

# THE IMPACT OF FINANCIAL MARKETS GLOBALIZATION ON COMPANIES CAPITAL STRUCTURE

Mihaela DRAGOTĂ, Assist. Prof., PhD.  
Bucharest University of Economics

Cristina BADARAU, Assist., PhD. Student  
University of Orleans

Andreea SEMENESCU, Assist., PhD. Student  
Bucharest University of Economics

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**Abstract:** Insuring the assets financing was a permanent concern in the companies. The aim of the financing policy was to identify the most profitable financing sources for the company, at the lowest cost possible and correlated in time with the need of resources. The modelling of the cost of capital, as well as that of the optimal combination of various financing sources in order to obtain a cost of capital able to lead to maximizing the companies value, especially in the conditions of a durable financing are permanent challenges for scientific research. The capital structure of the companies is determined by a wide range of quantitative and qualitative factors, which can be divided in two classes: on one side, factors independents on companies decisions (the stability of the economy, the fiscal system, the monetary and capital markets), and on the other side internal factors (the size of the company, the profitability, the percent of tangible assets in total assets etc.). The accessibility of the financing sources is in present influenced by the characteristics of the credit and capital markets are characterized in present by complex phenomena such as the globalization and the adhesion of certain countries to European Union.

## **1. Particularities of financial systems, changes in credit market and implications on the cost of capital**

The adhesion to European Union and the globalization tendency of the financial markets make necessary a reconsideration of the characteristics of these markets including two main components, credit market and capital market. La Porta and all (1997) show in their study on the determinants of companies external financing that the development of the capital market is strongly related to the particularities of the national regulatory systems and, more specifically, to the degree of shareholders and creditors protection. More the investors are protected, more active is their intervention on the capital market and more important is the role of direct financing in the global financing of the economy. We can define these regulatory systems as being of Anglo-Saxon origin (“common law”) or French origin (“civil law”). In the first category countries like United Kingdom, USA, Australia, Canada, India, New Zealand, Ireland are to be included, whereas in the second class we can mention France, Italy, Germany, Austria, Netherlands. Because the regulatory systems are the results of an individual long evolution, this grouping cannot be reduced to a binary classification. On the opposite of USA which benefit from a homogenous regulatory system favourable to capital market development, the European Union countries seem to present significant asymmetries from this point of view. La Porta and al. (1997) distinguish between European systems oriented on the French model: France, Italy, Netherlands, Spain,

Greece or Portugal, “Anglo-Saxon” systems: United Kingdom, Ireland and intermediary regulatory systems: Germany, Austria, Finland, Sweden. This classification provides a first sign of heterogeneity of national financial structures in European Union.

This observation on the asymmetry of the financial structures gains a great importance in defining and applying common macroeconomic policies in European Union. A great attention has to be accorded to understanding the functioning of the national financial systems especially in the Euro zone, where the monetary policy decisions are delegated to European Central Bank, with clearly specified objectives of insuring the welfare of the Union as a homogenous assemble, without taking into considerations the specificities of each member state. Bigger are the differences between the members, more asymmetrical will be the transmission of monetary policy decisions to real economy at national level, questioning the benefits of the unique currency for a part of the member states. This is why, the integration of national financial structures is a necessity, the interest of the European Central Bank being a proof, as studies like „The integration of Europe’s financial markets” [BCE, 2003] or organising conferences regarding the transformation in the European financial system [Gaspar et al, 2003] show. The integration of financial systems of Central and East European countries, Romania included, becomes an interesting research subject from the perspective of Euro zone extension starting with Slovenia and continuing in January 2008 with Malta and Cyprus.

Recent empirical studies focusing on the integration of financial structures , especially after euro adoption by the Euro zone members, emphasize an intensification of the integration process for most of the markets: monetary, estate bonds markets and even share or corporative bonds markets [Baele et al, 2004; ECB Monthly Bulletin, March 2008]. The credit market is the less integrated one. Inside it, the retail banking sector presents persistent asymmetry signs, based on national specificities in treating the deposits and credits of persons and companies [Cabral et al, 2002; Baele et al., 2004, ECB Monthly Bulletin, March 2008]. In fact, the credit market and especially the retail banking one is the most important instrument of transmission of monetary impulses to real economy. But, this sector seems to present the most important persistent asymmetries, questioning the optimality of unique monetary policy and its effects at national level. The propagation of monetary impulses in the real economy grounds, mainly, on the interest rate channel. A restrictive monetary policy decision reflected in the Central Bank’s rising of interest rate will result in a higher price of the credit on the credit market, and a stagnation of the national investments. All depends, in this case, on the importance of the credit in financing the national investment projects and on the possibility of substitution between different financing sources available for companies.

