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SECURITIZATION AS A TOOL OF BANK LIQUIDITY AND FUNDING MANAGEMENT BEFORE AND AFTER THE CRISIS: THE CASE OF THE EU[1]

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Abstract

Before the financial crisis securitization was commonly considered an efficient way of replacing illiquid assets with liquid securities (ABS), in which the risk was supposed to be adequately compensated by the tranching techniques. However, with the emergence of the crisis investors became more risk aversive and reluctant to incur ABS due to the rapidly deteriorating quality of the underlying assets caused by poor macroeconomic fundamentals. The limited adverse effects of the poor collateral performance is the main reason why chances for recovery of the ABS market in the EU are estimated more highly than in the USA. The analysis indicates that, driven by the ECB repo operations, the securitization market has almost lost the pre-crisis motives behind the issuance of ABS. Banks' attitudes toward securitization as a refinancing tool and a mechanism to extract additional profit underwent a shift. As the findings of the article suggest, after the crisis securitization is widely seen by banks as a liquidity tool within the frame of repo deals with the ECB, and to a lesser extent as a refinancing tool. Market regulation contributed considerably to this shift.

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Introduction

Securitization became a dominant form of secured bank funding before the crisis not only in the USA, but also in the EU. Bär (1997), one of the main researchers on securitization markets in the EU, defines securitization as the process of pooling loans and receivables, transferring the pool to the SPV (the special purpose vehicle) and repackaging cash flows in order to refinance them through the issuance of securities, the so-called ABS (asset-backed securities). In other words, the key idea behind the securitization process is the transformation of illiquid assets into liquid financial instruments and segregation of the pool of assets from the balance sheet of the originator.

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Securitization transactions are characterized by a certain level of complexity; therefore, a wide range of external participants is engaged in it (Brost, 2008; Bär, 1997; Achleitner, 2007):

1) servicers– control timely payments based on the repayment schedule of pooled loans,
2) rating agencies – audit and rate the tranches of securities issued by the SPV,
3) trustees– act on behalf of investors in order to ensure payoff interests and principal of securitization securities,
4) insurance companies – provide external credit enhancements,
5) special purpose vehicle (SPV) – an entity established for the specific aim of refunding assets.

The form of securitization that presumes the transfer of assets to SPV (the so-called: true-sale securitization) represents the traditional approach of covered refinancing[4].True-sale transactions are considered as the irrevocable transfer of a pool of financial assets by their originator (usually a bank) to the SPV, which is funded by the simultaneous sales of the newly issued securities by the SPV to investors (Achleitner, 2007). By such transactions banks write-off securitized assets from their balance-sheets. These assets become legally isolated from their originators, which, in turn, enables banks to lower their capital requirements due to transferred credit and interest rate risks. As Gorton (2010) suggests, the advent of innovation mechanisms, such as securitization, was a result of the deteriorating profitability of traditional banking.

The main aim of the article is to analyze the process of the transformation of the securitization market in the EU caused by the financial crisis. The article is primary concerned with describing the effects of financial crisis on the structure of the securitization market and on the legal environment in the EU. The article also represents an attempt to define the impact of the European monetary authorities, in particular the ECB repo facilities, on the functioning of the securitization market in the post-crisis period. The data for the research are acquired from the database of the Securities Industry and Financial Markets Association (SIFMA), the financial information services company – Markit (Structured Finance), the European Central Bank and the Association for Financial Markets in Europe (AFME).

The remainder of the paper is structured as follows. The first chapter revises the theoretical benefits of securitization and justifies the reasons of its application in the EU banking sector, the second presents the structural evolution of the ABS market in the EU, the third - the new EU regulation referring to the ABS market, and the fourth – factors which affect the future development of the ABS market in the EU. The results are summarized in conclusions.

The concept of securitization: theoretical foundations and their revision after the crisis

Before the global financial crisis of 2007-2008 a regulatory arbitrage was among the key drivers for the banking sector to apply securitization as the refinancing tool for long-term assets, mainly mortgages. On this point, Tavakoli (2008) and Achleitner (2007) highlight benefits for banks, which come from the opportunity to gain flexibility in complying with capital adequacy requirements and in management of the credit portfolio. As banks have to keep an appropriate

[4] In the beginning of the 2000s synthetic securitization gained popularity among banks-originators. In such transactions banks do not transfer loan claims to the SPV, but only credit risk associated to a package of loans. For the risk transfer, synthetic schemes were employed, mainly in the form of credit derivatives like Credit Default Swaps (CDS) and Credit Linked Notes (CLN). But this form has not survived after the crisis and has lost its popularity; therefore, the scope of this article will be restricted to true-sale transactions.

amount of equity related to the value and quality of their assets, true-sale securitization enables them to free up some capital and extend new loans. Servigny and Jobst (2007) recognize a significant reduction of capital requirements which can be achieved by securitization of mortgage portfolios and some limited reductions in the case of retail and SME loans portfolios.

