

THE IMPACT OF TIGHT MONETARY CONDITIONS AND CRISES ON CORPORATE CAPITAL STRUCTURE – LITERATURE REVIEW AND OPEN RESEARCH AREAS

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ABSTRACT

The study offers a theoretical framework for analyzing the relation between tight monetary conditions, crises and corporate capital structure, as well as shedding light on the limited empirical results and open research areas of the topic.

The results highlight that the supply of capital has an effect on corporate capital structure, though this effect is scarcely investigated. There is limited evidence on financial policy and the development of financing mix during a crisis period, specifically in the case of firms with impaired access to external financing. The study also highlights our lack in understanding of the relation of crisis and capital structure in case of the CEE region.

The findings have implications and set the framework for future empirical research.

Key Words: Financial crisis, supply of capital, capital structure, access to financing, CEE region

INTRODUCTION

Based on the seminal work of Modigliani and Miller, the search for optimal capital structure generated several theories (e.g. trade-off theory, signalling, agency costs theory). In spite of the plentiful empirical testings and new theories (e.g. financial flexibility), there does not seem to be any single, universal, and empirically valid capital structure theory.

Apart from the research collected to date, some new research aspects are arising; one of these new aspects determines and measures the role of supply factors in capital structure movements, dissolving MM's assumption of the supply side's perfect elasticity (e.g. Faulkender and Petersen, 2006; Becker, 2007; Ivashina and Scharfstein, 2008; Akbar, Rehman and Ormrod, 2013; Lemmon and Roberts, 2010; Leary, 2009; Duchin, Ozbas and Sensoy, 2010; Voutsinas and Werner, 2011).

However, to measure the exact effect of supply factors on capital structure, a clean differentiation of supply and demand factors is needed. Tight monetary conditions and crisis – assuming these represent supply shock to the capital markets – offer an opportunity to measure the supply side effect of capital markets on corporate capital structure.

This study develops a theoretical framework for analyzing the effect of supply factors on the basis of the works of Gertler and Gilchrist (1993), Gertler and Gilchrist (1994), Oliner and Rudebusch (1995), Bernanke, Gertler and Gilchrist (1996), Kashyap, Stein and Wilcox (1993), and Kashyap and Stein (2000), investigating the effects of tight monetary conditions on capital structure movements.

Further, empirical results on the effect of supply shocks and crisis on capital structure are reviewed in order to identify the open research areas of the topic.

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THEORETICAL FRAMEWORK FOR ANALYZING THE SUPPLY EFFECT ON CAPITAL STRUCTURE

Factors influencing capital structure in tight monetary conditions and crisis

The investigation of monetary policy's effect on the real economy has already been subject to the work of Tobin and Brainard (1963), though the relation was stated only later by Romer and Romer (1989), Bernanke and Blinder (1988 and 1990).

According to the basic idea of the monetary transmission mechanism, tight monetary policy influences the passiva side of banks, decreasing the amount of money flowing in the bank system (*money channel*). Alternatively, monetary policy measures affect the real economy by means of altering the lending activity of banks, partially through decreasing the supply of credit (*lending channel*).

Early studies investigated the transmission mechanism of the lending channel (Blinder and Stiglitz, 1983; Romer and Romer, 1989; Bernanke and Blinder, 1988; Bernanke and Blinder, 1990). The idea is that unfavourable changes in the monetary policy have an impact on banks' fund collecting activity, indirectly affecting the lending activity (*bank lending channel*). Kashyap, Stein and Wilcox (1993) emphasize that the unfavorable change in the monetary policy generates a greater decrease in supply of bank lending than in the case of the overall supply of credit, resulting in a lack of finance for some corporates.

