



The Economies of Balkan and Eastern Europe Countries in the Changed World (EBEEC 2013)

## Competition between banks and bond markets: hardly impacted or softly complemented

Ieva Astrauskaite<sup>a\*</sup>, Arvydas Paškevičius<sup>b</sup>

<sup>a</sup>Finance department, Faculty of Economics, Vilnius University  
Sauletekio av. 9, LT-10222 Vilnius, Lithuania

<sup>b</sup>Finance department, Faculty of Economics, Vilnius University  
Sauletekio av. 9, LT-10222 Vilnius, Lithuania

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### Abstract

Finance systems being extremely bank-centric, which meant that most of the financial risks were being concentrated in the banking system, there is a need for alternate channel of intermediation that could be used if the banks once again encountered difficulty. Moreover, bonds are increasingly supplementing bank lending as a source of finance for the private sector. On the other hand, the relative unimportance of the corporate bond market in Europe was mirrored by the corresponding dominance of the banking sector. Although there is no definitive evidence that either a market-based or bank-dominated financial system is better, arguments, that a more diversified financial system would mitigate its vulnerability to systemic risk, are made. With the instruments of comparative analysis, underdeveloped bond markets and dependence on bank finance are topics of concern of this paper as well as an aim to examine other competing factors on impacts of banking on bond markets, banking substitution and mixed market models are argued.

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Selection and peer-review under responsibility of Kavala Institute of Technology, Department of Accountancy, Greece

Keywords: Bond market; banking; competition; complements; substitutes;

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\* Corresponding author. E-mail address: [ieva.astrauskaite@ef.vu.lt](mailto:ieva.astrauskaite@ef.vu.lt)

### 1. Introduction

Considering recent circumstances in financial markets, when yields of deposits and government securities had sharply decreased, markets were fulfilled of temporarily free funds by institutional investors issuing financial aid emissions to debt emerging countries, corporate bonds become particularly favorable choice of investment.

When seeking returns by acquiring higher-risk securities as well as being not willing to invest into low-yield instruments, market participants actively lookout ability to employ the funds by investing in reliable and profitable debt securities. While governments suffer distrust, capital market players favor of corporate bonds.

The purpose of this paper is to examine the factors of bond and bank market activity dichotomy classifying to competition or complementation.

The main tasks of this paper are considered of market and bank centric models description, identification of facts and figures for classification and mention of future prospects.

The paper contains of three sections. The first section briefly summarizes the growing importance of bond market. Section No 2 analyzes different financial market models and provides with the criteria for two market comparison in substitutionally or complementary decision making. Section 3 contributes to mention of future prospects in further bond market development . Conclusions are made.

### 2. The growing importance of bond market

Over the years demand of debt securities is increasingly growing, as it is seen in Fig. 1. In the aftermath of the crisis, European corporates have started to use debt capital markets more intensively, the volumes of corporate bonds issued have grown and in the result yields have come down. As the availability of bank lending has been shrinking in some countries, mostly due to the enduring impact of the financial crisis and new regulatory requirements, corporations are increasingly turning to debt capital markets (Deutsche Bank Research, 2013).