The implication of the regulatory arbitrage seems to be beneficial not only for the banking sector with its decreased capital requirements, but also for households and businesses, which in theory are supposed to get access to more credit resources. Loutskina (2010) claims that securitization increased the supply of bank lending per dollar of capital in the banking industry. However, practice the regulatory amenities turned out to be different from the theory. Lax origination standards driven by monetary policy rates which had been too low for too long (Maddaloni et al., 2010) and by the urge of managers towards excessive volumes of assets for the securitization purposes led to uncontrollable issuance of ABS, secured by asset pools with poor fundamentals (Hull, 2010, p. 334; Rudolf and Saunders, 2009, p. 15; Zalewski, 2010). Banks were not inclined to securitize their top-rated and secure assets and mortgages, while the securitization technique posed for some banks an opportunity to repack their low quality loans and transfer them to the financial market. Several European experts, who were familiar with this matter, including Bär (1997) and Hies (1996,) warned in the 1990s of a moral hazard which appears in such a situation and about the possibility of worsening origination standards. However, due to the excessive popularity of asset securitization in general and collateralized debt obligations (CDO) in particular, most experts and scientists were focused on the benefits, diminishing the shortcomings and negative side effects of it.

Another stumbling block in the pre-crisis architecture of the ABS market is the information asymmetry. Two aspects have to be pointed out with this respect: the non-transparent ABS structures, which provide an opportunity to mislead investors, and the concealment of information on behalf of rating agencies. In order to persuade investors to invest their money in ABS, data regarding the underlying pool and deal structure are supposed to be fully disclosed, which, in turn, is treated by some originators as a huge obstacle and disadvantage of securitization as a method of refinancing (Hies, 1996). In an attempt to mitigate a costly and time-consuming process, disclosure and monitoring procedures were simplified with applying the rating of the asset pool and shifting the responsibility for its adequate valuation to the rating agencies. Therefore, the only counterparties, who knew all of the information, were originators and rating agencies. The latter took under control the ABS market by selling their ABS' appraisal to originators, so that ordinary investors could base their investment decisions on nothing but external ratings (Booth, 2009, p. 118; Zandi, 2009). In addition, overreliance on the diversification effect (Brämer et al., 2011) and application of the models aimed at evaluating debt but not structured products (Hull, 2010, p. 342), are listed among the shortcomings on behalf of the rating agencies, which have contributed to the crisis.

European banks in general and German Landesbanken in particular became the main victims of the strategy of limited and selective transparency. Having the same triple-A rating, ABS stood out against the background of low-profitable AAA-rated securities, which made them extremely lucrative for the German Landesbanken. As a result, German commercial banks met a loss of €79 billion, following the UK by the volume of write-downs, from which approximately one third belonged to Landesbanken (Sinn, 2010, p. 238). For this reason, improving the level of transparency was prioritized by the regulators in their post-crisis approach towards regulation of the ABS market.

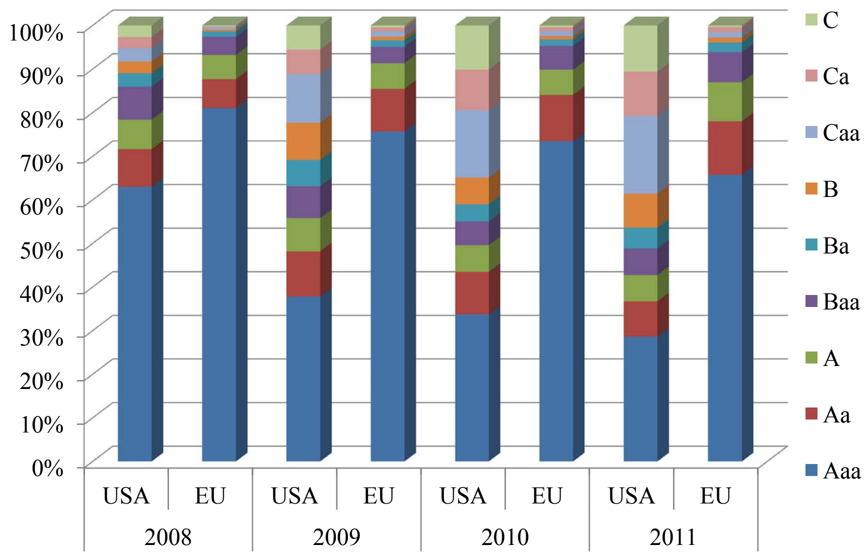
Another advantage of securitization for originators is the ability to better match duration of assets with duration of liabilities (Hies, 1996). The point is that this benefit can be derived under a margin-based banking model, whereas under a commission-driven model it becomes relevant to a lesser extent than is claimed and expected by economists. To exemplify this statement, we use a balance sheet's structure of Hypo Real Estate bank, which was characterized by a total mismatch between long-term assets and long-term liabilities. As of September 30 2008, €244 billion in over-five-years assets were matched with only €75 billion of liabilities with the same maturity (Bank quarterly report, 2008.Q.3). An analogous situation could be observed throughout the entire banking sector in the EU. Thus, securitization is able at best to abate the problem, but not to solve it, and only under certain circumstances.

