also observable, to a lesser degree, in (currently) distressed euro area economies where common factors explained around 60% of the variation in stock markets. However, both distressed and non-distressed markets have grappled with sluggish integration dynamics since the onset of the financial crisis. Only in 2014 did stock market performances become somewhat more synchronised. It will probably take some more time for European stock markets to regain the integration levels observed before the outbreak of the crisis.

Within the euro area, cross-border investments came down after the crisis

The tendency of investors to hold too many domestic and too few foreign stocks – despite the potential benefits of international diversification – is specified in the academic literature as "home bias" of investors.¹¹ The home bias is largely accepted as an inverse measure of financial integration. Its magnitude provides a rough proxy for transaction costs and costs related to information asymmetries in stock markets.¹² In the presence of these frictions investors reveal a strong

¹⁰ See Pagano, Röell and Zechner (2002) for a detailed discussion.

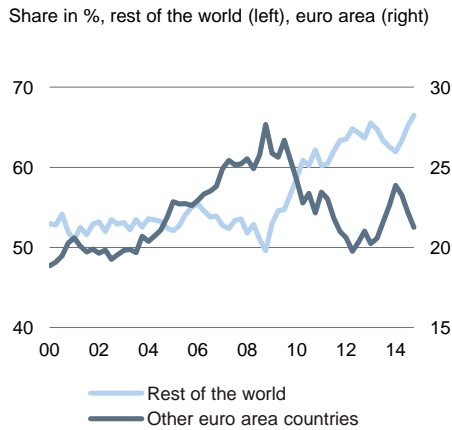
¹¹ See Tesar and Werner (1995) and French and James (1991) for a detailed discussion.

¹² See Kang and Stulz (1997) for a detailed discussion.



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Euro-area mutual fund holdings of equity issued in other countries **13**

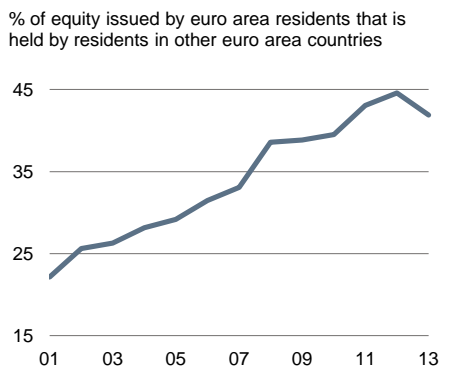


Sources: ECB, Deutsche Bank Research

preference for shares from their home countries, and national borders tend to restrict capital market investments.

In their stock allocation, euro area investors can choose between three different alternatives: domestic, other euro area or non-euro area stocks. Among these three options, an increase in domestic stock investments would imply a heightened home bias, whereas a rise in other euro area investments would imply a reduced home bias within the euro area. The ECB provides data on the share of euro-area mutual fund holdings of equity issued in both other euro area countries and the rest of the world. The series provide a criterion to quantify the cross-border stock holdings of institutional investors (see chart 13). As seen in the chart, before the crisis the share of mutual funds' cross-border holdings of equity issued in other euro area countries had picked up 8 pp from 19% in 2000 to 27% at end-2008. In fact, one explanation for the home bias is the existence of exchange rate risk, which was abolished in the euro area with the introduction of the single currency. With a share of around 50% during the same period, mutual funds' cross-border holdings of equity issued by the rest of the world remained largely flat. Nevertheless, with the outbreak of the financial crisis the tendency to invest more in euro area equities went into reverse and that continued with the fears of a potential euro area break-up intensifying. As of 2014, institutional investors' cross-border euro-area stock holdings had declined to 21%. By contrast, institutional investors' overseas equity investments gained momentum after 2008. These increased almost 16 pp, reaching 66% in 2014. Taken together, available data does not necessarily suggest an uptick in the home bias of institutional investors. Rather, it suggests a withdrawal from other euro area countries. Portfolio diversification of institutional investors away from euro area shares into international non-euro area assets is not a detrimental development per se. However, it may indirectly put some pressure on euro area stock markets as institutional investors are the main providers of liquidity in financial markets. With a lack of large liquidity providers, it is harder to conduct market making and achieve efficient pricing. This could increase the cost of stock issuance for non-financial firms.

Euro area residents' cross-border equity holdings came down **14**



Sources: ECB, Deutsche Bank Research

Institutional investors are more likely to overcome information asymmetries and transaction costs. Consequently, their portfolio allocations may not necessarily reflect the investment decisions of all market participants. A more representative proxy for home bias, therefore, is all euro area residents' cross-border holdings of equity issued by euro area residents (see chart 14). More specifically, this indicator shows to what extent both institutional and non-professional investors located in a euro area country invest in equities issued in other euro area countries. Similar to chart 13, this indicator shows a remarkable upward trend from the introduction of the euro onwards, with only a brief dent in the aftermath of the financial crisis. There was a meaningful reduction in intra-euro area equity investment just in 2013 (data availability limits the analysis of developments in the past two years).

To sum up, the available data reveals that euro area stock market integration has progressed continually since the introduction of the single currency. However, the pace of integration has lost momentum in recent years. Even though this does not suggest an increase in home bias by definition, it may imply a reduction in the willingness of market participants to trade euro area equities. The reduced appetite in euro area equities may hamper market liquidity and may lead to increased volatility in equity prices in the future. Taken together with the already declining role of European financial hubs, this is probably detrimental to the efficient functioning of stock markets in Europe.



Capital Markets Union: An ambitious goal, but few quick wins

Could the CMU be a boon to European stock markets?

Stock market financing is a cornerstone of corporate funding in Europe as well as in the US. Against the background of the recent slowdown or even partial reversal in cross-border financial holdings, the crucial question is: “*Could the CMU help advance stock market integration in the EU again and increase intra-European investments?*”

Single set of rules is a very long term goal

Stock market integration and an expansion of intra-EU investments are strongly linked to the legal system in which issuers and investors are embedded. In this regard, the potential success of the CMU will depend on its ability to overcome legal and regulatory barriers that govern European stock markets. A possible way to achieve this could be via a single set of rules for capital markets that harmonises company, securities and insolvency laws as well as tackling barriers in other cross-cutting areas such as taxation. And indeed one key objective of the CMU is to establish a single rulebook, a harmonised capital market regulatory framework. However, such a harmonisation of rules that are under the control of domestic jurisdictions has proven to be extremely difficult in the past. In this respect, establishing a single set of rules is still a very long-term goal and expectations may well turn out to be overly optimistic. The proposals on a single rule book could indeed be overshadowed by the political agenda of individual countries. Nonetheless, tasking a supranational authority with establishing a single rule book may speed up the process. This would probably also contribute to the effective implementation and consistent enforcement of the rules.

