PRACE NAUKOWE
Uniwersytetu Ekonomicznego we Wrocławiu
RESEARCH PAPERS
of Wrocław University of Economics

271

Zarządzanie finansami firm – teoria i praktyka

Tom 1

Redaktorzy naukowi
Adam Kopiński, Tomasz Słoński, Bożena Ryszawska

Wydawnictwo Uniwersytetu Ekonomicznego we Wrocławiu
Wrocław 2012

Redaktorzy Wydawnictwa: Elżbieta Kożuchowska, Aleksandra Śliwka

Redaktor techniczny: Barbara Łopusiewicz

Korektor: Justyna Mroczkowska

Łamanie: Adam Dębski

Projekt okładki: Beata Dębska

Publikacja jest dostępna w Internecie na stronach:
www.ibuk.pl, www.ebscohost.com,
The Central and Eastern European Online Library www.ceeol.com,
a także w adnotowanej bibliografii zagadnień ekonomicznych BazEkon
http://kangur.uek.krakow.pl/bazy_ae/bazekon/nowy/index.php

Informacje o naborze artykułów i zasadach recenzowania znajdują się
na stronie internetowej Wydawnictwa
www.wydawnictwo.ue.wroc.pl

ISSN 1899-3192
ISBN 978-83-7695-219-2 (całość)
ISBN 978-83-7695-223-9 t. 1

Wersja pierwotna: publikacja drukowana

Druk: Drukarnia TOTEM

Spis treści

Summaries

PRACE NAUKOWE UNIWERSYTETU EKONOMICZNEGO WE WROCŁAWIU
RESEARCH PAPERS OF WROCŁAW UNIVERSITY OF ECONOMICS nr 271 • 2012

Zarządzanie finansami firm – teoria i praktyka ISSN 1899-3192

Sylwester Kozak
Warsaw University of Life Sciences
OlgaTeplova
Saint Petersburg State University of Economics and Finance

COVERED BONDS AND RMBS AS SECURED FUNDING INSTRUMENTS FOR THE REAL ESTATE MARKET IN THE EU

Summary: Implications of the financial downturn have shifted the focus of interest in market of the refinancing instruments from the RMBSs (Residential Mortgage Based Securities) to more secure and stable covered bonds. Securitization technique promises fewer chances for its application in times of turbulence. Moreover, punitive regulatory sanctions and tainted reputation have limited the issued volumes of RMBSs over the last few years. In contrast, covered bonds can better satisfy the needs of banks for a long-term funding due to its enhanced safety standards for investors, favorable regulation and tight spreads. German Pfandbriefe system serves as a benchmark in the covered bonds' market.

Keywords: covered bonds, RMBS, banks, EU.

1. Foundations of the secured funding instruments

Despite a seemingly close proximity of a covered bond to a mortgage-backed security (MBS), there are a few distinctive features. Firstly, mortgage covered bonds areone of the safest secured funding instruments, which represent the on-balance structure. On the contrary, MBS are the subordinated debt instruments backed by the pool of assets, which are sold from the bank's balance sheet to the SPV.By issuance of covered bonds the bank refinances the mortgage pool, whereas the issuance of MBS also presumes the risk transfer due to the off-balance structure of the deal. Secondly, covered bonds' investors have a double recourse: one against the covered pool and another against a bankrupt estate in case of insufficient value of the covered pool. The claim of the MBS investorsis limited by the mortgage pool. Thirdly, the issuance of covered bonds is commonly seen to be one of the most regulated activities, starting with the entrance to the market (either by the license or by special banking principle) and finishing with the monitoring the post-issuance compliance with the special Covered Bonds' Laws. As for the MBS, supervision authorities disregarded the lack of regulatory oversight. Only after the appearance of the crisis some coordinated steps were undertaken in this directionby the Basel Committee, the ECB andthe Committee of European Banking Supervisors (CEBS).