The crisis, along with uining the core pre-crisis values of securitization, helped to reveal the new benefits of it. During the crisis, for the originators an extra motive has emerged to conduct securitization transactions, i.e. European Central Bank repo facilities. Since the access to the unsecure funding market was hampered, the fact that low-rated ABS could be pledged as collateral with ECB operations significantly alleviated the painful shut-down of the primary and secondary ABS markets in 2007 and in 2008. Additionally, given the unprecedented scope of ECB repo operations with ABS, some smaller banks, for instance, captive banks specialized in limited banking activities, were granted access to a broader range of refinancing instruments. With the upward trend in the auto-ABS market and better funding levels, non-financial corporates can benefit from the current distressed markets and even tap ECB refinancing sources (Credit Suisse, 2012).

Why is the ABS market in the EU in focus?

The financial crisis has raised many questions over future perspectives of securitization as a funding tool. Distressed companies, significant write-downs and bail-outs of the banks on behalf of the government are just a few destructive implications of the improper application of the securitization technique. Such an environment requires the necessity of having a sound foundation for securitization's re-emergence in the EU market. Since the basic idea behind securitization hinges on the segregation of assets from the bank or other originators, the chances for a revitalization of the securitization market correlate strongly with the quality of underlying collateral and the quality of the deals themselves. For this reason the securitization market in the EU is dominated by AAA-rated ABS (Figure 1). The crisis has not substantially changed the structure of the outstanding issues of ABS in terms of received rating. In contrast, the share of issues with the highest rating has dropped over the post-crisis period. In 2008 approximately 60% of the US market of ABS consisted of AAA-papers, whereas in 2011 it amounted to 25%. Coming back to the core benefits of using securitization, the high proportion of AAA-rated securities even in the post-crisis period shows that European standards of ABS deals are consistent with the principles of high quality collateral, and, in general, only fully performing loans were chosen for the asset pool.

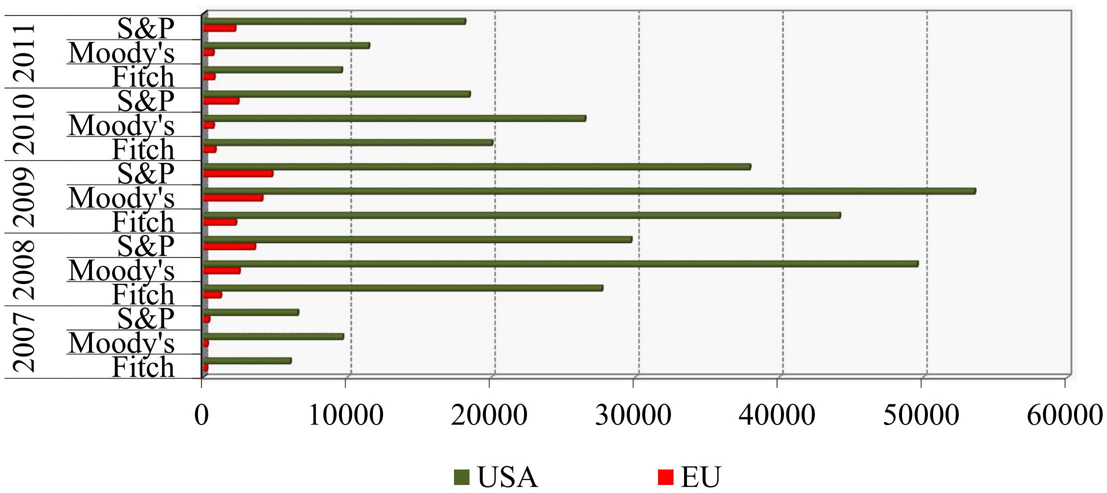
Figure1: Credit quality of the ABS market in the EU and the USA



Source: Own elaboration based on the data from AFME, Securitization Data Reports (www.afme.eu)

Another indicator that enables us to judge the credit quality of transactions in the EU is the number of downgrades in comparison with the US for deals over the period of 2007-2011. The peak of downgrades was reached between 2008 and 2009 for both markets (Figure 2). Additionally it should be noticed that the volumes of downgrades are much higher in the USA compared to the EU. Lax origination standards and lack of control on behalf of the regulatory authorities led to massive downgrades in the ABS market in the US, whereas the downgrades of transactions in the EU were caused to a greater extent by the tainted reputation of the ABS market as a whole.