Consolidation of exchanges is feasible

Some low-hanging fruits could be picked by ironing out inefficiencies, though. By harmonising rules and regulations that govern exchanges, stock market consolidation could gain further steam. To be more specific, consolidated exchanges that operate in more than one EU country would be subject not only to harmonised rules such as the Markets in Financial Instruments Directive (MiFID), but additionally to a non-harmonised set of rules only applicable in individual local markets. By harmonising the latter (which would probably take some time but is still doable within the CMU's timeframe), the CMU could reduce operational costs and incentivise another consolidation wave among stock exchanges. This could possibly allow European financial hubs to regain importance and could increase liquidity in the markets. The improved liquidity and more efficient pricing, in turn, would lower the costs for market participants and grant greater flexibility in stock issuance.

IV. Bond markets

Theoretical models of capital structure suggest that under perfect market conditions firms are indifferent between issuing stocks and bonds. According to the Modigliani-Miller (M-M) theorem,¹³ in the absence of taxes and asymmetric information etc., changes in a firm's capital structure do not affect its fundamental value and therefore the overall cost of financing is invariant to leverage. To put it another way, M-M suggests that in a perfect world the value of a firm is independent of its portfolio allocation. As a result, the cost of capital will remain unaffected whether a firm issues stocks or bonds. However, there are significant, well-known frictions in markets that violate the M-M assumptions. Even Miller himself argued that “*The M-M propositions are ex-ante propositions and are concerned with having equity and not with raising new equity*”.¹⁴ For example, unlike dividend payments to equity holders, interest payments to debt holders are deductible from corporate tax. What is more, due to information

¹³ See Modigliani and Miller (1958).

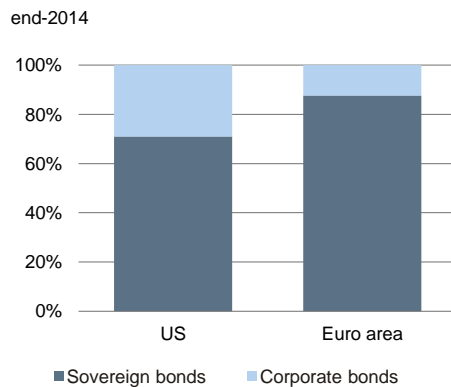
¹⁴ See Miller (1995).



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Sovereign vs corporate bond market size

15

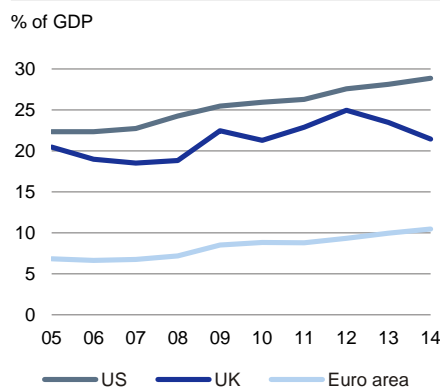


Corporate bond volumes include only non-financial corporate bonds.

Sources: Fed, ECB, Deutsche Bank Research

Corporate bonds outstanding

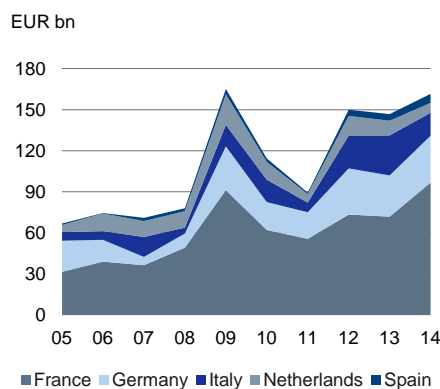
16



Sources: Fed, ECB, Deutsche Bank Research

Gross corporate bond issuance volumes in euro area

17



Sources: ECB, Deutsche Bank Research

asymmetries in financial markets, investors may rationally interpret new equity issuance as an adverse signal (lemons problem¹⁵ or adverse selection problem). All in all, larger companies with good earnings expectations and which are able to overcome the fixed costs of tapping the debt capital markets are typically biased towards corporate bond issuance rather than stock issuance.

Slim corporate bond market size in the euro area

Non-financial corporations can tap the debt capital markets and issue corporate bonds to expand and to finance their operations with long-term debt. The long-term funding needs of non-financial corporations differ extensively and they are mostly company specific. Against this background, corporate bonds usually have heterogeneous profiles such as varying issue sizes, contractual structures, maturities and coupons.¹⁶ By contrast, sovereign bonds are by and large considered risk-free instruments and have fairly standard features. As a result, sovereign bonds are considered to be similar to cash. In addition, their market size is huge, whereas the corporate bond market is much smaller both in the US and the euro area (see chart 15). In the US, the ratio is about 3:1; in the euro area it is even higher, at around 7:1. Moreover, corporate bonds are traded infrequently compared to sovereign bonds. Figures from the Securities Industry and Financial Markets Association (SIFMA) reveal that the total daily trading volume of US Treasuries is 21 times higher than that of corporate bonds in the US.

Similar to the stock markets, the corporate bond market of the US is also particularly large in an international comparison (see chart 16). Corporate bonds outstanding grew 7 pp in the US during the last decade, reaching around 30% of GDP. Similarly, and despite a recent setback, the corporate bond market in the UK is large at around 21% of GDP in 2014. In stark contrast, euro area bond markets are substantially smaller; amounting to only 10% of GDP last year, up from 7% in 2005. Empirical literature on bond markets highlights the effect of market size on liquidity and postulates that the larger the market, the more liquid it is.¹⁷ It is also well documented that illiquidity in bond markets leads to higher yields and thus increases the cost of capital for issuers.¹⁸ Furthermore, a small market size and subdued turnover create impediments in setting the fair price of corporate bonds in primary markets and adjust the price to the arrival of new information. Taken together with the generally low liquidity in corporate bond markets, the fact that euro-area corporate bond markets are much smaller than those in the US (or the UK, for that matter) may impede their effective and efficient functioning to finance non-financial corporations.

