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European Financial Integration through Securitization

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Abstract

The lack of cross-border risk sharing in the banking sector, which constitutes the dominant source of funding for European firms and households, is one of the biggest barriers to better integrated financial markets in Europe. In this policy brief, we emphasize the potential of the securitization market for bank-based financial integration. In order to effectively increase cross-border risk sharing through securitization in the EU, we suggest a two-pronged strategy: First, it entails further improving the existing regulatory framework in order to reduce barriers to a thriving securitization market. And second, explicit incentives for risk sharing and securitization in Europe should enter EU regulation and EU programs. Our suggestions are practical in that they build on adaptations of existing regulation and programs instead of devising new ones. Specifically, we make the case for linking the countercyclical capital buffer to a measure of geographic diversification as a way to strengthen incentives for risk sharing. Furthermore, we argue that pertinent changes to the terms and conditions of subsidies to securitized SME loans within the existing SME Initiative will help create cross-border investment opportunities in a strategically import sector of the European economy.

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1. Introduction

Sharing risk is a vital part of a functioning monetary and economic union such as the Eurozone. It allows idiosyncratic shocks to one part of the union to be smoothed in order to prevent economic conditions of regions to drift too far apart. Increasing disparities between regions not only impede the effectiveness of a common monetary policy, but can endanger social and political cohesion. This has been painfully demonstrated by the financial crisis and the subsequent sovereign debt crisis in the Eurozone. While the degree to which risk should be shared between Eurozone countries is subject to debate, it is currently well below the levels reached in other federations, including individual Eurozone countries and the US. A recent study suggests that while 17% of idiosyncratic shocks in the US remain unsmoothed, this share amounts to 75% for the Eurozone (see Alcidi et al., 2017).[1] A recurrent finding of recent studies on risk sharing is that a large part of the higher risk sharing level documented for the US is due to its better integrated financial markets.

1.1 Fragmentation of the Eurozone Banking Sector

The fragmentation of the banking sector, which constitutes the dominant source of funding for European firms and households, is a significant barrier to better integrated financial markets in Europe. The symptoms of this fragmentation feature prominently in public, academic and political debate. These include the discussion on non-performing loans in peripheral countries of the Eurozone, the criticism of the ECB's ultra-loose monetary policy prevalent in some core countries and proposals on how to break the "doom loop" between sovereigns and their banking sector. The underlying problems, i.e. the high concentration of domestic risk on banks' balance sheets and the asynchronous effect of monetary policy in the Eurozone, are direct consequences of an insufficiently integrated European banking sector. It is thereby not well understood why banks choose a portfolio so strongly biased towards domestic risk.

Typical barriers to geographical diversification such as exchange rate risk and transaction costs, for example, cannot explain the lack of cross-border investments by Eurozone banks. Furthermore, the excessive home bias of banks is not shared by other financial institutions within the Eurozone. While more than 60% of debt security holdings by Eurozone banks were of domestic origin, approximately 90% of the debt securities held by Eurozone investment funds in 2016 classified as cross-border investments (ECB, 2017, statistical annex). The fact that the largest part of debt securities held by Eurozone banks are government bonds has led to claims that banks seek large exposures to their sovereign in order to link faiths. A faltering bank has a bigger chance of being bailed out by its government if its default would significantly hamper the sovereign's access to funding. Conversely, governments could use moral suasion and convince domestic banks to buy their bonds, which increases their access to funding and reduces funding costs. While empirical evidence does offer support to these claims,[2] solving the banks-sovereign nexus will only have a limited impact on the banking sector's contribution to financial integration. The home bias of banks goes far beyond sovereign debt holdings. For instance, interbank loans in the Eurozone also exhibit a domestic share of

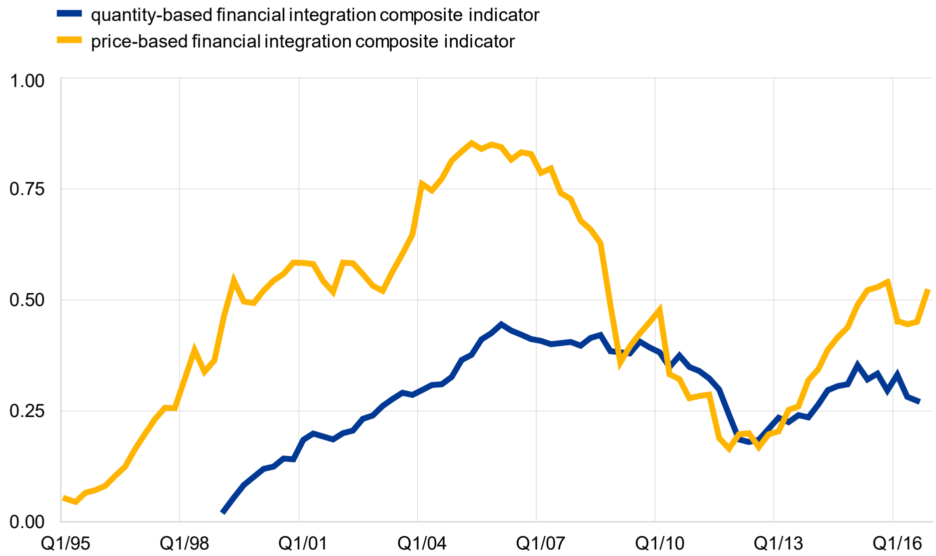
[1] The estimates were conducted with data from the years 1998-2013. Only 11 countries of the Eurozone were considered. Due to lacking data the Baltic States, Slovakia and Slovenia were omitted from the study; Luxembourg, Malta and Cyprus were excluded because of their small size and atypical economic structure.
[2] See e.g. De Marco and Macchiavelli (2016) and Ongena, et al. (2016).