Figure 2: The number of ABS' downgrades in the EU and the USA



Source: Own elaboration based on the data from AFME, Securitization Data Reports(www.afme.eu)

Structural composition of the ABS market in the EU

The financial crisis has seriously undermined the reputation of securitization as a funding tool for a wide range of assets. As Barclays Capital (2011) and Teplova (2012) suggest, market activity in the ABS segments can be observed in RMBS (residential mortgage-backed securities) and auto-ABS subsectors. Moreover, after the crisis the ABS market is characterized by a contraction in terms of volume. Between 2009 and 2010 volumes of the newly issued securitized products in the EU has stabilized at the level of approximately €360 billion, after reaching a maximum of €768 billion in 2008 (Figure 3). The post-crisis structure of the market is seriously limited by distinct ABS classes, which can satisfy the risk and premium appetite of investors. Such ABS include:

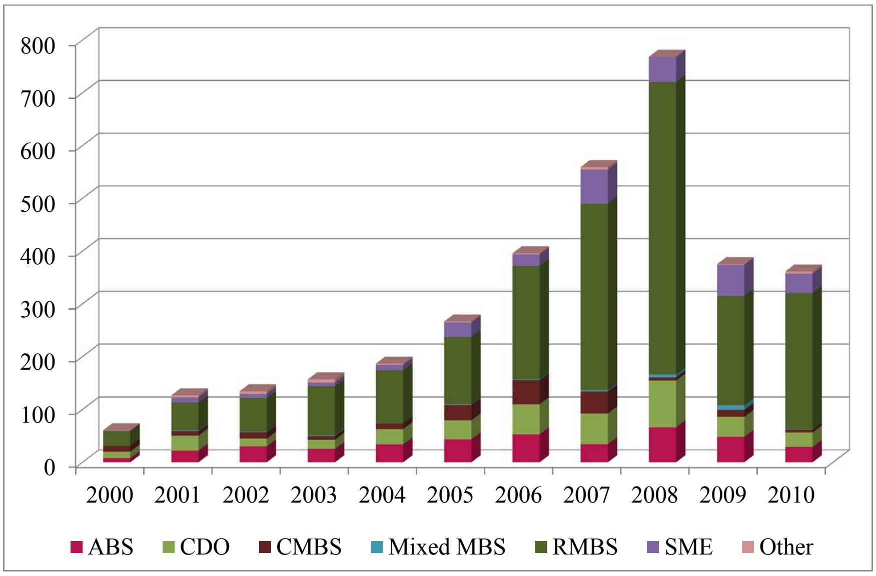
1) RMBS – securities mostly issued in the Netherlands and the UK,
2) ABS in a narrow sense – in particular, securities backed by auto-loans, by auto-leases and also by SME loans.

In the EU, the SME segment was primarily supported by the governments of Spain and Germany due to programs launched in:

1) Spain – FTPYME securitization scheme[5],
2) Germany – KfW's German PROMISE platform[6].

As the SME sector has a vital meaning for a real economy, especially in times of macroeconomic instability, refinancing of activities based on lending to SMEs were highly underpinned by European institutions, including ECB repo programs.

Figure 3: New EU issuance of securitized products by type of collateral for 2000-2010 (in EUR billions[7])



Source: Own elaboration based on the data from SIFMA (www.sifma.org/research)

[5] FTPYME – Asset Securitization Funds for SMEs run by the Spanish Ministry of Industry, Energy and Tourism (http://www.ipyme.org/en-us/Financiacion/FondosTitulizacionfinanciacion/Paginas/TitulizacionFinanciacion.aspx).

[6] PROMISE (Promotional Mittelstand Loan Securitisation) – the platform run by KfW for securitization of SMEs loans (KfW stands for KreditanstaltfürWiederaufbau; http://www.kfw.de/kfw/en/KfW_Group/Asset_Securitisation/KfWs_Securitisation_Platforms/PROMISE_/index.js).

[7] All volumes are denominated in euro. The statistics were converted from dollar to euro based on the exchange rates as of 02.09.2011

Mortgages are traditionally considered desirable assets for refinancing due to their longevity features; therefore, RMBS have the lion's share of the ABS market in the EU even after the crisis. The RMBS' share accounted for 60% in 2010, whereas the peak, equal to 72%, was reached in 2008. After the crisis, the UK and the Netherlands are the main players in this segment of the market, since legal and organizational infrastructures are better designed for the issuance of RMBS rather than for the alternative instruments of mortgage refinancing – covered bonds.

ABS in a narrow sense occupied 20% of the ABS market in 2010. This subsector is mostly represented by the German auto-ABS (Barclays Capitals, 2011). Commitment of German originators in the period of crisis to high quality standards, transparent deal structures and a domestic base of investors provided the auto-industry in Germany with a secure funding tool (Teplova, 2012). Moreover, the conceptual features of auto-ABS are able to meet the needs of the real sector and investors due to their linkage to the production sector, limited risks of captive banking structures and medium-term structures (Ohl, 1994). Such circumstances provide this sector with bigger room for development through the coming years.

The generic CDO sector rapidly appeared in the mid-2000s, when the value of these transactions nearly doubled from €36 in 2005 to €57 billion in 2006. Despite the substantial growth in the CDO sector in 2008, caused by easing of the eligibility criteria for the repo operations with the ECB, in 2010 the CDO market can be marginalized, since investors demonstrate no interest in such transactions.

Changes of regulation of the ABS market in the post-crisis period

The new regulatory environment created in response to the pre-crisis under regulation poses a primary threat for the entire ABS sector. CRD II, CRD IV / Basel III and the ECB requirements for repo operations provide some challenges for the further development of ABS markets in the EU. As banks composed the core investing group, the biggest part of the new regulation covers the issues associated with the banks' role in the ABS market (Barclays Capitals, 2011).