If in “Anglo-saxon” economies the access of the companies to direct financing sources is easy (USA case), in the European Union countries the access is still limited. According to BIS Annual Report 2001, the amount of the credits allowed to companies as percentage in GDP was 43,5% in Euro zone, compared to 9,4% in USA. Moreover, the last statistics of ECB regarding the evolution of different financing sources of European companies since the adoption of Euro until now show that the credit remains the main financing source of investments in Europe.

Recent researches on the transmission of monetary shocks proved that the classical interest rate channel, which makes a rise in the reference interest rate to reflect directly

in the cost of credits, is not the only one in the credit channel, which also includes mechanisms that can influence indirectly the cost of credits, due to modifications in the debtor's financial situation (companies balance sheet analysis) or in that of the banks (banks balance sheet analysis). Recent empirical studies show that there is a mechanism of monetary impulses transmission starting from the balance sheet statement of the banks in USA [Lown and Peristiani, 1996; Hubbard et al, 2002], but also in European Union [Angeloni et al, 2003]. In the same time, the importance of the debtor's financial situation is empirically demonstrated in articles such as [Hubbard, 1995], [Oliner and Rudebusch, 1996], [Vermeulen, 2000], [Ashcraft and Campello, 2002], [Chatelain and colectiv, 2003].

Knowing that the main role of the banks (in fact, their origin as financial intermediaries, according to Akerloff theory) is the management of informational asymmetry between creditor and debtor, we can imagine a higher degree of informational asymmetry in Europe compared to more active capital markets in financing investments. Hence, understanding the role of credit in transmitting the monetary policy impulses is very important, because this is the market sector with complex informational asymmetry management problems. In fact, when the information is asymmetric between the company and the creditor bank, the latest will apply an external financing prime corresponding to the risk associated to debtor. This external financing prime evolves oppositely to the present value of the goods placed as guaranties by the debtor and arises in restrictive monetary policy periods, limiting the access to credits (a rise of reference interest rate negatively influence the net present value of the company). This situation implies an influence of the financial position of the debtor on monetary policy transmission to real economy, reflected, at macroeconomic level, in an intensification of real economy reaction to monetary policy changes, due to informational asymmetry on the credit market, especially for small companies. Empirically validated for American companies, this theory seems to apply also for the Euro zone, with different impact depending on the size of the company, its sector or nationality [Mojon et al., 2001; Vermeulen, 2002; Chatelain et al., 2003; Peersman and Smets, 2005].

Similarly, the informational asymmetry problem may emerge in the relation between the bank and its shareholders, determining in restrictive monetary policy periods the rise of the cost of credit, which finally will reflect in amplifying the real economy reaction to changes in monetary policy.

Starting from these conclusions, the science tried to take into account the imperfections of the credit market in the models analyzing the macroeconomic policies transmission on the real economy. Hence, three classes of models emerged integrating the credit market imperfections in the analysis of monetary policy transmission to real economy:

1) models centred on banks balance sheet statement analysis and on the role of banking capital in the variation of funds supply on credit markets, recently introduced in the financial literature [Van den Heuvel, 2002] and [Chami and Cosimano, 2001];

2) models centred on the companies balance sheet statement analysis, representing the demand of the credit market and influencing the macroeconomic policies transmission by the classical mechanism of the "financial accelerator", introduced by Bernanke, Gertler and Gilchrist [1999], Kiyotaki and Moore [1997] or Carlstrom and Fuerst [1997];

3) models trying to reflect the interactions between credit supply and demand in informational asymmetry conditions, reflected in moral hazard issues [Chen, 2001; Meh and Moran, 2004; Markovic, 2006].

In all these cases, we talk about general equilibrium models with microeconomic assessment, starting from the analysis of the economic agents' behaviour (solving inter temporal optimisation programs for families, companies and financial intermediaries etc.) and providing results regarding the impact of different macroeconomic policies.

## 2. The globalization impact on the cost of capital

Studies on the influence of financial system functioning on the companies financing and economic growth are numerous in the literature [La Porta et al, 1997; Levine and Zevros, 1998; Bolbol, Fatheldin and Omran, 2005; Ergungor, 2006], as well as that treating the heterogeneity of monetary markets and especially credit markets [Cabral et al., 2002; Baele et al, 2004] and capital markets [Minier, 2003] in the European Union. Therefore, it is necessary to describe the impact of globalization on financial markets, in order to understand the companies' financial structure behaviour as a response to the new conditions. Changes can also appear regarding the impact of monetary policy on the financing decisions of the companies, because part of the agents, especially that with a big size, will be less dependent on credit market, important instrument of monetary impulses transmission on real economy.