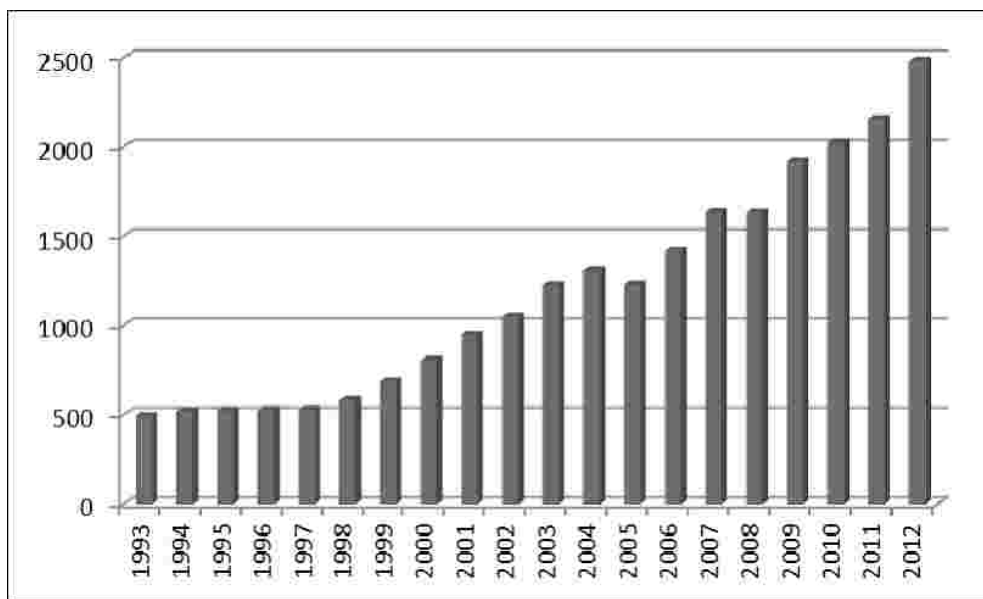


Fig. 1. International debt securities of corporate issuers in all countries in amounts outstanding (in billions of US dollars) (Source: BIS)

Deutsche Bank emphasizes number of factors that would seem to favour a larger role for corporate bond issuance

in the financing of European companies:

- Many European banks are being forced to deleverage their balance sheets due to higher capital requirements and other regulatory changes as well as due to a shortage of capital.
- Spreads between corporate bonds and bank bonds have narrowed and, in some market segments, even shifted in favour of corporate issuers.
- Investor demand for corporate bonds has increased as a result of
- Low government bond yields
- A shift in investor preferences from financial bonds to IG corporate bonds
- Firms and their management/owners have become more open to using capital-market-based financing (Deutsche Bank Research, 2013).

Considering the causal advantages of bond market development, the main constraints could be identified in weaker performance of banking sector. On the other hand, strong factor group seems to be struggling government bond sector. In this way inside substitution in debt securities market could be emphasized. Favor of or economic education could be listed as a third group of factors causing.

### 3. Competing or Complementing

In economics, one way two or more goods or commodities are classified is by examining the relationship of the demand schedules when the price of one good or commodity changes. This relationship between demand schedules leads to classification of goods or commodities as either substitutes or complements. Substitute goods are goods which, as a result of changed conditions, may replace each other in use (or consumption). A complementary good is a good with a negative cross elasticity of demand, in contrast to a substitute good. This means a good's demand is increased when the price of another good is decreased. Conversely, the demand for a good is decreased when the price of another good is increased. It is oppositely when analyzing capital market instruments. When yield vector is taken as a breaking point, substitutes are those financial instruments which, as a result of changed conditions, may be replaced due to the will of profit gains. In this respect, bond market analysis versus banking sector is brought.

Firstly, short descriptions of bank centric and market centric models and assumptions to make them are introduced.

According to major economic reviews, banking sector shares of GDP (%) bank-centric financial market model is described as the dominance of banks and other financial institutions in distribution of financial funds between investment, savings and borrowing instruments. Households or firms facing a surplus or a shortage of temporarily free funds refer to bank or other financial institutions for banking products or other capital and money market instruments. Analyzing the investment opportunities, if the investor is less conservative and chooses any instruments of money or capital market, instead of deposits in banks or other financial institutions, banks could be described as intermediaries not delaying cash flows for other market operations. If borrowing is analyzed, there are wider alternatives for modeling. Firms or households due to concentrated banking structure and information spread acknowledge bank loans instead of other market opportunities, e.g. debt securities. Analysts say that it was understandable for the companies to prefer cheap bank credit to equity /corporate bonds (when lending rates for corporates were at 4-5 per cent) but it is time for them to access markets for their financial needs when the lending rates are in the range of 18-20 per cent.

When market access for borrowing and savings is only available through financial intermediaries (banks), the market is called bank-centric. Several characteristics of the model are formed:

- High concentrated;
- Bank product dominated;
- Emerging primary and secondary capital market;

The dominance of financial intermediaries is formed by market concentration, when major asset and liabilities positions are held on by several financial institutions. The visual description of the above prepositions is given below in Fig. 2.