It is noteworthy to mention that volumes of fund raising through covered debts have remained resilient during the crisis. The share of a senior unsecured debt suffered a drop from 80% (USD 1931 billion) in 2006 to the all-time low of 37% (USD 389 billion) in 2009 (see Figure 1). In contrast, the share of a secured funding climbed to 34% in 2010, compared to 14% in 2006. In real figures, the volume of secured funding did not undergo significant changes over crisis years, apart from 2008, when it jumped to USD 514 billion. An increase in secured instruments' volume (namely, covered bonds) comes as no surprise, since in times of economic turbulence the majority of investors give their preferences to the low-risk projects and investments with additional guarantee of safety.

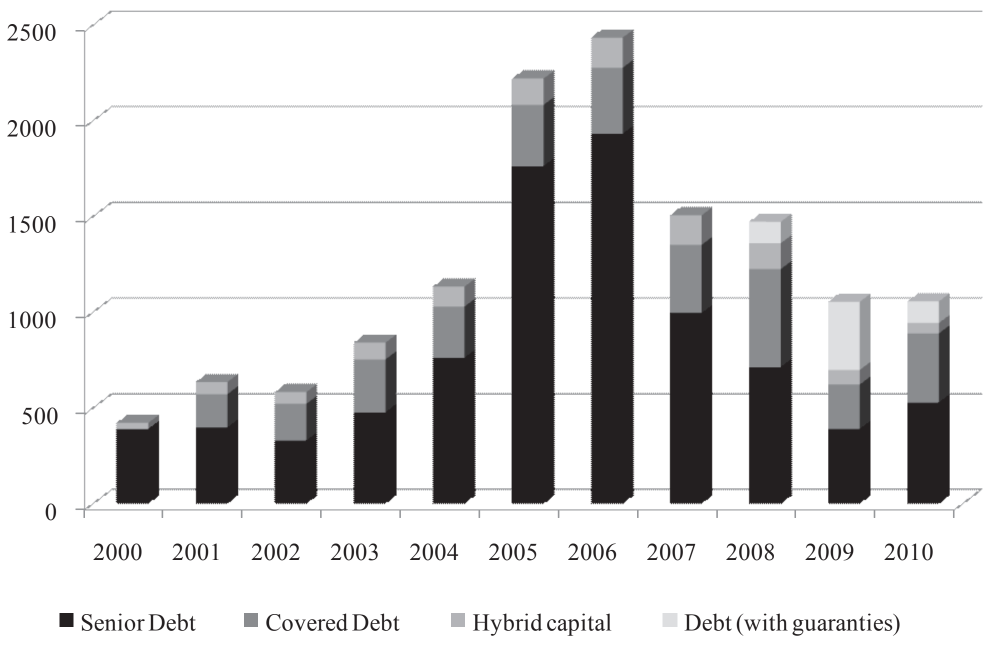

Figure 1. Funding markets for European banks, issuance volume (in USD billion)

Source: Securities Industry and Financial Markets Association (SIFMA).

One of the main reasons for a considerable drop in the volume of a senior debt is associated with the costs of raised capital through different sources.Until 2009, the difference between covered instruments and the senior debt was substantial, reached the all-time high of 120-130 bps in March 2009 (see Figure 2). Moreover, the financial sector has an interest in secured sources. It is expected that high pricing levels for subordinated tranches will result in the gradual refusal to use securitization with its subordinated structure; therefore, in general only the AAA tranches would enter the market. At the same time, high funding costs for financial institutions could contribute toa strong demand for covered debt among banks since high qualitative characteristics of covered bonds.