approximately 60% (see ECB 2017, statistical annex), while the home bias on deposits and loans to firms is even more pronounced.

1.2 Three Ways to Increase Financial Integration

In the following, we outline three ways to increase financial integration. It is thereby important to note that different risk sharing instruments have different characteristics, which can have an impact on the degree and stability of financial integration. For example, the amount of risk sharing via cross-border overnight interbank debt can drastically vary on a daily basis, while a cross-border bank merger constitutes a long term commitment to share risk. Generally, asset maturity and market liquidity (the ease with which an asset can be sold) play an important role in determining the stability of financial integration. High maturity of cross-border assets can increase the persistence of financial integration in the face of shocks, while a highly liquid market for cross-border assets can lead to a rapid re-fragmentation of financial markets after an initial shock. Figure 1 shows how both quantity-based and price-based indicators of financial integration for the Eurozone started declining during the global financial crisis in 2007 and the European debt crisis in 2011.

Figure 1: Indicators of financial integration for the Eurozone

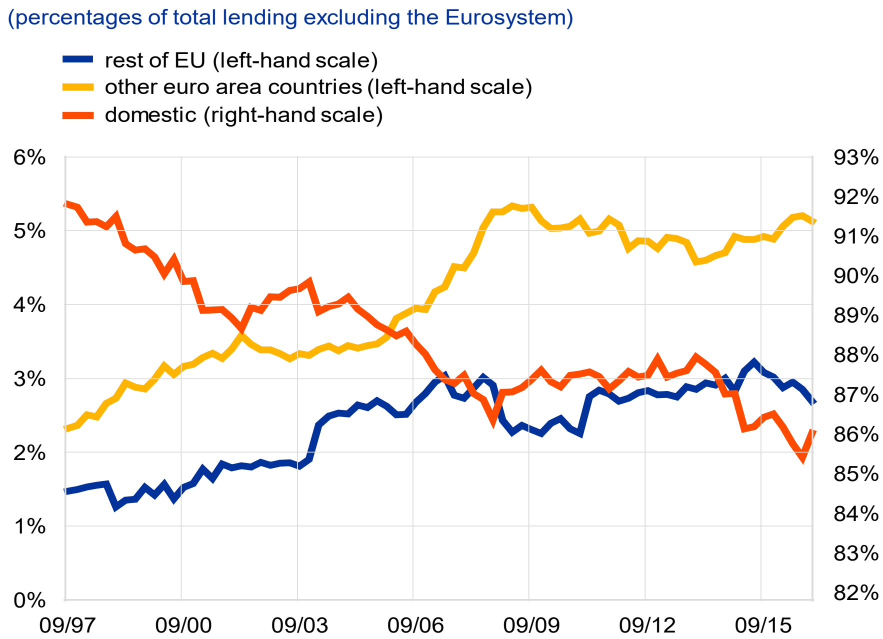


Notes: The price-based composite indicator aggregates ten indicators covering the period from the first quarter of 1995 to the fourth quarter of 2016, and the quantity-based composite indicator aggregates five indicators available from the first quarter of 1999 to the third quarter of 2016. The composite indicators are bounded between zero (full fragmentation) and one (full integration). Increases in the composite indicators signal higher financial integration. Source: ECB (2017).

Cross-border M&A

The fact that bank loans to firms typically exhibit a long maturity and are difficult to sell on a market (low market liquidity) makes them, in essence, an ideal instrument for cross-border risk sharing. Nevertheless, the contribution of retail credit markets to financial integration is marginal. As shown in Figure 2, in 2016 only about 5% of total lending by Eurozone banks went to non-financial firms in other Eurozone countries, while approximately 86% of outstanding loans in the Eurozone were held by domestic banks. Only international banks with loan offices in different countries have the local knowledge that allows for significant cross-border diversification of their loan portfolios. Facilitating more cross-border bank M&As in Europe is therefore an obvious path towards more financial integration and has been advocated on many occasions.[3] However, it is unclear if removing obstacles to cross-border bank M&As such as intra-European differences in bank regulation, insolvency laws, taxation and consumer protection can reverse the downward trend in M&A activity that ensued after the financial crisis. It is also questionable if the risk-sharing benefits of such a reversal would outweigh the social costs incurred by creating large and potentially systemically important financial institutions. From a bank's perspective, a cross-border merger is expensive and its long-term effects on the risk-return profile of the bank's asset portfolio are difficult to assess. The empirical evidence on the question whether geographic diversification, typically through the establishment of foreign branches or subsidiaries, is beneficial to a bank, remains inconclusive.[4] On balance, it seems unlikely that cross-border bank M&As by themselves will be an effective remedy for a fragmented European banking sector in the foreseeable future.