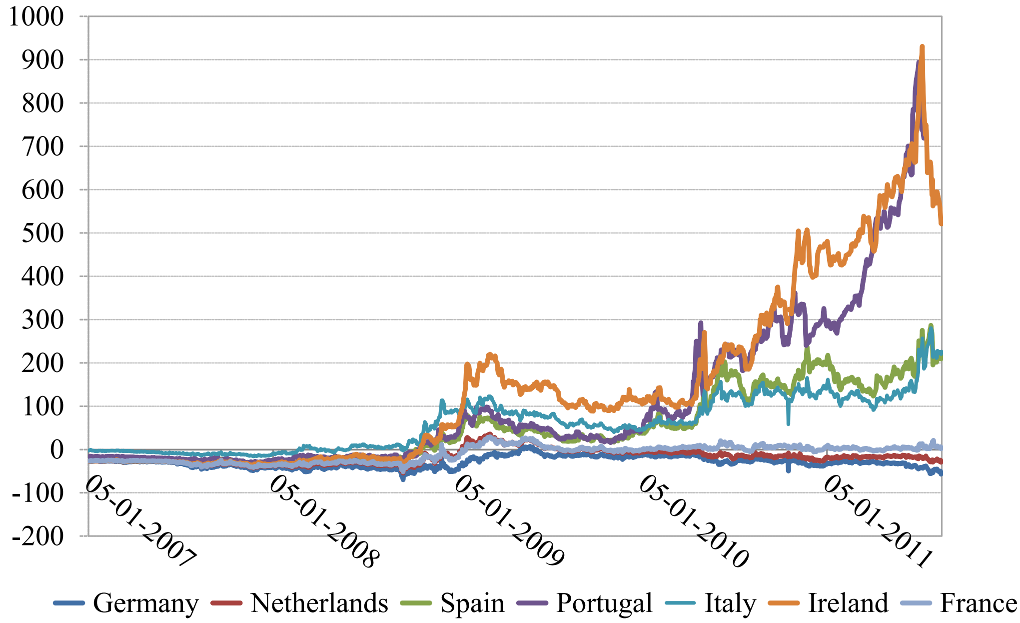
At the heart of bank regulation are CRD II (Article 122a) and CRD IV, which are going to be implemented in the coming years. In accordance with the Article 122a, originators are obliged to retain on their balance a 5% slice of issued ABS (Directive 2009/111/EC). The main rationale behind this decision hinges on the alignment of incentives between issuers and investors. Banks also have to fulfill some specific requirements in terms of due diligence. Additionally, provisions of Basel III, reflected in CRD IV, are aimed to regulate not only bank capital, but also to match its long- and short-term liquidity. Taking into consideration the fact that ABS were referred to as the least liquid group of assets regardless of their quality, bank demand for ABS is supposed to be substantially restrained.

The afore-mentioned initiatives on behalf of regulatory authorities could slow down ABS market development. They could significantly increase the costs of securitization. Looking at the new legal framework and the composition of the ABS market in the EU, it is likely that non-financial corporates are the only market participants who can preserve securitization as a funding source. In contrast, a new regulatory approach for the European banks could deter them from issuing securitized products and from investing in ABS. In addition, it is worth noting that some investors are banned from entering the securitization market. For instance, money market funds are prohibited from investing in ABS since the middle of 2011 by "CESR Guidelines on a common definition of European money market funds" (CESR/10-049).

Drivers of future development of the market in the EU

The future of the ABS market in the EU is strongly impacted by the debt crisis in the Eurozone, which in turn may affect the pricing levels of sovereign debt by the availability of assets for securitization purposes and by the new regulatory approach, including the ECB role in maintaining the market. The debt crisis in the Eurozone and subsequent widening of the spreads for sovereign debt instruments has become a stumbling block for the debt form of financing.
Figure 4 presents a sharp rise in the pricing levels for sovereign debt in the selected countries of continental Europe, whose securitization markets constitute the lion's share of the EU market. These countries can be sorted into two groups. In one group, which consists of Germany, the Netherlands and France, the debt crisis had a moderate impact on the costs of debt financing. The pricing levels of the rest of the countries have experienced an adverse impact of the crisis with some visible differences within the group. Thus, debt problems in the Eurozone pose a serious threat to securitization as a refinancing tool. Worsening financial conditions in these countries has put some constraints on the revival of the securitization market increasing costs of funds. As a result, the number of countries which have access to the market after the crisis is limited.