Questioning the results of Kashyap, Stein and Wilcox (1993), Oliner and Rudebusch (1995) and Gertler and Gilchrist (1994) emphasize the transmitting role of credit supply in a broader sense, considering every financing possibility as a source of supply (*broad lending channel*). Considering the possible financing sources, Oliner and Rudebusch (1995) describe that, based on the existence of information asymmetries, external and internal sources are not perfect substitutes. Furthermore, there is a premium on the price of external sources; its value correlates with the tightening of monetary policy. The tighter the monetary policy is, the higher the premium and so is the price of external funding, possibly resulting in the fall of supply.

Further studies investigated the impact of monetary policy on corporate financing from various aspects of the broad lending channel.

In the following, the main points of the considerable works of Gertler and Gilchrist (1994), Khwaja and Mian (2008), Kahle and Stulz (2013) are reviewed.

According to *Gertler and Gilchrist (1994)*, the financial factors² transmit the capital markets' shocks to the real economy in tight monetary periods through two channels. The *balance sheet view* declares that a corporate's wealth and assets determine its lending possibilities serving as collateral for external financing. Then, monetary policy affects the company in two ways. Its direct effect can be captured through the change of monetary instruments (e.g. interest rate), while monetary policy can also have an indirect effect by altering the demand for the company's products. Unfavorable changes in monetary policy decrease the cash flow and asset value of the company, resulting in lower capital supply.

In the credit/lending view, monetary policy determines the funds available for lenders by means of, for example, capital requirements, which has an effect on credit available for corporates.

Khwaja and Mian (2008) investigated the impact of a bank liquidity crisis on the economy. They identified two distinct channels, through which a liquidity crisis takes its effect. Through *the bank lending channel* liquidity shocks are passed over to borrowers by means of credit supply conditions as quantity and pricing parameters, even if the borrowers' parameters, such as credit rating, are unchanged (Kashyap, Stein and Wilcox, 1993; Kashyap and Stein, 2000; Paravisini, 2007). The borrowing channel represents the availability and use of

² Financial factors are results of capital market imperfections.

alternative financing sources to bank credit. The channel gains in importance in the case of decreasing bank credit supply.

According to Kahle and Stulz (2013), impaired access to capital takes its effect on the capital structure of companies through four different channels in case of crisis. The bank lending supply shock describes that in cases of considerable asset losses, banks are forced to regain their healthy balance structure through active and/or passive side operations (that is, mainly through capital increase and/or asset selling). Active side operations taken for the main part are the sale of securities, stocks and bonds, termination of existing loan facilities and freezing of new credit granting. These actions result in a decreasing supply of credit.

The credit supply shock deals with the supply of sources in general, reviews banks and alternative financing sources as well. Due to the increased level of uncertainty and risk, investors are turning away from the credit markets, the level of investment activity is decreasing, and the liquidity vanishing from the markets. Since not only bank lending, but financing sources in general are scarce in case of a credit supply shock, lack of bank financing cannot be substituted by alternative sources.

The demand shock describes that the demand for goods may decrease and uncertainty about future demand may increase during a crisis.

The balance sheet multiplier effect points to the relationship of a company's net worth and its financing and investment policy.³ When asset values decrease, firms have a lower net worth, resulting in less collateral for new borrowings and for renewable loans.

Though all three works describe the impact of monetary policy on corporate capital structure similarly, different mechanisms with differing designation are identified.

Kahle and Stulz (2013) use the broadest grouping of mechanism, representing not only the supply, but the demand side as well. The direct balance sheet view of Gertler and Gilchrist (1994) conforms to the demand shock of Kahle and Stulz (2013), and the indirect balance sheet view to the balance sheet multiplier effect. The bank lending supply shock and credit supply shock of Kahle and Stulz (2013) represent Gertler and Gilchrist's (1994) credit/lending view in a more detailed manner. Since Khwaja and Mian (2008) investigate the development of bank lending, their bank lending channel is a tighter category than the credit/lending view of Gertler and Gilchrist (1994). Furthermore, Khwaja and Mian's (2008) bank lending channel acts similarly to the bank lending supply shock of Kahle and Stulz (2013). While Khwaja and Mian (2008) identifies the access to financing sources from a demand view (firm borrowing channel), the credit supply shock of Kahle and Stulz (2013) and the credit/lending view of Gertler and Gilchrist (1994) works with a supply point of view.