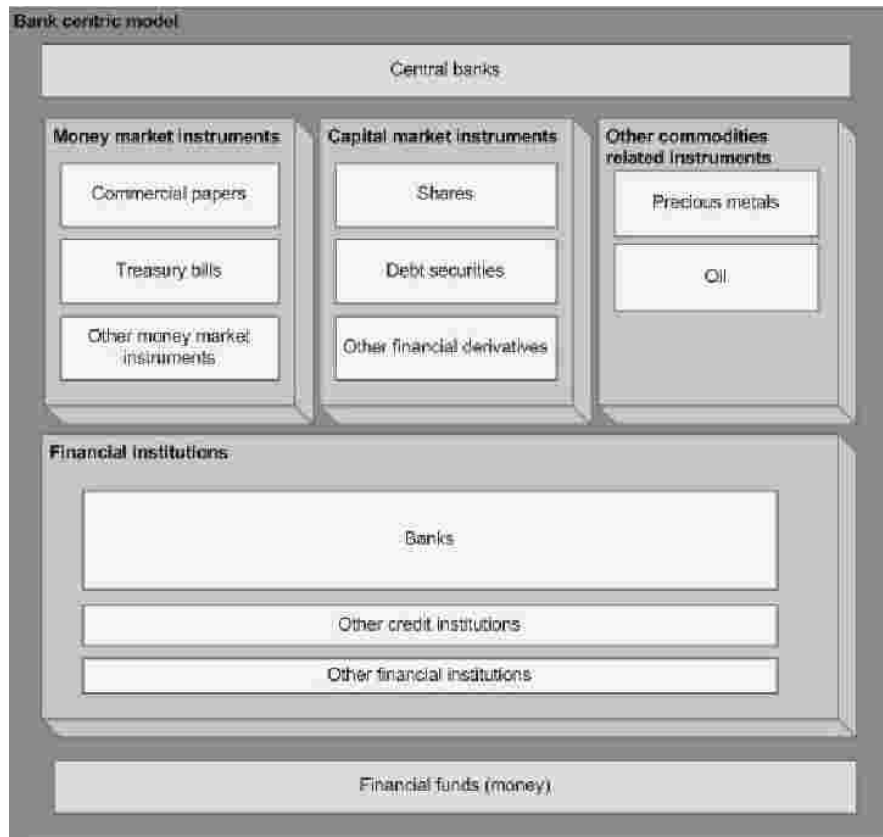


Fig. 2. Bank-centric financial market model (Source: made by authors)

As it is seen in Fig. 2, financial funds (temporarily free funds) are distributed by financial institutions into money, capital market instruments depending on the risk and yield willing for saving, investing and consumption purposes. Bank centric models prevail in Central and Eastern European countries.

Another model of rather equal parts in markets is designed and called market driven financial market model. The essence of the model is larger diversification of financial institutions and alternatives of savings, investments and borrowing.

When market access for borrowing and savings is directly available through the markets and or financial intermediaries (banks), the market is called market-centric. Several characteristics of the model are formed:

- Institutionally diversified;
- Money, capital market product dominated;
- Developed capital market;
- Active secondary capital market;

The visual description of the above prepositions is given below in Fig. 3.

