universität wien

MASTERARBEIT / MASTER'S THESIS

„Relationship between international diversification and capital structure - a literature survey“

verfasst von / submitted by

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angestrebter akademischer Grad / in partial fulfilment of the requirements for the degree of

Master of Science (M.Sc.)

Wien, 2017 / Vienna 2017

Studienkennzahl lt. Studienblatt / degree programme code as it appears on the student record sheet:	A 066 914
Studienrichtung lt. Studienblatt / degree programme as it appears on the student record sheet:	Internationale Betriebswirtschaft UG2002 / Master Degree Programme International Business Administration
Betreut von / Supervisor:	ao. Univ.-Prof. Mag. Dr. Josef Windsperger

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Abbreviations

CAPM	Capital Asset Pricing Model
CEPR	Country Export Trading Partner
DC	Domestic Corporation
DPD	Domestic Product-Diversified
DPF	Domestic Product-Focused
FAR	Foreign Asset Ratio
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
MNC	Multinational Corporation
MPD	Multinational Product-Diversified
MPF	Multinational Product-Focused
NPV	Net Present Value
R&D	Research and Development
ROA	Return on Assets
RBV	Resource Based View
SME	Small and Medium Enterprises
TCE	Transaction Cost Economics

Abstract

This paper surveys extant literature on the relationship between international diversification and capital structure. The analysis reveals a prevailing methodological shortcoming in testing the corporate diversification effect and inconsistencies in the definition and operationalization of the MNC. Further, it identifies a missing behavioral variable in the capital structure analysis, as suggested by strategy literature and points to the need of interpreting empirical results in the light of the changing business environment and of the country specific institutional and cultural frameworks. A suggestion is made for future studies to focus more on the multiple facets of the relationship between international diversification and capital structure and the existence of a fit between corporate and financial strategy.

Die vorliegende Arbeit befasst sich mit einer Literaturübersicht über das Thema „Beziehung zwischen Kapitalstruktur und internationaler Diversifizierung". Die durchgeführte Analyse deckt die Existenz methodologischer Schwächen beim Testen des Effekts internationaler Diversifizierung auf die Kapitalstruktur auf, sowie eine Inkonsistenz in der Definition und der Operationalisierung des Begriffs „multinationales Unternehmen". Darüber hinaus wird im Rahmen dieser Studie auf eine in der Analyse der Kapitalstrukturentscheidung fehlende Verhaltensvariable verwiesen. Es wird auch auf die Notwendigkeit hingedeutet, empirische Ergebnisse, unter Berücksichtigung des wandelnden Geschäftsumfeldes und der länderspezifischen institutionellen und kulturellen Faktoren, zu interpretieren. Für künftige Studien wird der Vorschlag gemacht, sich mehr auf die vielfältigen Facetten der Beziehung zwischen internationaler Diversifizierung und Kapitalstruktur zu konzentrieren und sich der Erforschung des Zusammenhangs zwischen Unternehmensstrategie und Finanzstrategie zu widmen.

Introduction

Examining the relationship between international diversification and capital structure integrates finance and strategy, two disciplines which have been largely studied separately but have started growing closer together.

The effects of international diversification on the firm's capital structure have been traditionally studied by finance scholars, in an attempt to extend domestic models to the multinational setting by considering both firm and country specific factors. There is probably no topic in financial management that has received more interest than that of capital structure (Sekely and Collins, 1988: p .87). Despite extensive research, capital structure remains one of the most controversial issues in corporate finance, with no clear consensus on what drives a firm's financing decisions. Existing theories have identified a myriad of potential capital structure determinants, and moving from consideration of domestic to multinational firms further complicates the issue. The very nature of cross-border operations gives rise to a much more complex business climate, where firms encounter economic forces, risks, and opportunities not faced by their purely domestic counterparts (Burgman, 1996: p. 568). The lack of consensus with respect to corporate financing choices raised the need for new insights, reaching far beyond the traditional finance paradigm. In this context, strategic management literature has made important contributions to enrich the understanding of capital structure decisions made by (multinational) firms.

While international diversification affects the financing mix, a firm's capital structure can, in turn, have important implications for the firm's operations. The interaction between financing and real decisions creates a situation in which high debt can compromise a firm's ability to take advantage of profitable investment opportunities such as cross border expansion (La Rocca et al., 2008: p. 15). Financial decisions also have strategic importance in mitigating corporate governance problems, promoting organizational efficiency and improving diversification performance (Jensen, 1986; Williamson, 1988; Kochhar, 1996; O'Brien et al., 2014).

The aim of this paper is to comprehensively and critically review extant research literature on the relationship between the geographic diversification strategy and a firm's capital structure and build an index of existing works on the subject, identify data problems, areas of conflict and new ideas for possible advances.

The paper is structured as follows. The first chapter reviews literature concerned with the effects of international diversification on capital structure and distinguishes between first- and second generation literature based on their main research directions. The second chapter concentrates on the simultaneous effect of international and product diversification on the firm's financing mix. The third chapter looks at how capital structure plays a role in determining a firm's ability to engage in international expansion as well as in predicting diversification performance. A short summary and concluding remarks are available at the end of each chapter.

1. Effect of diversification on capital structure

Once a firm decides to pursue a geographic diversification strategy, it is of interest to see, among other things, if and how this will affect its capital structure. As firms turn to foreign markets for expansion and synergies, it is highly likely that managers will be met with different financing concerns. The very nature of cross-border operations gives rise to a much more complex business climate, where firms encounter economic forces, risks and opportunities not faced by their purely domestic counterparts (Burgman, 1996: p. 568). Therefore, one would expect that companies operating in an international environment will have their capital structure shaped by additional factors. The goal of this chapter is to present an overview of the theory and evidence on the effect of international diversification on capital structure.

Over the past four decades, numerous studies have examined how a firm's international operations influence its capital structure. Despite extant research done on the subject, there is still no clear consensus on how geographical diversification influences a firm's financing decisions. Moreover, "the trend of globalization in product and capital markets has introduced additional complexities as the world is continuously evolving and this introduces new factors that challenge the theories and empirical findings in prior research (Bancel, Mittoo, and Zhang, 2013: p. 466)". Theoretical arguments and empirical results concerning the effect of international diversification on capital structure should, therefore, not be regarded in isolation from the MNCs' political and economic environment. Until the early 1990s, most countries "had direct or indirect barriers to international capital flows that caused segmentation of capital markets along national boundaries. During this period, investors faced countless restrictions on foreign ownership, capital mobility, and foreign exchange

transactions with domestic investors holding most of the local shares in their portfolios. Multinational firms provided one way for investors to diversify internationally (Bancel, Mittoo, and Zhang, 2013: p. 466-467)". However, over the past two and a half decades, most countries have embraced market reforms and liberalization, thus reducing barriers to international investment (Bancel, Mittoo, and Zhang, 2013: p. 467).

The remainder of this chapter follows the rationale in Bancel, Mittoo, and Zhang (2013) and divides existing research on the effect of geographic diversification on capital structure in two generations:

(i) The first generation literature spans the pre-2000s period and has its roots in the late 1960s, when scholars attempted to extend the domestic financial theory of capital structure to the multinational case, by examining whether or not Modigliani and Miller's (1958) framework could be applied in an international setting and by studying the effects of internationalization on the MNCs' capital structure from the perspective of the Capital Asset Pricing Model. These papers will be grouped under the different international environmental factors they examined. Another stream of literature concentrated on the transaction cost theory and examined the financial decisions of MNCs in terms of the specificity degree of their assets. A more behavioral approach to studying the link between international diversification and capital structure was proposed by strategy scholars.

First empirical studies examining the relationship between diversification and capital structure were conducted in the late 1980s. At that time, the common view among scholars was that MNCs should have higher leverage compared to domestic corporations, mainly due to their relatively larger size, lower cash flow volatility, and increased access to capital markets. However, contrary to this prediction, most empirical studies found that MNCs displayed lower debt ratios than their purely domestic counterparts. The prevailing approach in explaining the puzzling result was to look at whether differences in firm-related characteristics between MNCs and DCs could explain the surprising empirical findings. Despite efforts, no consensus has been reached.

ii) Since looking at firm-specific characteristics did not deliver convincing results, second-generation literature, which mainly emerged after the 2000s, focused on country-specific factors to answer the empirical puzzle. While first-generation literature concentrated almost exclusively on US-based MNCs and DCs, the second-generation studies diversified their

samples to include both emerging and developed economies around the world and suggested that home and host country factors mattered for MNCs' financing decisions. "These MNC studies were more comparative in nature […] these studies were able to develop and test broader hypotheses about the effects of home and host country factors underlying the MNCs' observed financing choices and leverage differences (Bancel, Mittoo, and Zhang, 2013: p. 467)". This research stream is still evolving as the fast pace of change unfolding in the global environment challenges previous theories and calls for further research (Bancel, Mittoo, and Zhang, 2013: p. 479).

1.1 First-generation literature

Driven by a surge in the number of foreign affiliates of US enterprises starting with the late 1950s (Aliber, 2011: p. 283), researchers started to take a closer look at what drives an MNC's capital structure. When expanding abroad, firms meet "with a variety of constraints and opportunities that are unique to their international setting (Burgman, 1996: p. 555)". These will alter the extent to which traditional capital structure determinants affect the firm's financing choices as well as bring additional factors into play. A review of extant literature on the MNC's capital structure reveals that it all comes down to whether in the process of expanding internationally the effect of factors that favor higher financial leverage is greater than the effect of factors that favor lower leverage. Apart from the mere debt to equity balance, it is of interest to see if and how international expansion affects an MNC's maturity structure of debt, the degree of concentration and homogeneity of holdings, the currency denomination of debt, or the choice between public and private sources of finance.

In order to detail on how domestic models were extended to the multinational case, a short overview of domestic financial theories of capital structure, which served as basis for the first generation literature, is provided in the following section.

1.1.1 Overview of the domestic literature on capital structure

Capital structure research is focused broadly on two traditional views: the trade-off theory, where a firm balances the costs and benefits of debt to yield an optimal leverage ratio, and the pecking order theory of Myers and Majluf (1984) according to which a firm chooses the financing structure that minimizes the adverse selection costs associated with security issuance. Agency cost theory and transaction cost economics, two paradigms derived from organizational economics, have also relied on market imperfections to provide possible

explanations for firms' financing choices. Corporate strategy scholars have attempted an integration of the finance and management disciplines, by introducing a behavioral component in the analysis.

The trade-off theory

The trade-off theory grew out of the debate over Modigliani and Miller's theorem (Popescu and Visinescu, 2009: p. 316). Modigliani and Miller (1958) proposed that the valuation of a firm is independent of its capital structure, subject to a set of restrictive assumptions. Whether a firm is highly capitalized or relies rather on debt to finance its operations has no bearing on its market value. The market value of the firm is only driven by its future earnings prospects and the risk involved in the investment, and not by how the generated proceeds are divided among creditors and shareholders. In terms of the famous "pie analogy", the size of the pie is unaffected by how it is sliced (Ehrhardt and Brigham, 2008: p. 485). Arbitrage and homemade leverage were relied upon to prove that a firm's mix of debt and equity does not affect its value (Ross, 1988: p. 128).

However, once Modigliani and Miller's (1958) assumptions were relaxed and market imperfections were allowed for into the analysis, the irrelevance result broke. This pointed to the fact that if any optimal capital structure existed, it should reflect market imperfections.

Revisiting their earlier work, Modigliani and Miller (1963) added a first set of imperfections to the analysis – corporate taxation. This revealed that leverage served to shield earnings from taxes due to the deductibility of interest payments. The implication was that an optimal capital structure existed and with corporate taxes being the only imperfection in the financial world, a corner solution of 100% debt was obtained.

Baxter (1967), Kraus and Litzenberger (1973), and Kim (1978) considered a second set of imperfections – bankruptcy costs. They argued that there is a trade-off between the tax advantage of debt financing and the expected bankruptcy costs. The optimal debt ratio is reached at the point where marginal tax savings from debt financing equal the marginal expected loss from bankruptcy costs.

In essence, the trade-off theory describes a family of related theories, according to which "a decision maker running the firm evaluates the various costs and benefits of alternative leverage plans (Popescu and Visinescu, 2009: p. 316)". Often it is assumed that an interior solution is obtained so that marginal costs and marginal benefits are balanced (Frank and

Goyal, 2008: p. 141). Further, companies have long run target financial structures (Jalilvand and Harris, 1984: p. 128) and seek to adjust their debt level towards an optimum (Shyam-Sunder and Myers, 1999: p. 219).

Agency theory

Besides the bankruptcy cost argument, the concept of agency cost has also been put forward as being relevant to the capital structure decision. Most textbooks document that agency costs arise due to an incomplete alignment of the principal's and agent's interests. Extant literature mentions agency costs that might arise from two types of conflict of interest: (i) between shareholders and managers and (ii) between shareholders and debtholders.

Conflict of interest between shareholders and managers

Jensen and Meckling (1976) investigated the nature of the agency costs generated by the existence of outside equity. They posited that the agency problem arises when managers own only a fraction of the shares in the firm. This partial ownership may cause managers to pursue strategies that reduce their employment risk (Amihud and Lev, 1981: p. 606), increase firm size in a way which is not profitable only to enjoy higher compensation and prestige (Baker, Jensen, and Murphy, 1988: p. 609), or engage in the consumption of excessive perquisites (luxury offices, company cars, expensive hotels etc.) (Jensen and Meckling, 1976: p. 313). Such behavior arises because the manager accrues 100% of the benefit from such wasteful expenditures but bears less than 100% of the costs. The agency problem and associated costs get larger, the smaller the percentage of the firm that is owned by the manager and/or the greater the amount that equity financing is relied upon. Monitoring and bonding can be used to reduce agency costs from opportunistic behavior that results in suboptimal investment decisions. Nevertheless, monitoring and bonding costs are also agency costs (Jensen and Meckling, 1976: p. 308). According to Jensen's (1986) free cash flow theory, debt may play an important role in reducing the agency costs arising due to the separation of ownership and control, since it curtails "free cash flow available for spending at the discretion of managers" (Jensen, 1986: p. 324). Therefore, agency theory presents debt as a governance device useful in reducing the conflict of interest between shareholders and managers.

Conflict of interest between debtholders and shareholders

The conflict of interest between debtholders and shareholders gives rise to under- and overinvestment problems.

Overinvestment problem

Besides providing a model that shows how equity financing might lead to agency problems, Jensen and Meckling (1976) posited that also debt financing could lead to agency distortions. They argued that when a firm finds itself in financial distress, shareholders have the incentive to accept highly risky, negative NPV projects, which tend to transfer wealth from debtholders to equity holders. This behavior is known as the overinvestment or substitution problem. Aware of the fact that their interests may be substituted by those of shareholders, bondholders demand a lower bond price when they purchase bonds issued by the company (Lee and Kwok, 1988: p. 201). This reduction of bond value represents another kind of agency cost of debt financing. In order to increase the confidence of bondholders and maintain the value of the bonds, the firm "may write bond covenants which prevent wealth expropriation (Lee and Kwok, 1988: p. 201)" or allow for monitoring and bonding mechanisms. However, as previously mentioned, the costs of monitoring and bonding activities are also agency costs. Mauer and Sarkar (2005: p. 1427) found that equity holders' incentive to overinvest significantly decreases firm value and optimal leverage and significantly increases the credit spread of debt.

Underinvestment problem

Myers (1977) described the agency costs of debt that arise due to the underinvestment problem. Since debtholders have a senior claim over shareholders, a highly levered firm might forego positive NPV projects, because the benefits from accepting the project accrue to existing bondholders, without increasing shareholders' wealth. According to Myers (1977), the value of a firm has two components. The first part is derived from its real assets ("assets in place") and the second part is derived from future investment/growth opportunities ("real options") (Myers, 1977: p. 150). Therefore, the existence of the underinvestment problem implies that firms with higher growth opportunities should use less debt.

The pecking order theory

While the trade-off model predicts the existence of an optimal debt ratio, the pecking order theory does not have any such target. Myers and Majluf (1984) demonstrated that in the presence of asymmetric information between the firm and potential investors, a company will follow a certain pecking order when choosing how to fund its operations, in that, it will rely

on internal funds first and where external sources are needed, debt will be preferred over equity.

Since investors are less well-informed than current firm insiders about the value of the firm's assets, then equity may be mispriced by the market. The underpricing may be so severe, that if new shares were issued to finance an investment project, the new investors would capture more than the resulting NPV. Since existing shareholders will incur a net loss, the new project will be rejected even if its NPV is positive (Harris and Raviv, 1991: p. 306). "This underinvestment can be avoided if the firm can finance the new project using a security that is not so severely undervalued by the market. For example, internal funds and/or riskless debt involve no undervaluation, and, therefore, will be preferred over equity (Harris and Raviv, 1991: p. 306)."

Transaction cost view

The transaction cost approach deals with the governance of contractual relations in transactions between two parties (Coase, 1937; Williamson, 1979, 1987). The basic principle underlying transaction cost economics is that governance structures (market, hierarchy, or hybrid forms) can be matched to transactions in a manner that leads to lower costs of exchange (Williamson, 1988: p. 588). Ex-ante transaction costs are the costs of drafting, negotiating, and safeguarding an agreement (Williamson, 1987: p. 20). Ex-post transaction costs (on which TCE is mainly focused) include: "(i) the maladaption costs incurred when transactions drift out of alignment, (ii) the haggling costs incurred if bilateral efforts are made to correct ex post misalignments, (iii) the set up and running costs associated with the governance structures (often not the courts) to which the disputes are referred, and (iv) the bonding costs of effecting secure commitments (Williamson, 1987: p. 21)."

Williamson (1985, in Dietrich, 1994: p. 18) argues that the existence of transaction costs depends on three factors: bounded rationality, opportunism, and asset specificity. Bounded rationality describes a behavior that is "intendedly rational, but only limitedly so" (Simon, 1961, in Williamson, 1987: p. 30). Opportunism describes "self-interest seeking with guile" (Williamson 1991a: p. 79). Asset specificity refers to the degree to which durable human or physical assets are locked into a particular trading relationship, and therefore the extent to which they have value in alternative activities (Dietrich, 1994: p. 18).

Given the existence of the above mentioned contracting problems, TCE indicates how transactions can be matched with the governance structure that most efficiently manages economic activity in a given situation (Williamson, 1979: p. 234). The critical dimensions to describe any transaction are uncertainty, the frequency with which it recurs and the degree to which investments are idiosyncratic[1] (Williamson, 1979: p. 246). The properties of a transaction in terms of these three characteristics determine the appropriate governance structure.

> "Transaction difficulties and associated costs increase when transactions are characterized by high asset specificity (transactions which require high investments that are specific to the requirements of a particular exchange relationship); uncertainty (ambiguity as to transaction definition and performance); and infrequency (transactions which are seldom undertaken) (Williamson 1985, in McIvor, 2005: p. 4)".

With increasing transaction costs one should move closer to the "hierarchy" end of the governance spectrum (Williamson, 1991b: p. 284-285).

By matching transaction cost theory and corporate finance theory, a firm's financial decision is examined in terms of the specificity degree of its assets (La Rocca, 2011: p. 50). When asset specificity is high, firms will prefer equity as a financing instrument (Williamson 1988: p. 589). Since highly specific assets cannot be easily reemployed, they have low values in case of liquidation. If the firm defaults on its contractual debt payments, debtholders may push the firm into bankruptcy. As is their right, they would aim to recover their investment by liquidating assets and selling them to another firm which can utilize them either for the original or for a different purpose (Kochhar, 1996: p. 716). However, assets characterized by high specificity are not likely to be "as valuable when put to another use or in the hands of another user" (Klein, Crawford, and Alchian, 1978; Williamson, 1979; in Kochhar, 1996: p. 716); "maximum productive value was present in the original use of the now bankrupt firm (Williamson 1991a; in Kochhar, 1996: p. 716)." Thus, by liquidating such assets, lenders will recover only a small fraction of their initial investment and the incurred loss will be greater the higher the level of firm specificity (Kochhar, 1997: p. 27). Debt is the preferred financing tool in the presence of general purpose assets. These are more valuable as collateral since they are able to retain their value in the event of default and subsequent liquidation (La Rocca et al., 2009: p. 802). Therefore, lenders are less willing to invest in projects with highly

[1] According to Williamson 1987 (p. 52) asset specificity is the most important of the three dimensions with respect to which transactions differ and most distinguishes it from other treatments of economic organization.

specific resources, unless compensated for the greater risk with higher interest charges (Kochhar and Hitt, 1998: p. 602) and are more likely to finance projects with low asset specificity.

In support of the transaction cost theory, Balakrishnan and Fox (1993: p. 12) found that the R&D intensity of a firm - a measure of intangible and firm specific know-how - was negatively related to the leverage of the firm.

Vilasuso and Minkler (2001) develop a dynamic model of firms' capital structure that integrates both transaction cost and agency cost arguments into a single framework (Vilasuso and Minkler, 2001: p. 55). Their model demonstrates that only both theoretical lenses together accurately describe the optimal capital structure of the firm. They show that for highly specific assets, equity is capable of reducing transaction costs by limiting ex-post opportunistic behavior. Equity also offers debtholders higher protection from excessive risk taking which reduces the agency costs of debt. "As a result, the optimal capital structure of the firm uses both debt and equity finance to minimize the sum of agency cost and asset specificity considerations (Vilasuso and Minkler, 2001: p. 65)".

A strategy approach

Strategy is conceptualized as operating at both the corporate and competitive level (Jordan et al., 1998: p. 2). According to Ramanujam and Varadarajan (1989: p. 526), corporate strategy literature is mainly concerned with the reasons for which firms choose to diversify, the direction and the level of diversity achieved, the mode used to achieve that level of diversity and the management of the diversified set of assets. Competitive strategy is about the positioning of the firm in its market place and the extent to which this involves investments in firm-specific assets (Jordan et al., 1998: p. 2). Porter (2008: p. 39) suggests two industrywide dimensions of competitive strategy: differentiation and cost leadership. Along with Miller (1986), Jordan et al. (1998: p. 3) distinguish a third category of competitive strategy, that of innovation. Here the emphasis is on pioneering new products and processes and achieving first-mover advantage.

According to Jordan et al. (1998: p. 2), corporate strategy may affect capital structure in a number of different ways. Barton and Gordon (1987, 1988) were among the first to look at a potential link between a firm's corporate strategy and its financing choices, based on the premise that capital structure decisions are "made by managers operating in a complex

environment, and are not solely a deterministic product of external market forces as implied by the finance paradigm (Barton and Gordon, 1988: p. 623)". Corporate strategy[2] is seen as a proxy for managerial values and goals (Barton and Gordon, 1988: p. 630) and represents a reaction to risks as perceived by top management (Barton and Gordon, 1987: p. 71). According to Barton and Gordon (1988: p. 630), the value of the strategy concept is that "it can incorporate traditional financial effects while recognizing the complex, idiosyncratic nature of managerial behavior at the individual firm level." Therefore, managers make financing decisions based on their (risk) preferences under constraint of the financial context in which the firm operates. Jordan et al. (1998) likewise posited that corporate strategy plays a role in explaining the debt-equity mix. According to them, corporate strategy may influence capital structure through its impact on the firm's performance and risk. "Diversification provides the market with a complex pattern of signals, expectations, and outcomes which influence the availability and cost of different sources of finance, and hence influences capital structure (Jordan et al., 1998: p. 2)." A more detailed discussion on corporate strategy and capital structure can be found in Section 1.1.3.

Competitive strategy can affect a firm's capital structure through the asset structure channel. The various competitive strategies (cost leadership, differentiation, innovation) differ in terms of their resource configurations and their abilities to provide collateral for lenders (Jordan et al., 1998: p. 23). For example, firms pursuing innovation strategies are expected to possess highly firm-specific assets. "The value of such assets is likely limited by the co-specialized know-how necessary to appropriate their rent. In contrast, firms pursuing cost minimization strategies may find that many of their assets are tangible and flexible in use, increasing their debt-capacity (Jordan et al., 1998: p. 3)".

Capital structure determinants

While a number of theories have been proposed to explain corporate financial decisions, none of them completely accounts for the variation in capital structure across firms. A brief review of existing capital structure theories suggests a list of firm-specific determinants of leverage that can be grouped under following categories: (i) bankruptcy cost variables including tangibility, firm size, and business risk; (ii) the tax variable; (iii) agency cost variables such

[2] Barton and Gordon (1988) have operationalized corporate strategy by adopting the diversification strategies developed by Rumelt (1974)

as growth opportunities and tangibility; (iv) variables derived from the pecking order theory such as information asymmetry and profitability; (v) asset specificity.

In a review article of the general capital structure literature, Harris and Raviv (1991: p. 334) report that the consensus is that leverage is positively related to non-debt tax shields, firm size, asset tangibility, while it is inversely related to volatility, research and development expenditure, bankruptcy probability, advertising expenditure, and a firm's uniqueness.

The next two sections provide a discussion of how the capital structure of firms is affected once a provision for international variables is made and of how traditional capital structure determinants may take on new dimensions in an international setting.

1.1.2 Extension of domestic models to the multinational case

First studies dealing with the effect of international diversification on capital structure were conducted in an attempt to extend domestic financial models to the multinational case. The following section looks at such contributions and groups them according to the variables they have focused on: environmental factors unique to the international setting and traditional capital structure determinants (MNCs vs. DCs).