In the following sections, the categorization of Kahle and Stulz (2013) is followed mainly due to its very detailed manner and the fact that it best incorporates other categorizations.

Factors influencing capital structure in tight monetary conditions and crises considering access to external financing

Firm characteristics influence the credit supply and the access to external financing sources of the firm by having an effect on the degree of information asymmetry, agency costs and corporate control mechanism. As a result, firm characteristics have an indirect effect on the firm's capital structure. This effect gains importance in tight monetary conditions, like a crisis, since monetary conditions alter the relation between a firm's characteristics and information asymmetries, agency costs and control mechanism, specifically in the case of firms with impaired access to external financing sources.

Oliner and Rudebusch (1995) state that the more tightening in monetary conditions takes place, the more the relative cost of external financing sources to internal sources rises.

³ For a literature review, see Brunnermeier and Oehmke (2012).

Further, firms facing larger information asymmetries are paying larger premium for external sources than firms with lower asymmetries, which results in the former being more prone to monetary shocks. According to Bernanke, Gertler and Gilchrist (1996), agency costs of lending are moving parallel with the cyclicity of the economy. Moreover, the greater the information asymmetry, the larger the agency costs of external financing. So in case of unfavorable monetary changes and crisis, firms facing higher level of agency costs will be able to borrow less⁴ and will suffer from the economic downturn to a relatively larger extent than a borrower with a lower level of agency costs.

In order to get a meaningful and detailed picture of the topic investigated, further analysis distinguishes firms with limited access and with unlimited access to external financing. The aim is to investigate whether tight monetary conditions in a crisis have a different impact on capital structure in case of firms with different access to external financing. In the literature, access to financing is identified mostly by the firm size, the listed status or having a rating. This study takes firm size and the listed status into consideration and is further executed by means of the transmission channels of Kahle and Stulz (2013) as described formerly.

Tighter monetary policy in crisis decreases the supply of credit through the bank lending channel, having a more pronounced effect on firms of a smaller size with less collateral and on firms with higher leverage (Holmström and Tirole, 1996; Hancock and Wilcox, 1998; Berger and Udell, 2002; Becker and Ivashina, 2014). However, according to Khwaja and Mian (2008) the channel transmits impacts of the same intensity on smaller and larger companies. Furthermore, they state that the monetary policy has its effect predominantly through quantity constraints.

Tightening of credit supply in broader sense impacts the smaller bank-dependent firms to a greater extent through the credit supply channel, mainly due to the higher level of information asymmetry and agency costs and due to the fewer alternative financing possibilities of these firms (Bernanke, Gertler and Gilchrist, 1996; Gertler and Gilchrist, 1994; Oliner and Rudebusch, 1995). Based on the results of Khwaja and Mian (2008), the decrease in bank lending could be settled by alternative, non-bank sources in the case of firms of a larger size, with political embedment and/or firms of large holdings. Investigating the financing of listed companies, Bernanke, Gertler and Gilchrist (1996) state that external financing is available for these firms instead of tightening monetary conditions, mainly due to their accessible alternative financing possibilities. Oliner and Rudebusch (1995) state that, based on their results, smaller companies are affected by unfavorable monetary conditions through the credit channel, while the effect cannot be tracked in the case of larger companies.

Furthermore, the decrease in profitability and the increase in default risk is less likely to apply to larger companies owing to their higher level of diversification. Thus tighter monetary conditions have less of an impact on the financing possibilities of larger firms through *the demand channel*.

In monetary tightening, asset values decrease and asset marketability on secondary markets worsens, resulting in a decreasing collateral value of assets. Based on the functioning of *the balance sheet multiplier channel*, financing is offered to borrowers with higher collateral values, i.e. that of a larger size (Michaelas, Chittenden and Poutziouris, 1999).