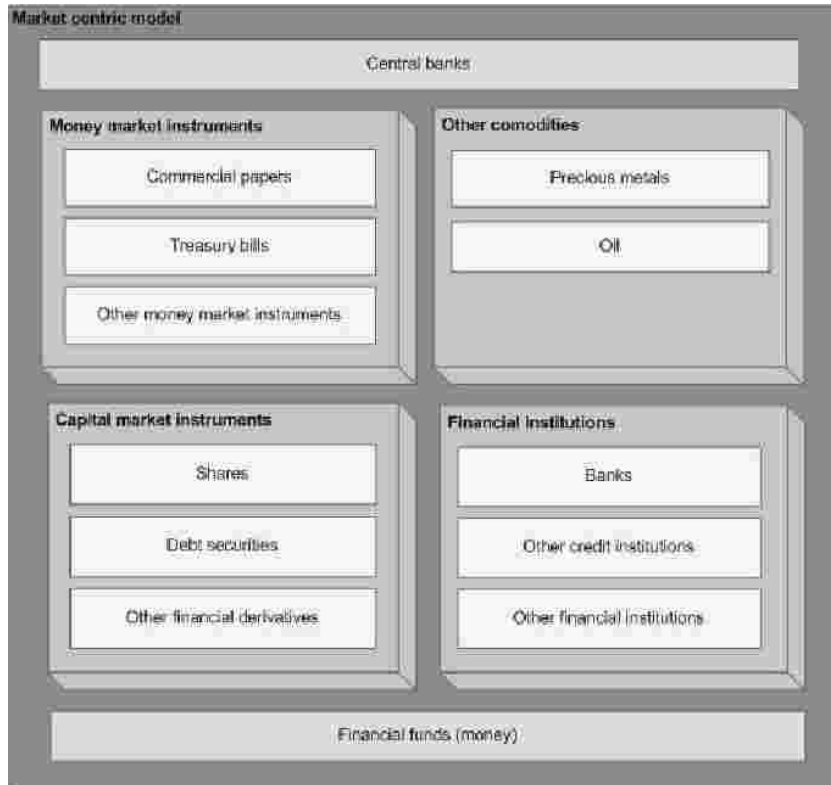


Fig. 3. Market-centric financial market model (Source: made by authors)

Market centric models prevail in Western European countries, United States.

With the purpose to answer the question of substitution or complementation, several countries from both models are taken into consideration, market cycling conditions are supposed and analysis of figures is launched.

A glance is taken at the growth in issuance in those countries where banks are struggling and/or bank lending is limited (Cyprus, Ireland, Italy, Portugal, Slovenia, Spain) or banking sector suffers a large scale financial donation to other international market co-players (France, Germany, Luxembourg) as seen in Fig. 4.

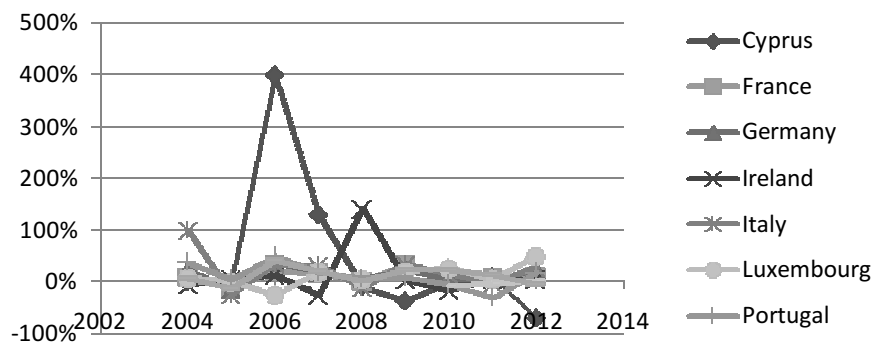


Fig. 4. The yearly growth of international debt securities of corporate issuers in selected countries amounts outstanding (%) (Source: BIS)

The assumption about the unusually strong growth of issuance of corporate debt securities in the countries, where financial difficulties in the last years were seemed or financial sector was struggling, cannot be approved by the data given in Fig.4. As one can see, the growth dynamics is unstable, without any distinct trend with several exceptions of Cyprus (2006) and Ireland (2008). The year 2008 and 2010 are the minimal extremes in bond outstanding amounts growth.



Fig. 5. Loans to Non-MFIs excluding general government in euro area outstanding amounts at the end of the period (€) (Source: ECB)

On the other hand, the decrease in loan statistics could not be assumed to be sharp. However, loan percentage changes are not equivalent to bond market ones. As outstanding amounts of bonds have grown by 18% in 2009, 6% in 2010, 7% in 2011, and 15% in 2012, loan volumes (Fig. 5) changed only marginally by less than 1% in 2009, 2% in 2010, 1% in 2011, and -1% in 2012. According to measures mentioned, there is no particular reason to state the direct substitution effect between bond and banking market.

Although the substitution effect could be drawn as prices rise (or incomes decrease) consumers will replace more expensive items/commodities with less costly alternatives, primary conclusions of not satisfied missed and gained proportions in bonds and loan market should be taken into consideration.