1.1.2.1 Factors unique to the international setting

When extending domestic capital structure theory to an international setting, authors turned to factors unique to the international arena and tried to integrate them into traditional models.

1.1.2.1.1 Exchange rate risk and political risk

Exchange rate risk and a higher exposure to political risk are considered among the main characteristics of the international financial environment which distinguishes it from the one-country model. The first question to arise was whether these risks had any effect on a firm's capital structure while the second concerned the direction of the effect.

Krainer's (1972) paper was the first to start a debate around the internationalization of firms and related financial aspects. The study examined if Modigliani and Miller's (1958) irrelevance theory of capital structure could also be applied to the MNC phenomenon. Krainer (1972) argued that the existence of foreign exchange risk and repatriation risk in an otherwise perfect world capital market was sufficient to invalidate Modigliani and Miller's irrelevance theory in the case of a bi-national firm. He extended Modigliani and Miller's analysis by considering a world where firms "make physical investments and finance within a

single national capital market, but portfolio investors are free to make investments in different national capital markets (Krainer, 1972: p. 554-555)". After making this assumption, Krainer explored whether a firm can be in the same risk class in two different national capital markets. He concluded that in a world where currencies are convertible into one another at various rates and in various degrees[3] the risk-return relationship will be different to the firm's foreign and domestic claimants and therefore, its shares will sell for different prices in different national capital markets, depending upon whether domestic or foreign investors are valuing them (Krainer, 1972: p. 556). Moreover, arbitrage will not completely eliminate the difference in capitalization rates associated with exchange rate and repatriation risks. This result implies that if firms make physical investments and have the opportunity to issue securities in different national capital markets, they might be able to influence the cut-off rate at which they accept new capital projects by altering their capital structure. This is possible under the condition that domestic investors cannot borrow abroad at same terms as the MNC, as they would expose their lenders to exchange rate risk when they use their assets as collateral.

However, Adler (1973) found fault with Krainer's (1972) reasoning and raised several theoretical issues. As described by Stanley (1981: p. 104), his main critique related to the choice of the Modigliani and Miller model as opposed to a portfolio diversification approach and an emphasis on foreign exchange risk as opposed to default risk. Moreover, assuming riskless and costless forward exchange transactions and uniform investor expectations with respect to security returns and exchange rate changes, he argues that the mere existence of exchange rate risk will not cause "the equilibrium price of the same asset to vary in different capital markets or to depend on investors' nationalities (Adler 1973: p. 850)". Later works of Adler and Dumas (1975), Mehra (1978), and Senbet (1979) showed that the exchange rate risk did not matter for the multinational firms' financing decision.

Later contributions have supported the idea that exchange rate risk does have an impact on the affiliates' capital structure as well as on the capital structure of the MNC as a whole. However, opinions regarding the direction of the effect have been twofold.

(i) The traditional argument was that compared to DCs, internationalized firms are more sensitive to exchange rate fluctuations, have higher expected cost of bankruptcy and should,

[3] In later literature inconvertibility has rather been relegated to the category of political risk and thus excluded from financial models (Stanley, 1981: p. 105)

therefore, have a lower optimal debt level (Burgman, 1996: p. 556, Chkir and Cosset, 2001: p. 25).

However, Burgman (1996: p. 556) draws the attention to the need of distinguishing between the different types of exchange rate risks (transaction, translation, and economic exchange rate risk).[4] Once taking this distinction into account, he concludes that MNCs as a group are less sensitive to exchange rate fluctuations, due to their better ability to manage economic exchange rate risk. DCs with foreign competition in their local markets face themselves a great deal of economic exchange rate risk and are, compared to their multinational counterparts, not so flexible in mitigating this type of risk:

> "If the U.S. dollar strengthens, foreign competitors will be able to reduce the U.S. dollar price of their products and still maintain profitability in their home currencies. And if the U.S. dollar weakens, and a DC purchases foreign inputs, the cost of these inputs will increase. MNCs face these same exposures, but they have several tools at their disposal to help manage this risk. For example, MNCs can shift production to low-cost areas, and they can utilize transfer pricing, multilateral netting, and international debt sourcing to help mitigate their economic exchange rate exposure." (Burgman, 1996: p. 557)

(ii) On the other hand, the argument was made that due to their higher exchange rate exposure, MNCs should use more foreign currency denominated debt in their affiliates' capital structure as hedging instrument (Fatemi, 1988: p. 19; Burgman, 1996: p. 556).

According to Fatemi (1988: p. 19), fluctuations in the real exchange rates expose the MNC to "the risk of changes in the home-currency value of the expected cash flows from foreign operations." Cash flows generated by foreign operations can be considered as transaction exchange rate risk and can be hedged accordingly. Fatemi (1988: p. 19) suggests that a firm can eliminate the risk from exchange rate fluctuations by matching the maturity and currency denomination of its cash inflows (cash flows from foreign operations) and outflows (interest and principal repayment), with the attendant implication for the firm's capital structure.

[4] Papaioannou (2006: p. 4) defines the three types of exchange rate exposure: (i) transaction exposure which deals with the effect of exchange rate moves on transactional account exposure related to receivables, payables and repatriation of dividends; (ii) translation exposure which relates exchange rate moves to the valuation of a foreign subsidiary and, in turn, to the consolidation of a foreign subsidiary to the parent company's balance sheet; (iii) economic exposure which concerns the effect of exchange rate changes on demand, supply, price and cost characteristics of the firm.

Kedia and Mozumdar (2003: p. 545) report strong evidence that debt issuance in foreign currency is highly used as a hedging instrument by firms operating across borders.

While it is relatively easy for a firm to hedge its transaction exposure to exchange rate fluctuations, translation and economic exchange rate risk may prove difficult to measure and even more difficult to hedge (Holton 2003; Van Deventer, Imai, and Mesler, 2004 in Papaioannou 2006: p. 5). According to Burgman (1996: p. 556), MNCs increase their foreign debt in an effort to hedge their economic exchange rate exposure, a risk largely ignored by previous studies. However, due to difficulties in measuring this type of exposure, the hedge will not be perfect, and the result could be a positive relationship between the residual (unhedged) exchange rate sensitivity and the higher leverage resulting from MNCs' imperfect attempts to hedge this risk (Burgman, 1996: p. 556).

A more acute need for currency risk management started to arise after the break down of the Bretton Woods system and the end of the U.S. dollar peg to gold in 1973 (Papaioannou 2001, in Papaioannou, 2006: p. 3), which emphasizes the importance of the global economic and political framework in affecting a firm's strategic and financial decisions.

In addition to exchange rate risk, MNCs are exposed to varying degrees of political risk. Political risk is the chance that political events will have an adverse effect on the operations of the firm. Political risks include expropriation of assets, trade controls, institutional ineffectiveness, threat of war, social unrest, disorderly transfers of power, political violence, international disputes, regime changes and regulatory restrictions (Jodice 1985, in Akhtar and Oliver, 2009: p. 10). Shapiro (1978: p. 220) defines political risk as any government interference with a subsidiary's operations which results in a loss of wealth to the MNC, such as expropriation or nationalization. The probability of such occurrences is influenced by many factors, including the attitude of the host country government and the industry of concern (Madura, 2012: p. 516).[5] Fatemi (1988: p. 20) pointed out that the presence and the extent of political risk is a function of the foreign subsidiary's location.

The significance of political risk in affecting the MNC's capital structure has received a wide support. Krainer (1972: p. 557) refers to the "repatriation risk" as a factor which together with the exchange rate risk renders Modigliani and Miller's principles inapplicable to a bi-national

[5] Empirical evidence by Truitt (1970: p. 30) indicated that industries can be ranked in terms of their susceptibilities to political risk.

firm. Hirshleifer (1970, in Lee and Kwok, 1988: p. 198) showed that due to market imperfections (e.g. barriers to international investment), the arbitrage process implied by Modigliani and Miller could not correct market discrepancies. According to Black (1974: p. 338), these barriers include the possibility of expropriation of foreign holdings, direct controls on inflows and outflows of capital, reserve requirements on bank deposits and other assets held by foreigners, and restrictions on the percentage of a business that can be foreign owned.

One view was that the higher the proportion of an MNC's assets invested in foreign countries and the higher the overall risk of operating in these countries, the higher will be the MNC's probability of bankruptcy and therefore, the lower the debt level the MNC can sustain (Madura, 2012: p. 516).

While some authors argued that MNCs facing higher political risk would have less leverage due to greater probability of wealth loss and higher expected bankruptcy costs, others posited that corporations can minimize the expected loss due to political events in a foreign country by financing their affiliates' operations predominantly with local debt. When debt is borrowed from the bond markets of the host country or from host country financial institutions, losses due to expropriation or inconvertibility of local currency may be partly offset by a corresponding reduction in the value of the local debt (Lee and Kwok, 1988: p. 204).

Stonehill and Stitzel (1969: p. 91) discussed several reasons for which MNCs would like to finance their subsidiaries with as much foreign borrowing as possible and argued that foreign affiliates are financed with local debt in an attempt to reduce asset exposure to political risks and exchange risks. According to Lessard and Shapiro (1982: p. 12), in dealing with political risk, some MNCs have raised capital from host and government agencies, international developmental agencies, and overseas banks and customers, with payment tied to the project's success, creating "a vested interest in the faithful fulfillment of the host government's contract with the sponsoring firm(s)". A more recent study by Desai et al. (2004) shows that foreign subsidiaries located in politically risky countries are more leveraged than other foreign subsidiaries of the same MNC parent, thus supporting the hypothesis that debt is used as hedging tool.

Therefore, subsidiaries in politically risky countries will be financed with external foreign debt, leading to an increase in leverage for the MNC as a whole (Stonehill and Stitzel, 1969). Regarding the relative use of parent debt and equity, as the repatriation of funds in form of dividends is generally more tightly controlled by governmental regulation than are principal and interest payments, parent companies are more prone to provide parent debt rather than equity for affiliates located in high political risk countries (Robbins and Stobaugh, 1972a: p. 57). The same argument can be found in Fatemi (1988: p. 20).

Burgman (1996: p. 557) places emphasis on the difficulty of measuring political risk exposure, since the occurrence of a major political event such as a currency blockage or expropriation is discrete in nature.

> "the discrete nature of these events precludes the use of time-series approaches for measuring this type of risk. When a major political event does occur, however, the impact on a corporation can be severe. […] Given the discrete nature of foreign direct investment, it is difficult for corporations to adequately diversify political risk (Burgman, 1996: p. 557)."

Raising local debt is one of the few tools MNCs can utilize to reduce the expected loss due to a major political event in a risky foreign country (Burgman, 1996: p. 557).

1.1.2.1.2 Availability of capital

Expanding abroad makes firms deal with higher complexity and additional risks but also brings in a series of advantages unique to the international setting. Among others, international corporate diversification brings about a financial benefit – the diversification of sources of capital (Jang, 2017).

From a financing point of view, MNCs have better access to capital as compared to their purely domestic peers, as they are normally able to obtain funds through the international capital markets. Since the cost of funds can vary among countries, the MNC's access to the international capital markets may allow it to obtain funds at a lower cost than that paid by domestic firms, and therefore enable them to sustain a higher level of debt (Madura, 2012: p. 516). Aggarwal and Kyaw (2008: p. 411) also argued that MNCs could minimize their overall cost of capital by increasing their leverage in those jurisdictions where interest rates on debt are lower. They conclude that multinationals have an advantage over domestic firms in the form of financial flexibility.

Besides from helping MNCs to reduce their overall cost of capital, geographic diversification can also contribute to the creation of internal capital markets. "Affiliates can substitute external debt with parent debt using internal capital markets to overcome weak external financial markets and institutional environments (Aggarwal and Kyaw, 2008: p. 409)." According to Aggarwal and Kyaw (2008: p. 409), this is an important evidence of the strategic competitive advantage based on financial networks enjoyed by MNCs. Another advantage can result from resources reallocation, under the assumption that it is done efficiently. Stein (1997: p. 111) argues that, in multidivisional firms, headquarters take cash flow generated by one division's activities and spend it in another division where returns are higher. Similarly, assets owned by one division can be used as collateral to raise funds that can be diverted to another division. Aulakh and Mudambi (2005: p. 310) propose that such research on internal capital markets can be extended to MNCs, which are similar to multidivisional firms in the sense that they independently operate subsidiaries across foreign markets. Doukas and Pantzalis (2003: p. 63) posit that an MNC's operations, which are spread across industries and countries, enable them to create extensive internal capital markets and benefit from cheaper financing compared to external sources. Hence, MNCs are expected to carry less external debt than domestic firms that lack MNCs' depth of internal capital markets. Consequently, a negative relation is predicted between the firm's foreign operations and external leverage when internal capital markets overcome the informational asymmetries of external capital markets (Stein, 1997: p. 129).

If global financial markets were not subject to frictions, a firm's access to international capital would not be affected by the location of its assets. In this case, MNCs would not be in a better position than DCs when it comes to financing their activities. However, empirical evidence[6] suggests that financial markets are segmented across countries, such that obtaining foreign funding could be limited and costly for a domestic company (Jang, 2017: p. 2).

Stonehill et al. (1975, in Lee and Kwok, 1988: p. 198) contend that it is easier for the MNCs to maintain a target debt ratio than for DCs since they have access to more financing channels and benefit from the wider availability of capital in the international markets. Small domestic US firms or non-US MNCs, which do not have access to liquid national equity markets, can only hardly maintain their optimal debt ratio. The scarce equity capital coupled with

[6] See Lewis (2011) for a review.

increased external financing needs will push such firms to borrow more and exceed their optimal debt ratio.

Errunza and Senbet (1981) and Morck and Yeung (1991) found that investors positively valued multi-nationality. Other studies showed that the increased accessibility to global capital markets, through firm's foreign listings or multinational operations, also influences capital structure (Pagano et al., 2002; Doukas and Pantzalis, 2003).

1.1.2.1.3 International tax differentials

Another aspect distinguishing the international financial environment from the one-country model relates to the different international tax structures. While purely domestic firms only have to deal with the domestic tax system, multinationals face a myriad of national tax systems and a much more complicated choice of determining their overall indebtedness as well as the allocation of their debts to the parent firm and between the various foreign subsidiaries of the MNC (Huizinga et al., 2008: p. 81).

In the context of extending the domestic financial theory to an international setting, Robbins and Stobaugh (1972b: p. 356) and Senbet (1979: p. 468) agreed that international tax differentials interacted with the financing mix and affected firm value. This suggested that tax differentials may be a relevant factor in determining the capital structure of the subsidiaries and that of the MNC as a whole and are, therefore, an integral part of the financing decision process.

With different taxes across national borders, MNCs might have the incentive to take advantage of low-corporate tax systems by shifting income to these jurisdictions. One way to shift income is through intracompany loans, with the intention of locating interest income in low corporate tax countries and interest expenses in high corporate tax countries (Buettner and Wamser, 2007). Hodder and Senbet (1990: p. 1502) also note that firms will allocate more debt to the higher taxed jurisdictions to enjoy higher interest deductions. Therefore, from a theoretical point of view, affiliates' debt level is expected to increase with the host country tax rate, especially when the host country tax rate is more than the parent tax rate (Aggarwal and Kyaw, 2008: p. 415). Huizinga's et al. (2008: p. 80) empirical results showed that a foreign subsidiary's capital structure reflects local corporate tax rates as well as tax rate differences vis-a-vis the parent firm and other foreign subsidiaries. However, since multinational firms have incentives to exaggerate the interest rates on intra-firm debt, these

are often capped by law (Chowdhry and Nanda, 1994: p. 259). While through intragroup loans the consolidated balance sheet of the MNC as a whole will not change, MNCs can exploit the tax advantage of debt more aggressively than national companies due to international tax differentials (Møen et al., 2011).

Other studies have explored the effect of tax differentials on the MNC's financing decision in terms of the currency denomination of debt. This is closely linked to exchange rate considerations. Shapiro (1984: p. 15) showed that, in the absence of taxes, multinationals are indifferent between issuing debt denominated in one currency or another. However, with different corporate taxation systems across jurisdictions, an MNC should borrow in the country with weaker currency to minimize the expected financing costs. Rhee et al. (1985: p. 145) confirmed that in the presence of corporate income taxes, MNCs should avoid strong currencies and borrow only weak ones, unless these firms have a very low marginal tax rate.

Blouin et al. (2014) further point to the fact that apart from differences in tax rates there are also other differences in tax codes that have an impact on a firm's capital structure. Such differences relate for example to thin capitalization rules. Blouin et al. (2014) showed that thin capitalization rules, which have been rather understudied, have a substantial effect on the MNC's capital structure. "To counteract the negative consequences of debt finance for tax collection, many countries have instituted thin capitalization rules that restrict the deductibility of interest above a certain debt level (Blouin et al. 2014: p. 3)". However, corporate finance literature concerned with the study of financing choices typically captures tax advantages of debt exclusively by relying on tax rates, without consideration of other differences in tax codes that might have a bearing on the value of tax shields (Blouin et al. 2014).

As a consequence, the financial structure of a multinational firm is expected to reflect the tax systems of all the countries it operates in. A comprehensive review of tax research related to domestic and multinational firms' capital structure can be found in Graham (2003).

1.1.2.1.4 Corporate international diversification

One view with respect to foreign direct investment was that cross-border operations were increasing a firm's overall risk. Foreign exchange risk and the risks of expropriation and intervention by host governments were pointed out as adding to the political and economic risks already faced by companies in their home market (Shapiro, 1978: p. 220). However,

another approach based on modern portfolio theory and the capital asset pricing model has started to receive wider support and soon rendered this view obsolete.

Markowitz (1952) showed that by investing in portfolios rather than in individual assets, investors could lower the total risk of their investment without having to sacrifice return (Chen et al., 2010: p. 165). The reduction in the portfolio's risk stems from holding two or more assets in the portfolio, which are not perfectly, positively correlated. The size of the diversification effect depends, therefore, on the degree of correlation between assets' returns (Markowitz, 1952). Markowitz (1952) was the first to show how the variance of a portfolio could be reduced through the impact of diversification (Chen et al., 2010: p. 165).

According to Markowitz's (1952) model of portfolio theory, investors should hold a diversified portfolio of securities that provides them with the highest level of return for a given level of risk or with the lowest level of risk for a given level of return. In his model, all efficient portfolios must lie on the mean-variance investment frontiers where investors can get a higher return only by accepting a higher level of risk, and there are as many "efficient portfolios" as there are investor risk preferences.

The capital asset pricing model (CAPM) extended Markowitz's portfolio theory by showing that in equilibrium, there is only one efficient portfolio – "the market portfolio" and it applies to all investors, regardless of their risk preferences. While in Markowitz (1952) the relevant risk measure is total risk, according to the modern capital asset pricing theory, as developed by Sharpe (1964) and Lintner (1965), investors must be compensated only for their securities' systematic risk since nonsystematic risk[7] can be diversified away by holding the market portfolio. Thus, in equilibrium, investors only care about beta risk.[8] The existence of a relatively high degree of positive correlation within an economy suggests the possibility that

[7] Van Horne and Wachowicz (2009: p. 105) give examples of systematic risk, which cannot be diversified away: changes in the overall economy, tax reform by the Congress, or a change in the world's energy situation. They also list typical examples for unsystematic risk, unique to a particular company: a wildcat strike, a new competitor who begins to produce essentially the same product, or a technological breakthrough that makes an existing product obsolete.

[8] Beta is a measure of volatility, or systematic risk, of a security or a portfolio in comparison to the market as a whole.

risk reduction might be facilitated by investing in a portfolio of internationally diversified assets (Michel and Shaked, 1986: p. 90).[9]

Grubel (l968) was the first to analyze this potential gain and applied the concepts of modern portfolio theory to international investing. He demonstrated that it was possible for individual asset holders to reduce risk by holding an efficiently diversified portfolio of international securities. Other authors (Levy and Sarnat, 1970; Miller and Whitman, 1970; Grubel and Fadner, 1971; Agmon, 1972; Ripley, 1973; Solnik, 1974; Lessard 1974, 1976) confirmed and extended Grubel's (1968) work. While these studies have relied on different methodologies and data from a diverse pool of countries, their main conclusions confirmed that "correlations between national stock market returns were low and that national speculative markets were largely responding to domestic economic fundamentals (Bhar and Hamori, 2005: p. 166)."

As multinationals can be viewed as a portfolio of internationally diversified assets (Fatemi, 1984: p. 1327), the analysis was extended by considering direct investment instead of purely financial flows, as attempted by Cohen (1972), Severn (1974), Hughes et al. (1975), (Rugman 1976), Agmon and Lessard (1977), and Fatemi (1984).

Cohen's (1972) work indicated that there was little correlation between the earnings of the various national components of MNCs. Severn (1974: p. 549) found that the greater the foreign involvement of a firm, the lower the covariance of its earnings per share with those of the market portfolio as proxied by the Standard and Poor's Composite Index. Hughes et al. (1975: p. 633) compared various risk measures of 46 MNCs and 100 DCs and observed that MNCs exhibited lower levels of both systematic and unsystematic risk. Their findings suggested that lower earnings volatility represents an inherent benefit of internationalization, as firms receive their cash flows from imperfectly correlated markets. Rugman (1976: p. 75) showed that it was possible for multinational firms to reduce the risk of their profits by engaging in foreign operations. After controlling for size, industry classification, and other

[9] As Levy and Sarnat (1970: p. 668) point out that there is a strong tendency for returns on individual securities within an economy to move together. The greater the degree of co-movement, the less opportunity there is for risk reduction through diversification. According to Lessard (1973: p. 620) "It is likely that these common tendencies are even stronger in individual developing countries than in advanced countries with efficient capital markets. This is true for many reasons: greater volatility of economic activity, political instability, concentration of the economy in certain industries, irregular changes in the purchasing power of the currency, and "crises of confidence"."

factors, he found that international diversification offered to a multinational firm significant risk reduction advantages that are not available to a non-multinational.

Agmon and Lessard (1977: p. 1053) showed that the higher degree of an MNC's international involvement (measured by the proportion of foreign sales), the lower its market assigned measure of systematic risk. Fatemi (1984: p. 1342) found that the monthly betas of a multinational portfolio (composed of 84 MNCs) were significantly lower and more stable than those of a one country portfolio (composed of 54 DCs), indicating that corporate international diversification reduces the degree of systematic risk.

In contrast, Jacquillat and Solnik (1978) found that the effect of foreign operations on the systematic risk of multinationals is unexpectedly limited compared to the extent of their overseas involvement and concluded that investing in multinationals is only a poor substitute for international portfolio diversification. A similar result was obtained by Senchack and Beedles (1980). However, none of these studies have investigated possible differences in returns (Fatemi 1984: p. 1327).

After having reviewed some literature concerned with studying the potential of international diversification in reducing a firm's overall risk, the next step is to look at how the lower volatility of a firm's earnings, attained through diversifying into other markets, has an impact on a firm's capital structure.

The effects of international diversification on a firm's debt to equity ratio have been explained to a large extent through the co-insurance effect. The co-insurance effect predicts a positive relationship between leverage and the degree of firm diversification. The idea of a co-insurance effect for corporate debt was first advanced by Lewellen (1971). He argued that joining two or more firms whose earnings streams are less-than-perfectly correlated would reduce the risk of default of the merged firms (i.e., the co-insurance effect) and thereby increase the "debt capacity" or "borrowing ability" of the combined enterprise. If the coinsurance effect enhances debt capacity and results in increased debt usage for product-diversified firms, it would be reasonable to expect a similar impact for geographically diversified firms.[10] With subsidiaries in different countries, MNCs are able to diversify cash

[10] The argument is analogous to the discussion of the benefits of conglomeration and can be found in Shaked (1986: p. 84).

flows internationally, thereby reducing overall bankruptcy risk which, in turn, enables MNCs to be more leveraged than DCs (Lee and Kwok, 1988: p. 198).

While individual foreign investments may be exposed to higher risks compared to domestic investments, the diversification effect due to operating in a number of countries whose economic cycles are not perfectly in phase could reduce the variation in a firm's earnings (Shapiro 1978: p. 221). Therefore, "the greater riskiness of individual projects overseas could well be offset by beneficial portfolio effects (Shapiro 1978: p. 221)."

Shaked (1986: p. 85) concluded that existing literature recognizes the potential risk reduction from international diversification and that such benefit goes hand in hand with the proposition that markets are imperfectly integrated. However, he pointed out that, even in a world with no imperfections, diversification of assets across multiple countries is supported by the potential for a reduced bankruptcy risk and the associated increase in debt capacity.

1.1.2.2 Traditional capital structure determinants: DCs vs. MNCs

Once a firm decides to diversify its operations across geographic regions, the factors affecting its capital structure could take on new dimensions. This section provides a discussion of how traditional capital structure determinants behave in an international setting and how they impact the MNC's capital structure.

Agency costs

Agency costs have been shown to significantly affect the optimal level of debt. There are several reasons why these costs may differ between MNCs and DCs, including differences in monitoring costs and differing asset structures (Burgman, 1996: p. 557).