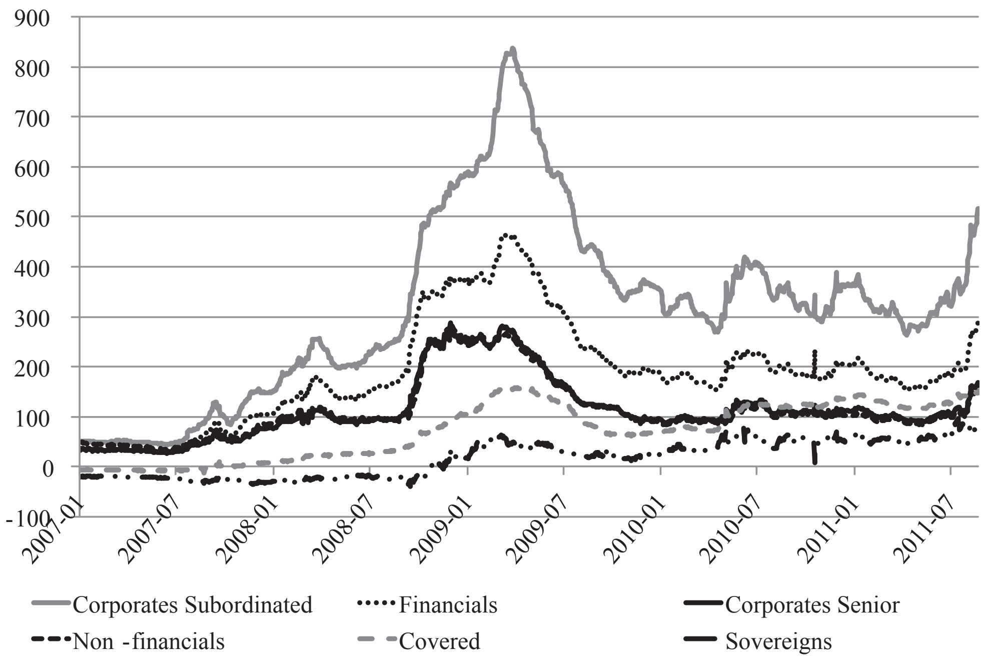

Figure 2. The pricing level for different funding tools, asset swap margin (in bps)

Source: iBoxx indices, Markit.

2. Development of covered bonds' and MBS' markets in the EU

Covered bonds are widely recognized as the main refinancing tool among secured funding instruments for the mortgage market in the EU, whereas the application of securitization techniques are limited only to several countries, such as the UK, Spain and the Netherlands. A strong position of covered bonds in the EU is also reinforced by the impact of the financial crisis, which damped down investors' and issuers' enthusiasm to participate in the securitized transactions. New issuance volume of mortgage covered bonds inthe EU has grown significantly during the current financial crisis from EUR 285.7billion (2007) to EUR 517.1 billion (2010) (see Table1).

There are three main types of regulatory requirements, which geographically differentiate bond issuance volumes. First, in some countries covered bonds and RMBS are used as a traditional funding tool, therefore, more favorablelegal conditions and organizational infrastructures are designed either for covered bonds' issuance or for RMBS' one. In the second group of countries the application of a securitization mechanism for the real estate market is under regulatory pressure, whereas covered bonds can be issued under more advantageous conditions. In the third group of countries traditional and regulatory issues, specific architecture of real estate and mortgage markets shape the national market for a particular secured funding tool.

Table 1. New issuance volume in MBS and covered bonds markets in selected EU countries (in EUR billion)

		UK	Spain	Germany	Netherlands	Italy	France	Ireland	Portugal	EU
2007	RMBS	132.5	48.0	0.6	35.3	16.8	1.4	6.9	10.1	259.6
	CMBS	25.9	0.0	9.5	4.8	0.0	0.0	1.5	0.0	47.6
	MCB	31.9	51.8	26.8	8.2	0.0	21.7	1.7	5.9	285.7
2008	RMBS	256.8	60.8	35.4	70.3	63.2	6.9	36.0	5.4	582.7
	CMBS	0.7	0.0	0.1	0.0	0.0	0.0	3.0	0.0	4.9
	MCB	121	54.2	57.3	5.6	6.5	59.7	9.5	7.4	507.1
2009	RMBS	70.6	26.3	1.1	40.8	53.2	0.2	13.7	8.7	238.9
	CMBS	7.4	0.0	5.7	0.0	0.0	0.0	0.0	0.0	15.4
	MCB	30.4	43.6	56.9	7.7	7.5	29.4	14.8	6.0	428.1
2010	RMBS	87.9	9.7	1.0	125	10.0	5.0	4.2	9.4	271.1
	CMBS	2.5	0.0	0.0	0.4	2.2	0.0	0.0	0.0	6.1
	MCB	28.6	51.9	42.2	13.7	12.9	42.9	6.0	11.6	517.1