A manner of testing the impact of the globalization on the cost of capital grounds on event studies and analyses the influence of internal capital market liberalisation on the shares market (respectively, on the market capitalization of the companies and on the entire economy affected by globalization). The event studies, as an analysis technique for the globalization impact on the shares prices, the return and the cost of capital are based on a few hypotheses. One of them is related to the efficiency of the financial market where the shares of the company quote ore will quote. Hence, if the market is efficient, the information is fast and completely included in the price. If the market does not fulfil the efficiency condition or if the event related to the liberalization is known a lot of time before its producing by a lot of market participants, than the impact of the phenomenon will be insignificant and the event study will not detect anything special.

Henry [1999] realized an event study for 12 countries whose financial markets were liberalized, considering a period starting four months before the liberalization and finishing three months after. The rates of return of the shares quoting on these markets increased, in average, of 4.6% monthly, resulting a cumulated abnormal rate of return of 36,8%. After certain adjustments of the results, an increase of 30% of the return still was noticed. The direct implication on the cost of capital ( $\Delta$ ) can be analysed starting from the Gordon-Shapiro model for determining the cost of own capital:

$$\Delta = P_0^{\text{după gl.}} - P_0^{\text{înainte de gl.}} = \frac{DIV_1}{k_{CPR}^{\text{după globalizare}} - g} - \frac{DIV_1}{k_{CPR}^{\text{înainte de globalizare}} - g} \quad (1)$$

$$k_{CPR}^{\text{după globalizare}} = \left( \frac{1}{1 + \Delta} \right) \cdot k_{CPR}^{\text{înainte de globalizare}} + \left( \frac{\Delta}{1 + \Delta} \right) \cdot g \quad (2)$$

The relative variation of the "fair price" for the shares of the company due to the globalization will be reflected in the cost of own capital ( $k_{CPR}$ ) after this event takes place. Hence, for an initial cost of own capital of 20%, and a constant dividend increase rate of 5%, the new cost will be 16,5%. Higher is the initial cost of own capital, greater

will be its reduction, because, as the second formula shows, the importance of the dividend increase rate is lower than that of initial cost of own capital. Of course, a few simplifications can be imagined for this model, such as considering constant the dividend increase rate after the liberalization. It is possible for this rate to increase, inducing a less visible reduction of the cost of capital. The results of the study should be accepted with prudence, because of the database not being so relevant.

Bekaert and Harvey [1998] used another modality for testing this event, starting from Gordon-Shapiro model. The dividend yield, in efficient market conditions, will be computed by dividing dividends by the fair price of shares. Hence, by updating the Gordon-Shapiro model formula, the variation of the dividend yield will show exactly the variation of the cost of own capital, if the dividend increase rate is constant:

$$\eta_{DIV} = k_{CPR} - g \quad (3)$$

$$\eta_{DIV}^{\text{după gl.}} - \eta_{DIV}^{\text{înainte de gl.}} = \Delta k_{CPR} \quad (4)$$

The authors analysed the impact of the globalization on the cost of capital for 20 companies in emergent economies. Because of the multiple effects of the globalization in the economy and certain indicators are not stable in time (see the expected return for shares), but also because there are distortions of shares prices which do not always have an objective cause, the authors used a multiple regression, trying to include many determinants of the dividend yield. The conclusion of the study is that dividend yield reduced, implying a decrease of the cost of capital, but the variation is not statistically significant.

Miller [1998], Foerster and Karolyi [1999] analyzed the impact of the announcement of foreign companies quoting on NYSE, AMEX and NASDAQ, but also the variations of daily returns (if the market reacts) in the moment of the effective quotation. An increase of the returns was registered in both moments. In Foerster and Karolyi study [1999], covering the period 1976-1992, the values obtained were +0,2% for the announcement moment and +1,2% in the first week of effective quotation. Miller identified a supplementary return of 0,87% in the announcement moment for the period 1985-1995. The study analysed separately the impact of globalization on emergent economies, identifying an increase of 1,54% of the returns, the difference being less than considered in the financial theory (companies in emerging economies being more restricted regarding the access on international markets).