Figure 4: The pricing level for the sovereign debt issued by selected EU countries, asset swap margin (in basis points)

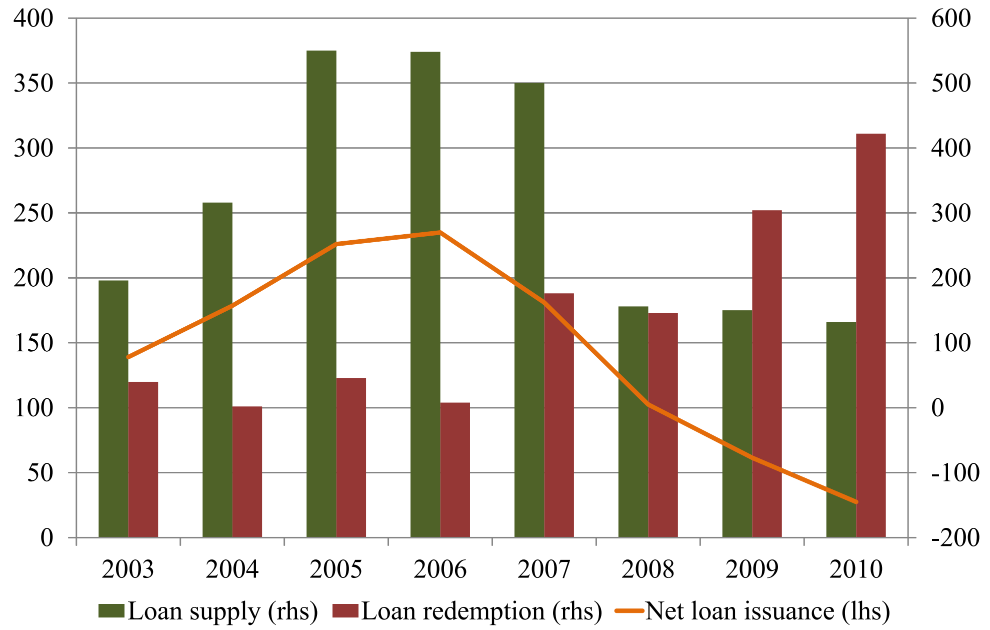


Source: Markit Structured Finance (www.markit.com)

A loan contraction, which occurs in the post-crisis period, is another driver contributing to the reshaping of the market of secured funding instruments in the EU. The volume of assets that can be potentially used for securitization purposes has greatly declined after 2007. Since 2008 the net loan issuance's indicator has entered the negative zone, driven by a sharp decrease in loan supply to creditworthy borrowers and a dramatic growth in redeemed loans (Figure 5). Loan redemption has doubled between 2007 and 2010, whereas loan supply remained fairly stable after an abrupt drop in 2008, when the amount of granted loans to non-financial corporates plunged from €350 billion in 2007 to €177 billion in 2008. Both trends are caused by the worsening credit conditions due to restrained origination activity and the limited number of credit prolongations.

It is probable that banks may choose a more weighted approach towards the form of financing in general and the form of secured funding in particular. Credit scrutiny and deteriorating macroeconomic fundamentals are conducive to exit strategies from the securitization market in favor of alternative secured funding instruments – covered bonds. The secured funding segment might tend to be highly competitive among the remaining players.

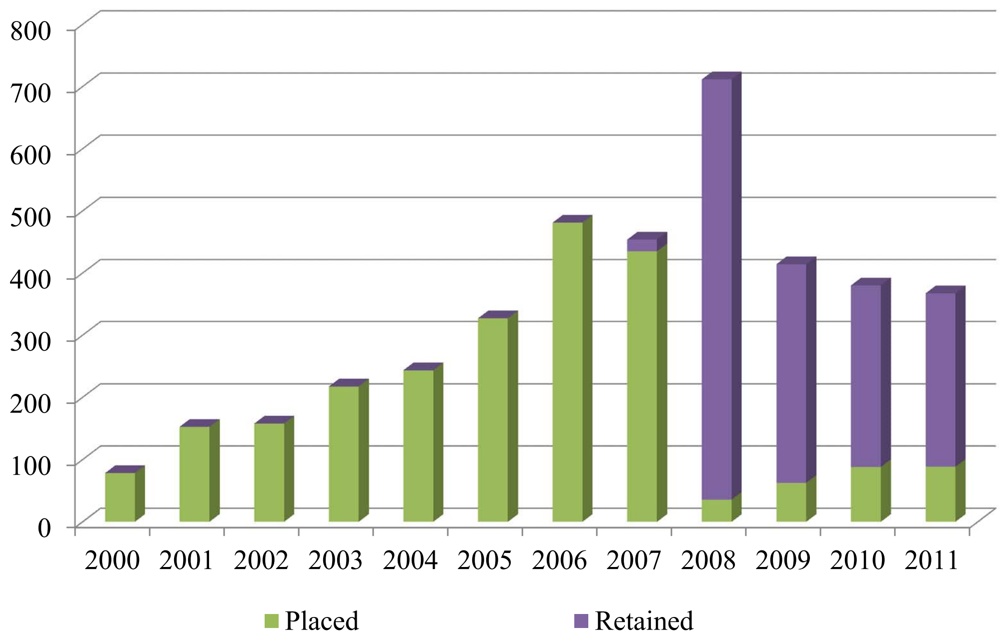
Figure 5: Euro investment grade non-financials loan net issuance (in EUR billions)



Source: Based on Dulake, S., Henriques, R., Rusconi, F., Davies, G. (2011.) European ABS Outlook Conference. J.P. Morgan.