Note: RMBS – residential mortgage-backed securities, CMBS – commercial mortgage-backed securities, MCB – mortgage covered bonds.

Source: based on the data from European Covered Bonds Fact Book, 2011,andwww.afme.eu.

3. Regulatory approach towards MBSs and covered bonds

The new legal approach embraces changes in the ECB eligibility criteria for assets. According to the Regulation ECB/2010/13, the instruments which can serve ascoverage for the ECB funding are sorted out in one of five categories based on their liquidity characteristics. The same classification is also used to determine the haircut for the eligible assets in the operations with the ECB. Covered bonds are treated as fairly liquid instruments andare allocated to the Category II in case of JumboCovered Bonds' issues (more or equal to EUR 1 billion) and to the Category III in case of traditional/other covered bonds. In contrast, asset-backed securities (ABS), including MBS, are treated as illiquid assets. They belong to the last Category V, which presumes the highest haircut of 16% regardless the type of coupon and the residual term. In short, the issuance of the mortgage covered bonds compared to MBS will be considered as lucrative deal by the banks (both issuers and investors) due to advantageous treatment of covered bonds in the credit operations with the ECB.

Another regulatory initiative is associated with the risk weight under the Revised Standardized Approach (RSA) and the Internal Rating Based Approach (IRBA) stipulated by the Capital Requirements Directive (CRD). As it was shown by Batchvarov et al. [2010], for the covered bonds more preferential risk weights are usedthan in case of RMBS. This initiative disproportionally punishes banks that hold RMBS on their balance sheets. Additionally, the regulatory pressure was placed on the ABS' investors and originators by the Article 122a in CRD II, which states that originators are obliged to retain 5% slice of issued securities (MBS), whereas a bank investing in ABS has to fulfill some specific requirements in terms of due diligence. The penalty for incompliance of these conditions rather indirectly prohibits securitization in general and works against the MBS market.

4. Funding costs for the RMBS' and covered bonds' markets

Pricing levels in the secured funding markets are driven by the European sovereign debt crisis, lack of liquidity and depressed moods of investors caused by direct CESR' prohibition from investing into ABS for Money Market funds or by indirect harsh regulatory measured for banks. The country composition of covered bonds' and RMBS' has been affected by the crisis. Therefore, in both markets a differentiation among market participants in terms of sovereign risks can be noticed (see Figure 3 and Figure 4). Some peripheral euro zone countriesexperienced debt and liquidity problems and additionally difficulties with the application of structured funding tools due to widened spread.

As it can be seen in Figure 3, covered bonds market provides participants with viable and reasonably priced funding instruments. Assets with long maturity, like mortgages, are such needed funding tools which do not prone to market volatility. The most attractive price levels are attributed to Germany, the Scandinavian countries, France and the Netherlands. For this reason, covered bonds' markets in Germany, France and the Netherlands experience a robust rise in volume (see Table 1).

After the crisis investors focused their activities on the AAA segment of the RMBS market. Subordinated tranches, which are an integral part of the securitization mechanism, became an unprecedentedly expensive source of funding for banks due to the growing credit riskin some countries. As a result such securities from the UK and the Netherlands characterize with reasonable prices (see Figure 4). Another reason for elevated spreads of RMBS in comparison with covered bonds is the transfer of credit risk in case of off-balance structure associated with RMBS. The financial crisis made investors more risk adverse and sensitive to subordinate structures; therefore, the issuance of RMBS became a more costly process.