Foerster and Karolyi [1999] analysed the impact of listing announcement on foreign markets on a longer period, respectively a year before the announcement, registering an increase of 19% of share prices, and a year after the first quotation, showing a decrease of 14%. Errunza and Miller [1998] found an increase of 8,06% of the share price six months before the announcement and a decrease of 2,28% in the six months following the first quotation. The extension of the two studies mentioned on a period of 36 months before and after the first quotation revealed an increase of the returns on shares by 34,39% and respectively, a decrease by 3,10% after the quotation. The results, as the authors sustain, are not statistically significant. The explanation for the decrease of returns after quotation was related to the decrease of the cost of capital.

Regarding the impact of the globalization on the shares liquidity, the empirical studies sustain the theoretical findings related to an increase of the liquidity dur to the quotation on a foreign market (for example, Domowitz, Glen and Madhavan, [1998]; Smith and Sofianos, [1997] for American market case).

Other studies (for example, Tesar and Werner [1998]) showed that investors do not diversify international portfolios as much as the financial theory sustains to be optimal. Hence, it was shown that in 1996, 90% of American investors invested in American market shares, compared to 96,2% in 1987. Other studies showed that portfolio diversification is based on the knowledge regarding the shares listed on that market. Merton's study [1987] reflected that investors did not invest in shares for which the information they had was insufficient, no matter the performance expected from them. The political risk may be another explanation for the selection of the shares in portfolio on a global market. If the market globalizes, but the investors do not acquire these shares, the impact on the cost of capital is zero.

### **3. The impact of taxation on the financing decision in the context of globalization**

An extremely delicate issue in this context is to determine the changes in tax systems and the taxation impact on the financing decision, by changing the cost of capital. Giuliodori and Beetsma [2007] identify interdependencies between the fiscal systems of the European Union.

The studies regarding the cost of the financial resources and the companies value, mainly regarded the taxation impact (interest taxes, dividend taxes, income taxes), the signalling theory, the agency theory and other related theories as part of modern finances. A theory that can be considered the ground of the present models is that of Modigliani and Miller [1958]. Using the hypotheses of an efficient market in equilibrium and with no taxation, their model established the neutrality of the financing policy on the value of the company and on the cost of capital. The critics to the model were numerous, its main disadvantages being: the hypothesis of the efficient market, the lack of taxation, the hypothesis of a constant interest rate. Modigliani and Miller [1963] improved their model considering the taxation. Hence, they showed that borrowing resources leads to an increase of the companies value because of fiscal savings obtained, comparing to the dividend which is not deductible. In taxation, the studies were later developed by Miller [1977], considering the taxation of dividends, an arbitrage being realized between own financing and borrowed resources, an important role being assigned to interest and dividend taxation. Miller also showed that excessive borrowing will lead to reductions of fiscal savings (arriving even to losses) and, on the other side, to increases of borrowed capital cost due to a higher leverage.

Kim, Lewellen and McConnell [1979] offered a model of the client effect generated by credit, that they tested empirically later. Assuming the hypotheses of the classical model regarding the fiscal policy of the financial titles issued by a company, on a market without agency costs, basing on the concept of bond creditor surplus, the investors will demand only shares of very leveraged or unleveraged companies. Regarding the fiscal policy impact on the financing policy, Schneller [1980], finds a significant influence of the capital gain fiscal policy on the capital structure of companies. Hence, the capital structure depends on the capital gain fiscal policy and on the dividend policy assumed by the company.

Kemsley and Nissim [2002] estimated the value of fiscal savings resulting from borrowing resources, in the same time emphasizing the relation between the profitability of the company and fiscal savings. It is interesting that earlier studies for American economy did not find a significant impact of fiscal savings (see, for example, Bradley, Jarrell and Kim [1984], Long and Malitz [1985], Titman and Wessels [1988],

Fischer, Heinkel and Zechner [1989]). On the other hand, studies for later periods show that fiscal savings encourage companies borrowing resources [ MacKie-Mason ,1990, Trezevant, 1992, Graham, 1996, 1999]. In the meantime, although companies account for fiscal savings, the taxation regarding persons is to be considered, too [Collins and Kemsley (2000)].

#### **4. Conclusions**

The financing decisions at microeconomic level gain a great attention of the scientists, from a theoretical, but also a practical point of view. This study emphasizes the importance of considering the financial markets globalization, insisting on two main components of these markets, the monetary market and the capital market. The impact of these factors is even more important in the context of countries adhesion to European Union, with major economic and social implications. Finally, the analysis of the cost of capital should be realized considering the interdependence of fiscal systems in European Union.

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