Figure 2: Bank loans to non-financial firms



Notes: Loans by monetary financial institutions to non-financial firms: outstanding amounts by residency of counterparty. Source: ECB (2017)

Capital Markets Union

Strengthening capital markets in the European Union in order to induce a shift in firm funding away from bank loans towards marketable debt securities and equity has become a key priority for the European Commission. The creation of a Capital Markets Union (CMU) is well underway. Aspiring to create a financial system, where bank loans are no longer the almost exclusive funding source for European firms, in particular SMEs, is sensible from a risk sharing perspective. Specifically, an increase in equity financing, which tends to be less prone to runs than debt financing, is conducive to financial

[3] See e.g. the keynote speech by Banque de France Governor, François Villeroy de Galhau at the founding conference of EconPol Europe. (Villeroy de Galhau, François: Keynote speech "The Euro - Which Way to Go?", EconPol Founding Conference, 9-10 November 2017, video, 1 hour 5min)

[4] Hayden et al. (2007) e.g. find a negative effect, while Garcia-Herrero and Vazquez (2013) find a positive effect of geographical diversification on the performance of banks.

integration in Europe. Generally, whether the prevailing financial system of a country is market based or bank based depends more on tastes than on economic principles. For instance, US-Americans tend to save mostly through stock markets and pension funds, while citizens of most European countries typically save in bank deposits. As a consequence the market capitalization of stocks traded in terms of GDP is usually above 100% in the United States and about 50% in the Eurozone.[5] Whether CMU-related policies, which focus on creating level playing fields and enhancing transparency will be sufficient to achieve a change of saving behavior remains to be seen.

Securitization

A third, less deliberated path towards more cross-border diversification of banks entails making loan portfolios of banks marketable. The securitization and subsequent trading of firm loans allows banks to geographically diversify their portfolios without the necessity of establishing foreign offices. However, the European securitization market has been in decline since the global financial crisis and its present volume would need to drastically increase in order to be of significance for financial integration in Europe. Nevertheless, it seems feasible that cross-border risk sharing through securitization markets can become a crucial element of financial integration in Europe. Current regulatory initiatives by the European Commission regarding securitization, but also harmonization projects already help to create the necessary conditions.

2. Why Have Securitization Markets in the EU Not Recovered After the Crisis?

While the volume of European securitization markets strongly increased before the crisis, they have decreased ever since their peak in 2009. At the end of Q2 2017, outstanding volumes amounted to 1.24 trillion EUR (see AFME, 2017), which is about half of the outstanding volume in 2009. US securitization markets, in contrast, have seen a revival in the aftermath of the crisis. However, differing features of the two markets make direct comparisons difficult. For instance, while in the US a vast majority of securitized debt is publicly guaranteed, no such guarantees exist in the European Union. When considering outstanding volumes by country and collateral, residential mortgage-backed securities (RMBS) account for more than half of the market. In contrast, securitized loans to SMEs amount to just 10% of the outstanding RMBS volumes, which is disproportionate given that housing loans and corporate loans make up a similar share of Eurozone banks' balance sheets. The countries in which SME securitizations seem to play the most important role are Belgium, Italy and Spain.