Nonetheless, directly comparing outstanding corporate bond volumes that have been accumulated in the past may ignore important changes and present trends. In this respect, issuance volumes may serve as a revealing indicator for euro-area bond market developments. Chart 17 illustrates gross corporate bond issuance in individual EMU countries. It reveals a striking boom in recent years in the largest member states. Total issuance jumped to a record of EUR 165 bn in 2009 from EUR 78 bn in 2008. Moreover, average annual issuance was around EUR 150 bn from 2012 onwards. European corporations seem to be taking advantage of investor appetite, which has clearly risen in recent years thanks to the ultra-low interest rate environment. However, issuance volumes differ substantially in individual countries. Volumes in France and Germany account for around 50% and 20%, respectively, of the euro area total. This highlights that even some major economies of the euro area have bond

¹⁵ See Akerlof (1970).

¹⁶ See IOSCO (2014) for a detailed discussion.

¹⁷ See Gyntelberg, Ma and Remolona (2005).

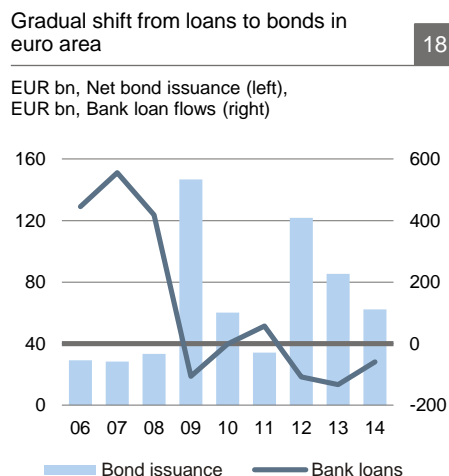
¹⁸ See Amihud and Mendelson (1991) and Chen, Lesmond, and Wei (2007).



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issuance volumes that are very low compared to their GDP contributions. Still, the recent surge in bond issuance is not just driven by France. Rather, the relative change in Germany, Italy, Spain and the Netherlands combined (annual average +115% from 2005-08 to 2012-14) is impressive as well.

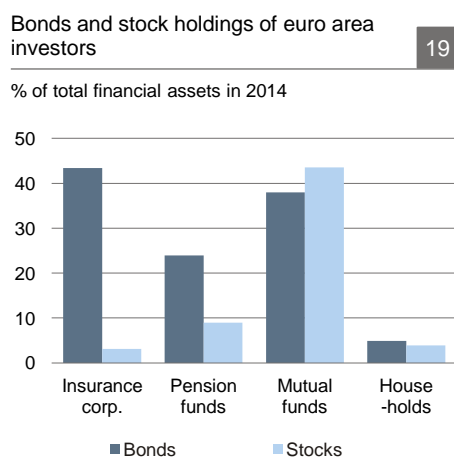
A structural shift is taking place



Prima facie, remarkable growth in debt capital markets points to a structural shift in favour of these markets. This is fairly reasonable considering the ongoing balance sheet restructuring in the banking sector and thus the reduced capacity of banks to provide financing to the rest of the economy. A comparison of net bank loan flows vis-à-vis net bond issuance¹⁹ puts the shift into numbers (see chart 18). Between 2012 and 2014, from the perspective of corporates, a EUR 269 bn inflow from bond issuance seems to largely compensate a EUR 300 bn outflow in bank loans. In this respect, a substitution effect between bank lending and debt capital market instruments appears evident. Meanwhile, the increased role of bond financing is probably good for non-financial corporations and banks alike. While corporates can diversify their funding structure, (universal or investment) banks can generate fee income from bond underwriting without stretching their balance sheets or taking on more risks.

The figures above could be inflated by precautionary or opportunistic corporate activities considering the exceptionally favourable conditions for bond issuers. It is also important to note that only a fairly small circle of firms in Europe issues corporate bonds (over the last 15 years less than a thousand different firms in the five largest countries of the euro area). This is because firms need to be large enough to shoulder the fixed costs of using debt capital market instruments. In this respect, firms that have problems in getting bank credit are not necessarily the same firms that can borrow on the bond market. Put differently, the traditional SMEs are by and large not able to tap the debt capital markets. Nevertheless, larger firms will probably continue to raise capital in debt markets if these provide more favourable conditions than banks.

The bond market investor base is different



There are remarkable differences between stocks and bonds regarding payment and maturity structures. As a result, the investor bases may vary greatly depending on investment strategies and criteria such as cash-flow predictability as well as risk/return expectations.²⁰

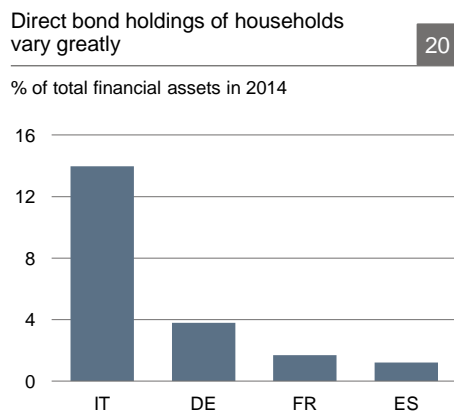
The share of bonds in different investor groups' total assets may help to quantify these differences (see chart 19). At the one extreme are the insurance corporations. In the euro area, bonds alone (sovereign and corporate bonds combined) make up 43% of their total assets of EUR 3.1 tr, stock holdings only 3%. Deposits, distributed loans and mutual fund shares also make up a large share of insurance corporations' balance sheets. Somewhat similar to insurers, bonds account for 24% of euro-area pension funds' total assets of almost EUR 2 tr. Stocks, on the other hand, account for just 9%. Insurance corporations and pension funds are more in need of predictable and long-term cash flows – their obligations to insurance policy holders and pensioners limit their risk tolerance. This preference largely explains the allocation of their assets and in particular their bias towards bonds. At the same time, they have a lower tendency to invest in potentially higher returning but simultaneously more volatile

¹⁹ We use net volumes to take into account a possible shift towards shorter maturities and therefore higher redemptions as well as gross issuance volumes.