Monitoring costs

The complexity that comes with international diversification makes monitoring more difficult, thus exacerbating the inherent agency problems (Monteforte and Stagliano, 2015: p. 208). International diversification is associated with higher difficulties in gathering and processing information that come from geographic dispersion, differing legal systems, multiple currencies, timing issues, high auditing costs, and cultural and language differences (Ethier and Horn, 1990; Reeb et al.,1998: p. 267; Duru and Reeb, 2002: p. 417; Bushman et al., 2004: p. 175).

Asset structure

According to extant literature, MNCs are likely to have a higher proportion of intangible assets than DCs. (i) One argument relates to the lower political exposure of intangible assets. (ii) A second explanation refers to the fact that exploiting firm-specific assets is the very reason for which firms expand abroad. As summarized by O'Brien et al. (2014: p. 1013), international diversification has "the potential to generate economic rents from leveraging critical resources and capabilities across multiple markets."

(i) MNCs may have a lower proportion of tangible assets due to their greater political risk exposure. While tangible assets in a host country can be tempting targets for expropriation, intangible assets may have little value to parties other than the firm and are thus less likely to be expropriated. (Lee and Kwok, 1988: p. 201; Burgman, 1996: p. 558)

(ii) "International business theory suggests that foreign direct investment is motivated by the desire to exploit firm specific assets such as technological advantages, management skills, and geographical advantages" (Hymer 1976; Dunning 1977; in Kwok and Reeb, 2000: p. 612-613). Ethier and Horn (1990) argued that internationalization is a way to internalize[11] intangible assets, which have great potential for economies of scale and scope. Also according to Caves (1971: p. 4), one of the primary motivations for foreign direct investment is to take advantage of some unique asset of the firm and market imperfections in the pursuit of monopoly rents. Errunza and Senbet (1981: p. 416) and Kim and Lyn (1986: p. 124) found a positive relationship between the degree of international involvement and excess market value, which indicates the existence of monopoly rents (Lee and Kwok, 1988: p. 201). According to Myers (1977: p. 163), monopoly rents are reflected by the value of "real options" of the company.

Consistent with Scott's (1977) secured debt hypothesis, the higher proportion of intangibles in the asset base of MNCs is expected to have a negative impact on their leverage.[12] Also, the

[11] Also within the" intellectual framework of "markets and hierarchies" approaches (Coase, 1937, Hymer, 1960; Williamson, 1975), internalization theory provides an explanation for the motivation and existence of foreign direct investment, and more precisely, of multinational enterprises" (Kirca et al., 2011: p. 48).

[12] "Theories generally state that tangibility is positively related to leverage. Since the tangible assets can be used as collateral in external borrowing, the presence of a large fraction of tangible assets of a firm helps to get bank loans at a lower interest rate and it also helps to reduce the risk the lender suffering from the agency cost of debt. Since the debts can be secured by the collateralization of tangible assets, the firm's opportunity to engage in asset substitution is reduced by the presence of a large fraction of secured debts (Stulz and Johnson (1985); Johnson (1997)). For firms with more intangible assets, the costs of capital are higher since monitoring is more

higher the value of "real options" of a firm, the higher the expected agency costs due to underinvestment, as the firm derives most of its value from future investment opportunities which might get rejected due to the debt overhang problem.

Therefore, with higher proportions of intangible assets and higher values of real options, MNCs are expected to have lower debt ratios than DCs.

Bankruptcy costs

Foreign exchange rate risk, political risk

Foreign exchange rate risk and political risk have been mentioned in a previous section of this paper as potential factors that increase an MNC's risk. This results in higher bankruptcy costs and discourages the use of debt. However, this view is not unanimous among scholars. Some have argued that debt might help reduce or even eliminate these risks, as it can be used as a hedging instrument (Fatemi, 1988; Burgman, 1996; Kedia and Mozumdar, 2003).

Corporate international diversification

Compared to DCs which are active in only one country MNCs have operations located in multiple economies. The performances of these economies are not perfectly correlated, giving rise to diversification opportunities for the MNC (Hughes et al., 1975; Rugman 1976; Agmon and Lessard, 1977). Given the diversification effect, the MNC will have more stable cash flows. Reduction of cash flow variability reduces the probability of bankruptcy costs and increases the debt capacity (Lewellen, 1971; Shaked, 1986). This aspect has been discussed in more detail in section 1.1.2.1.4.

1.1.3 Corporate strategy approach

Firms' financing decisions have been traditionally studied by finance scholars. Organizational scholars turned their attention to the capital structure issue in the early 1980's when Bettis (1983) called for an integration of modern financial theory and strategic management. This seemed an obvious and necessary step, since "a good integration between

difficult. Hence, a firm with a large fraction of tangible assets is expected to have more debt." (Niu, 2009: p. 136)

the strategy and finance dimensions can be tantamount to a competitive weapon" (La Rocca et al., 2008: p. 15).

The call for synthesis between modern financial theory and strategic management was centered on three conundrums created by the rise of modern financial theory (Bettis, 1983: p. 406). First, modern financial theory suggested that markets did not reward the mitigation of firm specific (i.e., unsystematic) risk, which "lies at the heart of strategic management" (Bettis, 1983: p. 406). Second, financial literature suggested that firms need to disclose information in order to enable investors to make forecasts with greater accuracy. This would eliminate information asymmetries and therefore increase the value of the firm. By contrast, strategic management has stressed the value of such information to a firm's competitors (e.g., imitation opportunities) (Bettis, 1983: p. 410). Third, the approach of the financial theory to resource allocation is centered around shareholder wealth maximization, efficient capital markets, and the capital asset pricing model. However, this model poses several problems for firms competing internationally. For example, U.S. firms might compete against firms based in countries, such as Japan, where resource allocation differs from the approach just outlined. Japanese capital markets and firms' goals deviate from modern financial theory and practice in the United States (Bettis, 1983: p. 411).

Bettis's (1983) work coupled with the lack of consensus over firms' financing decisions[13] inspired the incorporation of capital structure research in strategic management.

Barton and Gordon (1987) were among the first to propose a corporate strategy-capital structure connection to address the question of what drives a firm's financing choices. They argued that the lack of consensus with regards to a firm's financing choices might be reconciled by integrating a behavioral component into financial theory. As Barton and Gordon (1987: p. 67) pointed out, rational[14] financial models are much better suited for explaining economy-level phenomena rather than for explaining firm-level behavior. However, while financial scholars concerned with an improved explanation of the capital

[13] "We know little about capital structure...our theories don't seem to explain actual financing behavior" (Myers, 1984: p. 575)

[14] "In the traditional finance theory, an individual is considered to be rational. In these studies, the effect of the decision maker's personality is neglected. However, behaviorists tend to emphasize the bounded rationality due to cognitive limitations (Tomak, 2013: p. 512)."

structure decision have called for the inclusion of non-financial, behavioral considerations, they have not seriously explored the area.

Based on a managerial choice perspective, Barton and Gordon (1987) line up several propositions attempting a fusion between strategic and finance literature to explain capital structure. They posit that top management's risk taking propensity will affect the firm's capital structure and that the higher the amount of risk a manager is comfortable with, the higher the debt ratio of the firm. Moreover, they argue that managers may have differing goals and that the debt position should attempt to facilitate the achievement of these goals. This view is in contrast to the finance paradigm which only allows for the goal of shareholder maximization. Anecdotal evidence provided by Barton and Gordon (1987: p. 71) showed how in the case of ITT, a change in CEO resulted in a change of strategic goals and a corresponding change in the capital structure, as the new executive was "not comfortable with the high leverage position." While capital structure decisions are made under consideration of a manager's risk propensity and goals for the firm, control and flexibility issues also play a significant role[15]. Barton and Gordon (1987: p. 72) suggest that due to flexibility issues, executives would prefer to finance a firm's needs from internally generated funds rather than from external creditors or new shareholders. The importance of the behavioral component is emphasized by the authors, who argue that financial variables do not directly determine the capital structure – they only have a role in affecting managerial choice with respect to the firm's capital structure (Barton and Gordon, 1987: p. 72).

This conceptual development by Barton and Gordon (1987) was based on the fundamental strategy perspective that "functional (financial) decisions are made by managers operating in a complex environment, and not solely a deterministic product of external market forces as implied by the finance paradigm (Barton and Gordon, 1988: p. 623)." Therefore, the capital structure decision is based on the risk preferences and goals of management, in combination with the contextual financial factors that have an impact on the basic concerns of risk and flexibility.

[15] Bancel and Mittoo (2004) questioned managers of European firms on their debt policy and report their responses on how firms choose the appropriate amount of debt. Executives cited financial flexibility as the most important factor, followed closely by credit rating. According to the survey results, firm managers also care about the tax deductibility of interest, volatility of earnings, and the potential costs of bankruptcy. Managers consider the transaction cost of debt and debt levels of industry peers as less important.

In a subsequent empirical investigation, Barton and Gordon (1988) provided a first assessment of the possible value of their previously formulated propositions. The authors used Rumelt's (1974) corporate strategy typologies[16] as a proxy to measure risk propensities and goals of top management. [17] These categories represent fundamentally different strategic approaches to diversification and per Rumelt (1974) resulted in different debt levels (Barton and Gordon, 1988: p. 625).

Barton and Gordon (1988) found evidence that the different strategic orientations as defined by Rumelt (1974) did indeed tend to have different levels of debt. Furthermore, they also found that contextual financial variables and capital structure are contingent on strategy category, meaning that managers of firms with different diversification strategies react differently to the underlying financial context when choosing a capital structure (Barton and Gordon, 1988: p. 629). According to Barton and Gordon (1988: p. 630), the value of the strategy concept is that it can "incorporate traditional financial effects while recognizing the complex, idiosyncratic nature of managerial behavior at the individual firm level."

Kochhar and Hitt (1998: p. 608) investigated the capital structure and diversification linkage through a transaction cost lens and also found that financial decisions are influenced by a firm's diversification strategy. Related diversification introduces more specific assets, whereas unrelated diversification adds assets that are less specific to the firm. Based on specificity considerations, Kochhar and Hitt (1998) argued that equity financing is preferred for related diversification and debt financing for unrelated diversification (Kochhar and Hitt, 1998: p. 608).

Besides studying how diversification shapes a firm's capital structure depending on its nature (related vs. unrelated), Kochhar and Hitt (1998) also examined how the mode of diversification (acquisition or greenfield) will determine how it is funded. Kochhar and Hitt (1998: p. 603) point to the information available to the suppliers of funds as being the key difference between the two entry modes. In acquisitive entries, both the target and the

[16] For the purpose of the study of Barton and Gordon (1988), Rumelt's (1974) nine sub-categories were reduced to the four originally developed by Wrigley (1970): (1) single; (2) dominant, including all four dominant business categories; (3) related, including both related categories; and (4) unrelated, including both unrelated categories

[17] Rumelt (1974) argued that his results supported the contention that his measure at least partially captured the values and goals of management as well.

acquiring firm already exist and have their own history. This enables the suppliers of funds to assess the risk and asset value of the target firm more accurately, and estimate potential changes under the new management of the acquiring firm, based on its historical actions (Kochhar and Hitt, 1998, p. 603). Relying on past information, they are able to determine an appropriate investment amount and risk-adjusted interest rate for the diversification project. On the other hand, direct entries (greenfield) have no historical records or assets, making it difficult to estimate the ability of management to operate the new business and the risk involved by the project. Further exacerbating the problem is the asymmetry that may exist between the amount of financial resources needed to acquire the new assets and the amount specified by the diversifying firm. Without data on new investment risk and value, suppliers will be either unwilling to fund diversification through direct entry and will charge a higher interest because of the potential for adverse selection (Kochhar and Hitt, 1998, p. 603).

Consistent with previous research, (Easterwood and Kadapakkam, 1991; Hertzel 1992), Kochhar and Hitt (1998) also found that information asymmetry is the most critical determinant of the choice between private and public financing. A firm reveals more extensive and proprietary information to sophisticated private investors without having to fear that competitors might gain access to it. Such approach significantly contributes to reducing information asymmetries and resolving the underinvestment problem (Hertzel and Smith, 1993: p. 460). Firms with speculative products, poor credit ratings (Emerick and White 1992, in Kochhar and Hitt: 1998 p. 603), or a greater proportion of intangible assets (Hertzel and Smith, 1993: p. 465) are more likely to use private financing sources. MacKie-Mason (1989: p. 28) found that private financing was used when the potential for information asymmetry was high.

Therefore, assuming that MNCs carry more intangible and firm-specific assets on their balance sheet, they should be expected to be financed predominantly with equity rather than debt, and with private rather than public funds. Moreover, the mode of entry in a foreign market (greenfield vs. acquisition) also has an impact on the overall capital structure of the firm. It seems however that such approach to examining the relationship between diversification and capital structure has been rather ignored by finance scholars conducting empirical studies on the matter.

While the discussion in the present section has been centered (as has extant literature) around product diversification and its effect on capital structure, it can serve as a useful starting point for similar investigations focusing on geographic diversification.

1.1.4 Empirical evidence on the effect of international diversification on capital structure

While with international expansion some factors tend to push the debt ratio upwards and others tend to push it downwards, the common view derived from extant theories was that MNCs should carry more debt mainly due to their larger size, lower risk of default and better access to capital.

Whether the effect of factors that favor higher financial leverage is greater than that of factors favoring lower leverage was left to be cleared up by empirical tests. First studies by Michel and Shaked (1986), Shaked (1986) and Fatemi (1988) compared leverage of US-based MNCs and DCs.

Michel and Shaked (1986)

Michel and Shaked (1986) compared selected financial characteristics across two samples of MNCs and DCs. They classified Fortune 500 companies engaged in manufacturing as either MNCs or DCs based on both the foreign sales ratio and the number of countries in which the firms had foreign operations[18] and reported that MNCs were more capitalized than DCs (Michel and Shaked, 1986: p. 99).

Shaked (1986)

Shaked (1986) directly calculated the prospective failure-probabilities of a sample of US-based MNCs from the manufacturing industry and compared them with those computed for a control group of domestic peers over a three-year study period (1980-1982). Consistent with Michel and Shaked (1986: p. 92), corporations have been classified as multinationals on the basis of two conditions: i) foreign sales account for at least 20 % of revenues; ii) direct capital investment exists in at least six countries outside the United States. The results suggested that the mean insolvency-probability of DCs was significantly higher than that of

[18] Companies were classified as MNCs if i) their foreign sales accounted for at least 20 % of revenues; ii) direct capital investment existed in at least 6 countries outside the United States (Michel and Shaked, 1986: p. 92).

the MNCs. It was also observed that MNCs were significantly more capitalized and that the average standard deviation of their equity and their average systematic risk were also significantly lower (Shaked, 1986: p. 100). The lower systematic risk recorded for the MNCs was consistent with the findings reported by Hughes et al., (1975), Rugman (1976), and Agmon and Lessard (1977). The higher capitalization of the MNCs was rather unexpected considering the arguments presented by the corporate diversification theory and the empirically demonstrated reduction in systematic risk for internationally diversified firms. Shaked (1986: p. 96) argued that the higher equity level of the MNCs might be (partially) explained by country specific regulations. Hoyt (1972: p. 16) reports that in some jurisdictions, the equity investment in foreign-controlled firms must be, as required by law, at least as large as reported net fixed assets. Further, the remittance of dividends and profits is in certain countries limited to a certain percentage of registered capital. Such regulations put an effective floor under the amount of equity capital that must be supplied (Hoyt, 1972: p. 16).

Fatemi (1988)

Fatemi (1988) investigated whether international operations had an effect on the financing policies of US-based firms. Nine financial-structure measures (not subject to size effects) were computed for two groups of firms: 84 MNCs and 52 DCs. MNCs were required to have at least 25% of their annual sales from foreign operations to be classified as such, and firms with any degree of international involvement were excluded from the DC sample (Fatemi, 1988: p. 28).

The weighted analysis of variance of ranks[19] was used to determine if the two groups were identical with respect to each of the nine leverage measures. Results obtained indicated that U.S.-based firms with significant foreign involvement had target-leverage ratios below those of their domestic counterparts. It was also found that MNCs obtained a greater proportion of their borrowing needs from short-term sources. Fatemi (1988 : p. 28) sought possible explanations for the lower debt ratios of MNCs in the higher level of expected noninterest tax shields, the greater agency and bankruptcy costs associated with international diversification, and the higher riskiness of foreign-currency denominated debt. The greater proportion of short-term debt in the MNC's financing mix could be attributed, according to the Fatemi

[19] The weighted analysis of variance of ranks was chosen in order to eliminate the bias in the test results that could have emerged due to the imbalance in the underlying number of firms in the two samples (Fatemi, 1988: p. 26).

(1988: p. 28), to the access that MNCs have to various money markets around the globe and/or a relative lack of depth in the markets for long-term funds elsewhere.

Lee and Kwok (1988)

While Michel and Shaked (1986), Shaked (1986) and Fatemi (1988) found that MNCs had lower leverage than domestic firms, they did not formally test any causal relationship between internationalization and leverage.

To explore what causes the differences in the capital structure of DCs and MNCs, Lee and Kwok (1988) suggested an analytical framework in which two levels of variables combined the domestic finance concepts and international environmental factors to explain the effect of internationalization on capital structure. According to their framework, international environmental factors affect firm-related capital structure determinants, which in turn cause the difference between the MNCs' and DCs' capital structure. This was a new approach compared to previous studies which discussed the direct effect of the international environmental factors on a firm's capital structure, instead of going through the firm's characteristics (Lee and Kwok, 1988: p. 214).

The first level of variables included factors that represent the particular nature of the international business environment. Without claiming exhaustiveness, international environmental factors included in the framework were political risk, exchange rate risk, international market imperfections, corporate international diversification, complexity of international operations, and local factors of host countries. The second level of variables was related to the firm and comprised mainly traditional capital structure determinants as described in the domestic finance literature: agency costs of debt and bankruptcy costs of debt. A third variable was also included, which dealt with the capital structure of the affiliates (Lee and Kwok, 1988: p. 200).

Lee and Kwok (1988: p. 206) used the foreign tax ratio as criterion to separate the companies into samples of MNCs and DCs. The MNC sample comprised companies with foreign tax ratios greater than 25%, while the MNC sample was made up of companies which had an average foreign tax ratio of less than 1%.

After controlling for size and industry effects, Lee and Kwok (1988) found that MNCs tended to have higher agency costs of debt than DCs. While the authors suspected this result might

be due to political risk and international market imperfections, these causal relationships were not tested in the paper. Further, while MNCs were found to have lower bankruptcy costs than DCs, the difference largely disappeared when the size effect was controlled for. Grouping companies within their sample according to size revealed that the means of expected bankruptcy costs of the smaller companies were substantially higher than those of larger companies. At the same time within each size group, the difference between MNCs and DCs were not significant. This result, therefore, does not support the corporate international diversification argument, according to which MNCs have lower earnings volatility and face a lower probability of bankruptcy due to operating in imperfectly correlated economies. Finally, Lee and Kwok's (1988) findings suggested that DCs tended to have more leverage than MNCs, even after controlling for the size effect. However, when companies were separated under different industry groups, the results varied significantly.

It can be argued, therefore, that the main result of Lee and Kwok's work is that MNCs have lower debt-to-equity ratios primarily as a result of greater agency costs. This result is consistent with most of existing literature. Another interesting result was that MNCs tended to have lower bankruptcy costs simply because they were generally larger in size than DCs. Also when comparing the debt ratios of MNCs and DCs, industry seemed to play an important role, phenomenon which according to Lee and Kwok (1988) was worth monitoring in subsequent works.

Burgman (1996)

Burgman (1996) examined whether there were "systematic differences in the traditional capital structure determinants between MNCs and DCs", and if there were "additional, uniquely international factors that might help explain the capital structure choice of multinational corporations (Burgman, 1996: p. 553)."

Firms were classified as DCs if their foreign tax ratio was less than or equal to 1% and as MNCs if their foreign tax ratio was greater than or equal to 25%. Burgman (1996) compared the factors thought to influence capital structure between the two samples of firms, examined the impact of international diversification on the earnings volatility of the MNC sample, and then modeled leverage as a function of both traditional capital structure determinants and specific international factors.

Consistent with the findings of Lee and Kwok (1988) and Fatemi (1988), Burgman (1996) found that MNCs had lower target debt-to-equity ratios when compared to DCs. His tests also revealed that DCs were significantly more sensitive to exchange rates than MNCs and MNCs had higher agency costs as measured by the uniqueness of their assets.

After examining the direct relationship between international diversification (measured as function of both the foreign tax ratio and the number of countries in which the firm had subsidiaries) and business risk, no support was found for the corporate international diversification hypothesis.

The analysis of the various capital structure determinants on the leverage of MNCs offered strong support for the hypothesis that MNCs have lower debt ratios due to higher agency costs of debt. Consistent with the argument that MNCs use capital structure as a tool to hedge political and exchange rate risk, leverage was also found to be positively related to both of these factors (Burgman, 1996).

Chen et al. (1997)

Chen et al. (1997) examined whether there was a direct relation between firm internationalization and debt financing beyond the commonly accepted capital structure determinants. This was a new approach, as most previous studies had either evaluated the effect of internationalization on identified determinants of capital structure or have focused on the direct effect of international environmental factors on the financing policy of MNCs (Chen et al., 1997: p. 564).

The study extended the work of Lee and Kwok (1988) which used univariate analysis to investigate the difference in capital structure between US-based MNCs and DCs by relying on the difference in bankruptcy costs and agency costs of debt between MNCs and DCs. Chen et al. (1997) used a multivariate design to examine whether the level of international activities could explain variations in the capital structure after controlling for the effect of firm size, agency costs, bankruptcy costs, profitability, and industry grouping.

The authors employed the ratio of foreign pre-tax income to total pre-tax income to measure the extent of international activities. All observations with positive foreign pre-tax income were classified as MNCs (Chen et al., 1997: p. 568). The analysis revealed that MNCs in the sample were larger in size with lower volatility of cash flows and higher market-to-book ratios of assets. The average values for ROA showed that MNCs in the sample were more

profitable than DCs (Chen et al., 1997: p. 570). Moreover, the authors found that MNCs had a lower debt ratio than their DC counterparts, but within the sample of MNCs the level of international activity was positively associated with debt ratio (Chen et al., 1997: p. 571).

The main contribution of the study was showing that international activity itself provides additional explanation for the variation in the debt ratio (Chen et al., 1997: p. 565). More precisely the results showed that approximately 57% of the difference in capital structure between MNCs and DCs was explained by international diversification while only 43% was jointly explained by bankruptcy costs and agency costs of debt. This implied that Lee and Kwok (1988) explained only part of the difference in capital structure between MNCs and DCs (Chen et al., 1997: p. 571).

The fact that MNCs had lower debt ratios than DCs but at the same time within the group of MNCs the level of international diversification was positively related to the debt level was at least seemingly a paradoxical result (Chen et al., 1997: p. 571). The authors tried to reconcile these findings by offering three possible explanations. First, this might have been due to the attempt of MNCs to hedge against the foreign exchange risk by borrowing in local currency. Second, this might have come about as a consequence of the monitoring role of debt: with geographical dispersion of subsidiaries, managers may have more discretionary power. Therefore, additional debt might be needed as disciplinary mechanism for managers (Jensen and Meckling, 1976). Third, managers of MNCs may pursue increases in perquisites and status by expanding operations across borders through debt financing (Chen et al., 1997: p. 571-573).

Chkir and Cosset (2001)

Chkir and Cosset (2001) used a switching regression method to examine US MNCs' capital structure after controlling for the dual dimensions of diversification: industrial and geographic. They showed that leverage increases with both product and international diversification. However, this study is presented in more detail in the third chapter of the paper, where the simultaneous effect of international diversification and product diversification on the financing decisions of a firm is examined.

Mansi and Reeb (2002)

An implicit assumption in the above-presented studies was that the relation between debt financing and international activity was constant across all levels of international activity.

However, Mansi and Reeb (2002) posit that a strictly linear specification may not fully capture the impact of firm international activity on debt usage (Mansi and Reeb, 2002: p. 130). Therefore, they explored the effects of international diversification on both the cost and level of debt and allowed for these relations to vary with the degree of internationalization. Specifically, they attempted to answer the question of "whether the relation between firm internationalization and the cost and level of debt financing is non-linear, and if so what is the consequence of this non-linearity on the firm's capital structure" (Mansi and Reeb, 2002: p. 143-144).

The level of internationalization was measured by means of a composite measure, an index built by using FA (percentage of foreign assets to total assets), FS (foreign sales to total sales) and the number of geographic segments where the firm operates. According to Mansi and Reeb (2002: p. 134), "these attributes allow the composite measure to be based on multiple dimensions of firm international activity."

Based on a U.S sample from the Lehman Brothers fixed income database, they demonstrated the existence of a non-monotonic, curvilinear relationship between debt financing costs and firm international activity: the cost of debt first decreases at lower levels of internationalization but gradually increases back after internationalization has reached a certain point (Mansi and Reeb, 2002: p. 132-133). However, the authors argue that on average, the cost of debt is negatively related to internationalization (Mansi and Reeb, 2002: 144).

Mansi and Reeb (2002) also investigated the potential for a non-linear relation between leverage and firm international activity. They found that low levels of firm international activity were associated with lower levels of debt, but that the positive impacts outweighed the negative ones at all other levels of firm international activity. Thus, they find that geographical diversification is, on average, associated with a greater net firm leverage (Mansi and Reeb, 2002: p. 130).