Changes in the regulation of the securitization market introduced by the supervisory authorities have indirectly altered the motive behind ABS deals in the post-crisis period. Driven by the illiquid primary and secondary ABS market, banks started to post their tranches to the ECB operations. As a consequence, in the post-crisis environment the market for securitized products has undergone significant changes not only in terms of structural composition of the market, but also in terms of retained-placed deals. The effect on the ABS market from such operations was significant. Approximately up to 95% of the ABS issued in 2008 was retained on the balance sheet of the banks, which before the crisis could easily place them as market transactions. Such a high retention rate is explained by the ECB-driven demand for ABS deals. Hit by the crisis, traditional channels of financing for banks, such as the debt market, were shut down (ECB, 2011). Banks had to find alternative ways to raise financing, which are more reliant on underlying collateral, rather than on market conditions. Although the retention rate remains still high, in the period of 2010-2011 the situation with the ABS placement improved. In 2010 and 2011 the market transactions amounted to 23% and 24% of the issued securitized products, respectively.

Figure 6: Composition of the market for newly issued ABS – placed deals vs. deals retained on the balance sheet (in EUR billions)

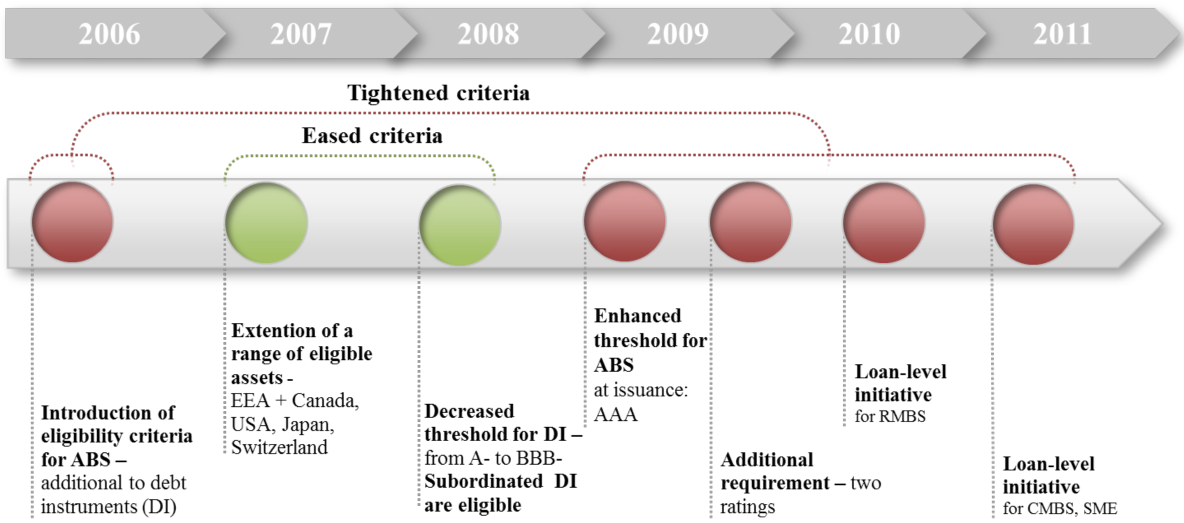


Source: Own elaboration based on the data from AFME, Securitization Data Reports (www.afme.eu)

Gorton and Metrick (2009) suggest a run in the repo market as a fundamental reason for the ongoing crisis in the US; contrarily, repo operations with the ECB became a solution for the crisis dilemma in the EU. Figure 7 provides evidence that the ECB's programs became the core source of liquidity for many participants of the ABS market and the ECB itself has become an institutional shaper of the post-crisis refinancing framework. Throughout the crisis the ECB had to coordinate and regulate the volumes of available liquidity via a wide variety of financial tools, such as the differentiation of haircuts, credit quality of collateral and the transparency initiative. It suggests that repo operations with the ECB were viewed by many banks as the main refinancing instrument during the crisis.

In the period 2007-2008 the ECB relaxed the eligible criteria for many debt instruments, in particular, for low-quality securities, including ABS, which could not meet the market standards. The basic rationale for such a strategy, the so-called quantitative easing, was to provide banks with sufficient liquidity for distressed bonds (Gabor, 2012). As a result, the ECB's balance sheet was seriously imbalanced by the influx of illiquid assets, endangering its future ability to generate liquidity for the financial system. Since 2009 the ECB has started to implement the policy of enhanced credit requirements for banks. Among measures aimed at restoring market-based principles, is an introduction of haircuts as a protection against market volatility, enhanced thresholds for ABS in terms of credit quality, and a willingness to provide the market with extra transparency through the loan-level initiative.