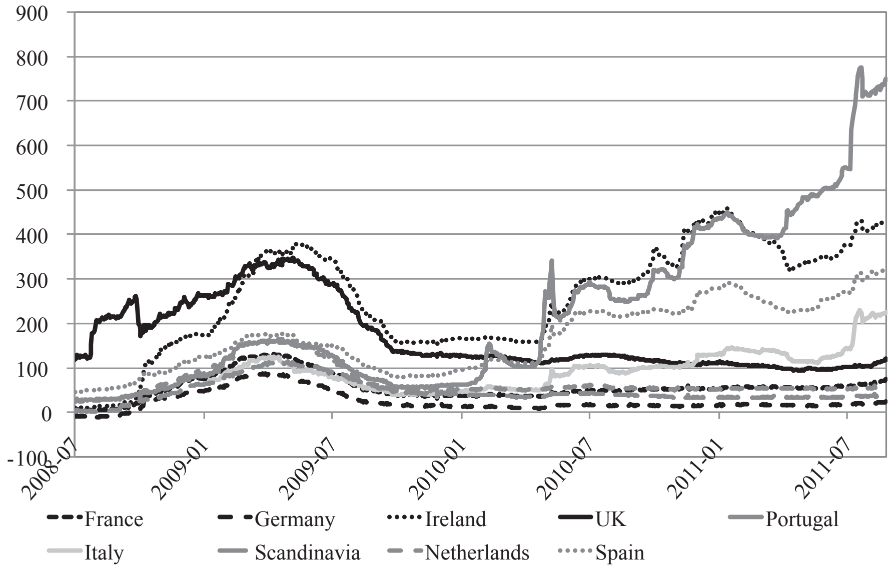

Figure 3. The pricing level for covered bonds issued by selected EU countries, asset swap margin (in bps)

Source: iBoxx indices, Markit.

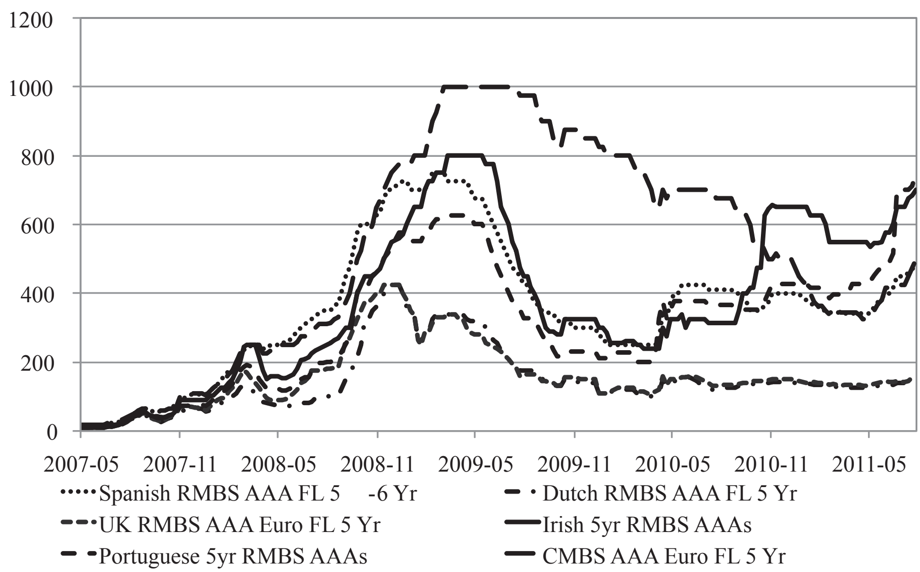

Figure 4. The pricing level for Covered Bonds issued by selected EU countries, asset swap margin (in bps)

Source: JPMorgan, Markit.

Future for the securitization as a refinancing tool for the housing market remains gloomy, taking into consideration the downward trends in the MBS market, regulatory pressure on the financial institutions and high funding costs for the new issuance for AAA tranche and for the subordinate tranches compared to covered bonds. Therefore, the issuance of the covered bonds could be considered the main secured funding tool for the real estate market in the majority of EU countries, at least, until the moment when the situation around MBS is settled down.