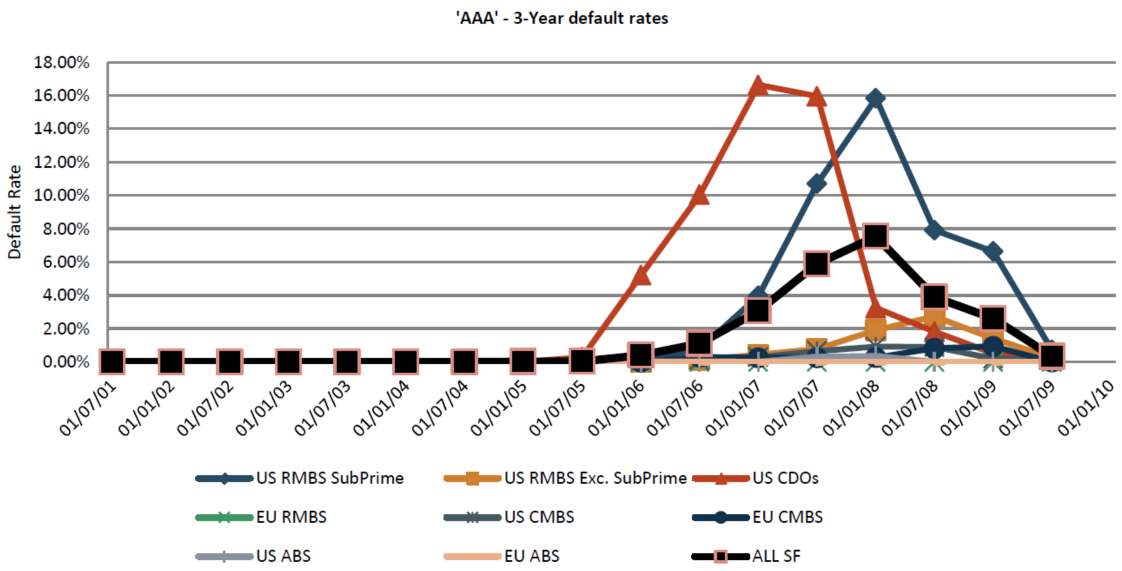
Several public consultations by the European Commission, the ECB and the Bank of England, the Basel Committee on Banking Supervision and the International Organization of Securities Commissions as well as the European Banking Authority have been carried out in order to understand why securitization markets in the EU have remained subdued after the crisis. Three reasons stand out:

[5] See: https://www.ecb.europa.eu/mopo/eaec/markets/html/index.en.html

2.1 Stigma to securitization

The most prominent reason seems to be the stigma that has been attached to securitization since the outbreak of the 2007-2008 global financial crisis. Complex and intransparent mortgage backed securities (MBS) have been identified as one of the culprits of the financial crisis. As shown in Figure 3, up to 16% of AAA-rated US-MBS defaulted during the crisis. This is an extraordinary outcome considering that the expected default probability associated with AAA-rated securities is 0.1%. The losses incurred through mortgage backed securities translated into a general loss in trust towards securitization worldwide. Given that both AAA-rated and BBB-rated European securitizations experienced very low default rates during the crisis (see EBA, 2015), this negative view seems unjustified and can at least partly be ascribed to a limited understanding of the fundamental differences between the securitization markets in the US and Europe. For instance, in contrast to the US, EU originators typically retained a large part of the securitized loan pool. The originate-to-distribute model, prevalent in the US, meant that originating banks did not have an incentive to carefully screen borrowers. Furthermore, very complex products such as CDOs and CDO², which generated the highest losses during the financial crisis, were much less common in the EU than in the US.

Figure 3: 3-year default rates at AAA-rating level



Notes: 3-year default rates at AAA-rating level per asset class 2001-2010. Source: EBA (2015)

2.2 Regulation of securitizations

Regulation of securitizations has become tighter since the crisis, which has deterred investors and originators. In order to incentivize banks to screen and monitor borrowers prudently, capital requirements, due diligence and conduct of business requirements as well as mandatory risk retention requirements for securitized products were tightened. Furthermore, tightened rating criteria regarding counterparty risk has diminished the number of potential counterparties in securitization transactions. For insurance companies, capital charges as defined in Solvency II were set higher for the securitized products than for the underlying assets. More generally, EU securitizations are regulated in a large number of legal acts which makes the overall framework difficult to oversee. While several new initiatives, such as the EU framework for simple, transparent and standardized (STS) securitization, have been proposed on multiple levels, no final decisions have been taken yet. The regulatory uncertainty has led some originators and investors to temporarily withdraw from the market. Other investors have resorted to products that provide more liquid secondary markets and less regulatory uncertainty such as covered bonds or corporate bonds. In addition to tighter regulatory requirements and uncertainty associated with prospective regulation, varying legal and tax system within the EU have an inhibiting effect on pan-European securitizations. Insolvency laws, debt enforcement, company and corporate governance laws as well as the tax systems differ widely between countries within the EU and make it difficult for investors in one country to assess the assets underlying a securitized product from another country as well as the procedures in case of their default.

2.3 Macroeconomic and monetary environments

The macroeconomic and monetary environments in Europe after the crisis also contribute to the subdued evolution of the securitization markets. Several European countries, particularly those in the southern periphery, have gone through severe economic crises, which has depressed demand for credit and thus reduced banks' interest in the securitization of loans. Furthermore, although banks, in their efforts to de-risk and de-leverage, could have made use of securitization to move illiquid assets off-balance-sheet, unconventional monetary policy has provided a cheaper alternative. Funding by the ECB through programs such as the Securities Market Program (SMP) and Long-Term Refinancing Operations (LTROs) made it unnecessary and unattractive for banks to use securitization as a way to generate additional funding.