Mansi and Reeb (2002) also found that the inflection point where the marginal debt costs of internationalization equaled the marginal benefits occurred at high levels of international activity (e.g., 45% foreign sales). Further, their results suggested that firms with the average level of international diversification had about 52 basis points lower cost of debt financing and use approximately 30% more debt in their capital structure compared to purely domestic firms (Mansi and Reeb, 2002: p. 144).

Doukas and Pantzalis (2003)

Doukas and Pantzalis (2003) examined whether agency costs of debt explained the lower leverage of MNCs. They used a US sample including firms from the mining, agricultural and manufacturing industries over the period 1988-1994. By employing three alternative measures of agency costs of debt, they found that the negative effects of agency costs on long-term leverage were stronger for MNCs than for DCs and that MNCs were relying more on short term financing sources.

1.1.5 Summary and concluding remarks

Summary

From a theoretical perspective, the effect of international diversification on the firm's capital structure can be twofold. On the one hand, multinational firms can be expected to exhibit higher debt ratios, since geographically diversified activities may reduce the overall business risk of the firm, the volatility of its cash flows and the associated bankruptcy costs (Cohen, 1972; Severn, 1974; Hughes et al. 1975; Rugman, 1976; Agmon and Lessard, 1977). Moreover, it could be more complex for a large multinational firm, to monitor and control local managers, who may waste local free cash flows in valueless activities. In this case, debt ongoing commitments could serve as disciplining mechanism and help mitigate agency costs between shareholders and managers (Jensen, 1986; Chen et al., 1997). Other arguments speaking for an increase in leverage with international expansion are the better access to capital compared to purely domestic firms (Pagano et al., 2002; Doukas and Pantzalis, 2003; Aulakh and Mudambi, 2005; Aggarwal and Kyaw, 2008; Madura, 2012; Jang, 2017) and the ability to exploit the tax advantage of debt more aggressively due to international tax differentials (Hodder and Senbet, 1990; Aggarwal and Kyaw, 2008; Møen et al., 2011). On the other hand, given a possible larger opportunity set, MNCs may have more growth opportunities than domestic firms, and face higher debt agency costs. With allegedly more intangibles in their asset base, MNCs will face higher costs of debt and are likely to be more capitalized than DCs (Myers, 1977; Errunza and Senbet, 1981; Kim and Lyn, 1986; Ethier and Horn, 1990).

Exchange rate risk and political risk are among the main characteristics of the international financial environment which distinguishes it from the one-country model and were the first to be studied in the context of MNCs' financing behavior. The debate over their effect on capital structure remains unsettled: while some scholars share the view that these additional risks

lead to an increase in bankruptcy costs and a lower optimal debt level for MNCs, others argue that debt itself is a management tool used to hedge against such risks.

Empirical studies that deal with the capital structure of geographically diversified firms conclude that these are less leveraged than their domestic counterparts (Michel and Shaked, 1986; Fatemi, 1988; Lee Kwok, 1988; Burgman, 1996; Chen et al., 1997), but secure a greater portion of their borrowing needs from short term sources (Fatemi, 1988; Doukas and Pantzalis, 2003). To explore what causes the differences in the capital structure of DCs and MNCs, scholars examined whether there were differences in the traditional capital structure determinants between MNCs and DCs and included additional, uniquely international factors in the analysis. The prevailing result was that MNCs are less leveraged than DCs due to higher agency costs of debt (Lee and Kwok, 1988; Burgman, 1996). No consensus has however been reached with respect to differences in expected bankruptcy costs between domestic and internationally diversified firms. Chen et al. (1997) analyze the direct relation between firm internationalization and debt financing beyond the commonly accepted capital structure determinants. Their results reveal that, although MNCs have lower debt ratios than DCs, within the group of MNCs, the level of international diversification is positively related to leverage. Further confounding the issue is the non-linear relationship between international diversification and leverage found by Mansi and Reeb (2002).

The remainder of this concluding discussion provides an overview of the main characteristics and research directions of what has been classified in the present work as first generation literature. It further attempts to identify possible methodological shortcomings and provide suggestions for future research.

Focus on US samples

First generation literature almost exclusively focused on US-based MNCs and DCs. However, very little is understood outside the United States. Drawing inferences concerning the impact of international diversification on the capital structure of non-US MNCs is difficult, as differences in financial characteristics between US MNCs and DCs may not be representative of the differences between MNCs and DCs in a global context (Bancel, Mitoo, and Zhang, 2013).

Definition of the MNC

Although many theoretical and operational definitions of the MNC have been proposed, none has become standard (Aggarwal et al., 2011: p. 558). This is reflected in inconsistent approaches to MNCs sample selection and empirical testing (Aggarwal et al., 2011: p. 557). Specifically, scholars have used different measures based on which they classified firms as MNCs. Such lack of consistency might hinder a comparison of empirical results. Further, thresholds according to which firms were allowed into MNCs samples have been chosen somewhat arbitrarily. Lee and Kwok (1988) and Burgman (1996) classified firms as MNCs if their foreign tax ratio exceeded 25%; Michel and Shaked (1986) and Shaked (1986) considered firms with foreign sales ratio higher than 20% and with direct capital investments in at least 6 countries as MNCs; Fatemi (1988) included companies having more than 25% of their total sales outside the national borders in the group of MNCs. Choices of measures and thresholds have often been made based on past usage and data availability, and less on theoretical arguments.

Moreover, measures based on foreign sales figures lead to the disadvantage of mixing international trade with international investment (Lee and Kwok, 1988: p. 205-206; Burgman, 1996: p. 558). Classifying exporters as MNCs is inconsistent with most definitions of the multinational corporation.

There also seems to be some sort of interchanging use of "international diversification" from a portfolio theory vs. a corporate strategy perspective, which has led to flawed operationalization.

International diversification vs. international involvement

Measures such as the foreign tax ratio capture the international involvement of a firm rather than the degree of international diversification (Burgman, 1996: p. 564). Models using such measure to test the international corporate diversification hypothesis may be misspecified. As Burgman (1996: p. 564) points out, a firm could have a high degree of international involvement, and yet all of its foreign investment could be in a single high-risk country. From a risk reduction perspective, such a firm cannot be regarded as internationally diversified. In this case, international activities would lead to more business risk and a lower debt capacity. Similarly, a firm with the same degree of financial involvement (measured by the foreign tax ratio) could have operations in more than one foreign country and count as more internationally diversified. Measuring international diversification using a foreign sales ratio

measure is even more problematic since it does not distinguish between FDI and exports (Lee and Kwok, 1988: p. 205-206; Burgman, 1996: p. 558).

Burgman (1996) has proposed a combined measure to account for the diversification effect. He measured firms' diversification in terms of foreign tax ratio and the number of countries a firm was active in. Mansi and Reeb (2002) measured internationalization by means of a composite measure, an index built by using FA (percentage of foreign assets to total assets), FS (foreign sales to total sales) and the number of geographic segments where the firm operates. According to Mansi and Reeb (2002), these attributes allowed the composite measure to be based on multiple dimensions of firm international activity.

In this context the question emerges as of what makes an MNC internationally diversified from a risk reduction point of view. Evans and Archer (1968) concluded that ten stocks would do to make a diversified portfolio, while Statman (1987) finds that no less than thirty stocks are needed for a well-diversified portfolio. Since MNCs can be viewed as a portfolio of internationally diversified assets (Fatemi, 1984) such findings suggest that they will enjoy an increased debt capacity due to business risk reduction from imperfectly correlated cash flows only after achieving a certain level of heterogeneity. Such argument is consistent with the existence of a non-linear relationship between international diversification and debt usage, as proposed by Mansi and Reeb (2002).

MNCs typologies

International business literature has developed high-level typologies of MNCs. These are summarized in Aggarwal et al. (2011: p. 561):

> "Perlmutter's (1969) threefold typology of managerial mindsets as home country-oriented (ethnocentric), host country-oriented (polycentric), and world-oriented (geocentric); Caves's (1982) threefold typology of multiplant MNCs as horizontal, vertical and diversified; Bartlett and Ghoshal's (1989) fourfold typology of MNC organisational structure as multinational, international, transnational and global; Dunning's (1993) fourfold typology of the rationale for FDI as market-seeking, efficiency-seeking, resource-seeking, and strategic asset-seeking; and Rugman's (2003) fourfold typology of MNC strategic orientation as home-regional, bi-regional, host-regional and global."

While studying capital structure across such typologies might provide new insights into the effect of international diversification on capital structure and bring the integration of finance and strategy literature one step closer, such approach has been ignored by both disciplines.

Unexplored areas

Empirical studies on the effect of international diversification on capital structure have looked at how MNCs and DCs differ from each other with regards to their debt ratios. Studies by Fatemi (1988) and Doukas and Pantzalis (2003) report findings regarding the debt maturity of MNCs as compared to their domestic peers. However, the issue of what drives the choice between public and private debt has not been addressed by finance scholars. Such gap can be traced back to financial theories on firms' capital structure and their associated shortcomings. Most studies specified their empirical models based on traditional corporate financial theories. However, nor the trade-off theory, neither the agency cost theory provide any predictions with regards to the nature of financing sources (private vs. public). Such findings can be found in corporate strategy literature that looked at the firm's financing policy (Kochhar and Hitt, 1998). The corporate strategy approach to studying the effect of international diversification on capital structure has been nevertheless left out by financial scholars. The aforementioned observation emphasizes once more the potential benefits in filling knowledge gaps from integrating finance and strategy literature.

Non-linear specifications

A non-linear specification of the relationship between capital structure and diversification has only received little attention. The only contribution, by Mansi and Reeb (2002), which tested such a relationship yielded results which contradicted previous empirical findings.

1.2 Second generation literature

In an attempt to settle the debate on the relationship between diversification and capital structure, second generation literature concentrated to a large extent on how country-specific (rather than firm-specific) characteristics affect the financing decisions of MNCs. Another big departure from first generation literature was abandoning the focus on U.S based MNCs in favor of a more diverse pool of countries (Bancel, Mittoo, and Zhang, 2013).

This section is structured as follows. First, a body of literature concerned with exploring the effects of country specific factors on the foreign affiliates' financing choices is surveyed. Second, an alternative approach to explaining the effect of international diversification on capital structure is presented – the "upstream-downstream" hypothesis. This theory posits that home and target market conditions play an important role in predicting how the firm's risks

and capital structure change with corporate internationalization. In a further step, empirical studies examining the effect of geographical diversification on the capital structure of non-US samples are presented. Before drawing conclusions from the second generation literature, the potential role of globalization in offsetting the risk reduction potential from corporate international diversification is examined.

1.2.2 Country-specific factors

A different approach to studying the relationship between international diversification and capital structure has been generated by the integration of country-specific factors into the analysis. A significant body of literature (e.g.Rajan and Zingales (1995); Demirgüç-Kunt and Maksimovic (1999); Booth et al., (2001); Claessens et al., (2001); Bancel and Mittoo (2004), Fan et al. (2012)) found that a firm's capital structure is not only influenced by firm-specific factors but also by country-specific factors. Consistent with these findings, multinationals seem to choose a different financing strategy for their affiliates depending on where they are located (Akbel and Schnitzer, 2011: p. 1367).

When setting up a foreign subsidiary, MNCs can choose among several financing options. They can rely on capital transferred from the parent company or other subsidiaries, but they can also raise local credits (Robbins and Stobaugh, 1972a: p. 56; Akbel and Schnitzer 2011: p. 1367). Empirical evidence supports the argument that subsidiaries are only partly financed internally, with capital from the parent company. Kang et al. (2004: p. 5) found that in industrial countries 30 percent of the financing of U.S. majority owned affiliates comes from parents and 42 comes from host residents, while in developing countries 45 percent of the financing comes from US parents and 34 percent comes from host country residents. [20]

Host-country specific factors will have an impact on the affiliate's total debt ratio, on the amount of external vs. internal debt, as well as on the structure of parent financing (debt vs. equity). Therefore, the impact of internationalization on the capital structure choice also depends on the set of foreign countries (and their characteristics) in which an MNC has subsidiaries.

The next section provides a brief overview of literature concerned with studying capital structure differences across countries and the factors that lead to these differences. It then

[20] According to Kang et al (2004: p. 4), only financing instruments of U.S. majority-owned foreign affiliates are considered, that can be attributed to specific sources.

proceeds to summarize findings related to how host country-specific factors affect the capital structure of subsidiaries and that of the MNC as a whole.

1.2.2.1 Differences in capital structure across countries

Based on extant literature, the major differences that lead to variations in capital structure across countries relate to the degree of investor protection, the role of capital markets and corporate and banking relations, tax systems[21], and corporate governance practices. Several studies have also considered a cultural component in emphasizing differences between countries, which could, in turn, lead to cross-country differences in the financing mix.

Securities laws and investor protection

In traditional financial theory, securities are defined in terms of their cash flows: debt has a fixed stream of regular interest payments, whereas equity owners receive dividends (La Porta et al., 1998: p. 1113). No explanation is however provided for why managers would return these cash flows to investors. Subsequent research in the area of 'finance and law' has argued that debt- and equity holders get paid back only because they have power over firm insiders, ensured by the legal rights attached to the various securities they own (Hart 1995, in La Porta et al., 1998: p. 1113). This can be the power of investors to "change directors, to force dividend payments, to stop a project or a scheme that benefits the managers at the expense of outside investors, to sue directors and get compensation, or to liquidate the firm and receive the proceeds (La Porta et al., 2000: p. 5)." Without these rights, investors would face a high risk of not being (re)paid, and firms would find it harder to raise external finance (La Porta et al., 1998: p. 1114).

According to La Porta et al. (1998: p. 1114), the view that securities are inherently characterized by some intrinsic rights is, however, incomplete because it ignores the fact that these rights depend on the legal systems of the countries in which the securities are issued. La Porta et al. (1998, p. 1151) found that being a shareholder or a creditor in different legal jurisdictions, entitles an investor to very different bundles of rights. Further, the enforcement of laws is as crucial as their contents (La Porta et al., 2000: p. 7). Absent effective enforcement of securities laws, the insiders would not have any incentive to repay the

[21] Effects of international tax differentials on MNCs' capital structure have been discussed in Chapter 1.1.2.1.3 of this paper.

creditors or to distribute profits to shareholders, which would lead to external financing mechanisms breaking down (La Porta et al., 2000: p. 7).

Since the protection that investors receive determines their readiness to finance firms, La Porta et al. (1998: p. 1114) suggest incorporating legal rules and the quality of their enforcement in studying corporate financial behavior.

Giannetti (2003) examined the effect of legal rules on capital structure using a sample of unlisted European firms. The results suggested that countries that favor creditor rights and ensure strict enforcement are positively associated with higher leverage and higher availability of long-term debt (Giannetti, 2003: p. 185). Laws that protect creditor rights facilitate the access to external debt for firms which would otherwise find it difficult to obtain such funding. Since agency costs decrease, obtaining loans becomes easier especially for firms investing in intangible assets (such as R&D and advertising), which cannot be provided as collateral (Giannetti, 2003: p. 186). Giannetti (2003: p. 186) also found that the protection of creditor rights is important for guaranteeing access to long-term debt for firms operating in sectors with highly volatile returns. Further, where the law does not sufficiently guarantee creditor rights, lenders may prefer short-term debt. By using the threat of not renewing the loan, they can curtail the entrepreneurs' opportunistic behavior. Where creditors enjoy higher protection via the law system in place, the use of debt maturity to control borrowers becomes unnecessary (Giannetti 2003: p. 186).

Cheng and Shiu (2007: p. 36) also acknowledged that with better investor protection, outside shareholders and creditors are willing to pay more, because they recognize that profits generated by companies can be paid to them as dividends or interest rather than expropriated by the controlling shareholders. Using a sample of firms from 45 countries, Cheng and Shiu (2007) examined whether the differences in investor protection laws across jurisdictions could explain the variations in capital structure. They found that firms in countries with better creditor protection had higher leverage, while firms in countries where shareholder rights were better protected used more equity funds (Cheng and Shiu, 2007: p. 41).

La Porta et al. (1998) looked at how the quality of enforcement of investor protection laws varied across 49 countries. They found that the German and Scandinavian civil-law countries had the best quality of law enforcement. Law enforcement was strong in common-law countries as well, whereas it was the weakest in the French-civil-law countries (La Porta et al. 1998: p. 1151).

Safavian and Sharma (2007) also concluded that both laws and their enforcement matter in credit markets and provided evidence on how (enforced) creditor rights allow for better access to bank credit.

Extant literature has also linked investor rights to the legal origin as well as to the degree of financial development of a country.

Legal origin

Literature on corporate governance documents that the degree of investor protection in a country is somehow correlated with the legal origin of that country. La Porta et al. (1998: p. 1116) suggest that common law countries have better investor protection than civil law countries. Wardhani (2015: p. 269) points to studies by Coffee (2000), and Johnson et al. (2000), which under the assumptions that the judges have an inclination to protect the outside investors rather than the insiders, provide a judicial explanation for why common law protects investors better than civil law. La Porta et al. (2000: p. 8) argue that differences among legal origins are best described by the proposition that "some countries protect all outside investors better than others, and not by the proposition that some countries protect shareholders while other countries protect creditors." This would suggest that variations in investor protection laws and the quality of their enforcement are central to understanding why firms are able to raise more funds in some countries than in others. However, no conclusions can be drawn with respect to the split between debt and equity.

Financial market development

The basic prediction of the legal approach is that secure investor rights encourage the development of financial markets (La Porta et al., 2000: p. 15). When the law system in place protects investors against the risks of expropriation, they are willing to pay more for securities, making it more attractive for firms to issue these securities (La Porta et al., 2000: p. 15). This applies to both creditors and shareholders. "Creditor rights encourage the development of lending, and the exact structure of these rights may alternatively favor bank lending or market lending. Shareholder rights encourage the development of equity markets […]. For both shareholders and creditors, protection includes not only the rights written into the laws and regulations but also the effectiveness of their enforcement (La Porta et al. 2000: p. 15)." Consistent with the arguments outlined above, La Porta et al. (1997) show that compared to unprotective countries, states with strong shareholder protection have more

valuable stock markets, larger numbers of listed securities per capita, and a higher rate at which firms go public. Countries that protect creditors better have larger credit markets (La Porta 2000: p. 15). Faulkender (2006: p. 45) finds that firms which have access to the public bond markets, as measured by having a debt rating, have significantly more leverage.

Capital market size versus banking sector power

Antoniou et al. (2008: p. 60), shared the view that lessons learned from one environment cannot be generalized to countries with different legal and institutional traditions. In line with this argument, some studies have examined the implications of the financial system orientation in an economy for the capital structure of companies. For example, Berglöf (1990) found that firms operating in capital market-oriented economies (such as the U.S. and the U.K.) have lower levels of leverage than firms operating in bank-based economies (such as Japan and Germany).

Contrary to these findings, Rajan and Zingales (1995: p. 1445) did not find any systematic difference between the level of leverage in the so-called bank-oriented countries (Japan, Germany, France, and Italy) and in the so-called market-oriented countries (United States, United Kingdom, and Canada). Cheng and Shiu (2007) also hypothesized that firms in countries with active stock markets are likely to use more equity than debt, while firms in countries with strong banking sectors are likely to use more debt. Inconsistent with this prediction, Cheng and Shiu (2007: p. 41) found that stock market value/GDP had an insignificantly positive effect on leverage, and bank loan/GDP had a negative effect on debt ratios.

In light of such evidence, Rajan and Zingales (1995: p. 1445) raised the questions of whether "bank or capital market orientation" is a meaningful distinction to make and whether differences in the importance of the banking sector have any effect on a firm's financing choices. They argue that the influence of a country's financial model (bank oriented vs. market oriented) on firms' capital structure is reflected more in the choice between public (stocks and bonds) and private financing (bank loans) than in the choice between debt and equity (Rajan and Zingales, 1995: p. 1448).

Cultural differences

Various disciplines have embraced the concept of cultural values in their literature (e.g., social psychology, management, or advertising) (Chui et al., 2002: p. 100). Financial

literature has not extensively examined culture due to its ambiguity in interpretation and difficulty to measure (Chang et al., 2012: p. 431). Guiso et al. (2006: p. 23) state that the cultural dimension "… is so broad and the channels through which it can enter economic discourse so ubiquitous (and vague) that it is difficult to design testable, refutable hypotheses."

However, a growing body of finance research stressed the influence of cultural variables on many facets of business operations including corporate governance, capital structure, managerial compensation, foreign direct investment behavior and cost of equity capital (Gray et al., 2013: p. 899).

Stonehill and Stitzel (1969)[22] and Sekely and Collins (1988) present evidence according to which cultural variables influence capital structure. Chui et al., (2002: p. 122) suggest that national culture may be an important "missing piece" to the capital structure puzzle.

Some scholars have relied on Hofstede's (1980) cultural dimensions to examine the link between capital structure and national culture. Gleason et al. (2000) used Hofstede's classification of national cultures and data on European retailers and provided evidence that capital structures varied by the cultural classification of retailers. Mac an Bhaird and Lucey (2014) provided a conceptual framework and empirical analysis on how culture influences capital structure in small and medium sized enterprises. They found that uncertainty avoidance, individuality, and power distance are negatively related to long-term debt. Chang and Noorbakhsh (2009: p. 323) showed that national culture influences corporate managers' cash holding behavior beyond the effects of corporate governance and financial market developments in each country, through the perception of agency costs and value of financial flexibility. Using Hofstede's cultural dimension indices, they demonstrated that corporations held larger cash and liquid balances in countries where the people tended to avoid uncertainty more, were culturally more masculine, and had longer term orientation.

Chui et al. (2002) empirically examined possible cultural influences on the capital structure of corporations. The authors based their cultural dimensions on Schwartz's (1994) classification and related these categories to capital structure. Their results showed that

[22] Stonehill and Stitzel (1969) argue that national attitudes toward financial risk differ. "For example, Japanese and Swedish bankers do not get upset if 90 per cent of their funds have been loaned. American bankers panic." (Stonehill and Stitzel, 1969: p. 93)

countries with high scores on the cultural dimensions of "conservatism" and "mastery" tend to have lower corporate debt ratios.

Sekely and Collins (1988: p. 88) recognize that financial decisions are based, in part, on the firm's managerial perceptions of the risk relative to the benefit of using fixed-cost debt financing. Douglas and Wildavsky (1983: p. 194) argue that individuals, institutions, communities or societies may perceive risks differently due to diverse cultures or beliefs. Li et al., (2010) find that there is a significant association between the national culture of corporate managers and their risk taking. Such findings suggest that behavioral finance can increasingly explain corporate finance decisions made by managers and that national culture is one of the plausible behavioral variables in explaining their actions. "National culture is an aggregate outcome of personal experiences, beliefs, and values by individual economic participants such as corporate managers or bankers who have developed these traits over time (Chang et al., 2012: p. 454)". Introducing cultural factors in the capital structure analysis might provide another channel for integrating finance and strategy literature.

1.2.2.2 Host country factors and affiliates' capital structure

Mishra and Tannous (2010) examined whether the securities laws in host countries affected the capital structure of US-based multinational corporations that had subsidiaries in those countries. They developed firm-level global indices for each MNC in the sample, based on the securities laws environments of the countries where it had foreign operations (Mishra and Tannous, 2010: p. 483). Their results revealed a positive relation between the use of long-term debt and the firm's global standing in terms of common law legal origin, burden of proof, investor protection, disclosure requirements, and public enforcement.

Desai et al. (2004) demonstrated that weak creditor rights and poor credit market development were associated with higher net inter-company borrowing by affiliates (Desai et al., 2004: p. 2484).

Kang et al. (2004) identified a positive relationship between the degree of financial market development – which, as other authors showed, is closely related to investor rights and the quality of their enforcement – and local borrowing for multinational affiliates.

Aggarwal and Kyaw (2008) looked at how a wide range of country specific factors affected MNCs' capital structure. Using data from US multinational company affiliates in 62 countries, they showed that "affiliates in countries with high (low) credit availability, a high

(low) corruption index, low (high) political risks and high (low) currency depreciation" carried "high external (parent) debt ratios (Aggarwal and Kyaw, 2008: p. 409)." In addition, multinational affiliates' debt ratios are high in high tax countries.

Akbel and Schnitzer (2011) examined MNCs' choice between centralized (internal) and decentralized (external) borrowing. Specifically, they looked at how this choice is affected by creditor rights and bankruptcy costs, under consideration of managerial incentives and coinsurance effects. They found that with weak or strong creditor rights, partially centralized borrowing structures are the optimal alternative. For intermediate levels of creditor rights fully decentralized (centralized) borrowing structures are optimal if managers have strong (weak) empire-building tendencies. Further, external borrowing is more attractive for companies focusing on short-term profitability (Akbel and Schnitzer, 2011: p. 1367).

As international management researchers have pointed out, the most important characteristic of the MNC is cultural diversity, meaning that the "MNC operates in different cultural environments simultaneously and that in the MNC actors with differing cultural backgrounds are making decisions that affect actors with differing cultural backgrounds inside and outside of the MNC (Schmid 1996, in Eckert and Engelhardt 1999: p. 111)." As Ball and McCulloch (1982, in Sekely and Collins, 1988: p.88) point out, "the study of foreign cultures is of primary importance to those in international business because cultural differences exert a pervasive influence on all of the business functions." Despite the acknowledged importance of cultural factors on the financing choice and the high cultural diversity within MNCs, no research has been conducted on how capital structure is affected by culture in the multinational firm. This phenomenon has to be considered, especially since evidence regarding cultural influences on the financing decisions of firms has been documented by extant literature.