5. German Pfandbriefe as a benchmark in the covered bonds' market in the EU

More advantageous conditions of the covered bond financing could be expected if market participants shift their interest to these securities. An example of German covered bonds could serve as a pattern for financial markets in other countries how to finance banks operations and positively impact the real estate market. Although the German market is outperformed in terms of outstanding volume by Spain and Denmark, it outweighs other markets in terms of qualityand safety. High qualitative characteristics and safety standards provide the most affordable borrowing costs for the German issuers. In fact, two main sets of factors contributing to the superiority of German Pfandbriefe system can be pointed out, i.e. the configuration of the real estate and mortgage markets and the legal infrastructure of the market.

Rigid standards of the real estate and mortgage loan markets in Germany are the key determinants of the success of the Pfandbriefe model and high qualitative characteristics of the issued covered bonds.According to the German Law (Art. 490, par. 2 of the German Civil Code), interest payments are fixed for 10 years and earlier repayments are mostly excluded. What is more, in case of early redemption,the borrower is penalized in favor of bank to compensate its costs [Rudolf, Saunders 2009, p. 22].Thus, the law provision in question enhances the degree of certainty with which cash flows can be calculated, and reduces the early repayment risk. It also helps to address issues with the interest rate shock, which was observed all over the world at the initial stage of the current crisis. Moreover, conservative lending standards and high down payments required by German banks reduce credit risk in housing lending much better than in the US market [Budunenko et al. 2009, p. 127-142].

In addition to fixed interest payments and adverse attitude towards credit, quality of the issued Pfandbriefeis maintained by the stability of housing prices. For all types of owner occupied housing prices did not exceed the upper threshold of 5pp and the lower threshold of -3pp (see Figure 5). Compared to a sharp decline in the Spanish housing market, German prices remained fairly stable between 2005 and 2010. Therefore, all the aforementioned factors contribute to the sustainability of the German Pfandbriefe market by allowing forecasting the incoming cash flows from the cover pool, which later will be transferred to the investors.

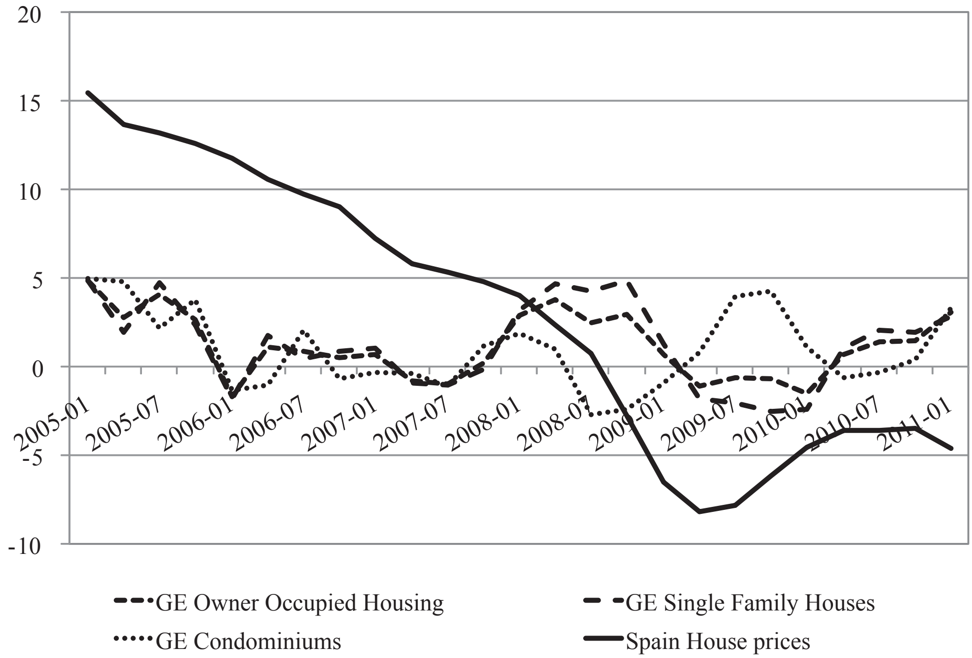

Figure 5. Quarterly housing price indices by type of housing in Germany and in Spain (y/y change in pp.)