3. The EU Framework for Simple, Transparent and Standardized (STS) Securitization

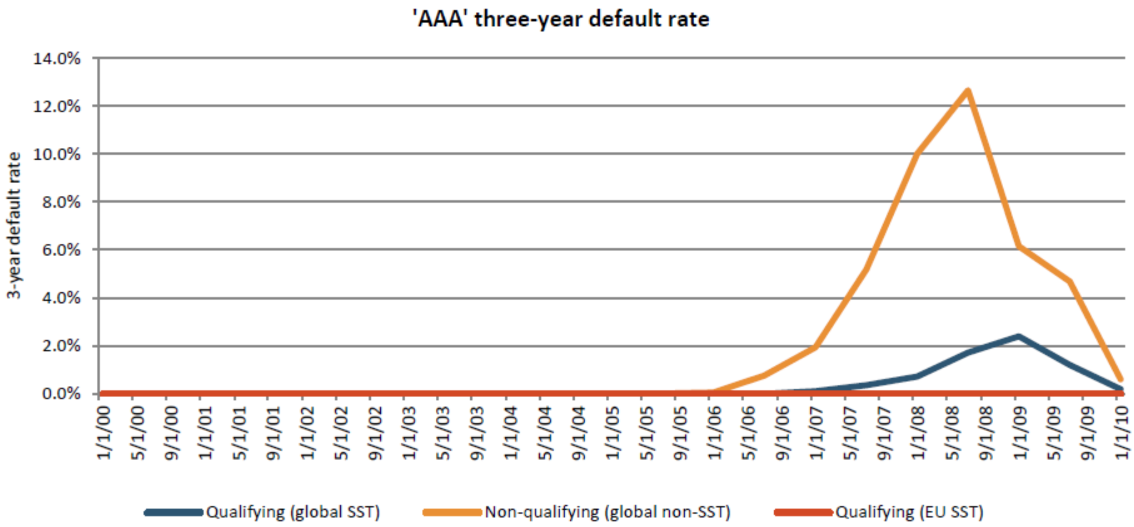
In January 2018 two EU regulations aimed at establishing a new framework for European securitization entered into force.[6] The legislations provide the guidelines for a simple, transparent and standardized (STS) market for securitized bank loans (to be established by January 2019) as well as revisions to the Capital Requirements Directive (CRD) to better reflect the risks of securitization. Within the new securitization framework, STS products are standardized with regard to the contents of transaction documentation and in the sense that all involved parties need to adhere to the risk-retention requirements. Products are transparent because data and information needs to be made accessible to interested investors as well as to an independent third party for verification purposes. Furthermore, simplicity requirements state that all parties involved in the securitization process need to be established in the EU and lay out the criteria that the underlying pool of assets need to satisfy (e.g., they need to be homogenous in terms of credit risk, cash flows and asset type).[7] The proposal explicitly builds on the tightened regulatory rules implemented since the crisis (e.g., higher capital, due diligence, conduct of business and mandatory risk retention requirements) to avoid the pitfalls and mistakes

[6] See European Commission (2015). In October 2017 the European Parliament approved the Commission's proposal as Regulation (EU) 2017/2402 (Securitization Regulation) and Regulation (EU) 2017/2401 (Securitization Prudential Regulation).

[7] See e.g. Latham & Watkins (2017) for more details.

made before the crisis with regard to complex, opaque and risky securitization. But it incorporates reduced capital requirements (both for banks and eventually for insurance companies) for STS securitizations to better account for the riskiness of the respective instruments. Figure 4 highlights the appropriateness of such risk-sensitive capital requirements. The default rates of AAA-rated tranches that qualify as STS-securitizations are considerably lower than those of non-qualifying tranches. Default rates are even lower when only EU-STS products are considered instead of a global STS portfolio.

Figure 4: Historical 3-year default rate performance



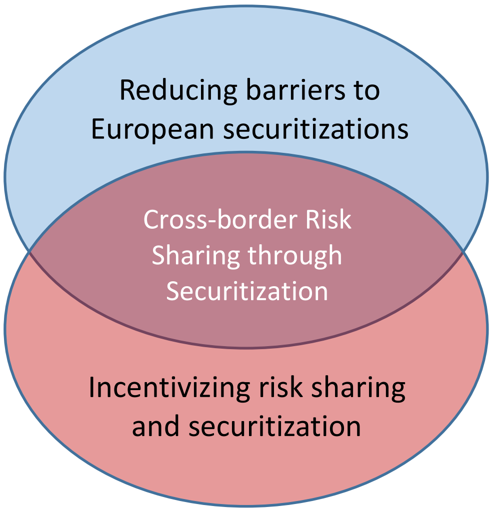
Notes: Historical 3-year default rate performance of qualifying vs. Non-qualifying STS (SST) securitization tranches. Source: EBA (2015)

Overall, the new legislation should help to remove the stigma attached to securitization by creating a new market segment consisting of sound instruments based on clear eligibility criteria. Thereby it is important to note that STS refers to the process by which the securitization is structured and not the underlying credit quality of the assets involved. The proposal thus emphasizes that the responsibility to perform due diligence before investing lies with the investor.