Further, Eckert and Engelhardt (1999: p. 109) refer to existing empirical contributions (Eckert 1997; Giesel 1982; Goehle 1980; Pausenberger 1981; Pausenberger and Völker 1985) which have shown that decisions concerning the capital structure of foreign subsidiaries are made to a large extent at the company's headquarters. From a cultural perspective, this finding has important implications, which will be discussed in this section's conclusions.

1.2.2.3. Firm-specific factors across countries

While extant research found that a firm's capital structure is not only influenced by firm-specific factors but also by country-specific factors, an important question is whether firm-specific determinants of leverage also differ across countries. "One model will fit all firms in the world only if the firm-specific effects do not differ significantly across countries (Bancel, Mittoo, and Zhang, 2013: p. 479)." Most of the existing studies assumed that the impact of firm-specific factors on leverage is equal across countries. A list of such studies (Booth et al., 2001; Giannetti, 2003; Fan et al., 2006) can be found in De Jong et al. (2008: p. 1955).

However, De Jong et al., (2008) found that firm-specific determinants of leverage differ across countries. This can be traced back to the fact that country-specific factors can affect leverage directly as well as indirectly through firm-specific factors. For example, a more developed bond market has a direct impact on the capital structure of firms in a country since it facilitates the issue and trading of public bonds and may lead to higher debt usage. However, the developed bond market will limit the role of asset tangibility as collateral in borrowing for firms in the same country (De Jong et al., 2008: p. 1954). It seems, therefore that the impact of firm-specific factors on the capital structure is moderated by country-specific factors.

De Jong et al., (2008: p. 1968), advice avoiding specifications that use the pooled regression method and instead conduct an analysis of country-specific factors by including countries as observations.

1.2.3 An Upstream Downstream Hypothesis

Traditionally, the main argument speaking for a higher debt level for MNCs was the lower risk achieved through geographic diversification, since they operate in economies that are not perfectly positively correlated. Kwok and Reeb (2000) suggested an alternative upstream-downstream hypothesis according to which the overall effect of internationalization on the risk and leverage of MNCs is expected to vary with home and target market conditions.

As opposed to previous studies which concentrated on US-based MNCs, Kwok and Reeb (2000) extended their analysis to investigate how internationalization affects risk and leverage for firms based in emerging markets and other developed markets. Their arguments are summarized by Mittoo and Zhang (2008: p. 708): "when an MNC based in a more (less) stable economy expands its operations into less (more) stable economies, the MNCs' overall

systematic risk may increase (decrease) because the beta of its international project could be higher (lower) than the average beta of the firm. This hypothesis predicts that when MNCs domiciled in more (less) stable economies make international investments, they will experience an increase (decrease) in their business risk and consequently, they will have a lower (higher) financial leverage, compared to DCs."

When firms from developed countries expand into less stable economies, this tends to increase their overall risk. The higher risk arises according to Kwok and Reeb (2000: p. 613) from potential greater infrastructure risks, customer risks, banking system payment risks, political risks, and labor risk. For example, greater labor risk may stem from differences in health care, education, and living conditions for employees, which can lead to greater volatility in workforce performance and attendance. These additional risks may not be fully offset by a reduction in earnings volatility due to geographical dispersion of operations, leading to a downward adjustment of leverage (Kwok and Reeb, 2000: p. 614). Conversely, for corporations in emerging markets, international expansion into developed economies leads to a net reduction in firm risk and an upward adjustment of leverage. Thus, as firms invest economically upstream, they decrease their risk and adjust their debt level upwards, while downstream investments lead to greater firm risk and lower leverage (Kwok and Reeb, 2000: p. 614).

To test their hypothesis, Kwok and Reeb (2000) used a sample of 1921 firms from 32 countries. The foreign asset ratio (FAR) was employed as a proxy for the degree of internationalization and a simple rule of FAR > 1% classified 914 of the firms in the sample as DCs and 1007 as MNCs (Kwok and Reeb, 2000: p. 616).

Empirical findings were consistent with the upstream-downstream hypothesis. The results of Kwok and Reeb (2000: p. 626) confirmed previous findings showing that there is a debt reduction effect associated with internationalization for U.S based firms. However, for emerging market-based firms, internationalization is significantly associated with an increase in leverage. While Kwok and Reeb (2000: p. 626) agree that international diversification benefits may play a role in reducing corporate investment risks, they argue that the relative risk classes of home and host countries are the dominant factor in explaining the overall impact of internationalization on firm risk and leverage.

Mishra and Tannous (2010: p. 486) also posited that the effects of international diversification on capital structure would vary depending on the countries in which

diversification occurs. An MNC is exposed, through its subsidiaries, to the same securities laws as the domestic firms in the host countries where it operates. If a US-based MNC diversifies in countries where securities laws are less protective to investors than in the US, it will most likely experience an increase in agency costs. These increased costs cannot be offset by corporate diversification effects, resulting in a reduction of the optimal debt level. Should a US company establish subsidiaries in developed countries where the legal, business and political environments are similar to those of the US, it may experience insignificant changes in the level of debt. In this case, the additional agency costs of debt due to the higher complexity of operations will be neutralized or even outweighed by the reduction in revenue risk (Mishra and Tannous, 2010: p. 486).

Khanna and Yafeh (2007) argued that emerging economies are often characterized by weak institutions, poor investor protection and poorly functioning capital markets. This would imply that firms expanding into developing countries might be exposed to a higher risk of value loss and would have to adjust their capital structure accordingly.

1.2.4 Country empirical studies

A screening of literature on the effect of international diversification on capital structure that appeared over the past one and a half decade reveals a departure from studying exclusively US samples. Specifically, later studies shifted their focus to other developed countries, as well as to emerging markets. Reviewing such papers could prove helpful in an attempt to validate Kwok and Reeb's (2000) upstream-downstream hypothesis and might serve as a useful basis to assess the impact of legal and institutional factors in shaping the capital structure of MNCs. Following the country classification of Kwok and Reeb (2000: p. 616) (developed vs. emerging) the following section looks at how capital structure is influenced by geographic diversification in various countries and seeks to investigate whether evidence supports the upstream-downstream hypothesis as well identify any other patterns.

<u>Emerging countries</u>

Pakistan

Qureshi et al. (2012) examined if diversification affects capital structure in Pakistan using 10-year (2000-2009) data of all companies in the chemical and food sector listed at the Karachi Stock Exchange (KSE). The study found that firms having product and geographic

diversification had greater amount of debt compared to non-diversified firms. However, while previous studies have concentrated on FDI to examine the relationship between international diversification and capital structure, Qureshi et al. (2012) have labeled exporting firms as geographically diversified, and those selling their products only locally were classified as DCs. Therefore, a comparison with previous works should be regarded with caution.

Malaysia

Albaity and Chuan (2013) examined the determinants of capital structure for internationalized manufacturing firms listed on Bursa Malaysia. The proxy employed for measuring internationalization was the foreign sales ratio, while the cut-off point distinguishing domestic from multinational corporations was set by the authors at 10%. Their results revealed that internationalization was significantly inversely related to leverage.

Taiwan

Chiang and Chen (2008) used a sample of Taiwan firms over the period 2001 to 2005, to investigate the relationship between internationalization and capital structure. A firm was classified as DC if its foreign sales ratio or foreign assets ratio did not exceed 10% and as MNC if its foreign sales ratio or foreign assets ratio was 10% or more (Chiang and Chen, 2008: p. 3). Univariate tests showed that MNCs were significantly less leveraged and more profitable than DCs. MNCs were also showed to have lower business risks, lower exchange rate risks and higher agency costs than DCs.

Consistent with Mansi and Reeb (2002), the results of multivariate regressions demonstrated a nonlinear U-shaped relationship between leverage ratio and internationalization. This finding implied the existence of some threshold of internationalization: while the degree of internationalization is negatively associated with a firm's leverage ratio before this threshold, the relationship changes sign beyond it. This turning point is found at the 46.5% level of foreign sales and 34.6% level of foreign assets (Chiang and Chen, 2008: p. 8). Before these points have been reached, firms may not have diversified enough to reduce their business risks. Moreover, in early stages of international expansion firms lack the experience to manage the higher exposure to exchange rate risk and the increased agency costs. The increased risks will result in lower leverage until the threshold is reached, where firms start to reap the benefits from geographical diversification. As they expand further, MNCs' business

risks start to decrease, and they become more familiar with managing exchange rate exposure and agency costs and are able to sustain higher levels of debt (Chiang and Chen, 2008: p. 8).

India

Ajay and Madhumathi (2012) examined the impact of international diversification on the leverage decisions of Indian manufacturing firms after controlling for other major determinants of capital structure, for the period 2004-2010. Firms have been classified as MNCs or DCs based on the presence or absence of overseas asset investments on their balance sheet. The univariate analysis revealed that domestic firms had higher debt in their capital structure as compared to multinational corporations. Regression results showed that geographic diversification was positively related to leverage lending support to the idea that international expansion lowers earning volatility, reduces the risk of bankruptcy and thus enables MNCs to utilize more leverage in their capital structure.

Turkey

Studying a sample of MNCs and DCs listed at the Istanbul Stock Exchange, Yilgör et al. (2015) found that MNCs use debt financing more than domestic companies. No difference was observed from the perspective of debt maturities, as both MNCs and DCs preferred short term debt. The authors place these results in the context of the local environment: "Domestic companies' preference for equity financing can be explained by the inefficient functioning of capital markets, the limited possibilities for and high cost of long-term borrowing, and the presence of older enterprises in Turkey (Yilgör et al., 2015: p. 18)."

Developed countries

France

Singh and Nejadmalayeri (2004) examine the relationship between international diversification and financial structure for a sample of French MNCs. Classifying the firms in the sample as domestic or multinational contingent on the ratio of foreign sales to total sales being less than or more than 10%, respectively, they found that the degree of international diversification was positively correlated with higher total and long-term debt ratios. Further, the results suggested a non-linear inverted U-shape relationship between the degree of international diversification and short term debt financing. The authors provide a possible explanation for the non-linearity based on information asymmetries and investors'

perception: “At the initial stages of international diversification, as firms expand abroad, their financing needs can only be met using short term debt as they may find it difficult to raise long-term debt due to investor perceived higher information asymmetries (Singh and Nejadmalayeri, 2004: p.164-165)”. Once these firms have established themselves in the host market, they can reduce their dependence on short-term borrowing, as investors feel safe to tie up funds in these MNCs for a longer time-horizon. This line of reasoning concomitantly implies a positive relationship between long-term debt and the degree of international diversification.

Australia

Akhtar (2005) reported a negative relationship between the level of international diversification (measured as the number of overseas subsidiaries) and leverage for a sample of Australian firms. In addition, he does not observe significant differences between the multinational and domestic firms’ leverage.

Japan

Akhtar and Oliver (2009) analyzed a ten-year sample of Japanese MNCs and DCs and found that the multinationals had significantly lower leverage than domestic firms. Results also showed that MNCs and DCs differed from each other in terms of age, collateral value of assets, free cash flows, exchange rate risk, growth, non-debt tax shields, political risk, profitability, and size. The authors suggested that these factors might explain the difference in leverage between the two samples (Akhtar and Oliver, 2009: p. 13). However, no significant difference in business risk was found between Japanese-based MNCs and DCs.

Italy

Monteforte and Stagliano (2015) studied the links between product diversification, international diversification and capital structure for a panel of medium and large Italian firms. While the study concentrates on the combined effect of the two diversification strategies on capital structure, individual effects are also examined. The results showed that product diversification and international diversification, individually, had positive effects on corporate leverage but their interaction led to a negative and significant effect on leverage. More will be detailed on the study in the second chapter on the interactive effects of product and geographic diversification. For now, the focus remains on results concerning the individual effect of international diversification on capital structure.

Canada

Mittoo and Zhang (2008) examine a Canadian sample for the period 1998 to 2002 and find, contrary to prior US evidence, that Canadian MNCs have higher long-term debt ratios but similar short-term debt ratios compared to domestic firms. The authors show that the higher debt ratios of Canadian MNCs are closely related to their expansion into the US market and that expansion in the global market has little impact on leverage. Mittoo and Zhang (2008: p. 707) argue that Canadian MNCs differ from their US peers in their international orientation, as the majority focuses on the US market and only few focus on the non-US market. Using industry- and size-matched US and Canadian samples, Mittoo and Zhang (2008) show that the sensitivity of leverage to the firm-specific factors also differs between the two country samples, and thus, the capital structure of the MNCs could be jointly affected by home and host country factors.

Since regional empirical studies have provided mixed evidence for the upstream-downstream hypothesis, Ramirez and Kwok (2010) tried to bridge this gap by proposing an alternative measure for the risks MNCs face when doing business abroad. They used the weighted average risk level of a country's export trading partners (CEPR) to explain the leverage decision of the MNCs. They showed that the CEPR measure was negatively related to the leverage of its MNC, thus confirming the upstream-downstream hypothesis. Furthermore, once controlling for CEPR, they found that a firm's level of multi-nationality was positively related to leverage, thus lending support to the traditional diversification argument (Ramirez and Kwok, 2010: p. 251). According to the authors, such findings help settle the debate between the two streams of multinational capital structure literature: (i) the one "emphasizing the risk-reduction benefit of international diversification, which allows higher leverage" and (ii) the other "emphasizing additional risks (such as foreign exchange and political risks) faced by MNCs when they invest overseas, leading to lower leverage" (Ramirez and Kwok, 2010: p. 252). However, the study suffers from important limitations, also acknowledged by Kwok and Ramirez: (i) export data is used instead of foreign direct investments and (ii) the correlation between home countries and different foreign countries is ignored (Ramirez and Kwok, 2010: p. 267).

Aggarwal and Kyaw (2010) tried to solve the theoretical and empirical puzzle of the relationship between international diversification and capital structure by introducing a variable that has been missing in prior studies: the dividend payout ratio. They posited that

the impact of multi-nationality on corporate leverage should be assessed simultaneously with dividend policy, as the two are closely interrelated (Aggarwal and Kyaw, 2010: p. 140). While literature confirms this interdependency, the direction of the debt ratio–dividend policy relationship remains unclear. On the one hand, debt and dividends can be used as "substitute mechanisms to mitigate managerial agency costs of under- and over-investments (Jensen, 1986)" (Aggarwal and Kyaw 2010: p. 141), suggesting a negative relation between dividends and debt. On the other hand, a higher dividend payout can be associated with low income retention and so higher debt ratios. Aggarwal and Kyaw's (2010) results showed that MNCs have lower debt ratios than domestic companies and such leverage significantly decreases with the degree of multi-nationality. Additionally, MNCs seem to pay higher dividends than their domestic peers, therefore supporting the hypothesis that dividends are negatively related to debt (Aggarwal and Kyaw, 2010: p. 148).

1.2.5 The impact of globalization on MNC's capital structure

The global environment in which MNCs operate is continuously changing so that existing theories should be adapted to the new world reality. For example, Bancel, Mittoo, and Zhang (2013: p. 475) argued that significant advantages enjoyed by MNCs used to stem from their ability to overcome barriers to investment flows that segmented the international capital markets. However, the rapid integration of global financial markets in the past two decades has made this framework less relevant (Bancel, Mittoo, and Zhang, 2013).

The change in the monetary regime entailed by the introduction of the Euro in 1999 represented a revolutionary change in reducing MNCs' currency exposure (Bancel, Mittoo, and Zhang 2013: p. 476). The elimination of regulatory barriers and progress in the harmonization of national and international accounting standards have facilitated the flow of information between countries. Deregulation and technological advances have further supported the internationalization process:

> "deregulated financial markets and advances in telecommunication and trading systems have lowered trading costs and enabled investors to diversify their portfolio internationally more easily. As a result, a dramatic surge in the number of cross border listings and security offerings in the international capital markets has occurred (Bancel, Mittoo, and Zhang, 2013: p. 476)".

While these trends have improved firms' access to capital, they have also led to reduced risk reduction benefits from diversification.

> "These developments […] accelerated the contagion and synchronization in both real and financial markets around the world. Stocks have become increasingly sensitive to world events leading to reduced benefits from diversification. Solid proof that corporations face increased exposure to such events and that no economy can operate in isolation has been provided by the most recent global financial crisis (Bancel, Mittoo, and Zhang, 2013: p. 476)."

Consistent with these arguments are more recent contributions by Bartov et al., (1996) and Reeb et al. (1998) which showed that firm risk is positively related to internationalization. Burgman (1996) also demonstrated that MNCs do not have lower earnings volatility than DCs. These studies are in contrast to earlier ones reporting lower risks for MNCs. Such inconsistencies might be reconciled by considering the globalization phenomenon.

Dacin et al. (1999: p. 341) argued that globalization can be considered a disembedding process that "strips individuals and firms from their local structures and allows for restructuring at a more global level." The spread of MNCs has standardized business practices and corporate life around the world, as they have transferred their business practices and managerial techniques to all locations where they do business. A consequence of such trend is also the standardization of the business education process and the reduced space for local culture to shape business practices (Ramirez and Kwok, 2009: p. 6).

1.2.6 Summary and concluding remarks

Summary

Second generation literature has been mainly characterized by attempts to solve the theoretical and empirical puzzle of the relationship between international diversification and capital structure by focusing on the characteristics of the countries where MNCs expand to.

A significant body of literature concentrated on how capital structure differs across countries and how adapting to local environments affects affiliates' capital structure and, in turn, that of the MNC as a whole. Securities laws and the implied investor protection have been shown to significantly affect the leverage decision of subsidiaries, in particular the choice between internal (parent) and external financing (Desai et al., 2004; Aggarwal and Kyaw, 2008; Mishra and Tannous, 2010; Akbel and Schnitzer, 2011). A growing body of research has also stressed the influence of cultural variables on the capital structure decision of firms (Gleason et al., 2000; Chui et al., 2002; Chang and Noorbakhsh, 2009; Gray et al., 2013; Mac an Bhaird and Lucey, 2014). However, no empirical work has been done on how cultural factors affect the financing choice within the MNC.

Also considering differences across countries, Kwok and Reeb (2000) posited that the risk-reduction and the debt capacity increasing effects of international diversification are only present if the MNCs expand upstream (into more stable economies). Expanding downstream (into less stable economies), would result in higher overall risk for the MNC and consequently in lower leverage. This explanation was labeled the "upstream-downstream" hypothesis (Kwok and Reeb, 2000).

Another defining feature of the second generation literature relates to the composition of samples used in testing the effect of international expansion on the capital structure decision. Empirical studies have been extended to include MNCs from a more diverse pool of countries compared to first generation literature. Such investigations however only provided mixed support for the upstream-downstream hypothesis (Ramirez and Kwok, 2010).

Further attempts to explain the capital structure of MNCs have been made by considering previously left out variables, such as the dividend payout ratio (Aggarwal and Kyaw, 2010). Likewise largely ignored have been the dynamics in the global economic and business environment. While not extensively studied, such dynamics (e.g., globalization) should be taken into considerations when analyzing financing decisions of firms operating across borders, as they might render previous theories and empirical studies obsolete and call for new ones.

Shift of focus to country specific factors and non - US samples

While first generation literature has tried to explain the lower leverage of US based MNCs compared to their domestic counterparts by focusing on differences in firm-specific factors between the two groups, second-generation literature turned to country specific factors to answer the puzzle. Characteristics of host countries (such as the quality of investor protection) have been shown to affect the affiliate's capital structure and that of the MNC as a whole, pointing to a missing variable in prior research. Booth et al. (2001) concluded that knowing a firm's country of origin is at least as important as knowing its characteristics. Further, the integration of country-specific factors into the analysis also explains the choice between external and parent financing of the affiliates.

First generation literature concerned with studying the explicit effect of international diversification on capital structure almost exclusively focused on US-based MNCs and DCs. Second generation literature abandoned the focus on U.S based MNCs in favor of a more

diverse pool of countries, enhancing the understanding of such relationship in a broader context (Bancel, Mittoo, and Zhang, 2013: p. 467). Mixed results emerged with regards to how the debt level of a firm changes with expansion across borders.

Joint effect of country and firm specific factors

One of the main contributions of the second generation studies was acknowledging the relevance of including country specific factors in the analysis of MNCs' capital structure, which resulted in an increased body of literature addressing the issue. Most of the existing studies assumed that the impact of firm-specific factors on leverage is equal across countries and that country specific factors bring in additional explanatory power. However, De Jong et al., (2008) distinguish between a direct effect of country specific factors on the MNC's capital structure and an indirect effect, through firm-specific factors. Firm specific factors might, therefore, also differ across countries. A one model will fit all companies in the world only if firm-specific factors do not differ between countries (Bancel, Mittoo, and Zhang, 2013: p. 479). De Jong et al. (2008, p. 1968) suggest avoiding specifications using a pooled regression method and instead conduct an analysis of country-specific factors by including countries as observations.

The cultural component has been largely ignored

Traditionally, standard finance theories suggested that financing decisions should be determined only by economic considerations. Cultural theorists, in contrast, have suggested that the cultural background may have "inescapable influences on decisions of every kind", including financing choices (e.g. House et al., 2004 in Li et al., 2011: p. 477). In more recent years, a growing body of research has stressed the influence of cultural variables on many facets of business operations including capital structure (Gray et al., 2013: p. 899). National culture of corporate managers has been shown to be linked to the way they perceive risks and to their risk taking propensity (Douglas and Wildavsky, 1983; Li et al., 2010). Barton and Gordon (1987, 1988) argued that management's risk taking propensity affects the firm's capital structure. Some scholars have relied on Hofstede's or Schwartz's (1994) cultural categories and linked them to the preference for higher or lower debt (Gleason et al., 2000; Chui et al., 2002; Chang and Noorbakhsh, 2009; Mac an Bhaird and Lucey, 2014).

However, no empirical or theoretical studies exist which have examined how the cultural component shapes the capital structure within the multinational corporation. Such variable

gains even more relevance, as international management researchers deemed cultural diversity to be the most important characteristic of the MNC (Eckert and Engelhardt, 1999). Several empirical studies showed that the decisions concerning the capital structure of foreign subsidiaries are made to a large extent at the company's headquarters (Eckert and Engelhardt, 1999), suggesting that only cultural norms in the home market might matter from a financing choice perspective. Hence, cultural diversity within the MNC would not be expected to matter for the capital structure decision. However, the stakeholder theory of capital structure considers how nonfinancial stakeholders, such as customers, suppliers or employees affect a firm's capital structure choices. For example, local suppliers in a country characterized by high uncertainty avoidance might be reluctant to engage in business with a highly leveraged subsidiary of the MNC. In such case, the subsidiary will have to adapt, at least partly, to local norms.

Vachani (1991: p. 308) distinguishes between related and unrelated geographic diversification and suggests that cultural proximity reduces agency costs. Related international diversification refers to the "dispersion of a multinational's activities across countries within a relatively homogeneous cluster of countries (Vachani, 1991: p. 307-308)." Unrelated international geographic diversification is the "dispersion of the multinational's activities across heterogeneous geographic regions and is analogous to the concept of unrelated product diversification (Vachani, 1991: p. 308)." Multinationals that operate in countries with similar culture and a common language may enjoy efficiencies because of reduced complexity of managing operations (Ronen and Shenkar 1985; Grant 1987; in Vachani, 1991: p. 310). That complexity may result from "cultural distance" between countries on dimensions such as those identified by Hofstede (1980) (i.e., power distance, uncertainty avoidance, masculinity/femininity, and individualism) (Vachani, 1991: p. 310).

Introducing cultural factors in the capital structure analysis might provide another channel for integrating finance and strategy literature.

Country empirical studies and the upstream-downstream hypothesis

The upstream-downstream hypothesis posits that international diversification will have a different impact on a firm's risk and leverage, depending on where it chooses to establish its foreign subsidiaries. If an MNC based in a more (less) stable economy expands its operations into less (more) stable economies, the MNCs' overall systematic risk will increase (decrease), and its leverage will decrease (increase) (Kwok and Reeb, 2000). However, country empirical

studies (see section 1.2.4) have only offered mixed support for the upstream-downstream hypothesis. Three possible explanations for this result can be identified:

(i) Empirical studies have constantly revealed that MNCs are on average more profitable than DCs and have lower leverage than their domestic peers. This implies that MNCs might follow a pecking order financing pattern and simply prefer to finance themselves with internally generated funds. They do not have a target debt ratio, but rather simply avoid issuing mispriced securities that would result in a firm value reduction.

(ii) A possible non-linear relationship between geographic diversification and capital structure has not been extensively researched although it can be strongly sustained from a theoretical point of view. Mansi and Reeb (2002) and Chiang and Chen (2008) found a U-shaped relationship between geographic diversification and capital structure. Chiang and Chen (2008) argued that up to a certain threshold, firms may not have diversified enough to reduce their business risks. Moreover, in early stages of international expansion firms lack the experience to manage the higher exposure to exchange rate risk and the increased agency costs. The increased risks will result in lower leverage until the threshold is reached, where firms start to reap the benefits from geographical diversification. As they expand further, MNCs' business risks start to decrease, they become more familiar with managing exchange rate exposure and agency costs, and are able to sustain higher levels of debt (Chiang and Chen, 2008: p. 8). Such findings suggest that results can vary with the composition of the MNC samples and that, studying non-linear specifications might shed light on the relationship between international diversification and capital structure and reconcile previous conflicting results.