Other factors for and against market dichotomy (capital and banking markets performance combined or competing for resources) are summarized in Table 1.

Table 1. Market dichotomy matrix: facts for complementation or substitution.

Facts for	Complementation	Substitution
Bond issuance for financing new projects instead of bank loans		X
Empirical test of bond and	X	

bank market correlation		
Higher rated companies choosing bond market for financing		X
Easier bank loan restructure		X
Securitization	X	
Corporations diversify financial liabilities	X	
Cost of borrowing		X
Restrictions of borrowing		X

Over the longer term, the development of bond markets may have slowed the growth of banks but it does not appear to have caused their business to contract. Of 25 major emerging economies the domestic corporate bond market was larger (relative to GDP) in 2000 than in 1995 in all but India and Brazil. But over the same period, bank lending only contracted appreciably in five economies, and in these cases the contraction was more a reflection of banking crises than displacement by strong growth in bonds. There have been reports in Thailand and Hungary of many new bond issues being used to repay existing bank loans rather than to fund new projects, but this still appears to be the exception (Hawkins, 2002).

An empirical test conducted by Jiang et al (2001) finds that bond issuance and bank lending are usually positively correlated, in both OECD and emerging economies.

For companies with a high rating, particularly if they are rated better than the bank itself, issuing corporate paper looks attractive. This raises the issue of whether the quality of banks' loan books will deteriorate as they lose better borrowers (Hawkins, 2002). Small and medium-sized enterprises (SMEs) don't have direct access to the bond market. Some fund managers have responded by setting up loan funds aimed directly at SMEs, but it's still too early to say whether these can provide a cost-effective alternative to banks (Larsen, 2011).

A bank loan is easier to restructure than a bond issue. Some companies may prefer to deal with a bank confidentially rather than face the disclosure requirements of bond financing (Hawkins, 2002).

Banks use bond markets to supplement deposits as a source of funds. Indeed, in many cases (eg Brazil, China, Germany, India, Indonesia, Mexico, Poland, Russia and Thailand) banks and other financial institutions account for most domestic bond issuance. Subordinated bond issuance has the advantage for banks of being recognised as Tier 2 capital (Hawkins, 2002). Where bond markets have been developed, banks may be able to use them to sell off some of their loans. This may enable banks to economise on capital, reduce maturity mismatches, enhance their liquidity and diversify (geographically or sectorally) their credit exposures. Often such "securitisation" is done by parcelling up loans and selling them to a special purpose vehicle which then issues securities backed by the loans and their underlying collateral. Banks may earn fee income by guaranteeing full, or partial, repayment on corporate bonds ("credit enhancement") (Hawkins, 2002).

Many firms, not just those too small to access bond markets, lower borrowing costs using a mix of financial contracts, including bank loans. In particular, banks retain a comparative advantage in providing lines of credit because they provide deposits. There is a wealth of evidence that the mix of bank loans and bonds has real effects at the firm level — for example, a heavier reliance on bank loans increases the recovery rates for firms that enter bankruptcy (Berlin, 2012).

As the availability of bank lending has been shrinking in some countries, mostly due to the enduring impact of the financial crisis and new regulatory requirements, corporations are increasingly turning to debt capital markets. Investors search for yield in a low interest rate environment. As sovereign bonds are offering historically low yields, corporate bonds have turned into a significant investment alternative in the present market conditions. The reasons for this heightened attention are certainly understandable: investors are pouring increasing amounts into non-financial corporate bonds, yields have come down, and issuance volumes have been rising (Deutsche Bank Research, 2013).

To sum up, arguments for complementation are more reasonable and validated than substitution when analyzing bond and bank markets. Even empirical analysis shows positive correlation in between, which means a negative cross elasticity of demand, in contrast to a substitute item. However facts gathered by the quantity determine the substitution (Table 1), which is highly questioned by the analysis of figures before.

Therefore, with reference to the recent contraction of markets that was more a reflection of banking crises than

displacement by strong growth in bonds, severe exceptions of choice of financing instruments, active banking performance in bond market as a source for supplementation and securitization, the conclusion about the strong impact and complementation to banking and bond market is launched.