Source: Association of German Pfandbrief Banks and Ministerio de Vivienda.

The regulation of the German Pfandbriefe goes back to 1900, when the Mortgage Bank Act was enacted and, therefore, it is commonly recognized as the benchmark. The set of legal mechanisms is designed to cushion investors against delinquencies and foreclosures in the cover pool and bankruptcy of the issuer. Apart from preferential claim of investor, which attributes to the covered bonds system in general, overcollateralization is another feature contributing to the safety of investors interests. It implies that the market value of the cover pool is bigger that the value of the principal amount of the Pfandbriefe issued for the refinancing purposes. In spite of legally stipulated overcollateralization – the rate by which market value of the asset pool exceeds the principal value of the issued Pfandbriefe amounts to 2% − actual rate of excessive collateral is far greateraccording to the Association of German Pfandbrief Banks.

Among the mechanisms which constitute the strengths of the Pfandbriefesystemstrict eligibility criteria for the cover pool, restricted access to the marketand high liquidity provided by five market-makers and placement on the stock exchange can be pointed out. Quality of the underlying collateral is provided by the restrictions on eligible assets and requirements of NPV calculations for the cover pool. The Act stipulates that only first lien mortgages with LTV no more than 60% are allowed to be eligible for the cover pool. As far as the access to the Pfandbriefe market is concerned, a license will be granted by the German Federal Financial Supervisory Authority(BaFin) only after the fulfillment of determined requirements, including business plan that implies strategic application of this funding instrument.

What has changed in the Pfandbriefe market after the crisis? Although German Pfandbriefe is one of the cheapest funding tools in the European covered bonds' market, the homogeneity of the pricing levels within the country was broken by the financial crisis. The crisis made investors more sensitive to the business profile of the issuers and risk associated with different groups of banks. The group of regional banks have benefited from the restricted activities and regional orientation in terms of funding costs due to lower risks associated with the business model, whereas the renowned mortgage banks have suffered from the elevated spreads (see Figure 4). Such banks as EUROHYPO and Hypo Real Estate fell a victim of broad scope of international activity (heavy investments into subprime loans and debt instruments of European peripheral countries) and maturity mismatch, and as a result, the risk of these activities affected their pricing levels by widening the spreads compared to regional banks.

The Pfandbriefeas a funding source has gained much importance for many German banks during the crisis due to high liquidity in the market (in some cases it was the main source of funding). For this reason, the requirements on behalf of investors have risen. Investors started to pay much closer attention to cover pool and the issuer itself (as was proved above).After the crisis, huge differences in spread for triple-A Pfandbriefe issued by different banks might be observed. As a result, it has become vital to improve investors' relations and make tailor-made transactions in order to satisfy customer needs and withstand the competition with other banks issuing Pfandbriefe.

What are the benefits of the covered bonds' applicationfor market participants and the economy? Banks, which issue covered bonds, could take advantage of such a cheap source of refinancing even in times of crisis, matching of assets and liabilities in terms of duration, stable investor base and advantageous regulatory treatment. Investors could benefit from high degree of safety and predictability of cash flows.

In addition to the direct market participants, covered bonds yield positive results for the broader range of indirect beneficiaries, including the households, construction firms and the real estate market itself, which looks for cheaper funding. Covered bonds also contribute to the stability of the real estate markets. Due to rigid standards for the underlying assets and strict supervision on behalf of the regulatory authorities, the speculative component is ruled out from the covered bonds' market. Banks are not allowed to build up mortgage assets for "repackaging" purposes by easing their lending standards; therefore, the repetition of the subprime crisis that was observed in the USA is hardly possible.