4. What Needs to Be Done

In order to effectively increase cross-border risk sharing through securitization in the EU, we suggest a two-pronged strategy: It entails, on one hand, further improving the existing regulatory framework in order to reduce barriers to a thriving securitization market. On the other hand, explicit incentives for risk sharing and securitization in Europe should enter EU regulation and EU programs. This is necessary to not only create a critical mass of available risk sharing instruments, but also to overcome banks' apparent reluctance to invest cross-border. The measures we suggest focus on modifying existing programs and regulation instead of proposing novel approaches. Figure 5 summarizes our suggested strategy, which is detailed below.

Figure 5: More cross-border risk sharing through securitization



4.1 Reducing Barriers to Securitization

The newly-created European STS framework is a dependable and predictable system in which securitization stakeholders can operate. Despite the regulatory improvements that will enter into force in January 2019, barriers to a thriving securitization market still exist in the form of insufficient harmonization and inadequate capital and liquidity requirements.

Competitive capital and liquidity regulation for securitized products

Bank regulation plays a crucial role in setting the environment for a market for securitized products. Given the complex nature of securitization a holistic review of the regulatory framework on capital and liquidity requirements is necessary.[8] It is thereby essential to proceed swiftly, as uncertainty restrains issuers and investors alike from participating in creating a vibrant securitization market. Pertinent changes to capital and liquidity regulation are needed in the following areas:

- Capital treatment for high-quality securitization instruments would need to be reviewed regarding its competitiveness compared to covered bonds.[9] There is little justification for the prevalent, more lenient regulatory treatment of covered bonds in comparison to STS. Note that covered bonds can help banks to finance their operations, while the securitization of loans additionally allows banks to achieve a more diversified investment portfolio.

[8] The European STS securitization framework acknowledges that the current situation misses incentives for high-quality securitization to compete against other investment products (for further details see „Revitalizing Securitization for Small and Medium-Sized Enterprises in Europe“, 2015).

[9] There are currently several new initiatives regarding capital charges but no final decisions have been made. See Bank for International Settlements (BIS) and IOSCO, European Banking Authority (EBA), Capital Markets Union plan of the European Commission.

- Capital charges for insurance companies in Solvency II should not be higher for securitized products compared to the underlying assets. This applies, in particular, to STS-products, which do not feature the opaqueness of more complex securitized loans.
- The treatment of STS securitized loans within the Liquidity Coverage Ratio (LCR) should be improved to take into account their transparent and thereby less run-prone structure in comparison to the more general class of securitized loans. Adjusted capital requirements for STS-products could fail to stimulate the European securitization market without an analogous adjustment of liquidity requirements.

Level playing fields and harmonized credit information

Creating a single market for securitized European loans with a European investor base requires a level regulatory playing field within the European Union and a harmonized information structure with regard to the underlying loans. While the current STS legislation is a major step in the right direction, fragmented markets in Europe make the assessment of portfolios with a high degree of cross-border diversification difficult. Taking steps towards more harmonization would reduce operational costs of banks and improve the origination processes of securitization instruments. Furthermore, reducing the costs of identifying and understanding potential sources of losses in securitized products will improve market liquidity and market discipline. In this regard, the following steps will prove instrumental:

- Regulation should be aimed at providing harmonized credit information in order to facilitate the comparison of country-specific securitizations. A European-wide credit registry could provide information to investors by granting access to harmonized data on mortgage, consumer and SME loans. Harmonized credit information on euro area loans is already being collected by the ECB since September 2018 through the AnaCredit project. The relevant information gathered through AnaCredit should be made available to investors of STS products.
- More efforts should be dedicated to achieving convergence of debt enforcement rules within the European Union. This would reduce the uncertainty regarding the consequences of defaults of underlying assets within an STS-product and increase the feasibility of securitizations with underlying loans from different European countries.
- More generally, harmonized legal frameworks and company tax regimes, as well as comparable corporate governance standards would improve comparability of securitization products. From that perspective, the Commission initiative towards a Common Corporate Tax Base could be a first step into a direction that will also be conducive in this respect. Diverging tax systems can be problematic as they allow for regulatory arbitrage in a common securitization market.

4.2 Incentivizing Risk Sharing and Securitization

Putting in place a regulatory framework that facilitates a securitization market to thrive in the European Union is a necessary, but not a sufficient condition for more cross border risk sharing by European banks. Doubts as to whether removing barriers to securitization alone can constitute a solution to insufficient risk sharing are justified. In particular when considering that not only banks' loan portfolios, but also their investments in debt securities are highly skewed towards domestic issuers. Accompanying regulation is needed in order to incentivize cross-border risk sharing and securitization.