Capital structure development in tight monetary conditions and crises considering access to external financing

Considering the above findings on the transmission channels, we can finally ask how monetary conditions or crisis are shaping the capital structure? What development of leverage and use of alternative financing sources, what change in the composition of financing mix can be expected

⁴ Due to the “flight to quality” phenomena.

as a result of the impact of monetary conditions? Are different developments expected taking corporate characteristics, i.e. access to external financing, into account?

Development of leverage

In tightening and crisis, companies receive less or no bank credit considering the bank lending channel, and thus a decreasing leverage is expected.⁵ A more pronounced decrease is expected in the case of smaller, more leveraged firms and/or in case of firms with less collateral (Bernanke, Gertler and Gilchrist, 1996; Gertler and Gilchrist, 1993; Gertler and Gilchrist, 1994; Kashyap, Stein and Wilcox, 1993; Kashyap and Stein, 2000). However leverage is shaped through the availability and quantity of alternative sources to bank credit as well. If sufficient alternative financing to bank credit is available, decreasing bank financing can be substituted with alternative financing, that is, leverage remains unchanged.

If the tightening and crisis have an impact on credit supply in general, then not only the availability of bank credit, but also that of alternative sources are affected through the credit supply channel, decreasing leverage is expected. Firms of a smaller size and bank-dependent ones are suffering from decreasing credit supply, while larger and/or listed companies can outweigh the impact more likely, mainly due to their more financing sources available, e.g. cash and equity-type sources (Bernanke, Gertler and Gilchrist, 1996; Gertler and Gilchrist, 1993; Gertler and Gilchrist, 1994; Kashyap, Stein and Wilcox, 1993; Kashyap and Stein, 2000).

Through the demand channel, a decrease in demand results in vanishing growth opportunities, which leads to a sharp fall in investments. Declining CAPEX requires less financing, both debt- and/or equity-type financing. So leverage remains unchanged or declines.⁶ A more pronounced effect is expected in the case of smaller firms.

The drop in asset values due to unfavourable monetary changes or crisis increases leverage, generating agency conflicts between lenders and owners of a firm (Jensen and Meckling, 1976; Holmström and Tirole, 1996). However, the balance sheet multiplier channel leaves debt unchanged; leverage is expected to remain unchanged or decline. The balance sheet multiplier effect may have a greater impact on firms with less collateral, i.e. firms of smaller size.

Summarizing the above findings, the tight monetary conditions or crises have a negative effect on leverage through every channel of the monetary transmission; leverage declines or remains unchanged, if equity decreases with the same rate as debt. Taking corporate characteristics into account, it is expected that unfavorable monetary policy or crises will have a more pronounced effect on leverage in case of smaller size and/or non-listed status.

Development of financing mix

The bank credit channel works towards the decrease in bank credit position of the firm, while the bond and equity position may rise or remain unchanged, depending on the access to financing sources. In case of larger and/or listed firms, alternative sources may substitute the tightening supply of bank credit (Leary, 2009). The development of a cash position is questionable; a decrease may occur since firms are utilizing their savings due to them running

⁵ The development of leverage should be evaluated with caution. In the case of sudden shocks and rash changes in monetary conditions, and assuming that equity does not change in the precise moment the shock is occurring, the development of leverage purely reflects the change in debt position (e.g. fall of debt level due to cutbacks on credit lines). However, if the impact of a monetary change or crises is to get evaluated based on periodical data, rather than stock data, the effect of possible changes in equity position should be taken into account as well. It is misleading to have the total change in leverage account for the change in debt position during a period, since the equity position could have altered as well.

⁶ Taking periodical data, the simultaneous decrease in equity and debt is possible. If equity falls at a greater rate, then debt and leverage increase. Though this may be only a theoretical case.

short on bank credit, though a cash hoarding strategy is also conceivable when expecting further tightening of credit supply, and a deepening of the crisis (Kahle and Stulz, 2013).