#### 4. Back to banking routes or bubbling?

As both markets are rather complements than substitutes, the main argument of shrinking bank loans causing increasingly turnings to debt capital markets loses its weight in meaning. However, the question of bond market development velocity is being argued, whether the upward trend in bond prices is already tantamount to a corporate bond burble.

A typical equity bubble is built by the expectation that the price can only go higher forms the only rationale for purchase. But the main motivation of investors for buying fixed income is the opposite of typical bubbles—the fear of losing money rather than the greed of potential profit has fueled the historic shift of assets into fixed income.

Bubbles are frequently accompanied by abnormally high trading volume. Traditional asset pricing models have trouble explaining not only abnormally high trading volume but the existence of trading in general. The “no-trade theorem” of Milgrom and Stokey (1982) states that, in the absence of portfolio rebalancing needs, there will be no trading, since if someone wants to trade, other agents will rationally assume that the decision is prompted by private information and will therefore refuse to take the other side of the trade.

In the behavioral models, a bubble may arise when prices overreact to a potentially informative signal about fundamentals. Historically, most bubbles have a compelling and sensible story behind them. For example, the dot-com bubble fed on the argument that the new technology would bring great improvements in productivity; similar lines of reasoning were offered during the past railroad and electricity booms. Land-price bubbles were often justified by the logic that an ever-growing population combined with a limited supply of land is sure to make land scarce. During the recent U.S. real estate bubble, the frequently heard argument was that real estate prices would permanently increase because securitization would allow to diversify the idiosyncratic risk of real estate (Scherbina, 2013).

Bernanke, Gertler, and Gilchrist (1999) propose a model with credit market frictions, in which higher-valued firms that can post a larger collateral will borrow at a lower cost. Hence, any value-increasing development, such as, for example, a technological breakthrough, would reduce firms’ cost of borrowing. This will stimulate investment spending, and the increase in investment may, in turn, lead to further increases in cash flows and asset prices, inducing an additional feedback effect on investment, and so forth.

Modeling the conditions under which bubbles could exist in perfectly rational markets to trying to model the observed dynamics of a bubble, in the process often abandoning the assumption of perfect rationality (Scherbina, 2013).

To understand the implications of future perspectives, the regressive analysis should be made. From 1900 to 2012, the average interest rate (yield) was 4.99% (often quoted as 5%). On Jan. 30, 2013, the yield was 1.99%, well below the long-term average.

Taken together, while there does not seem to be an imminent risk of overheating in the corporate bond markets, the risks of a corporate bond bubble have clearly increased. Although increasing volume, yield curves shifts down. Combining theories for bubbles to arise, market information and prices are the main causing factors. As bond prices seem not to grow in future perspective, the sudden changes in expectations of market players could be the determining factor for corporate bubble market.

#### 5. Conclusions

Factors that would seem to favor a larger role for corporate bond issuance in the financing of European companies were aggregated into three groups distinguished: 1) weaker performance of banking sector; 2) struggling government bond sector; 3) economic education. The levels of importance were imposed (as listed).

Bank-centric and market-centric financial market models are briefly described with the main features highlighted: high concentrated; bank product dominated; emerging primary and secondary capital market for bank-centric and institutionally diversified; money, capital market product dominated; developed capital market; active secondary capital market.

Comparative analysis of figures reports that percentage changes of loan volumes are not equivalent to bond



market ones. According to measures, there is no particular reason to state the direct substitution effect between bond and banking market.

Furthermore, new bond issues being used to repay existing bank loans rather than to fund new projects appear to be the exception.

With reference to the recent contraction of markets that was more a reflection of banking crises than displacement by strong growth in bonds, severe exceptions of choice of financing instruments, active banking performance in bond market as a source for supplementation and securitization, the conclusion about the strong impact and complementation to banking and bond market is introduced.

Combining theories for commodity bubbles to arise (as a consequence of volume velocity in bond markets), market information and prices are the main causing factors. As bond prices seem not to grow in future perspective, the sudden changes in expectations of market players could be the determining factor for corporate bubble market.

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