6. Conclusions

In the post-crisis period the mortgage covered bonds market outraced the RBMS and CMBS markets in terms of volume, affordability of pricing levels and compliance with the new regulatory approach. At the same time, in some jurisdictions of the EU both covered bonds and RMBSkeep their strong positions as a funding source for the real estate market. Owing to the stable investor base preserved during the crisis, developed legal infrastructure and adjusted organizational procedures the UK and the Netherlands still apply securitization techniques at reasonable pricing level. However, investors'interest in new RMBS transactions is restricted mainly by these jurisdictions.

In contrast to the RMBS market, the issuances of covered bonds appeared as much safer sources of funding. The market of covered bonds is expected to surge in almost all jurisdictions in the EU. Partly it is due to the new regulatory approach towards financial institutions, which favors the issuance of covered bonds over the issuance of MBS. The quest for stability and security among investorscould be also accounted for the phenomenon of the rapid expansion of covered bonds' market.

German architecture for covered bonds' market sets a patternhow legal and organizational framework should be designed in order to provide real estate markets with a stable, liquid, secure and affordable refinancing instrument. Strict requirements of German Phandbriefe system regarding eligible assets, issuer profile and transparency and liquidity mechanisms address many concerns in the market of secured funding, raisedafter the appearance of financial crisis.

Literature

Association of German Pfandbrief Banks, *Facts and Figures about Europe's Covered Bond Benchmark, The Pfandbrief 2011/2012*, Berlin 2011; available at: http://www.pfandbrief.de/cms/_internet.nsf/0/FA9F2350FFC02061C125790C004EAA82/$FILE/DE_PFB_2011-2012.pdf.

Budunenko O., Barasinska N., Schäfer D., *Genügend Widerstandskraft? Immobilienfinanzierung und Haushaltverschuldung in Deutschland, Großbritannien, den Niederlanden und den USA*,Vierteljahrshefte zur Wirtschaftsforschung, Duncker&Humblot, Berlin 2009.

European Covered Bond Council, *European Covered Bond Fact Book*, 6th ed., Brussels 2011, available at: http://www.pfandbrief.de/cms/_internet.nsf/0/7D614762F420FB30C12578FD00295047/$FILE/ECBC%20Fact%20Book%202011[1].pdf.

European Mortgage Federation, *A Review of Europe's Mortgage and Housing Markets*, Brussels 2009, available at: http://www.hypo.org/content/default.asp?pageId=524.

Guideline of the European Central Bank of 16 September 2010amending Guideline ECB/2000/7 on *Monetary Policy Instruments and Procedures of the Eurosystem* ECB/2010/13 (OJ L 267, 9.10.2010, p. 21-55).

Rudolf M., Saunders A., *Refinancing Real Estate Loans – Lessons to be Learned from the Subprime Crisis*, Association of German Pfandbrief Banks, Berlin 2009.

LISTY ZASTAWNE I RMBS JAKO BEZPIECZNE INSTRUMENTY FINANSUJĄCE RYNEK NIERUCHOMOŚCI W UE

Streszczenie: Globalny kryzys finansowy przyczynił się do przesunięcia zainteresowania rynków finansowych z instrumentów opartych na sekurytyzacji kredytów mieszkaniowych na listy zastawne. Restrykcyjne regulacje wydane przez EBC w stosunku do banków i inwestorów, a także utrzymująca się nieprzychylna opinia o rynku RMBS ograniczają liczbę transakcji finansujących obrót nieruchomościami. Z kolei listy zastawne uznawane są przez banki za znacznie tańsze i bezpieczniejsze źródła długoterminowego finansowania. Są one również preferowane przez instytucje nadzorcze. Listy zastawne emitowane przez banki w Niemczech mogą być traktowane jako punkty odniesienia dla emisji listów zastawnych w innych krajach UE.

Słowa kluczowe: listy zastawne, RMBS, banki, UE.