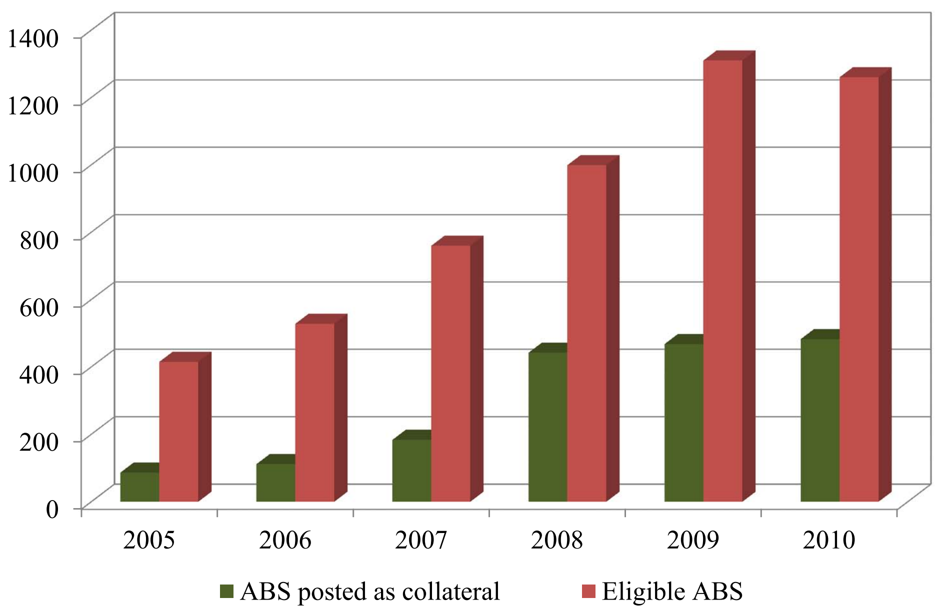
Figure 7: ECB's directional changes in requirements for repo activity



Source: Own elaboration based on ECB (www.ecb.int)

Large volumes of liquidity were granted to the European banking sector during the crisis period. The amount of the ABS placed at the ECB significantly increased in 2008 compared to 2007 (Figure 8). The volumes of ABS posted as collateral has risen by €395,8 billion, this means from €86,6 billion in 2005 to €482,4 billion in 2010. The ECB collateral framework served as a safety cushion in times of peaked market turbulence. According to the ECB annual report 2011, the levels of ABS put forward as collateral slipped back as a result of the tightened eligibility requirements, adopted in 2009 and 2010. Market analysts expect the levels of the ABS posted to the ECB to fall further, bearing in mind the grandfathering clause.

Figure 8: Eligible ABS vs. ABS posted as collateral to the ECB (in EUR billions)



Source: Own elaboration based on ECB(www.ecb.int)

Why has the ECB partly become a main liquidity provider to the majority of banks in the Eurozone? Part of the answer lies within the disrupted functioning of the interbank market, which under normal macroeconomic conditions serves as a refinancing source and a determinant of the real refinancing costs for banks (Klee et. al., 2011). But the crisis has shut down the traditional ways of raising finance. Moreover, being aware of the information asymetry of the risks, to which counterparties were exposed, banks suspended their lending activities in the interbank market. Given the high level of uncertainty during the crisis, banks were forced to apply for the liquidity from the ECB, especially, when it comes to such a distressed segment as the ABS, which tended to be practically illiquid at the end of 2007 and at the beginning of 2008. Another part of the answer lies within the phenomenon that in times of a crisis covered funding is gaining popularity among financial market participants, since the quality of collateral becomes the insurance against higher levels of the market and credit risks. Sovereign spreads pose a serious hindrance for the uncovered debt issuance; therefore, for the times of crisis asset backed sources of refinancing and funding with high quality of collateral, including ECB's repo operations, come to the forefront.

Conclusions

The findings cited in the article suggest that the organization of the ABS market in the EU has changed significantly with the emergence of the financial crisis. Pre-crisis and post-crisis structures of the market contrast in the following aspects:

1) Before the crisis the market structure was dominated by the constantly growing share of RMBS and gradually increasing volumes of newly issued CDO. After the crisis the volume of issued ABS has stabilized over the period of 2009-2011, with the leading role of RMBS and auto-ABS.
2) In the pre-crisis period the bank-originator had no problem with transferring loans to the SPV and placing in the market ABS, whereas during the post-crisis times the retention rate has dramatically increased, reaching the all-time high level in 2008.
3) Lack of regulation was a distinctive feature for the securitization market before the crisis. Tightening the regulation on the capital requirements in the banking sector may slow down the future development of the securitization market.
4) Ease in placing ABS in the financial markets in the pre-crisis period resulted in a frequent ABS application as a source of funding tool. Risk aversion of investors and stricter regulation on ABS created a more favorable environment for covered bonds to be an efficient tool of funding of banking operations. Credit contraction was also among the factors which contributed to the preferential position of alternative sources after the crisis.

Securitization deals as a fast way to improve balance sheet figures is likely to be less prevalent in the future compared to the pre-crisis period. Incentives and key players in the ABS market have been altered due to the global financial crisis. It could be expected that banks will remain the main originators and investors, however, corporations may became a growing participant in the securitization market. They are supposed to use securitization as one of the funding instruments.

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