²⁰ See for example Tepper (1981) who argues that companies should fully finance their pension funds in bonds. See also Hoevenaars, Molenaar, Schotman, and Steenkamp (2008) on strategic asset allocation of institutional investors, especially pension funds.



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Sources: ECB, Deutsche Bank Research

investments such as stocks. By contrast, mutual funds have a more balanced distribution of stocks and bonds on their balance sheet. Of their EUR 10 tr in total assets, 38% is comprised by bonds and 44% by stocks. As the investors decide on the risk and return profile of the funds, mutual funds are more flexible in their asset allocation. They can combine a variety of assets, such as local and international stocks as well as bonds.

Households' financial asset allocation differs significantly from that of institutional investors. They devote a very large share of their financial wealth to pension entitlements, life insurance and annuity entitlements as well as deposits. Because of that, households' direct stock and bond holdings are much smaller. In the major euro area economies, bond holdings usually account for a small share of households' total financial assets (see chart 20). At almost 14%, bond holdings of Italian households stand as an outlier. Here, a preferential tax treatment favours bond holdings by households. On the other hand, German households hold around 4% of their total financial assets in bonds. In France and Spain the same shares stand at around 2% and 1%, respectively. This being said, households' direct bond holdings in these four countries total around EUR 854 bn. This is significantly less than institutional investors' bond holdings.

The lion's share of the bond investment of institutional investors comes from sovereign bonds. This is because of the tight restrictions on credit ratings, which assign a greater role to sovereign bonds within the bond landscape. In any case, the aggregate bond investments of insurers and pension funds are well above the total supply of corporate bonds in the euro area of around EUR 1 tr.

The CMU's role in enhancing European corporate bond markets

The surge in issuance volumes underscores the major change which bond markets have been undergoing in recent years. Bond funding in many cases has become a notable alternative and cushioned the impact of the credit squeeze. Over time, outstanding debt market volumes in the euro area will probably grow further as the markets take on a bigger role (and bank lending a somewhat smaller one). Nevertheless, several factors are impeding this process as well as the further development of corporate bond markets in Europe, and the CMU could help to overcome them.

Larger investor base for corporate bonds

First and foremost, to the extent that the CMU leads to a larger investor base for corporate bonds, it may help to lift issuance levels in Europe. Indeed, recent trends show that euro area corporations tap the debt capital markets as long as investor appetite creates favourable conditions for issuers. To preserve these dynamics, the CMU could introduce measures to gradually (and at least partially) move more of the national pension schemes in Europe from the widespread "defined benefit" system (including public pay-as-you-go schemes) to a funded "defined contribution" system. With this transformation, pension savings could be channelled into capital markets that tend to offer higher rates of return over the longer term. More explicitly, a US-type marketisation and privatisation of European pension systems could widen the corporate bond investor base as pension contributions would need to be (re-)invested in capital markets. For example, in the US, within the defined contribution pension schemes such as the popular 401(k) plan, individual participants allocate their contributions across different asset classes, depending on their specific risk-return preferences.²¹

Mechanistic reliance on ratings should be reduced

Another complication is those regulatory rules that assign an excessive role to ratings. For institutional investors such as insurance firms, this leads to a bias towards (almost) risk-free bond investments. Put differently, punitive capital requirements for investing in riskier corporate bonds force institutional investors

²¹ See Huberman and Jiang (2006) for a detailed discussion.



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de facto to hold only government or investment grade corporate debt. The CMU could help institutional investors to widen their corporate bond portfolios by reducing a mechanistic reliance on ratings and by introducing more flexible measures. In addition, by increasing investor demand, these measures should lower the cost of issuing bonds in the long run and would also make bond issuance a more robust alternative to bank lending. This being said, revisiting these rules and regulations is to a large extent a political discussion and could well be beyond the scope of the CMU.

Disclosure regimes are an impediment to bond issuance

In other aspects, the CMU may provide quick solutions, though. For example, inconsistencies in disclosure regimes are an impediment to bond issuance that the CMU might solve fairly easily. More specifically, disclosure requirements in Europe are governed by five different sets of legislation (inter alia, Prospectus Directive, Market Abuse Directive and Transparency Directive) which are not synchronised (this obviously creates a bottleneck for stock markets, too). The inefficiency with respect to disclosure is a significant administrative burden and induces non-negligible costs for firms that seek bond funding. The inconsistencies become even more severe for smaller firms because these generally lack the relevant resources and capacities to cope with even fewer requirements and are largely locked out of debt financing in the current environment. As in the case of stock markets, the CMU is a good opportunity to harmonise these duplications and overlaps in disclosure regimes.

A financial transaction tax should be avoided

The CMU should also help to avoid the implementation of regulatory measures that could potentially harm bond market liquidity and market making. Unlike stock markets, the majority of corporate bonds are traded over the counter and not on exchanges.²² As a result, bond market liquidity and price discovery largely rely on the capacity and willingness of market makers. Moreover, these play an important role by absorbing temporary supply and demand imbalances. In this respect, market makers contribute to the robustness of bond markets by smoothing market moves. However, measures such as a financial transaction tax as well as certain other regulatory reforms would hamper market-making activity and could easily unwind the benefits of the CMU. Deterioration in bond market liquidity through a partial retreat of market makers would in turn increase transaction costs and volatility. This would undoubtedly be detrimental to efficient pricing and dampen the attractiveness of bond markets for issuers and investors alike.

V. Securitisation

One of the main goals of the CMU is to revive the securitisation market in Europe. The rebound of this market segment is of strategic importance for bank lending in general and SME financing in particular. Indeed, SMEs have a central role in developing a robust and sustainable recovery of the European economy and in bringing down the high unemployment levels in some euro area countries. It is important to note that traditional SMEs are unlikely to tap the bond and stock markets due to their size and information restrictions, as well as other factors. As a result, their financing will continue to rely to a large extent on bank lending. However, bank loan availability deteriorated in the aftermath of the crisis and banks took a cautious stance in lending to euro area SMEs.²³ Another constraint for bank lending is the ongoing deleveraging and higher capital requirements that limit banks' ability to expand their balance sheets. Mortgage loans typically represent one of the main asset classes on banks' balance sheets and thereby consume a lot of capital that could be used otherwise. Via the securitisation of mortgage as well as SME loans, banks could

²² Data availability limits a comprehensive statistical comparison, unfortunately.