Further, several first-generation literature contributions found that MNCs tend to rely more on short term debt compared to their domestic counterparts. Singh and Nejadmalayeri (2004) found a non-linear inverted U-shape relationship between the degree of international diversification and short term debt financing. The authors provide a possible explanation for the non-linearity based on information asymmetries and investors' perception.

(iii) Assuming that every emerging country expands upstream and every developed country expands downstream is not a realistic assumption. This is proved by Mittoo and Zhang (2008), which demonstrate that Canadian MNCs have higher debt ratios than DCs and that Canada-based multinational firms predominantly expand into the US-market. Therefore,

before concluding if the upstream-downstream hypothesis holds, one should take a closer look at where the MNCs in the sample actually expand to.

Ignored variables and multi-nationality measures used in country empirical studies

The global standing of a firm in terms of its exposure to country specific factors (e.g., investor protection) has not been included as a variable in country empirical studies. Further, there is a high level of inconsistency with respect to the measures of multi-nationality/ international diversification used in country empirical studies. While such inconsistencies might be motivated by poor data quality and availability, especially for emerging market firms, they certainly pose difficulties when a comparison across studies is attempted.

2. Simultaneous effect of international and product diversification on capital structure

"A firm's expansion into a new, geographically segregated production facility can take any of three forms: horizontal extension (producing the same goods elsewhere), vertical extension (adding a stage in the production process that comes earlier or later than the firm's principal processing activity), or conglomerate diversification (Caves 1971: p. 3)". Studies discussed in previous sections have largely ignored such classification and treated MNCs as a homogenous group.

This section looks at how a dual diversification strategy affects capital structure. Published research dealing with the impact on leverage of the interrelationship between product and geographic diversification is however limited.

Before proceeding to review the (scarce) empirical literature concerned with the study of such relationship, a brief review of the effect of product diversification on capital structure is provided.

2.1 A dual diversification strategy and capital structure

Empirical studies on the effect of international diversification on capital structure pertaining to the first generation literature found that US-based MNCs had, contrary to the common view, lower debt ratios compared to their domestic counterparts. Second generation literature turned to country specific factors to answer the puzzling result. Yet empirical results obtained by examining a more diverse group of countries and capital structure determinants couldn't be grouped under a single theory.

While literature studying the relationship between product diversification and capital structure is rather scarce, the general view was that industrially diversified firms are more leveraged than focused firms (Lewellen, 1971; Kim and McConnell, 1977; Chung, 1993; Low and Chen, 2004*).* Further, extant literature suggests that the mere distinction between product focused and product diversified is not enough and that the understanding of the relationship between industrial diversification and capital structure can be enhanced by sorting the diversification phenomena into its related and unrelated components (Barton and Gordon, 1988; Taylor and Lowe, 1995; Kochhar, 1996; La Rocca et al., 2009). Some have used Rumelt's (1974) deterministic categories and compared leverage between them, finding that firms pursuing an unrelated diversification strategy carried the highest levels of debt. Others found a positive relationship between leverage and unrelated diversification and a negative relation between debt and related diversification. La Rocca et al. (2009: p. 801) stated that studies which did not take into account these two components are potentially biased. Ngah-Kiing Lim et al. (2009) found that the link between product diversification and capital structure is moderated by the environment in which firms operate. Specifically, they found that firms pursuing unrelated product diversification take on less debt financing in stable environments, but more debt financing in dynamic environments. Menéndez-Alonso (2003) did not find a significant relation between leverage and product diversification.

While at least in the group of developed countries, geographic and product diversification seem to have opposite effects on capital structure, it has been suggested that the overall effect of a dual diversification strategy might be an increase in leverage. Based on works by Kim et al. (1993) and Olusoga (1993), Chkir and Cosset (2001) posited that the combination of international and product diversification decreases the operating risk of MNCs, and thus could lead to an increase in debt.

This section presents several contributions made to studying the relationship between the dual diversification strategy of firms and their capital structure.

2.2.1 Empirical studies

Chkir and Cosset (2001)

Chkir and Cosset (2001) examined the relationship between the capital structure of multinational corporations and their diversification strategy. They were the first to integrate both the market (multi-country) operations and the product (multi-industry operations)

dimensions in the analysis, highlighting the fact that previous empirical studies have ignored strategic literature suggesting that MNCs pursue a dual diversification strategy (Chkir and Cosset, 2001: p. 18). They studied a sample of 219 US-based firms over the 1992-1996 timeframe, which were classified as MNCs according to their foreign tax ratio.[23]

Due to a lack of consensus regarding what drives a firm's financial policy decisions, the authors use a model based on a synthesis of the major explanatory variables of debt ratio suggested by financial literature. Drawing on the Static Trade-off Theory and the Agency Cost Theory, their model incorporates bankruptcy risk, agency costs and the tax shield as explanatory variables. Chkir and Cosset (2001) also control for two other major determinants suggested by existing literature, namely size and profitability. Apart from firm-specific variables, two environmental variables are introduced: political risk of the host country and exchange rate risk, which may as well affect the capital structure of the firm when it extends its operations across borders. The level of multi-nationality as measured by the foreign tax ratio is also included in the debt ratio model.

Based on the rationale that MNCs are not a homogeneous group of companies with respect to their diversification strategy and that different explanatory variables might act differently within subsamples, the authors use a switching regressions model to split their initial sample into four groups.

Type I MNCs exhibit low levels of both international and product diversification.[24] Type II MNCs have a low international diversification level and a high product diversification level. Type III MNCs have a low product diversification level and a high international diversification level. Type IV MNCs have high levels of both product and international diversification (Chkir and Cosset, 2001: p. 28).

Results showed that Type IV MNCs have the highest debt ratio, while Type I MNCs are significantly less leveraged than the other three types of MNCs (Chkir and Cosset, 2001: p .

[23] All entities with a foreign tax ratio higher than 25% have been classified as MNCs

[24] International diversification is measured as $1 - \Sigma s_j^2$, where s_j is the proportion of a firm's subsidiaries in each country j; Product diversification is measured as $1 - \Sigma s_j^2$, where s_j is the proportion of a firm's subsidiaries in each four-digit SIC industry j. The critical values for international and product diversification strategies are found at 0.70 and 0.48 respectively, by using a switching regression model (Chkir and Cosset, 2001: p. 27).

29). While previous studies found that leverage increases with product diversification, Chkir and Cosset's (2001: p. 29) results suggest that the debt ratio of MNCs increases with both international diversification and the product diversification of the firm. Further, the debt ratios of Type II and III MNCs are significantly different only at a 10% level. This implies that these two diversification strategies act more as substitutes for each other than as complements in shaping firms' capital structure (Chkir and Cosset, 2001: p. 30).

It was also found that a combination of the two types of strategy enables MNCs to reach the lowest level of default risk. By considering both product and international dimensions of diversification, the results revealed the existence of a diversification effect on a firm's bankruptcy risk that previous studies which compared samples of MNCs and DCs were not able to detect (Chkir and Cosset, 2001: p. 30). This result supports the view that once MNCs reach a certain level of diversification, they will enjoy increased debt capacity from default risk reduction (Chkir and Cosset, 2001: p. 33). Such findings emphasize the need to consider the different MNCs diversification strategies in order to study the relation between leverage and risk.

Further, Type III and Type IV MNCs (which have a high level of international diversification) have agency costs of debt that are significantly greater than those of Type I and Type II MNCs. It appears therefore that the impact of agency costs on debt ratios vary with the degree of international diversification and such effect cannot be detected without splitting the MNCs sample into more categories (Chkir and Cosset, 2001: p. 33).

Chkir and Cosset (2001) also found that Type IV MNCs have higher profitability than Type I, II, and III MNCs. This is consistent with Hitt et al. (1997: p. 768-769) results, that international diversification improves performance and that this effect is positively moderated by product diversification.

The degree of multi-nationality was also found to be positively related to the debt ratio of MNCs. The relationship is significant for Types III and IV. This result is consistent with the hypothesis that the relationship between leverage and the degree of multi-nationality is not linear (Chkir and Cosset, 2001: p. 33). The degree of multi-nationality is measured as the foreign tax ratio to total taxes. As the authors note, it is essential to distinguish between the terms international diversification and multi-nationality:

> "MNC A which has a subsidiary in three different foreign countries is more internationally diversified than MNC B which has only one foreign subsidiary. However, according to the measure of multi-nationality, MNC B is considered as more multinational than MNC A if the taxes paid by the foreign subsidiary of MNC B account for a larger proportion of total taxes than do the three subsidiaries of MNC A (Chkir and Cosset, 2001, p. 24)."

A similar remark pertaining to Burgman (1996) has been presented in the concluding remarks of Section 1.1. of this paper.

In aggregate, Chkir and Cosset (2001) find that the diversification strategy of the MNC acts as an exogenous variable with respect to its financial policy. "The choice of the optimum subsidiaries network structure is a long term strategic decision dictated by managerial considerations. Once its optimum network structure is fixed, the MNC will take the financial decisions that maximize its value (Chkir and Cosset, 2001: p. 26)."

When comparing the debt ratios of a sample of MNCs and DCs, previous empirical studies have treated MNCs in their samples as a homogenous group of firms under the implicit assumption that they follow similar international diversification strategies (Chkir and Cosset, 2001: p. 18). However, as pointed out by Allen and Pantzalis (1996: p. 636), each multinational is unique with its "own distinct foreign subsidiary network structure." Not allowing leverage to vary across diversification strategies might yield biased results.

Singh et al. (2003)

Singh et al. (2003) investigate the relationship between the two dimensions of corporate scope, geographic and product diversification, and their impact on corporate leverage on a sample of 1127 US-based firms, over the 1994-1996 timeframe. They classified firms as multinational depending upon the ratio of foreign sales to total sales (FSTS). Further, the authors define a firm as product-focused if it operates in a single segment or product-diversified if it operates in multiple business segments.

The authors first reexamine the impact of product and geographic diversification on capital structure. Univariate results revealed that product-diversified firms carry significantly more leverage than product-focused firms (Singh et al., 2003: p. 152) and MNCs have, on average, smaller debt ratios than domestic firms (Singh et al., 2003: p. 154). Moreover, product diversified firms also tend to be more internationally diversified (Singh et al., 2003: p. 152).

In a second step, Singh et al. (2003) look at whether there is an interaction between the two types of diversification with respect to their impact on capital structure. To test the effect of the interrelationship between the product and geographic diversification on leverage, the sample is subdivided across both measures of diversification (Singh et al. 2003, p. 150). Four groups of firms are identified, delineated by the diversification strategy they pursue: multinational product-diversified firms (MPD), multinational product-focused firms (MPF), domestic product diversified firms (DPD), and domestic product-focused firms (DPF) (Singh et al., 2003: p. 151).

Comparison of domestic product-focused and domestic product-diversified firms indicates that in the case of domestic firms, product diversification does not lead to increased debt usage. The results of Singh et al. (2003) also suggest that product diversification positively moderates the relationship between firm leverage and international diversification and that the negative impact of geographic diversification on leverage documented in prior research is present only in MNCs that are not product diversified. Further, the findings of Singh et al. (2003) suggest that the positive relation between product diversification and leverage documented in the literature seems to hold only for MNCs. Therefore, it appears that an interaction between product and international diversification occurs in shaping capital structure (Singh et al., 2003: p. 156).

In a final step, Singh et al. (2003) directly measure the impact of diversification on leverage while controlling for other capital structure determinants. After controlling for geographic diversification, asset turnover, firm size, past firm growth, expected firm growth, and profitability, Singh et al. (2003) found that diversification across product lines is at best unrelated to debt usage and that in some instances it may be even negatively related to debt usage.[25] Here, they propose that it may not be "diversification per se that impacts the choice to use leverage, but that diversification may proxy for some excluded determinants of leverage and only appears to influence debt usage (Singh et al., 2003: p. 150)". Consistent with the univariate analysis, the multivariate tests also pointed to the existence of an interaction between product and geographic diversification. The negative impact of the degree of international diversification on leverage was much lower for product-focused firms

[25] Already product-diversified firms choosing to add new business segments might face higher agency costs. This fact could explain the negative and significant coefficients of the product diversification variable on leverage (Singh et al., 2003: p. 163)

(Singh et al., 2003: p. 159). Further, an interactive variable was introduced in the regression, allowing for a joint effect between geographic and product diversification. Results suggested that firms following a dual strategy of product and geographic diversification are able to support higher leverage. "Thus, the two diversification types seem to complement each other in generating debt capacity and usage, while individually they may each be negatively related to firm leverage (Singh et al., 2003: p. 160)."

Singh et al. (2003) also test the full sample and subsamples by diversification strategy for non-linearity. While for the full sample the relationship between leverage and product diversification is described by an inverted U – shape, the examination of the subsample shows that this non-linear relationship is present only for MNCs (Singh et al., 2003: p. 160). As MNCs initially adopt product diversification, they may be able to support higher debt, since the debt market may see product diversification as a stabilizing instrument against the unique risks faced by MNCs. However, further increasing a firm's degree of product diversification may be perceived as agency driven and value-destroying and hence will negatively impact leverage (Singh et al., 2003: p. 163). A non-linear relationship has also been found between geographic diversification and leverage: having foreign operations reduces MNCs' leverage, especially in initial stages of their operations abroad. "As they increase their degree of international diversification, they send signals to the market about the sustainability of their global operations. Further, they may be able to raise debt in foreign markets as they grow and become significant and visible players in those markets, thereby increasing their leverage (Singh et al., 2003: p. 163)". This relation is present only in the product-focused firms.

Monteforte and Stagliano (2015)

Monteforte and Stagliano (2015) examine the link between product diversification, geographic diversification and capital structure for a panel of medium and large Italian firms.

Their results indicate that individually product and geographic diversification are positively related to capital structure, but the interactive variable between product and geographic diversification has a negative and significant coefficient. While in contrast to previous research by Chkir and Cosset (2001) and Singh et al. (2003), the findings of Monteforte and Stagliano (2015) support the hypothesis that complexity that comes from pursuing a (dual) diversification strategy reduces access to debt. When firms engage simultaneously in product

and geographic diversification strategies, agency costs of debt and asymmetric information problems may increase, thus reducing debt capacity.

Monteforte and Stagliano (2015) pay particular attention to the Italian legal and institutional environment when interpreting their results and try to integrate them in a local context. Their article suggests that the Italian model of finance may produce different results from its Anglo-Saxon counterpart. To sustain their argument, Monteforte and Stagliano point to results obtained by Giannetti (2003). As highlighted by extant literature, the existence of asymmetric information and agency costs leads to lower debt ratios. Such problems increase with the complexity implied by pursuing a dual diversification strategy. Giannetti (2003) empirically found that this is particularly true in countries with weak investor protection laws, such as Italy (Monteforte and Stagliano, 2015: p. 209)

2.3 Concluding remarks

While the literature studying the simultaneous effect of product and international diversification on capital structure is scarce, it addresses several important issues and makes a further step towards understanding the link between corporate strategy and capital structure.

MNCs should be not treated as a homogenous group with respect to their diversification strategy

The articles presented in this section suggest that MNCs should not be treated as a homogenous group with respect to their diversification strategy. Allowing the diversification strategy to vary within the group of MNCs enhances the understanding of the relationship between international diversification and capital structure. Since firms pursuing either product or geographic diversification are few, and most MNCs seem to also engage in industrial diversification, effects of these corporate strategy dimensions on the financing decision should be studied together. Singh et al. (2003) distinguish between product-focused and product diversified MNCs and find that those who are also product diversified have higher leverage. Product diversification seems to positively moderate the relationship between firm leverage and international diversification (Singh et al., 2003). Moreover, their findings suggest that the positive relation between product diversification and leverage documented in the literature appears to hold only for MNCs. Chkir and Cosset (2001) distinguish between four categories of MNCs, according to their high or low level of international and product diversification. They find that those having high levels of both

international and product diversification had the highest levels of debt. Their results also showed that firms pursuing a dual diversification strategy enjoy the highest reduction in bankruptcy costs and that agency costs also vary within the group of MNCs. Studying the effects of international diversification on capital structure using a more granular classification of MNC's diversification strategy could, therefore, provide additional insights.

While not clear on the direction and nature of their interaction, results of the above-discussed papers suggest that there is a joint effect of product and international diversification on capital structure. Chkir and Cosset's (2001) results implied that leverage increases with both international and product diversification and that these two diversification strategies act as substitutes in generating debt capacity. Singh et al. (2003) found that the two diversification types complement each other in generating debt capacity and usage, while individually they may each be negatively related to firm leverage. By contrast, Monteforte and Stagliano (2015) found that while separately, the two diversification strategies might have positive effects on leverage, the exact opposite happens when their interactive variable is considered.

Country specific factors

The different results between the US and non-US (Italian) samples with respect to the interactive effect of industrial and geographic diversification on leverage suggest there is a country effect at play. Monteforte and Stagliano (2015) interpret their results in the context of the country's culture and institutions, emphasizing that the institutional context and the corporate governance practices in Italy differ from those in the Anglo-Saxon countries.

"One common factor that can link a dual diversification strategy to capital structure choices is 'complexity' (Monteforte and Stagliano, 2015: p. 208)". Industrial and international diversification, are both sources of increased complexity that leads to higher agency costs and information asymmetries. However, it seems that at least in the Anglo-Saxon context this disadvantage is surpassed by other factors that positively influence debt. One possible explanation lies in the different securities laws and the implied investor protection in the US vs. Italy (Monteforte and Stagliano, 2015). In Italy, agency problems due to higher organizational complexity are further exacerbated by the weak investor protection (Giannetti, 2003; Monteforte and Stagliano, 2015). For the US, agency problems are mitigated by better investor protection, such that the positive effect on debt from decreased bankruptcy risk exceeds the negative impact from agency costs.

Non-linearity

The existence of a non-linear relationship between geographic diversification and capital structure is advanced by both Singh et al. (2003) and Chkir and Cosset (2001).

Singh et al. (2003) find that an inverted U-shape relationship between product diversification and leverage exists (only) within the sample of MNCs and is explained by the increasing agency costs. A non-linear relationship has also been found between geographic diversification and leverage. However, in this case, it takes a U-shaped form. Having foreign operations reduces MNCs' leverage in initial stages of their operations abroad. At later stages, investor perception regarding the sustainability of the firm's global operations improves and the MNC can raise more debt in foreign markets. This relation is present only in the product-focused firms (Singh et al., 2003).

Chkir and Cosset (2001) showed that there is a non-linear relationship between multi-nationality and leverage, which might be explained by the combination of opposing effects of the two types of diversification strategies on the determinants of capital structure. While literature concerned with studying the relationship between international diversification and capital structure has used the terms "international diversification" and "multi-nationality" somehow interchangeably, Chkir and Cosset (2001) distinguish between the two.

Measures of diversification

Chkir and Cosset (2001) distinguish between multi-nationality and international diversification and argue that the relationship between multi-nationality and capital structure may be non-linear. Most previous studies discussed in Section 1.1 have used measures of "multi-nationality" to account for a firm's international diversification. The results in Chkir and Cosset (2001) once more point to the need of distinguishing between the two and suggest that a non-linear specification for the relationship between multi-nationality and leverage might help reconcile previous conflicting empirical results.

Singh et al. (2003) and Monteforte and Stagliano (2015) used the foreign sales ratio to measure international diversification. Methodological problems implied by such measure have been discussed in more detail in Section 1.1.5.

Related vs. unrelated diversification

None of the three studies presented in this chapter distinguishes between related and unrelated diversification. As shown in the introduction of this chapter, literature on the individual effect of product diversification on capital structure emphasizes the need of sorting the diversification phenomena into its related and unrelated components. Should this not be the case, biased results might occur (La Rocca et al., 2009).

3. Effect of capital structure on diversification

While the effect of diversification on capital structure has been extensively researched (predominantly) by finance scholars and (to a lesser extent) by strategic management scholars, the literature on the effect of capital structure on diversification is rather scarce. This section discusses how the capital structure of the firm has an impact on financial flexibility and on the implied executives' ability to engage in overseas expansion as well as the effect of capital structure on the diversification strategy performance. Further, it looks at additional complexities induced by the reciprocal nature of the relationship between diversification and capital structure.

3.1 The effect of capital structure on financial flexibility

Based on works by Barney (1991), Teece et al. (1997), and Hitt et al. (2006), O'Brien et al. (2014: p. 1013) conclude that international diversification has the potential to "generate economic rents from leveraging critical resources and capabilities across multiple markets." However, inappropriate diversification strategies undertaken by self-interested managers can destroy firm value (Jensen and Meckling, 1976). Since managers' goals can diverge from those of owners and lenders, governance mechanisms are needed to ensure that investors' money is not expropriated or wasted on unattractive projects (Shleifer and Vishny, 1997: p. 741).

Extant literature describes debt as a governance structure useful in mitigating the agency conflict between shareholders and managers due to the discipline it imposes. A company must make regular interest and principal payments. This curtails available cash flow managers have at their disposal to pursue frivolous investments that only serve their own interests and don't create value (Jensen, 1986). However, having too much debt can limit a firm's flexibility to make value-creating investments when the opportunity occurs (Myers,

1977). This section looks at both sides of the coin in an attempt to establish (based on existing literature) how capital structure impacts a firm's geographic diversification strategy.

3.1.1 Reduced financial flexibility resulting in less opportunistic behavior by managers

According to Jensen and Meckling (1976), the separation of ownership and control gives rise to an agency conflict caused by the possible divergence of interests between shareholders and managers. For example, managers have incentives to cause their firms to grow beyond the optimal size, in order to increase their compensation even though such investment is unprofitable and the outcome will be a loss for the shareholders (Jensen, 1986: p. 323). This agency cost is likely to be exacerbated in the presence of free cash flow in the firm (Jensen 1986: p. 323).

Debt seems to be an effective disciplining mechanism for self-interested managers and a way to motivate organizational efficiency (Jensen, 1986). Debt reduces resources (e.g., free cash flow) under manager's control as they are forced to fulfill contractual obligations and make regular interest and principal payments. Bankruptcy threat due to a rising debt level keeps managers from engaging in value-destructing investments (Chang et al., 2012: p. 426-427). If free cash flow is used for wasteful expenditures, the probability that the repayment schedule will be met decreases. Should the firm default on its payments and debtholders push the firm into bankruptcy, managers would lose their decision rights and possibly their employment in the firm (Kochhar, 1996: p. 715). This threat prevents executives from pursuing frivolous investments that only serve their own interests and determines them to utilize assets efficiently, increasing firm value (Kochhar 1996: p. 715). Berk and DeMarzo (2014: p. 561) also mention that leverage commits managers to pursue strategies with greater vigor than they would without the threat of financial distress. Based on works by Titman and Wessels (1988), Long and Malitz (1985), and Prowse (1990), Doukas and Pantzalis (2003: p. 61) report that the long-term debt ratios of multinational corporations are negatively related to the firm's potential to engage in risky and suboptimal investments.

Debt vs. equity

While the shareholders, through the board of directors, have the power to fire managers, they rarely do so unless the firm's performance is exceptionally poor (Berk and DeMarzo, 2014: p. 559). Williamson (1988: p. 567) also argues that compared to the debt governance structure that works mainly out of rules, equity allows much greater discretion. "…debt is unforgiving

if things go poorly. Failure to make scheduled payments thus results in liquidation. […] equity is more forgiving than debt (Williamson, 1988: p. 580).” Stewart (1991: p. 580-581) also compares the disciplining power of debt and equity: “Equity is soft; debt is hard. Equity is forgiving; debt is insistent. Equity is a pillow; debt is a dagger ... Equity lulls a company’s management to sleep, forgiving its sins more readily than a deathbed priest ... But put a load of debt on that same company’s books and watch what happens when its operating profits begin to fall off even a little bit.”

However, more recent evidence suggests that management turnover may be more sensitive to poor performance than previously reported (Jenter and Lewellen, 2014: p. 17).

Debt maturity

Short-term debts seem to put even more pressure on managers and coerce them to reduce self-interesting behavior:

> “Frequent renewals of short-term debt requires more monitoring by external screeners like credit rating agencies and financial market participants upon new debt issuance. In addition, creditors may place restrictive covenants on new debt or threats of liquidation. The existence of good corporate governance may impose a higher level of short-term debt policy in the presence of agency costs (Chang et al. 2012: p. 427)”.

Rajan and Winton (1995: p. 1114) also argue that debt with short fixed maturities or payable on demand gives lenders greater flexibility to monitor and control managers more effectively. DeAngelo et al. (2002) present a case study that emphasizes the importance of short-term debt as disciplining mechanism for executives.