Preferential treatment for holders of cross-border securitized products

The case for inducing more cross-border investment through regulation is first and foremost one of macro-prudence. Pervasive cross-border risk sharing by European banks weakens the pro-cyclical relation between the health of banks' balance sheets and their home economy.[10] A local shock would not result in high concentrations of non-performing loans at individual banks and instant write-downs of bad debt would be feasible if loans are securitized and marketable.[11] Banks would be able to recover quickly and destabilizing fire sale spirals could be avoided. The case for cross border risk sharing is especially compelling for members of the euro area. Thorough financial integration helps to synchronize the effects of a single monetary policy across euro area countries, which is conducive to financial stability in general and price stability in particular.

Since cross-border risk sharing between European banks affects the stability of the European financial system, it seems only logical that capital requirements should reflect the degree to which a bank diversifies across European borders.[12] Strengthening the role of diversification benefits in capital regulation is not a new idea. Prior to the financial crisis, the incorporation of diversification effects in regulatory risk measures was advocated by many and considered by regulators. However, measuring diversification effects and subsequently calibrating regulation is notoriously difficult.[13] In fact, a 2016 revision of minimal capital requirements for market risk, which is expected to be implemented in January 2019, is putting constraints on the capital-reducing effects of diversification currently allowed under Basel rules.[14]

We propose that diversification benefits in capital regulation should focus on cross-border diversification rather than on general correlations of asset returns.[15] Since credit cycles in the European Union are far from being perfectly correlated, more cross-border diversification will dampen the cyclicality of banks' balance sheets. The discretionary countercyclical capital buffer (CCyB) therefore provides a logical and existing regulatory instrument to incentivize cross-border risk sharing by banks. The CCyB, which is implemented as an extension of the capital conservation buffer, allows national regulatory authorities to require banks to hold an additional 2.5% of risk weighted assets in Common Equity Tier 1 (CET1). Linking the CCyB to a measure of geographic diversification could

[10] The relation between banks and their domestic economy includes the sovereign-bank nexus that has received a lot of attention lately. Proposals, such as the creation of Euro-Safe-Bonds (ESBies), have emerged that aim at breaking the linkage between banks and their sovereigns due to banks' excessive holdings of domestic sovereign debt. These proposals are, however, somewhat narrow in the sense that banks and governments are not only linked directly through sovereign debt holdings, but also indirectly through the prevailing economic conditions of a country. Economic conditions and the default risk of the domestic banks' loan portfolios are strongly correlated. Also, as economic conditions deteriorate, public debt and its cost typically increase.

[11] The average non-performing loans ratio for banks in the euro area in the 4th quarter of 2017 amounted to 4.9%, while the NPL exposure is 11.1% for Italy, 38.9% for Cyprus and 44.9% for Greece. These numbers clearly demonstrate the scope for reducing the concentration of risk via more cross border risk sharing.

[12] Linking capital requirements to cross border diversification is often also the regulation mechanism in proposals on breaking the sovereign-bank nexus (see e.g. Matthes and Rocholl, 2017).

[13] Post-crisis evidence shows that simple correlation matrices are not stable and in times of crisis can converge towards one. Other, more sophisticated, methods of measuring diversification such as using copulas and tail correlations also have their drawbacks. In general, it seems that the danger of miscalibration is higher than the benefits that could be achieved by allowing banks to reduce their capital requirements through diversification.

[14] Specifically, the new expected shortfall (ES) approach in contrast to the to-be-replaced Value-at-risk (VaR) approach to computing market risk, strongly limits the use of diversification to reduce capital requirements.

[15] It is likely that higher cross-border diversification would increase the correlation of asset returns as banks' portfolios become less dependent on local economic conditions.

strengthen incentives for risk sharing.[16] Specifically, we propose increasing the CCyB from 0% to 2.5% with increasing geographic concentration of the loans and securities portfolios of individual banks. Note that a bank would be able to decrease its CCyB through diversification even when assets have a zero risk weight. Cross-border diversification of sovereign debt would therefore be the easiest way for a bank to reduce the buffer. Lower concentrations of domestic sovereign debt would help break the sovereign-bank nexus. More importantly, cross-border diversification of banks' loan portfolio, which makes up the largest share of banks' asset side, would promise the biggest reduction in the CCyB. The ensuing increase in demand for cross-border bank loans can prove instrumental in generating a thriving European securitization market and a substantially more integrated banking system.