²³ See Kaya (2014) for a detailed discussion.



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Securitisation in a nutshell

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Securitisation is a process of pooling and repackaging illiquid financial assets for sale to investors. Investors of securitised assets subsequently receive the cash flows of the underlying debt obligations, while the originator receives the net present value of these cash flows upfront. By creating tradable securities linked to loans and selling these securities to investors, such as asset managers or insurance firms, originators of the securitised assets can transfer the credit risk off their balance sheets. Higher capital ratios, in turn, would positively affect their lending capacity. Securitised assets can be divided into three broad groups:

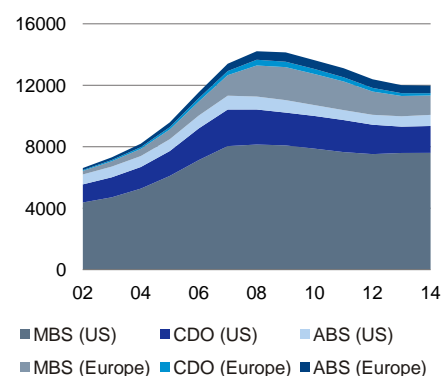
- 1) **Asset-backed securities (ABSs)** are securitised assets whose cash flows come from a pool of loans to households or non-financial corporations, including credit card receivables, student and auto loans.
- 2) **Mortgage-backed securities (MBSs)** are securitised assets whose cash flows stem from a pool of mortgage loans. In the US in particular, there are two further sub-categories: i) agency MBS, which represents the MBSs of government-sponsored enterprises, and ii) non-agency MBS, which represents MBSs sponsored by private companies.
- 3) **Collateralised debt obligations (CDOs)** are securities that repackage individual ABSs and thus are backed by a portfolio of ABSs.

A special-purpose vehicle (SPV) is usually involved in a securitisation for accounting and legal purposes. These products are typically divided into tranches to create different risk and return profiles to meet differences in investor demand. Senior tranches of ABSs represent the safest group, mezzanine tranches represent somewhat riskier but usually still investment grade ABSs and equity/junk tranches represent the riskiest ABSs.

Decline of the securitisation market

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Outstanding amounts in USD bn



CDO (US) includes Collateralised Mortgage Obligations (CMO) and MBS (US) represents the total of agency and non-agency MBSs (but excludes CMOs).

Sources: SIFMA, Deutsche Bank Research

therefore free up capital and space on their balance sheets and increase their capacity to lend to the real economy. In the following section we discuss the potential of securitisation and ways how to revive the European securitisation market in detail.

The current status of the securitisation market

In short, securitisation is a process that turns illiquid financial assets such as bank loans to non-financial corporations or loans to households into tradable securities (see box 21 for a short description). Among the widely traded securitised products are ABSs, MBSs and CDOs. In the US, the securitisation of mortgage loans already started in the early 1970s. During the 1980s banks also started to securitise asset classes such as auto loans and credit card receivables. Since then, securitisation has become increasingly popular in other countries and volumes have grown extensively. The widespread use of securitised assets has broadened the size of capital markets globally. Investors have also gained access to diversified portfolios of assets that they could otherwise not have invested in directly. For banks, securitisation not only frees up regulatory capital but also lowers economic risk. This obviously reduces banks' own credit risk premium and thereby lowers the cost of financing for non-financial corporations and households alike.

Of all securitised assets, the MBS market saw the most extensive growth before the financial crisis and still has the largest volume outstanding (see chart 22). In 2008, it peaked in the US at USD 8.2 tr and reached USD 2 tr in Europe. The outstanding amount of MBSs in the US is particularly gargantuan due to the implicit guarantee by US government agencies such as Fannie Mae and Freddie Mac to absorb losses. This massive size probably causes positive liquidity spillovers to other types of securitised assets and thereby pushes the market size for ABSs and CDOs as well. More specifically, the ABS market in the US stood at around USD 844 bn in 2008 compared with USD 554 bn in Europe. Similarly, CDOs amounted to USD 2,278 bn in the US while European CDOs stood at USD 372 bn. With the financial crisis, the growth, potential benefits and costs of securitisation became the focus of attention. Market volumes shrank substantially – in 2014, US MBSs were down 6% from their peak. Interestingly, the drop was only driven by non-agency MBSs, whereas agency MBSs picked up a further 21%. The deterioration of MBSs in Europe was much steeper; outstanding amounts have declined 41% from their peak in 2009. Similarly, the ABS market came down 11% in the US and 19% in the euro area.

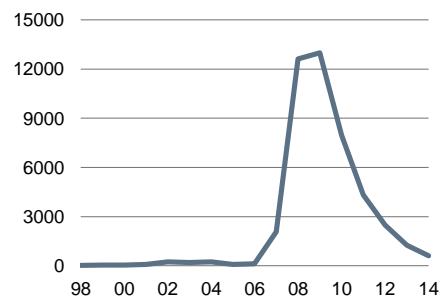
The performance of the securitisation market differs remarkably

In the eyes of many regulators and observers, the financial meltdown was deeper and more devastating than it would have been otherwise, due to the opaque and complex structure of many securitisation products. In addition, the default numbers of securitised products indeed increased exponentially with the outbreak of the financial crisis (see chart 23), from very low levels before. Globally, between 2000 and 2006 the average number of defaults (aggregate for all securitised products) was around 150. This figure jumped to around 12,000 in 2008 and 2009. Even though the number of defaults came down significantly in recent years and stood at only around 600 as of 2014, the reputation of the securitisation market took a severe hit during the crisis. As a result, the regulatory attitude towards the market became increasingly critical and risk weights for banks holding securitised products were boosted substantially (e.g. through a reform package called "Basel 2.5"). For some tranches, risk weights were lifted up to 1,250%, implying that the full notional



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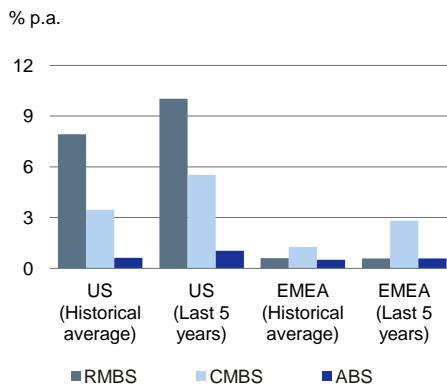
Number of securitisation defaults globally **23**



Numbers represent all Moody's rated structured finance securities.