However the disciplining role of debt seems to be contingent on two factors. From an agency cost perspective, as long as there are profitable investment opportunities available, there is no free cash flow effect and the role of debt is not relevant (Kochhar, 1996: p. 718). Jensen (1986: p. 324) also argued that the control function of debt is more important in organizations that generate large cash flows but have low growth prospects. For rapidly growing organizations with large and highly profitable investment projects but no free cash flow, there are no positive control effects from debt creation. Further, as discussed in Section 1.2, securities laws and provisions that protect the rights of debtholders reduce the agency problems as they give investors the power to extract from managers the returns on their investment (La Porta et al., 1998: p. 1113). Without these rights, the disciplining role of debt might vanish. Shareholder rights also seem to matter to the extent that they can impose,

through the board, higher debt levels on managers. According to Harford et al. (2008: p. 22), a strong board can force the firm to hold more debt and more short-term debt.

Managerial stock ownership, shareholder rights, and ownership concentration

The argument that equity does not have the same disciplining power as debt seems to hold rather for dispersed ownership. Large informational asymmetries between managers and small shareholders coupled with a frequent lack of expertise and financial resources to close the information gap and monitor managers, withhold diffuse shareholders from effectively exerting corporate control (Caprio and Levine, 2002: p. 20). Also, the board of directors often does not represent the interests of the minority shareholders and instead may be captured by management (Caprio and Levine, 2002: p. 20). Furthermore, in many countries, legal codes do not protect the rights of minority shareholders. Jiraporn and Kitsabunnarat (2007: p. 24) show that opportunistic managers of firms in countries with weak shareholder rights avoid short-term debt to minimize frequent external monitoring.

In contrast, concentrated ownership seems to serve as an effective corporate governance mechanism for preventing managers from deviating too far from the interests of owners. With greater voting power and more resources available, large investors have the incentives to acquire information, monitor managers, and exert corporate government over managerial decisions (Caprio and Levine, 2002: p. 20-21). "Furthermore, large shareholders can elect their representatives to the board of directors and thwart managerial control of the board of directors (Caprio and Levine, 2002: p. 21)." Also, "concentrated ownership does not rely as much on the legal system. An owner with 51 percent of the equity does not need elaborate legal support to exert his ownership rights (Caprio and Levine, 2002: p. 21)."

Incentive contracts are another common mechanism for aligning the interests of managers with those of shareholders. The board of directors may negotiate managerial compensation contracts which base remuneration schemes on achieving particular targets. These contracts may include share ownership, stock options, and other contingent compensation mechanisms (Caprio and Levine, 2002: p. 20). Datta et al. (2005: p. 2348) show that managers with large ownership are more willing to protect interest of shareholders and choose a larger proportion of short-term debt which implies more frequent monitoring. As executives own greater stakes in the companies they are managing, they are more likely to invest firm resources towards long-term profitability and less likely to engage in value-destructing activities (Jensen and Meckling, 1976).

Documented evidence suggests that internal ownership, the presence of outside blockholders, and agent owners all lead to better firm performance (Jensen and Meckling, 1976; Mikkelson and Ruback, 1985; Pound, 1988).

3.1.2 Reduced financial flexibility resulting in foregoing profitable investments

While leverage can help reduce the agency conflict between shareholders and managers, too much debt reduces managers' room for maneuver in a way that is not beneficial for the firm (Jensen, 1986; Myers, 1977).

If a firm has high debt levels, managers will have less free cash flow to invest in new positive NPV projects as they have to devote more cash to interest and principal payments. Besides lacking internal financing, firms with weak balance sheets might also find it harder to obtain new external funds (Occhino, 2010: p. 1). Highly leveraged firms have less leeway to borrow capital to fund market expansion as they may violate existing covenants (O'Brien et al., 2014: p. 1015). According to Myers (1977), a firm near financial distress will also find it difficult to raise equity capital for new investments because the resulting proceeds would be appropriated by existing debtholders instead of shareholders. Such a situation is widely known as debt overhang. Therefore, while a firm may have profitable investment projects in the pipeline, lack of financing will force managers to forego such opportunities.

O'Brien et al. (2014: p. 1015), argued that ex-ante, high levels of debt will constrain a firm's ability to further diversify. Chatterjee and Wernerfelt (1991) found that debt tends to inhibit related diversification. Gibbs (1993) advanced the idea that debt tends to trigger restructuring through de-diversification. Hennessy et al. (2007: p. 707) found that the debt overhang decreases the level of investment by approximately 1 to 2 percent for each percent increase in the leverage. This estimate for the debt-overhang impact on real investment is impressively large: "it implies that a 10 percent decrease in assets, which is of the same order of magnitude as the one that occurred during the last financial crisis, would cause a 10 to 20 percent decrease in the investment level (Occhino, 2010: p. 2)."

The impact of debt overhang goes even beyond investment decisions. It basically discourages all activities that imply a current cost and a future benefit to the firm, such as the effort invested by managers into running the business, hiring decisions, or production and sales-related expenses (Occhino, 2010: p 2).

Therefore, it seems that too much debt ties managers' hands up to a point where they might have the opportunity to increase firm value, but do not have the means to do so and that debt is beneficial only up to a certain level. Maintaining financial flexibility is paramount for an effective investment policy. A study by Graham and Harvey (2001) which presents responses from US CFOs reveals that firms value financial flexibility in making debt decisions. Two other surveys of European managers confirmed the findings of Graham and Harvey (2001): Bancel and Mittoo (2004) and Brounen et al. (2004). Both report that European managers also rank financial flexibility as the most important factor in determining their firm's debt policy. Such findings are consistent with the view that debt decisions are influenced by a desire to avoid getting the firm into distress and the resulting costs (Frank and Goyal, 2008: p. 193). Childs et al. (2005: p. 667) find that financial flexibility encourages the choice of short-term debt and as a result reduces the agency costs of underinvestment.

While high leverage depresses safe investments, it may at the same time encourage riskier projects, resulting in overinvestment. "Everything else equal, the equity holders have an incentive to undertake risky projects because they will enjoy potential benefits from lucky outcomes, while the creditors bear the downside risks (Occhino, 2010: p. 1)." Therefore, the debt overhang also distorts the composition of firms' investments, in terms of their riskiness. (Occhino, 2010: p. 1)

Moreover, debt can have an impact on investment, as members of the same stakeholder-category, e.g., creditors, may have conflicting interests, depending on the entity, to which their stake is directly bound to (Slovin and Sushka 1997, in Eckert and Engelhardt 1999: p. 110). For example, a measure like the parent company injecting more equity in a subsidiary located in a high political risk country might be disputed by the creditors of the parent, but welcome by those of the subsidiary in question. While the creditors of the parent would see the risk position of their stake worsen, creditors of the subsidiary would be better off, since the risk position of their stake would improve (Eckert and Engelhardt, 1999: p. 110).

According to O'Brien et al. (2014: p. 1014), extant theories seem to agree that debt should inhibit diversification but predict opposing performance consequences. Agency theory predicts that debt should lead to higher performance for diversifying firms, since the threat of bankruptcy induces managers to refrain from engaging in excessive diversification and only pursue value-enhancing expansion strategies (Jensen, 1986; Johnson, 1996). By contrast, a dynamic variant of the TCE perspective (augmented by the RBV) does not only consider the

ex-ante incentive alignment, but also the ex-post challenges of diversification and argues that "debt can be harmful when firms leverage strategic resources into new markets because it inhibits discretion and adaptive experimentation (O'Brien et al., 2014: p. 1019)." Further, in line with TCE, the detrimental effects of the market governance of debt will intensify as exchange hazards (i.e., asset specificity and uncertainty) increase (O'Brien et al., 2014: p. 1019). According to O'Brien et al. (2014: p. 1019), numerous strategy scholars have argued that pursuing an R&D-intensive strategy raises exchange hazards for firms, and that for them debt is particularly bad (Balakrishnan and Fox, 1993; Kochhar, 1996; Simerly and Li, 2000; Vicente-Lorente, 2001; O'Brien, 2003; David et al., 2008). While such theory predicts that the market governance of debt is rather harmful to firms that are actively leveraging their resources and capabilities into new markets, O'Brien et al. (2014: p. 1021) also argue that it should be much less consequential once the need for rapid experimentation and adaptation fades out. Even more so, the benefits of debt may well outweigh the costs under such circumstances. O'Brien et al. (2014: p. 1020) also argued that the negative effects of debt on diversification performance should vary with the type of debt the firm utilizes (bond vs. bank).

O'Brien's et al. (2014) empirical tests on a sample of Japanese firms found support for the TCE predictions. Specifically, they found that firms accrue higher returns from leveraging their resources and capabilities into new markets when managers are not constrained by the strong rules of the market governance of debt, particularly bond debt. Furthermore, they found that the detrimental effects of debt are exacerbated for R&D intensive firms and that debt is not necessarily harmful to firms that are managing a stable portfolio of markets. Therefore, poor capital structure decisions lead to a possible reduction/loss in the value derived from strategic assets.

Kochhar (1997) examined the role of financial policy in gaining competitive advantage. He argued that a "superior financial management (matching capital structure to resources) can provide a firm with added benefit over its competitors" (Kochhar, 1997: p. 25) and that the nature of the assets involved in a transaction will determine if equity or debt financing is more appropriate. This in turn will affect the performance of the particular investment.

3.2 Additional complexities of the capital structure – diversification relationship

O'Brien et al. (2014: p. 1015) posits that one of the reasons for the mixed empirical results may be the complex relationship between diversification and capital structure. Diversification

influences capital structure as it has been shown by extant literature. However, a firm's diversification strategy is also an "endogenous variable in that it is likely a function of other strategic and governance variables that in turn influence capital structure" (O'Brien et al., 2014: p. 1015). Moreover, the relationship between the two is of reciprocal nature. While ex-post (i.e., after a firm has diversified) diversified cash flows help sustain higher debt levels, ex-ante (i.e., before diversification) debt is expected to limit a firm's ability to diversify (O'Brien et al., 2014: p. 1015).

3.3 Summary and concluding remarks

Summary

According to transaction cost economics, debt and equity are more than just financial instruments. They are also instruments of governance (Williamson, 1991a: p. 84). A firm's capital structure serves as an efficient governance mechanism that shapes monitoring and incentives (Jensen, 1986; Williamson, 1988) and impacts corporate diversification strategy (Kochhar, 1996; O'Brien et al., 2014).

A higher level of debt, especially short term debt, as well as the presence of large equity blockholders force managers to refrain from engaging in wasteful investments such as unprofitable overseas expansion strategies (Jensen, 1986; Rajan and Winton, 1995; DeAngelo et al., 2002; Caprio and Levine, 2002; Chang et al., 2012). However, too much debt reduces managers' room for maneuver in a way that is not beneficial for the firm. If a firm has high debt levels, managers will have less free cash flow to invest in new positive NPV projects as they have to devote more cash to interest and principal payments (Kochhar, 1996). Moreover, highly leveraged firms will also find it difficult to raise new funds, in form of either debt or equity, forcing them to forego valuable investment opportunities, should they occur (Myers, 1977). High levels of debt also discourage other firm activities and decisions that imply a current cost and a future increase in the firm's value, such as the effort invested by executives in managing the business, hiring decisions, or expenditures related to the maintenance and improvement of the production process (Occhino, 2010). O'Brien et al. (2014) draw on a dynamic variant of TCE and underline the importance of ex-post challenges of diversification. They argue that debt can be harmful when firms leverage strategic resources into new markets because it inhibits discretion and adaptive experimentation.

Advantages and disadvantages of debt should be weighed against each other contingent on the firm's needs. The control function of debt is more important in organizations that

generate large and stable cash flows but have low growth prospects. For rapidly growing organizations with large and highly profitable investment projects but no free cash flow, there are no positive control effects from debt creation (Jensen, 1986; Kochhar, 1996). On the contrary, too much debt might distort their investment in a way which does not serve shareholders' interests. Further, O'Brien et al. (2014) argued that while market governance of debt is "detrimental to firms that are actively leveraging their resources and capabilities into new markets, it should be much less consequential once the need for experimentation and adaptation abates (O'Brien et al., 2014: p. 1021)." Only with the right governance mechanism (mix of debt and equity) one would expect that the investment in international expansion will pay off and improve firm performance.

Capital structure should support strategy

It seems therefore, that ex-ante, capital structure influences the "ability" of firms to diversify and ex-post has an influence on the performance of the diversification strategy. The role of capital structure is mainly that of supporting a company's strategy. According to Schendel and Hoffer (1979 in Prasad et al., 1997: p. 47), "the strategic model of the firm argues that improved firm performance occurs when the firm's managers select strategic goals and all of the activities of the firm are directed towards meeting those goals." Since a firm's financial strategy is part of the firm's overall strategy (Andrews 1980, in Prasad et al. 1997: p. 47) the operating strategies of the firm should be consistent with one another in order to achieve high performance. This implies that the financial strategy of the firm should be consistent with the firm's strategic objectives. Chkir and Cosset (2001) also advance the idea that long-term strategic choices, such as choosing the optimum foreign affiliates network structure, precede financial decisions. Only after the optimum structure is fixed, the MNC should decide on the capital structure that maximizes its value. Such arguments point to a fit between capital structure and strategy similar to Chandler's strategy – structure relationship.

According to a study published by McKinsey & Company (2017)[26], the capital structure should be matched to the needs raised by the lifecycle the firm finds itself in:

[26] McKinsey & Company. (2017). *Making capital structure support strategy*. [online] Available at: http://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/making-capital-structure-support-strategy [Accessed 15 Jun. 2017].

> "Mature companies with stable and predictable cash flows as well as limited investment opportunities should include more debt in their capital structure, since the discipline that debt often brings outweighs the need for flexibility. Companies that face high uncertainty because of vigorous growth or the cyclical nature of their industries should carry less debt, so that they have enough flexibility to take advantage of investment opportunities or to deal with negative events."

The same arguments can be found in Jensen (1986), Kochhar (1996), and O'Brien et al. (2014).

The bottom line is therefore, that debt will have a negative impact on changes in diversification. Consistent with this line of reasoning, a firm finding itself in various stages of the internationalization process might need more financial flexibility and is therefore expected to not load on that much debt. On the other hand, already established MNCs should be expected to carry higher levels of debt.

Affiliates capital structure

Supporting the idea of a fit between strategy and capital structure is also the argument that MNC's should choose affiliates' capital structure in a way that allows them to cater to local conditions.

Lessard and Shapiro (1989: p. 192) discuss the financing choices of multinational affiliates under consideration of taxes, foreign exchange risks, political risks and local financial market conditions. They posit that parent and affiliate capital structures should be allowed to differ if the firm is to exploit the opportunities available as a multinational. Eun and Resnick (2001, in Aggarwal and Kyaw, 2008: p. 413) summarize the critical issues in determining the financial structure of foreign subsidiaries of multinational firms and suggest that affiliates' capital structure should vary to capitalize on opportunities available to a MNC.

However, choosing the optimal capital structure for an MNC and its foreign affiliates is a difficult task (Stobaugh, 1970). The MNC's decisions regarding the capital structures of their foreign subsidiaries must reflect local conditions as well as the parent company needs regarding the consolidated capital structure and the need to maximize the overall company value (Aggarwal, 2008: p. 413).

4. Final conclusions

Summary

The relationship between international diversification and capital structure has been traditionally studied by finance scholars in an attempt to extend domestic models to the multinational setting. When expanding abroad, firms meet "with a variety of constraints and opportunities that are unique to their international setting (Burgman, 1996: p. 555)". These will alter the extent to which traditional capital structure determinants affect the firm's financing choices as well as bring additional factors in play. Initially, scholars argued that a firm's expansion overseas should lead to a decrease in leverage, due to the additional risks faced in the international environment (i.e. exchange rate risk, political risk, etc.). However, an alternative approach to view risk based on portfolio theory soon gained wider support. Since MNCs could be viewed as a portfolio of internationally diversified assets (Fatemi, 1984: p. 1327), the common view was that due to diversification effects and reduced default probability from operating in imperfectly correlated markets they should be able to sustain higher levels of debt (Cohen, 1972; Severn, 1974; Hughes et al. 1975; Rugman, 1976; Agmon and Lessard, 1977). Further supporting the view that MNCs should be more leveraged was the better access to capital (Pagano et al., 2002; Doukas and Pantzalis, 2003; Aulakh and Mudambi, 2005; Aggarwal and Kyaw, 2008; Madura, 2012; Jang, 2017) and the ability to exploit the tax advantage of debt more aggressively (Hodder and Senbet, 1990; Aggarwal and Kyaw, 2008; Møen et al., 2011). Contrary to the common view, empirical studies done on US-samples have revealed that MNCs were less leveraged than their domestic counterparts. To explain this puzzling result, researchers turned to differences in firm-specific characteristics between MNCs and DCs (Shaked, 1986; Lee and Kwok, 1988; Burgman, 1996).

The suggested explanation for the MNCs' lower debt ratios was the higher agency cost (Lee and Kwok, 1988; Burgman, 1996). Consistent with this argument, the debt increasing effect from reduced business risk seems to be surpassed by the negative impact on leverage from higher agency costs. However, a possible flawed measurement of international diversification might have understated the risk reduction effect from operating in multiple jurisdictions. While most studies have used measures such as the foreign sales ratio or foreign tax ratio to account for the geographic diversification dimension, such metrics capture the international involvement of a firm rather than the degree of international diversification. A firm could

have a high foreign tax ratio and hence a high degree of international involvement, and yet all of its foreign investment could be in a single high-risk country (Burgman, 1996). From a risk reduction perspective, such a firm cannot be regarded as internationally diversified. In this case, international activities would lead to more business risk and a lower debt capacity (Burgman, 1996). Similarly, a firm with the same degree of international involvement (measured by the ratio of foreign taxes paid) could have operations in more than one foreign country and count as more internationally diversified. Measuring international diversification using a foreign sales ratio measure is even more problematic since it does not distinguish between FDI and exports. More appropriate measures have been proposed by Burgman (1996) or Mansi and Reeb (2002). In this context, the question emerges as of what makes an MNC internationally diversified from a risk reduction point of view. Evans and Archer (1968) concluded that ten stocks would do to make a diversified portfolio, while Statman (1987) finds that no less than thirty stocks are needed for a well-diversified portfolio. Such findings might apply to the concept of MNC as well and suggest that they will enjoy an increased debt capacity due to business risk reduction from imperfectly correlated cash flows only after achieving a certain level of heterogeneity. Such argument is consistent with the existence of a non-linear relationship between international diversification and debt usage, as proposed by several scholars (Mansi and Reeb, 2002; Singh et al., 2003; Chiang and Chen, 2008).

The examination of a non-linear specification was proposed as a possible way to reconcile empirical findings with the general view that MNCs should carry more debt. Several studies have found a U-shaped relationship between international diversification and capital structure. Chiang and Chen (2008) argued that up to a certain threshold, firms may not have diversified enough to reduce their business risks and may lack the experience to manage the higher exposure to exchange rate risk and the increased agency costs. The increased risks will result in lower leverage until the threshold is reached, where firms start to reap the benefits from geographical diversification. As they expand further, MNCs' business risks start to decrease, they become more familiar with managing exchange rate exposure and agency costs, and are able to sustain higher levels of debt (Chiang and Chen, 2008). Singh et al. (2003) explain the U-shaped relationship by considering investor perceptions. While in initial stages of the expansion across borders the firm's leverage decreases, subsequent signals to the market regarding the sustainability of its global operations will enable the MNC to raise more debt in foreign markets. Mansi and Reeb (2002) found that the inflection point where

the marginal debt costs of internationalization equaled the marginal benefits occurred at high levels of international activity (i.e., 45% foreign sales).

Another body of literature concerned with explaining the unexpected lower leverage of MNCs concentrated more on country specific (rather than firm-specific) factors and abandoned the focus on U.S based MNCs in favor of a more diverse pool of countries. Such approach has contributed to the understanding of the effect of international diversification on capital structure in a much broader context (Bancel, Mittoo, and Zhang, 2013). It has been argued that in order to predict the overall effect of internationalization on leverage one should look at the relative risk classes of home and host countries where MNCs expand to (Kwok and Reeb, 2000). Kwok and Reeb (2000) proposed that when an MNC based in a more (less) stable economy expands its operations into less (more) stable economies, the MNCs' overall systematic risk may increase (decrease) and consequently, they will have a lower (higher) financial leverage, as compared to DCs. According to Ramirez and Kwok (2010), regional empirical studies have provided mixed evidence for this hypothesis. The argument was based on the fact that not all emerging market-based MNCs experienced an increase in leverage with international expansion and not all developed countries based MNCs experienced a decrease in their debt ratios with cross border diversification. Such conclusion should, however, be regarded with caution, as country empirical studies did not explicitly look at where the MNCs in their sample actually expanded to. Assuming that all emerging-country based MNCs will expand “upstream” into less risky environments and that all developed country based MNCs will expand “downstream” into more risky countries is not completely accurate. This argument is supported by Mittoo and Zhang (2008), which demonstrate that Canadian MNCs have higher debt ratios than DCs because Canada-based multinational firms predominantly expand into the US-market.

Further, a growing body of literature is available, concerned with how capital structure differs across countries and how adapting to local institutional environments affects affiliates’ capital structure and in turn that of the MNC as a whole. A positive relation was found between the use of long-term debt and the firm's global standing in terms of common law legal origin, burden of proof, investor protection, disclosure requirements, and public enforcement (Mishra and Tannous, 2010). The global standing of a firm in terms of its exposure to country specific factors has however not been included as a variable in country empirical studies.

Despite efforts, empirical results obtained by examining a more diverse group of countries and capital structure determinants couldn't be grouped under a single theory. This is needless to say an ambitious strive due to the high complexity surrounding the relationship between international diversification and capital structure. Such complexity stems from the existence of an indirect effect of country specific factors on capital structure through firm-specific factors (De Jong et al., 2008), the existence of a reciprocal relationship between diversification and capital structure (O'Brien et al., 2014), the existence of an interactive effect between product and geographic diversification (Chkir and Cosset, 2001; Singh et al., 2003) and the continuously changing business and economic environment in which MNCs operate in (Bancel, Mittoo, and Zhang, 2013).

Additional insights in understanding the effects of international diversification on capital structure have been provided by strategy scholars. The strategy approach suggests including a behavioral component into the analysis and criticizes the finance paradigm's implication that capital structure decisions are solely a deterministic product of external market forces (Barton and Gordon, 1988). Barton and Gordon (1987) posit that functional decisions are made by managers operating in a complex environment and that top management's risk taking propensity will affect the firm's capital structure. The higher the amount of risk a manager is comfortable with, the higher the debt ratio of the firm. Risk perception and risk taking have been shown to be related to manager's cultural background (Li et al., 2010). Despite evidence that cultural variables can influence capital structure, finance literature studying the MNC's capital structure decision has largely ignored this variable. The importance of the cultural component should not be undermined since international management researchers have pointed out, that the most important characteristic of the MNC is cultural diversity (Eckert and Engelhardt, 1999).

Studies done on the interactive effect of international and product diversification on capital structure, suggest using a more granular classification of MNCs' strategy when conducting empirical investigations. Further, while Rumelt's (1974) product diversification typologies have been shown to exhibit different debt levels, no such study exists that investigated leverage across MNCs typologies. High-level MNCs typologies as developed by international business literature are summarized in Aggarwal et al. (2011: p. 561):

> "Perlmutter's (1969) threefold typology of managerial mindsets as home country-oriented (ethnocentric), host country-oriented (polycentric), and world-oriented (geocentric); Caves's (1982) threefold typology of multiplant MNCs as horizontal,

> vertical and diversified; Bartlett and Ghoshal's (1989) fourfold typology of MNC organisational structure as multinational, international, transnational and global; Dunning's (1993) fourfold typology of the rationale for FDI as market-seeking, efficiency-seeking, resource-seeking, and strategic asset-seeking; and Rugman's (2003) fourfold typology of MNC strategic orientation as home-regional, bi-regional, host-regional and global."

Studying capital structure across such typologies might provide new insights into the effect of international diversification on capital structure and bring the integration of finance and strategy literature one step closer.

The need for integration between the two disciplines becomes even more apparent when looking at methodological shortcomings stemming from inconsistent definitions of international diversification in finance and strategic literature. It seems that there is a thin line between the interchangeable use of the terms multi-nationality, international involvement, and international diversification and partly flawed operationalization.

The need for integrating strategy and finance literature is also brought to light by the reciprocity of the relationship between international diversification and capital structure. While international diversification affects the financing mix, a firm's capital structure can, in turn, have important implications for the firm's operations and should be considered as part of the overall firm strategy. A higher level of debt, especially short-term debt, as well as the presence of large equity block-holders, encourage organizational efficiency (Jensen, 1986; Rajan and Winton, 1995; DeAngelo et al., 2002; Chang et al., 2012). Too much debt can, however, compromise a firm's ability to take advantage of profitable investment opportunities as they occur (Myers, 1977). Further, high leverage can have a negative impact on diversification performance due to ex-post challenges of diversification (O'Brien et al., 2014). O'Brien et al. (2014) draw on a dynamic variant of the TCE and argue that debt can be harmful when firms leverage strategic resources into new markets because it inhibits discretion and adaptive experimentation.

Advantages and disadvantages of debt should be weighed against each other contingent on the firm's needs. The control function of debt is more important in organizations that generate large cash flows but have low growth prospects (Jensen, 1986). For rapidly growing organizations with large and highly profitable investment projects but no free cash flow, there are no positive control effects from debt creation (Kochhar, 1996). Further, O'Brien et al. (2014) argued that while market governance of debt is "detrimental to firms that are actively leveraging their resources and capabilities into new markets, it should be much less

consequential once the need for experimentation and adaptation abates (O'Brien et al., 2014: p. 1021)." According to strategic management literature, improved firm performance requires consistency between a firm's overall strategic goals and its financing policy. Such arguments point to a fit between capital structure and strategy similar to Chandler's strategy – structure relationship.