Subsidizing Securitization

In order to counteract the barriers to a flourishing European market for STS securitizations, existing and future EU programs aimed at improving the accessibility to finance for firms and households should favor setups which facilitate the cross-border sharing of associated credit risk. The success of government-sponsored enterprises (GSE) in expanding the secondary mortgage market through securitization in the United States indicates the extent to which sponsoring can be instrumental in building a securitization market.[17] While GSEs similar to those in the US do not exist in Europe, programs aimed at improving access to funding, in particular to SMEs, fulfill a similar role. We see an increasing focus on securitizations in these programs as the most promising starting point for incentivizing securitization in the EU. In the following we show how this can be done in the context of adjustments to the SME Initiative, an EU program that aims at increasing the competitiveness of underdeveloped regions by improving the financing situation of resident SME companies. Risk sharing already plays a role in the current setup, however, not at the scale which would be relevant for the European securitization markets. We therefore propose to extend the scope of the participating countries and to adjust instruments towards their risk sharing function. Specifically, we suggest that guarantees for securitized products within the SME Initiative should be amplified and enhanced.

In short, the SME Initiative, in its current form, benefits originating financial intermediaries through guarantees and/or purchases of certain tranches of securitized SME loan portfolios by the European Investment Fund (EIF). Guarantees are also extended to SME loans that are not securitized. In return, the financial intermediary must issue new credit to SMEs in a specific geographic region and pass on the reduction in risk resulting from the EIF's guarantees and purchases to SME-borrowers via reduced credit risk premiums. In order to more effectively incentivize risk sharing through securitization, we suggest the following changes:

- The EIF should focus on guarantees for tranches of securitized SME loans. In the context of increasing cross-border risk sharing, guarantees for financial intermediaries that hold securitized SME loans are more expedient than direct purchases. The guarantee constitutes a subsidy, which improves the risk-return profile of securitized SME products. This can be seen as an initial compensation to buying a product on a small and initially illiquid market.[18] Guarantees thus create additional demand for securitized loans, which will gradually lead to improved market liquidity. In comparison to guarantees, direct

[16] A simple measure such as the Herfindahl index could e.g. be used as an indicator of a bank's contribution to financial integration.

[17] While being successful in building a market for mortgage backed securities, government-sponsored enterprises Freddie Mac and Fannie Mae also helped fuel the US housing bubble which precipitated the global financial crisis. Mandatory risk retention for originators of securitized products in Europe should, however, avoid creating the perverse incentives that have led to the disastrous side effects of sponsoring in the United States.

[18] Only institutions that themselves issue loans to SMEs should be eligible to receiving guarantees.

purchases of securitized loans from originating banks by the EIF would reduce the size and liquidity of the securitization market.

- The SME Initiative should favor guarantees on securitized SME loans to non-securitized SME loans. Since the establishment of a thriving European market for securitized SME loans entails an important step towards cross-border risk sharing and financial integration in the European Union, its impact goes beyond increasing financial conditions for SMEs. This should be reflected in the relative design of guarantees for securitized and non-securitized SME loans. The expertise provided by the EIF on the process of securitization ensures that not only large and sophisticated financial intermediaries can benefit from guarantees on securitized SME loans.
- Guarantees for tranches of securitized SME loans by European Union agencies should be linked to the fulfillment of STS criteria. As detailed above, the STS framework is an important step towards creating a thriving market for securitizations.
- Guarantees for securitized SME loans should, at least initially, not be linked to the condition that the receiver of guarantees issues a specified volume of new SME loans and passes on the benefits of guarantees to these new borrowers. These conditions can be counterproductive by inhibiting the growth of the market for securitized SME loans. Furthermore, they create incentives to increase the geographic concentration of risk in banks' balance sheet instead of incentivizing cross-border risk sharing. SMEs will still benefit from guarantees indirectly by an initial broadening of the investor base. If the market for securitized SME loans grows sufficiently large and liquid, market forces will put pressure on credit risk premiums, which will sustainably reduce financing costs for European SMEs.

Only small changes to the framework that regulates the provision of guarantees for SME loans are needed to more effectively incentivize securitization. While the volumes of guarantees available under the SME Initiative are arguably not sufficient to create a securitization market that is big enough to support comprehensive cross-border risk sharing, the experience gained could serve as a blueprint for further actions.

Summary

Sharing risk is a vital part of a functioning monetary and economic union such as the Eurozone. The lack of cross-border risk sharing in the banking sector, which constitutes the dominant source of funding for European firms and households, is a significant barrier to better integrated financial markets in Europe. One way to increase financial integration is to establish a functioning and vibrant securitization market for SME loans.

In order to effectively increase cross-border risk sharing through securitization in the EU, we suggest a two-pronged strategy: It entails, on the one hand, further improving the existing regulatory framework in order to reduce barriers to a thriving securitization market. We propose adjustments to the capital and liquidity regulations regarding STS securitizations and outline the importance of harmonizing credit information, debt enforcement and tax rules across the EU. On the other hand, explicit incentives for risk sharing and securitization in Europe should enter EU regulation and EU programs. This is necessary to not only create a critical mass of available risk sharing instruments, but also to overcome banks' apparent reluctance to invest cross-border. We suggest linking the CCyB to a measure of geographic diversification as a way to strengthen incentives for risk sharing and suggest that guarantees for securitized products within the existing SME Initiative should be amplified and enhanced.

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