Sources: Moody's, Deutsche Bank Research

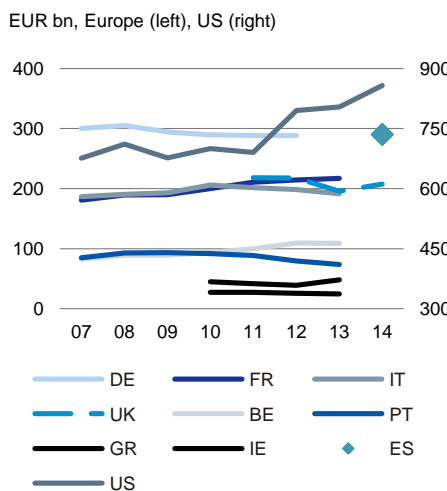
Average securitisation default rates **24**



Historical average from 1993 to 2014.

Sources: Moody's, Deutsche Bank Research

Outstanding amounts of SME loans **25**



Sources: Bundesbank, Fed, Banco de Espana, BOE, OECD, Deutsche Bank Research

amount of the asset had to be backed by capital (8% capital requirement * 1,250% risk weighting of the notional securitised amount = 1). This made investing in these assets prohibitively expensive for banks and consequently severely impaired the demand for securitised products.

Despite the similarities in the retreat of the securitisation market, the performance of the market differs remarkably between regions (see chart 24). First and foremost, MBS default rates in Europe are a fraction of the default rates in the US. Over the past two decades, the historical average of default rates for Residential MBSs (RMBSs) and Commercial MBSs (CMBSs) stood at around 8% and 3.5% p.a. respectively in the US. These are markedly high figures compared with default rates of less than 1% in the EMEA region.²⁴

Default rates have generally been higher over the last five years both in the US and Europe, but the difference in levels remains the same. Even more, a Standard and Poor's (2015) report reveals that as of 2014, RMBS and CDO default rates in the US were eight and three times larger, respectively, than in Europe.²⁵ Only ABS default rates (which also include the securitisation of loans to SMEs) were similar in Europe and in the US, standing at only around 0.5% for the 1993-2014 period. Unlike MBSs, most ABSs have relatively short amortisation periods. As a result, they have a lower risk of principal loss which may be behind the low default rates in both regions (recovery rates in a default case may be a different matter though, depending on the collateral).

The role of government-sponsored enterprises may help to explain not only the different market sizes, but also the US-European discrepancy in default rates of MBSs and CDOs. With the dominant role of the federal agencies in the US, there is less skin in the game for US investors than for their European counterparts. In this vein, even before the crisis, underwriting standards in Europe were presumably more robust and consequently default rates significantly lower compared with those in the US. As a result, this has helped European securitisation to act as a legitimate funding tool even during the crisis. Thus, it is a natural follow-up question to ask whether a well-functioning securitisation market in Europe could now help unlock bank lending.

The potential of SME-ABSs to revive lending to SMEs

As discussed earlier, a stronger market for securities backed by SME loans (SME-ABS) is seen as a potential solution for SMEs' financing problems in Europe. And in fact, measures that can partly offload SMEs' credit risk from bank balance sheets and connect SMEs to capital markets indirectly via SME-ABSs have some promising features to bridge the gap between SMEs' funding needs and the availability of bank loans.²⁶

A glance at the outstanding amounts of SME loans in individual European countries and the comparison of these figures with the US serves as a starting point to examine the potential of the SME-ABS market for reviving SME lending (see chart 25). As seen in the chart, outstanding SME loans in the US saw an upward trend after the crisis and amounted to around EUR 800 bn in 2014. In Europe, SME loans amounted to almost EUR 290 bn in Germany (in 2012), followed by France and Italy with EUR 217 bn and EUR 191 bn respectively (in 2013). In these countries outstanding amounts remained stable by and large between 2007 and 2013. In the UK, SME loans stood at EUR 207 bn in 2014, slightly down from 2011. In Spain, the volume was EUR 290 bn in 2014 but data availability limits a comparison over time. All in all, SME lending in Europe

²⁴ Data availability prevents an analysis of Europe alone. Nevertheless, securitisation (and default) volumes are probably fairly negligible in the Middle East and Africa and figures presented may be very close to European figures.

²⁵ See Standard and Poor's (2015) for more details.

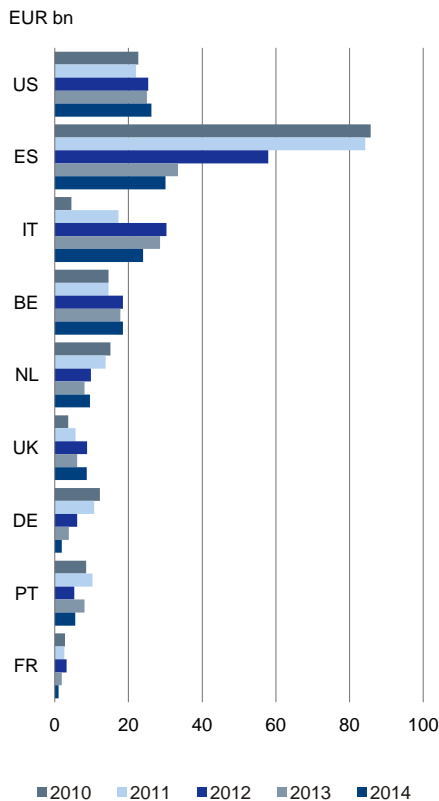
²⁶ See Kaya (2014) for a detailed discussion.



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Outstanding amounts of SME-ABS

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Sources: SIFMA, AFME, Deutsche Bank Research

seems to be stagnating since the crisis. That said, these figures should be interpreted with a grain of caution considering the differences in definition of SMEs in different jurisdictions as well as the obstacles in compiling comparable data on SME loans.