Unfavorable monetary conditions, working through the credit supply channel may cut back bank credit position, bond and equity issuances. The flight to quality phenomena of the markets hinders and makes issuances expensive, for larger and/or listed companies as well. The development of a cash position is questionable. The hoarding strategy may be justified by current risky operations and by the expectation of a further deepening of the crisis.

The falling demand, exerting its effect through the demand channel, makes assets less valuable, their secondary market struggling, resulting in a falling value of net worth and in strengthening credit conditions. A fall in demand may also turn the firm's profitability into negative, impairing access to financing, the fulfillment of debt service and covenants, the renewal of existing credit lines, the borrowing of new credit, and the financing by alternative sources in general. Further, falling profitability hinders the cash hoarding. These factors have a more pronounced effect on firms of smaller size, mainly due to their low level of diversification.

The balance sheet multiplier channel works towards a decrease in the net worth and asset value of the firm, which leads to an increasing leverage. The higher level of leverage may cause debt overhang, where the existing debt position turns out to be riskier and not only debt, but also equity issuance becomes more hindered (Myers, 1977). The multiplier channel may have a more significant effect on the financing mix of smaller companies under tight monetary conditions than on that of larger firms.

In summary, the following statements can be made: Tight monetary conditions, crisis have a negative impact on the bank credit position through every channel of monetary transmission. The position decreases irrespective of corporate characteristics like size and listed status.

Bond and equity issuance may increase considering the bank credit channel in case of larger and/or listed companies, but considering the credit supply channel, there is no expectation that the tightening bank credit supply may be substituted by alternative sources, both in the case of larger and/or listed companies.

The development of cash position may be evaluated based on the functioning of the demand channel; cash hoarding is hindered by falling demand and falling profitability. This phenomenon may affect larger companies less due to their more diversified operations.

EMPIRICAL RESULTS ON THE IMPACT OF TIGHT MONETARY CONDITIONS AND CRISES ON CORPORATE CAPITAL STRUCTURE

Although based on the findings of a few studies, tight monetary conditions or crises seem to have no effect on corporate capital structure (Akbar, Rehman and Ormrod, 2013 in the case of I/t financing; Lemmon and Roberts, 2010), the vast majority of studies evidence the relationship. In the following, empirical literature on the impact of monetary policy and crisis on the development of corporate capital structure is reviewed, also referring to the access to external financing. Empirical results for the CEE region are also highlighted; the intention herewith is to investigate if the region's uniqueness⁷ has an impact on the relationship investigated.

Firms with impaired access to external financing

Capital structure development of firms with limited access to financing has scarcely been investigated. Existing studies emphasize the importance of internal financing sources

⁷ The CEE region shows a unique development and status, mainly due to the transition process in 1989–91. According to Colombo (2001), the transition process resulted, that the size of the region's capital markets and their late progress make the general use of some external sources not possible; trade credit is commonly used owing to the past plan economy; the ownership structure may be a significant determinant of capital structure.

(Campello, Graham and Harvey, 2010; Campello et al., 2011a; Campello et al., 2011b; Leary, 2009; Akbar, Rehman and Ormrod, 2013; Iyer et al., 2013) and the missing substitution of decreasing bank supply by alternative sources in tight monetary conditions (Leary, 2009; Akbar, Rehman and Ormrod, 2013; Iyer et al., 2013; Harrison and Widjaja, 2013).

Campello, Graham and Harvey (2010), Campello et al. (2011a) and Campello et al. (2011b) state that the 2007/08 crisis hindered, but did not cut back fully, the utilization of credit lines. The results support the pecking order theory, since not only firms with impaired access,⁸ but also those with access to financing, i.e. also profitable and liquid firms prefer internal to external financing. Leary (2009) states that the leverage and bank credit position of smaller, bank dependent firms decreased, while internal financing increased significantly during the credit crisis in 1966. Akbar, Rehman and Ormrod (2013) studied the sample of UK private companies in 2007–2009. They find that the tightening of the supply side had the greatest negative effect on the short financing channels, i.e. s/t bank credit, trade credit. Furthermore, cash and equity issuance increased, while substitution by net debt issuance and trade credit was not prevalent. Iyer et al. (2013) find that the Portuguese corporate sector was hit in diverse manners by the drop in bank financing during the 2007/08 crisis. Smaller, younger firms, and firms with weaker bank relationships suffered more from the tightening of the bank credit supply. Substitution by alternative sources did not take place independently from firm size.