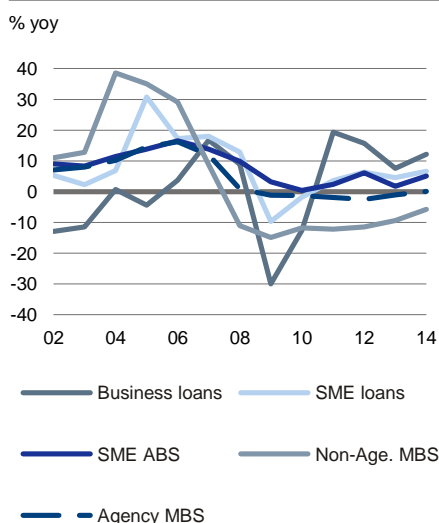
The potential size of the SME-ABS market and its evolution over time will complement the discussion. This sheds light on the share of SME loans that are already securitised and/or could be securitised in the future (see chart 26). Starting with the US, the SME-ABS market is small and in this respect differs from other securitised products. Up from EUR 21 bn in 2010, SME-ABSs amounted to EUR 26 bn as of 2014. This makes up only 5% of the aggregate ABS market. In Europe, there is stark cross-country heterogeneity. Compared with the generally small securitisation market in Spain, the SME-ABS market in particular is large and amounted to EUR 30 bn in 2014, thereby making up 16% of total securitisation in Spain. It is also important to note that, in the past, the SME-ABS volume was much larger and stood at EUR 80 bn in 2010. In Italy, the SME-ABS market is also relatively large at EUR 24 bn in 2014, down from EUR 30.4 bn in 2012. In contrast, the largest economies of the euro area, Germany and France, show small SME-ABS volumes that stood at less than EUR 2 bn in 2014.

Taken together, available data suggests that in the largest economies of the euro area the SME-ABS market has been struggling to pick up and liquidity probably remains limited. In countries where SMEs report to have the most significant problems in accessing bank loans, the SME-ABS market is substantially larger than in those countries where SME lending has been relatively stable over time. In principle, a stronger market for securities backed by SME loans should help to push SME lending. However, in the US, SME loans have seen an upward trend since the crisis despite the small and stagnant SME-ABS market. This may indicate there is only weak causality between a strong SME-ABS market and buoyant SME lending. More precisely, other segments of the securitisation market such as MBSs may at least be equally relevant in freeing up banks' balance sheets and thereby boosting SME lending.

The connection between the MBS market and lending

Securitisation and loan growth rates in the US

27



Sources: Fed, SIFMA, Deutsche Bank Research

Mortgage loans represent one of the main asset classes on banks' balance sheets and thereby consume a lot of capital that could be used otherwise. In this respect, shifting mortgage loans off the balance sheets via securitisation would be a relief for banks and could help lending to non-financial corporations in general and to SMEs in particular. To illustrate the relation between different securitisation market segments and bank lending, chart 27 presents the growth rate of total business as well as SME lending vis-à-vis the growth rate of SME-ABS, non-agency MBS and agency-MBS markets in the US. As seen in the chart, the growth in different securitisation segments and in lending actually follows broadly similar patterns. Before the crisis, all indicators saw a surge in growth rates which was followed by a slump during the crisis. Over the period 1991-2014, among the three securitisation segments, the growth in non-agency MBSs and in SME lending have the highest correlation (despite some divergence in recent years). For business loans in general, the link between the securitisation market and lending growth is somewhat weaker. When securitisation is in full swing, other segments of the capital markets – such as bond markets – probably perform well, too. As a result, bond markets may function as a financing alternative for large corporations, thus lowering their demand for bank loans.

To further delineate the relation between SME loans and the securitisation market, we run simple regressions, taking SME lending growth as the dependent variable and different securitisation market segments as explanatory



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Explanatory power in describing SME loan growth	28
Non-agency MBS	30%
SME-ABS	11%
Agency-MBS	10%

Dependent variable is SME loan growth.

Source: Deutsche Bank Research

variables (one by one due to the sample size restrictions). Our analysis covers the period between 1991 and 2014 where both securitisation and SME loan data are available. Since there is a high likelihood of a structural break in the relation due to the crisis (for example, MBS volumes have been shrinking persistently since 2008, while SME lending picked up in 2011), we include a time dummy variable that controls for the post-crisis period in the model. The coefficient of determination (R^2) helps to understand how closely SME lending growth is linked with the relevant securitisation segment. Among the three, non-agency MBS growth has the largest explanatory power and alone explains 30% of the variation in SME loan growth. It is followed by SME-ABS and agency-MBS growth, which explain around 11% and 10%, respectively, of the variation in SME loan growth. Undoubtedly, our analysis has sample size limitations and various other factors may affect these relations that need to be controlled in a more extensive specification. Nevertheless, taken together with our correlation analysis above of securitisation and loan growth rates, especially the non-agency MBS market seems to play a considerable role in fostering SME lending in the US.

How the CMU can stimulate the securitisation market in Europe

In light of the high default rates in the US and the fact that some securitised products had been fundamentally unsound, regulators took a very rigorous stance towards securitisation markets in the past few years. The prudential treatment and punitive regulations have restricted investor demand and hamstrung the market not only in the US but also in Europe.

Our analysis has shown that the securitisation market in Europe was sound even during the crisis and default rates were negligible compared with the US. In this regard, there is agreement among market participants and policy makers that properly regulated securitisation can be a valuable contribution to European financial markets and the economy as a whole. Yet the capital requirements regulation and directive (CRR/CRD IV) as well as Solvency II, which deal with the treatment of securitisation exposures for banks and insurers, respectively, currently create a bottleneck. The CMU, in turn, could revive securitisation markets in Europe by easing the regulatory treatment that discourages institutional investors from buying these instruments. However, it is important to note that even if the demand for securitised products picks up, banks may remain reluctant to originate them – securitisation is hardly needed as a funding tool amid the current ample central bank liquidity and ultra-low interest rates.