The role of trade credit under unfavorable monetary conditions is rarely investigated. Its substitutional and supplementary role is also reasonable. Petersen and Rajan (1996) confirm the substitutional role of trade credit, mainly in the case of firms with impaired access to financing. Though they also emphasize that trade credit may signal the quality of a firm, reducing the adverse selection, and resulting in the increase of leverage. This latter highlights the supplementary role of trade credit. Akbar, Rehman and Ormrod (2013) and Love and Zaidi (2010) state the supplementary role in case of firms with impaired access to financing.

Firms with access to external financing

The importance of internal sources during unfavorable monetary conditions in the case of listed companies is highlighted by Kim, Heshmati and Aoun (2006), Voutsinas and Werner (2011) and by Harrison and Widjaja (2013). Kim, Heshmati and Aoun (2006) state having had a preference for internal financing sources during the Asian crisis, primarily for profitable firms with growth opportunities, while Voutsinas and Werner (2011) find that internal sources substituted, while alternative external sources did not replace, the shrinking bank credit for listed companies during the Japanese crisis in 1998. Harrison and Widjaja (2013) also underline the importance of internal sources for S&P 500 companies during the 2007/08 crisis.

Fosberg (2012 and 2013) found falling debt and equity issuance for listed US companies during the 2007/08 crisis. Specifically for s/t financing, a remarkable growth was observed by Fosberg (2013); the reason for this lies in the overcoming of a decrease in trade finance, l/t credits and equity-type financing by s/t credits. However, according to the results of Pattani, Vera and Wackett (2011), Kahle and Stulz (2013) and Iqbal and Kume (2014), firms with access to external financing have significantly financed their operations from the bond and equity market during the crisis. Results based on the studies of Becker and Ivashina (2014) and Adrian, Colla and Shin (2012) examining companies with bond market access, also state the substitution of falling bank credit supply through bond issuance. Concerning debt issuance, an important finding is that of Kahle and Stulz (2013). They doubt that the 2007/08 crisis had any impact on capital structure through the bank lending channel. They find that there was no larger fall in debt issuance observable in the case of bank dependent firms, as in the case of non-dependent firms.

⁸ Whether a firm has impaired access is defined by the CFO's subjective opinion.

Referring to the development of cash position, Kahle and Stulz (2013) surprisingly find that bank dependent firms hoarded cash to a greater extent than non-dependent firms during crisis.

Trade credit has a substituting role in case of large, listed companies during the Asian crisis (Love, Preve and Sarria-Allende, 2007) and during the Japanese bank credit crisis (Voutsinas and Werner, 2011), though a supplementary role is found for total financing (Voutsinas and Werner, 2011).

Empirical results for the CEE region

There are limited findings for the CEE region in the topic investigated.

Mörec and Raskovic (2011) find, that the Slovenian corporate sector suffered from the fall in credit supply during the 2007/08 crisis. Larger firms though managed to lower their demand for financing by decreasing the level of inventories, but the SMEs did not find any viable solution for their lack of finance. Szemán (2013) also finds a fall in external financing during the crisis. Studying the capital structure development of the Hungarian corporate sector, Szemán (2013) states that the share of total liabilities fell during the crisis, though the fall was only immediate in the case of the s/t debt. Rusu and Toderascu (2014) verify the fall in bank liabilities by examining datas from seven CEE countries.

However, Mostarac and Petrovic (2013) find that the leverage of Croatian companies increased, mainly through the increase of s/t debt.

The substitutional role of trade credit cannot be verified by Szemán (2013). The empirical results are summarized and shown in Table 1.