By introducing the concept of a “qualifying securitisation”, the CMU may contribute to the development and the sustainability of a stronger and safer securitisation market, though. In terms of recalibrating capital requirements for qualifying securitisations, there have been recent moves that fuel these hopes. More specifically, to clarify the cornerstones of a qualifying securitisation, the Basel Committee on Banking Supervision (BCBS) and the International Organisation of Securities Commissions (IOSCO) in July released a report that defines simple, transparent and comparable (STC) securitisations (see box 29). Less punitive treatment in terms of capital requirements for STC securitisations may help the industry to regain traction. However, concerning the application of the STC criteria, the CMU should bring more clarification on points such as the ongoing monitoring and compliance of STC products, i.e. on the extent of information that needs to be updated throughout the life of the securitisation. The CMU could also help to simplify the overly prescriptive points and heavy regulatory terminology with regard to characteristics of the STC products.

As discussed above, the revitalisation of the MBS segment may be essential in unlocking lending to non-financial corporations and to SMEs. In addition to a less punitive treatment for the securitisation market in general, the CMU should

Less punitive regulatory treatment of securitised products is necessary

Criteria for identifying simple, transparent and comparable securitisations

29

In July 2015, the Basel Committee on Banking Supervision and the International Organisation of Securities Commissions released criteria that identify the cornerstones for robust securitisations. Among other things, these should be simple, transparent and comparable.

***Simplicity** refers to the homogeneity of underlying assets with simple characteristics, and a transaction structure that is not overly complex.*

Transparency should provide investors with sufficient information on the underlying assets, the structure of the transaction and the parties involved in the transaction, thereby promoting a more thorough understanding of the risks involved. The form in which the information is available should not hinder transparency, but instead it should support investors in their assessment.

***Comparability** could assist investors in their understanding of such investments and enable more straightforward comparison between securitisation products within an asset class.*

Source: BCBS and IOSCO (2015)



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target measures for enhancing the European MBS market in particular. More precisely, under certain conditions, a European backstop for mortgage securitisations, such as a well-defined government sponsor, could be a feasible way to achieve this, the problematic experiences in the US notwithstanding. Keeping in mind the high securitisation default rates during the crisis in the US, the CMU should take a more holistic approach (i.e., focus more on limiting risks for taxpayers) with respect to these types of implicit and explicit guarantees.

A credit risk database for SME loans would be beneficial

In order for SME lending to regain traction, a revival of the SME-ABS market could also be helpful. The drawback here is that, unlike mortgage loans, information on SME loans is usually limited and SME loans are mainly non-standardised. To bring some standardisation and transparency into the SME loan landscape, a European credit risk database on SME loans could be beneficial. For the pooling and repackaging of SME loans, the credit risk database would also reduce the reliance on external ratings. The most efficient way to create a central European credit risk database would be private-sector involvement. Expressing it differently, few institutions have sufficient relevant infrastructure to identify, measure and assess credit risk as well as banks do. It is actually one of the reasons why they exist at all. Moreover, banks usually have deep and longstanding client relations that allow them to adopt the most appropriate “client-specific” risk management processes. As a result, when pursuing new frontiers such as a credit risk database, the CMU should include banks to draw on their risk management expertise and build on their client relations.

VI. Conclusion

Policymakers have identified the need for a Capital Markets Union in Europe to create a more diversified financial system in which capital markets can better complement bank financing. This would allow for a larger spectrum of funding alternatives for European corporations and thereby support a sustainable economic recovery. In this paper, we took a closer look at European capital markets with an empirical approach and identified the main strengths and weaknesses of European stock, bond and securitisation markets. We analysed these in a comparative context with the US markets.

The small stock market cap to GDP ratio in Europe is frequently flagged as evidence of underdeveloped capital markets in Europe. Although this is right, market access and liquidity characteristics of European markets are generally solid. Nevertheless, the historical dominance of European financial centres in a global context is fading. More importantly, European stock market integration has lost momentum in recent years and within the euro area investment has fallen. All of this is probably detrimental to market liquidity and the cost of financing for firms. For European financial hubs to regain importance, the CMU may encourage the consolidation of European stock markets by harmonising rules and regulations that govern exchanges. By harmonising company, securities and insolvency laws and by tackling barriers in other cross-cutting areas such as taxation, the CMU may reverse the market fragmentation. However, the harmonisation of rules that are under the control of domestic jurisdictions has turned out to be extremely difficult in the past and expectations may well prove to be overly optimistic.

Despite their modest size compared with the US, European corporate bond markets have been undergoing a major change since the crisis and they will probably take on a bigger role versus bank lending in the future. Nevertheless, a restricted investor base impedes this progress and the further development of this market segment. The CMU may help to broaden the investor base: first of all, measures could be taken that allow for more active involvement of pension



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funds in corporate bond markets, e.g. by a gradual shift to “defined contribution” pension systems. That said, the choice of pension system is a purely political decision and could well be beyond the scope of the CMU. Second, the CMU may help institutional investors to extend their corporate bond portfolios by reducing the mechanistic reliance on ratings and by introducing more flexible measures. Third, the CMU is a good opportunity to iron out duplications and overlaps in disclosure regimes. It is also important to note that measures such as a financial transaction tax and other regulatory reforms which would damage market-making activity could easily undermine the benefits of the CMU for stock and bond markets alike.

Since properly regulated securitisation can make a valuable contribution to European financial markets and the economy as a whole, the rebound of this market segment, which has been hamstrung since the crisis, is of strategic importance. However, the CRR/CRD IV as well as Solvency II have created a bottleneck that impedes the revival of the securitisation market. The CMU can boost the securitisation market to the extent that it eases the regulatory treatment that discourages institutional investors from buying securitised products. In addition, a carefully designed European government-backed backstop for mortgage securitisations could prove a feasible way to unlock lending to non-financial corporations and to SMEs. Finally, bringing some standardisation and transparency to SME loans may be the most effective way to revive the SME-ABS segment. The CMU might help to do so by introducing a European credit risk database on SME loans incorporating banks in order to draw on their risk management expertise and build on banks’ client relations.

All in all, the CMU is an ambitious project with tremendous potential. That being said, the current discussion is overly abstract and lacks clear guidelines. Taking the steps we have mentioned would facilitate further growth in capital markets in Europe over time, enabling them to gradually strengthen their role compared to bank lending. However, without clearly defined measures and a roadmap as well as a prospective central implementing authority, uncertainty regarding the success of the CMU project will remain. Even in the optimal case with fully defined cornerstones, achieving a union for capital markets in Europe is going to be a long and rocky process. In this respect, the success of the CMU requires persistent dedication.

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