FINDINGS AND CONCLUSIONS

Though the relation of tight monetary conditions and capital structure is examined by several studies, the impact of crises is scarcely examined, specifically in the case of the 2007/08 crisis. The majority of the studies take the data of large, listed companies, i.e. that of firms with access to external financing; however, the findings of these studies also do not provide a single viable finding regarding the development of capital structure during the crisis. Moreover, a part of the empirical findings is not consistent with the statements derived from the relationship of monetary policy and capital structure. There is a conspicuous difference in the case of the development of leverage and bank credit. Furthermore, there is a clear lack of studies involving smaller, non-listed companies.

In addition, the evolution of financing mix elements has not been researched comprehensively. A clean statement cannot be made regarding their development as a result of supply side effects. Specifically, the case of trade credit has not been analyzed thoroughly for the 2007/08 crisis.

Thus, it is not clear whether or not the supply side has an effect, and if yes, what kind of effect it has on the capital structure. The study also highlights the lack of research and our missing understanding of the relation between crisis and capital structure in the case of the CEE region.

IMPLICATIONS

This study contributes to the extant literature by setting a framework for analyzing the relationship of monetary conditions and capital structure, and also by unfolding open research areas reviewing the referring empirical studies.

The implication for future empirical research in the area involving smaller and/or private companies, i.e. companies with impaired access to external financing, is set. The evolution of capital structure components, i.e. that of leverage and financing mix elements, has to be examined further in order to construct a clear picture of the role of supply factors and

monetary policy in shaping capital structure. A special need for clean results in the case of the CEE region is also obvious .

TABLES AND FIGURES

Table 1: Empirical results on the impact of tight monetary conditions, crisis on corporate capital structure^{9,10}

<i>Change in leverage and financing mix elements</i>	<i>Firms investigated have</i>	
	<i>impaired access to external financing</i>	<i>access to external financing</i>
<i>Leverage increases</i>	<u>Mostarac and Petrovic (2013)</u>	Iqbal and Kume (2014) Fosberg (2012) Fosberg (2013) Voutsinas and Werner (2011)
<i>Leverage decreases*</i>	Leary (2009) Iyer et al (2013) <u>Szemán (2013)</u>	
<i>Bank credit increases</i>		Fosberg (2013) – s/t; Iqbal and Kume (2014)
<i>Bank credit decreases*</i>	Leary (2009) Pattani, Vera and Wackett (2011) Iyer et al (2013) <u>Mörec and Raskovic (2011)</u>	Pattani, Vera and Wackett (2011) Adrian, Colla and Shin (2012) Becker and Ivashina (2014) <u>Rusu and Toderascu (2014)</u>
<i>Use of internal sources increases</i>	Leary (2009) Lin and Paravisini (2010) Campello, Graham, Harvey (2010) Campello et al. (2011a) Campello et al. (2011b) Akbar, Rehman, Ormrod (2013)	Kim et al (2006) Campello, Graham, Harvey (2010) Campello et al. (2011a) Campello et al. (2011b) Voutsinas and Werner (2011) Harrison and Widjaja (2013)
<i>Bond issuance increases</i>		Pattani, Vera and Wackett (2011) Adrian, Colla and Shin (2012) Becker and Ivashina (2014) Kahle and Stulz (2013)
<i>Bond issuance decreases</i>		Fosberg (2012)
<i>Equity issuance increases</i>		Pattani, Vera and Wackett (2011)
<i>Equity issuance decreases</i>		Fosberg (2012) Fosberg (2013)
<i>Trade credit increases</i>		Voutsinas and Werner (2011) Love et al (2007)
<i>Trade credit is unchanged or decreases</i>	Akbar, Rehman, Ormrod (2013) Love and Zaidi (2010) <u>Szemán (2013)</u>	

⁹ Results referring to the CEE region are underlined.

¹⁰ Expected changes in capital structure components based on the statements of the transmission channels are marked with *.

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