References

Adler, M. 1973. The Valuation and Financing of the Multi-National Firm: Comment. *Kyklos*, 26(4), pp. 849-851.

Adler, M. and Dumas, B., 1975. Optimal international acquisitions. *The Journal of Finance*, 30(1), pp.1-19.

Aggarwal, R. and Kyaw, N.A., 2008. Internal capital networks as a source of MNC competitive advantage: Evidence from foreign subsidiary capital structure decisions. *Research in International Business and Finance*, 22(3), pp.409-439.

Aggarwal, R. and Kyaw, N.A., 2010. Capital structure, dividend policy, and multinationality: Theory versus empirical evidence. *International Review of Financial Analysis*, 19(2), pp.140-150.

Aggarwal, R., Berrill, J., Hutson, E. and Kearney, C., 2011. What is a multinational corporation? Classifying the degree of firm-level multinationality. *International Business Review*, 20(5), pp.557-577.

Agmon, T., 1972. The Relations among equity markets: A Study of Share Price Co-Movements in The United States, United Kingdom, Germany and Japan. *The Journal of Finance*, 27(4), pp.839-855.

Agmon, T. and Lessard, D.R., 1977. Investor recognition of corporate international diversification. *The Journal of Finance*, 32(4), pp.1049-1055.

Ajay, R. and Madhumathi, R., 2013. Diversification strategy and its influence on the capital structure decisions of manufacturing firms in India. *International Journal of Social Science and Humanity*, 2(5), pp.421-426.

Akbel, B. and Schnitzer, M., 2011. Creditor rights and debt allocation within multinationals. *Journal of Banking and Finance*, 35(6), pp.1367-1379.

Akhtar, S. and Oliver, B., 2009. Determinants of Capital Structure for Japanese Multinational and Domestic Corporations. *International Review of Finance*, 9(1-2), pp.1–26.

Akhtar, S., 2005. The determinants of capital structure for Australian multinational and domestic corporations. *Australian Journal of Management*, 30(2), pp.321-341.

Albaity, M. and Chuan, A. H. S., 2013. Internationalization and Capital Structure: Evidence from Malaysian Manufacturing Firms. *Asian Journal of Finance and Accounting*, 5(2), pp. 329-342.

Aliber, R. Z., 2011. Why Are Multinational Firms Mostly American?. In *The New International Money Game*. 7th ed, Basingstoke: Palgrave MacMillan, pp. 282-299.

Allen, L. and Pantzalis, C., 1996. Valuation of the operating flexibility of multinational corporations. *Journal of International Business Studies*, 27(4), pp.633-653.

Amihud, Y. and Lev, B., 1981. Risk reduction as a managerial motive for conglomerate mergers. *The Bell Journal of Economics*, 12(2), pp.605-617.

Antoniou, A., Guney, Y. and Paudyal, K., 2008. The determinants of capital structure: capital market-oriented versus bank-oriented institutions. *Journal of Financial and Quantitative Analysis*, 43(1), pp.59-92.

Aulakh, P.S. and Mudambi, R., 2005. Financial resource flows in multinational enterprises: The role of external capital markets. *MIR: Management International Review*, 45(3), pp.307-325.

Baker, G.P., Jensen, M.C. and Murphy, K.J., 1988. Compensation and incentives: Practice vs. theory. *The Journal of Finance*, 43(3), pp.593-616.

Balakrishnan, S. and Fox, I., 1993. Asset specificity, firm heterogeneity and capital structure. *Strategic Management Journal*, 14(1), pp.3-16.

Bancel, F. and Mittoo, U.R., 2004. Cross-country determinants of capital structure choice: a survey of European firms. *Financial Management*, 33(4) pp.103-132.

Bancel, F., Mittoo, U.R., and Zhang, Z., 2013. "Multinational Cost of Capital and Capital Structure." In H. Baker and L. Riddick eds., 2013. *International Finance: A Survey*. New York: Oxford University Press, pp. 466-482

Barton, S.L. and Gordon, P.I., 1987. Corporate strategy: useful perspective for the study of capital structure?. *Academy of Management Review*, 12(1), pp.67-75.

Barton, S.L. and Gordon, P.J., 1988. Corporate strategy and capital structure. *Strategic Management Journal*, 9(6), pp.623-632.

Bartov, E., Bodnar, G.M. and Kaul, A., 1996. Exchange rate variability and the riskiness of US multinational firms: evidence from the breakdown of the Bretton Woods system. *Journal of Financial Economics*, 42(1), pp.105-132.

Baxter, N.D., 1967. Leverage, risk of ruin and the cost of capital. *The Journal of Finance*, 22(3), pp.395-403.

Berglof, E., 1990. "Capital Structure as a Mechanism of Control: a Comparison of Financial systems" In Aoki et al. (Eds.) *The Firm as a Nexus of Treaties*, London: Sage Publications.

Berk, J.B. and DeMarzo, P.M., 2014. Corporate finance. 3rd ed. Harlow: Pearson Education.

Bettis, R.A., 1983. Modern financial theory, corporate strategy and public policy: Three conundrums. *Academy of Management Review*, 8(3), pp.406-415.

Bhar, R. and Hamori, S., 2005. Empirical techniques in finance. Berlin: Springer

Black, F., 1974. International capital market equilibrium with investment barriers. *Journal of Financial Economics*, 1(4), pp.337-352.

Blouin, J.L., Huizinga, H., Laeven, L. and Nicodème, G., 2014. Thin capitalization rules and multinational firm capital structure. IMF Working Papers, Vol.14(12)

Booth, L., Aivazian, V., Demirguc-Kunt, A. and Maksimovic, V., 2001. Capital structures in developing countries. *The Journal of Finance*, 56(1), pp.87-130.

Brounen, D., De Jong, A. and Koedijk, K., 2004. Corporate finance in Europe confronting theory with practice. *Financial Management*, 33(4), pp.71-101

Buettner, T. and Wamser, G., 2007. Intercompany loans and profit shifting-Evidence from company-level data. CESifo Working Paper Series No. 1959

Burgman, T.A., 1996. An empirical examination of multinational corporate capital structure. *Journal of International Business Studies*, 27(3), pp.553-570.

Bushman, R., Chen, Q., Engel, E. and Smith, A., 2004. Financial accounting information, organizational complexity and corporate governance systems. *Journal of Accounting and Economics*, 37(2), pp.167-201.

Caprio, G. Jr., Levine, R., 2002, Corporate governance in finance: Concepts and international observations," in Financial Sector Governance: The Roles of the Public and Private Sectors, Eds. R. E. Litan, M. Pomerleano, and V. Sundararajan, Washington, DC: The Brookings Institution, pp. 17-50

Caves, R.E., 1971. International corporations: The industrial economics of foreign investment. *Economica*, 38(149), pp.1-27.

Chandler, A.D., 1962. Strategy and structure: Chapters in the history of the American enterprise. Cambridge: MIT Press.

Chang, K. and Noorbakhsh, A., 2009. Does national culture affect international corporate cash holdings?. *Journal of Multinational Financial Management*, 19(5), pp.323-342.

Chang, K., Wee, J.B. and Yi, H.C., 2012. Does national culture influence the firm's choice of debt maturity? *Asia Pacific Journal of Financial Studies*, 41(4), pp.424-457.

Chatterjee, S. and Wernerfelt, B., 1991. The link between resources and type of diversification: Theory and evidence. *Strategic Management Journal*, 12(1), pp.33-48.

Chen, C.J., Cheng, C.A., He, J. and Kim, J., 1997. An investigation of the relationship between international activities and capital structure. *Journal of International Business Studies*, 28(3), pp.563-577.

Chen WP., Chung H., Ho KY., Hsu TL. 2010. Portfolio Optimization Models and Mean–Variance Spanning Tests. In: Lee CF., Lee A.C., Lee J. (eds) *Handbook of Quantitative Finance and Risk Management*. Springer, Boston, MA, pp.165-184

Cheng, S.R. and Shiu, C.Y., 2007. Investor protection and capital structure: International evidence. *Journal of Multinational Financial Management*, 17(1), pp.30-44.

Chiang, Y.C. and Chen, S.W., 2008. The relationship between internationalization and capital structures of Taiwan firms. *International Journal of Business and Finance Research*, 2(1), pp.1-12.

Childs, P.D., Mauer, D.C. and Ott, S.H., 2005. Interactions of corporate financing and investment decisions: The effects of agency conflicts. *Journal of Financial Economics*, 76(3), pp.667-690.

Chkir, I.E. and Cosset, J.C., 2001. Diversification strategy and capital structure of multinational corporations. *Journal of Multinational Financial Management*, 11(1), pp.17-37.

Chowdhry, B. and Nanda, V., 1994. Financing of multinational subsidiaries: Parent debt vs. external debt. *Journal of Corporate Finance*, 1(2), pp.259-281.

Chui, A.C., Lloyd, A.E. and Kwok, C.C., 2002. The determination of capital structure: is national culture a missing piece to the puzzle?. *Journal of International Business Studies*, 33(1), pp.99-127.

Chung, K.H., 1993. Asset characteristics and corporate debt policy: an empirical test. *Journal of Business Finance and Accounting*, 20(1), pp.83-98.

Claessens, S., Djankov, S. and Nenova, T., 2001. Corporate risk around the world. World Bank Policy Research. Working Paper 2271. *Journal of Financial Economics*, 60(2), pp.187-243.

Coase, R.H., 1937. The nature of the firm. *Economica*, 4(16), pp.386-405.

Cohen, B., 1972. Foreign investment by US corporations as a way of reducing risk, Economic Growth Centre Discussion Paper No. 151, Yale University

Dacin, M.T., Ventresca, M.J. and Beal, B.D., 1999. The embeddedness of organizations: Dialogue & directions. *Journal of Management*, 25(3), pp.317-356.

Datta, S., Iskandar-Datta, M.. and Raman, K., 2005. Managerial stock ownership and the maturity structure of corporate debt. *The Journal of Finance*, 60(5), pp.2333-2350.

David, P., O'Brien, J.P. and Yoshikawa, T., 2008. The implications of debt heterogeneity for R&D investment and firm performance. *Academy of Management Journal*, 51(1), pp.165-181.

De Jong, A., Kabir, R. and Nguyen, T.T., 2008. Capital structure around the world: The roles of firm-and country-specific determinants. *Journal of Banking & Finance*, 32(9), pp.1954-1969.

DeAngelo, H., DeAngelo, L. and Wruck, K.H., 2002. Asset liquidity, debt covenants, and managerial discretion in financial distress: the collapse of LA Gear. *Journal of Financial Economics*, 64(1), pp. 3-34.

Demirgüç-Kunt, A. and Maksimovic, V., 1999. Institutions, financial markets, and firm debt maturity. *Journal of Financial Economics*, 54(3), pp.295-336.

Desai, M.A., Foley, C.F. and Hines, J.R., 2004. A multinational perspective on capital structure choice and internal capital markets. *The Journal of Finance*, 59(6), pp.2451-2487.

Dietrich, M., 1994. Transaction cost economics and beyond: Toward a new economics of the firm. New York: Routledge.

Douglas, M. and Wildavsky, A., 1983. Risk and culture: An essay on the selection of technical and environmental dangers. Berkeley. Cal.: University of California Press.

Doukas, J.A. and Pantzalis, C., 2003. Geographic diversification and agency costs of debt of multinational firms. *Journal of Corporate Finance*, 9(1), pp.59-92.

Duru, A. and Reeb, D.M., 2002. International diversification and analysts' forecast accuracy and bias. *The Accounting Review*, 77(2), pp.415-433.

Easterwood, J. C. and P. Kadapakkam 1991. The role of private and public debt in corporate capital structures, *Financial Management*, 21(3), pp.49- 57

Eckert, S. and Engelhard, J., 1999. Towards a capital structure theory for the multinational company. *MIR: Management International Review*, 39(2), pp.105-136.

Ehrhardt, M.C. and Brigham, E.F., 2008. Corporate finance: A focused approach. 3rd ed. Mason: Cengage learning.

Errunza, V.R. and Senbet, L.W., 1981. The effects of international operations on the market value of the firm: Theory and evidence. *The Journal of Finance*, 36(2), pp.401-417.

Ethier, W.J. and Horn, H., 1990. Managerial control of international firms and patterns of direct investment. *Journal of International Economics*, 28(1-2), pp.25-45.

Evans, J.L. and Archer, S.H., 1968. Diversification and the reduction of dispersion: an empirical analysis. *The Journal of Finance*, 23(5), pp.761-767.

Fan, J.P., Titman, S. and Twite, G., 2012. An international comparison of capital structure and debt maturity choices. *Journal of Financial and Quantitative Analysis*, 47(1), pp.23-56.

Fatemi, A.M., 1984. Shareholder benefits from corporate international diversification. *The Journal of Finance*, 39(5), pp.1325-1344.

Fatemi, A.M., 1988. The effect of international diversification on corporate financing policy. *Journal of Business Research*, 16(1), pp.17-30.

Faulkender, M. and Petersen, M.A., 2006. Does the source of capital affect capital structure? *Review of Financial Studies*, 19(1), pp.45-79.

Frank, M.Z. and Goyal, V.K. 2008. "Trade-Off and Pecking Order Theories of Debt". In Eckbo, B.E. ed., 2008. Handbook of Empirical Corporate Finance SET (Vol. 2). North-Holland, Amsterdam: Elsevier, pp.136-202.

Giannetti, M., 2003. Do better institutions mitigate agency problems? Evidence from corporate finance choices. *Journal of Financial and Quantitative Analysis*, 38(1), pp.185-212.

Gibbs, P.A., 1993. Determinants of corporate restructuring: The relative importance of corporate governance, takeover threat, and free cash flow. *Strategic Management Journal*, 14(S1), pp.51-68.

Gleason, K.C., Mathur, L.K. and Mathur, I., 2000. The interrelationship between culture, capital structure, and performance: evidence from European retailers. *Journal of Business Research*, 50(2), pp.185-191.

Graham, J.R., 2003. Taxes and corporate finance: A review. *Review of Financial Studies*, 16(4), pp.1075-1129.

Graham, J.R. and Harvey, C.R., 2001. The theory and practice of corporate finance: Evidence from the field. *Journal of Financial Economics*, 60(2), pp.187-243.

Gray, S.J., Kang, T. and Yoo, Y.K., 2013. National culture and international differences in the cost of equity capital. *Management International Review*, 53(6), pp.899-916.

Grubel, H.G., 1968. Internationally diversified portfolios: welfare gains and capital flows. *The American Economic Review*, 58(5), pp.1299-1314.

Grubel, H.G. and Fadner, K., 1971. The interdependence of international equity markets. *The Journal of Finance*, 26(1), pp.89-94.

Guiso, L., Sapienza, P. and Zingales, L., 2006. Does culture affect economic outcomes?. *The Journal of Economic Perspectives*, 20(2), pp.23-48.

Harford, J., Li, K. and Zhao, X., 2008. Corporate boards and the leverage and debt maturity choices. *International Journal of Corporate Governance*, 1(1), pp.3-27.

Harris, M. and Raviv, A., 1991. The theory of capital structure. *The Journal of Finance*, 46(1), pp.297-355.

Hennessy, C.A., Levy, A. and Whited, T.M., 2007. Testing Q theory with financing frictions. *Journal of Financial Economics*, 83(3), pp.691-717.

Hertzel, M. 1992. “Private equity issues”. In P. Newman and M. Milgate and J. Eatwell (eds.), The New Palgrave Dictionary of Money and Finance, Vol. 3. Macmillan, London, pp. 196-197.

Hertzel, M. and Smith, R.L., 1993. Market discounts and shareholder gains for placing equity privately. *The Journal of Finance*, 48(2), pp.459-485.

Hitt, M.A., Hoskisson, R.E. and Kim, H., 1997. International diversification: Effects on innovation and firm performance in product-diversified firms. *Academy of Management Journal*, 40(4), pp.767-798.

Hodder, J.E. and Senbet, L.W., 1990. International capital structure equilibrium. *The Journal of Finance*, 45(5), pp.1495-1516.

Hofstede, G. H., 1980. Cultures consequences: international differences in work-related values. Beverly Hills, CA: Sage Publications.

Hoyt, N.H., 1972. The Management of Currency Exchange Risk by the Singer Company. *Financial Management*, 1(1), pp.13-20

Hughes, J.S., Logue, D.E. and Sweeney, R.J., 1975. Corporate international diversification and market assigned measures of risk and diversification. *Journal of Financial and Quantitative Analysis*, 10(4), pp.627-637.

Huizinga, H., Laeven, L. and Nicodeme, G., 2008. Capital structure and international debt shifting. *Journal of Financial Economics*, 88(1), pp.80-118.

Jacquillat, B. and Solnik, B., 1978. Multinationals are poor tools for diversification. *The Journal of Portfolio Management*, 4(2), pp.8-12.

Jalilvand, A. and Harris, R.S., 1984. Corporate behavior in adjusting to capital structure and dividend targets: An econometric study. *The Journal of Finance*, 39(1), pp.127-145.

Jang, Y., 2017. "International Corporate Diversification and Financial Flexibility." *Review of Financial Studies*, Forthcoming

Jensen, M.C. and Meckling, W.H., 1976. Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), pp.305-360.

Jensen, M.C., 1986. Agency costs of free cash flow, corporate finance, and takeovers. *The American Economic Review*, 76(2), pp.323-329.

Jenter, D. and Lewellen, K., 2014. Performance-induced CEO turnover. Work. Pap., Stanford Univ.

Jiraporn, P. and Kitsabunnarat, P., 2007. Debt maturity structure, shareholder rights, and corporate governance. *Journal of Financial Research*, 30(1), pp. 21-33

Johnson RA. 1996. Antecedents and outcomes of corporate refocusing. *Journal of Management*, 22(3), pp.439–483

Jordan, J., Lowe, J. and Taylor, P., 1998. Strategy and financial policy in UK small firms. *Journal of Business Finance & Accounting*, 25(1-2), pp.1-27.

Kang, H.G., Lehmann, A., Sayek, S., 2004. Multinational Affiliates and Local Financial Markets. IMF Working Papers No. 04/107.

Kedia, S. and Mozumdar, A., 2003. Foreign currency–denominated debt: An empirical examination. *The Journal of Business*, 76(4), pp.521-546.

Khanna, T. and Yafeh, Y., 2007. Business groups in emerging markets: Paragons or parasites?. *Journal of Economic Literature*, 45(2), pp.331-372.

Kim, E.H. and McConnell, J.J., 1977. Corporate mergers and the co- insurance of corporate debt. *The Journal of Finance*, 32(2), pp.349-365.

Kim, E.H., 1978. A mean-variance theory of optimal capital structure and corporate debt capacity. *The Journal of Finance*, 33(1), pp.45-63.

Kim, W.S. and Lyn, E.O., 1986. Excess market value, the multinational corporation, and Tobin's q-ratio. *Journal of International Business Studies*, 17(1), pp.119-125.

Kirca, A.H., Hult, G.T.M., Roth, K., Cavusgil, S.T., Perryy, M.Z., Akdeniz, M.B., Deligonul, S.Z., Mena, J.A., Pollitte, W.A., Hoppner, J.J. and Miller, J.C., 2011. Firm-specific assets, multinationality, and financial performance: A meta-analytic review and theoretical integration. *Academy of Management Journal*, 54(1), pp.47-72.

Kochhar, R. and Hitt, M.A., 1998. Linking corporate strategy to capital structure: diversification strategy, type and source of financing. *Strategic Management Journal*, 19(6), pp.601-610.

Kochhar, R., 1996. Explaining firm capital structure: The role of agency theory vs. transaction cost economics. *Strategic Management Journal*, 17(9), pp.713-728.

Kochhar, R., 1997. Strategic assets, capital structure, and firm performance. *Journal of Financial and Strategic Decisions*, 10(3), pp.23-36.

Krainer, R.E., 1972. The valuation and financing of the multinational firm. *Kyklos*, 25(3), pp.553-574.

Kraus, A. and Litzenberger, R.H., 1973. A state-preference model of optimal financial leverage. *The Journal of Finance*, 28(4), pp.911-922.

Kwok, C.C. and Reeb, D.M., 2000. Internationalization and firm risk: An upstream-downstream hypothesis. *Journal of International Business Studies*, 31(4), pp.611-629.

La Porta, R., Lopez-de-Silanes, F. and Vishny, R., 1997. Legal Determinants of External Finance. *Journal of Finance*, 52(3), pp.1131-1150.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A. and Vishny, R., 2000. Investor protection and corporate governance. *Journal of Financial Economics*, 58(1-2), pp.3-27.

La Porta, R.L., Lopez-de-Silanes, F., Shleifer, A. and Vishny, R.W., 1998. Law and finance. *Journal of Political Economy*, 106(6), pp.1113-1155.

La Rocca, M., 2011. “Capital Structure and Corporate Strategy.” In Baker, H.K. & Martin, G.S., 2011. Capital structure and corporate financing decisions: theory, evidence, and practice. (Vol.15) Hoboken, NJ: Wiley, pp. 41-58

La Rocca, M., La Rocca, T. and Gerace, D., 2008. A survey of the relation between capital structure and corporate strategy. *Australasian Accounting Business & Finance Journal*, 2(2), pp.1-18.

La Rocca, M., La Rocca, T., Gerace, D. and Smark, C., 2009. Effect of diversification on capital structure. *Accounting & Finance*, 49(4), pp.799-826.

Lee, K.C. and Kwok, C.C., 1988. Multinational corporations vs. domestic corporations: International environmental factors and determinants of capital structure. *Journal of International Business Studies*, 19(2), pp.195-217.

Lessard, D.R., 1973. International portfolio diversification: a multivariate analysis for a group of Latin American countries. *The Journal of Finance*, 28(3), pp.619-633.

Lessard, D.R., 1974. World, national, and industry factors in equity returns. *The Journal of Finance*, 29(2), pp.379-391.

Lessard, D.R., 1976. World, country, and industry relationships in equity returns: implications for risk reduction through international diversification. *Financial Analysts Journal*, 32(1), pp.32-38.

Lessard, D.R. and Shapiro, A.C., 1982. A framework for global financing choices., Sloan School of Management, MIT. WP 1305-82

Lessard, D. R. and Shapiro, A.C., 1989. “Guidelines for global financing choices”. In Chew, D. H., Stern J. M., eds. New developments in international finance, Cambridge: Blackwell. pp.181–193.

Levy, H. and Sarnat, M., 1970. International diversification of investment portfolios. *The American Economic Review*, 60(4), pp.668-675.

Lewellen, W.G., 1971. A pure financial rationale for the conglomerate merger. *The Journal of Finance*, 26(2), pp.521-537.

Lewis, K.K., 2011. Global asset pricing. *Annual Review of Financial Economics*, 3(1), pp.435-466.

Li, K., Griffin, D., Yue, H., and Zhao, L. 2010. Cultural values and corporate risk-raking. University of British Columbia, Working Paper.

Li, K., Griffin, D., Yue, H. and Zhao, L., 2011. National culture and capital structure decisions: Evidence from foreign joint ventures in China. *Journal of International Business Studies*, 42(4), pp.477-503.

Lintner, J., 1965. The valuation of risk assets and the selection of risky investments in stock portfolios and capital budgets. *The Review of Economics and Statistics*, 47(1), pp.13-37.

Low, P.Y. and Chen, K.H., 2004. Diversification and capital structure: Some international evidence. *Review of Quantitative Finance and Accounting*, 23(1), pp.55-71.

Mac an Bhaird, C. and Lucey, B., 2014. Culture's influences: An investigation of inter-country differences in capital structure. *Borsa Istanbul Review*, 14(1), pp.1-9.

MacKie-Mason, J.K., 1989. "Do Firms Care Who Provides their Financing?," NBER Working Papers 3039, National Bureau of Economic Research, Inc.

Madura, J., 2012. International financial management.11th ed, Mason, OH : South-Western, Cengage Learning.

Mansi, S.A. and Reeb, D.M., 2002. Corporate international activity and debt financing. *Journal of International Business Studies*, 33(1), pp.129-147.

Markowitz, H., 1952. Portfolio selection. *The Journal of Finance*, 7(1), pp.77-91.

Mauer, D.C. and Sarkar, S., 2005. Real options, agency conflicts, and optimal capital structure. *Journal of banking & Finance*, 29(6), pp.1405-1428.

McKinsey & Company., 2017. Making capital structure support strategy. [online] Available at: http://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/making-capital-structure-support-strategy [Accessed 15 Jun. 2017].

McIvor, R., 2005. "The influence of transaction cost economics and the resource-based view on the outsourcing process", paper presented at the 16th Annual Conference of POMS, Chicago.

Mehra, R., 1978. On the financing and investment decisions of multinational firms in the presence of exchange risk. *Journal of Financial and Quantitative Analysis*, 13(2), pp.227-244.

Menéndez-Alonso, E.J., 2003. Does diversification strategy matter in explaining capital structure? Some evidence from Spain. *Applied Financial Economics*, 13(6), pp.427-430.

Michel, A. and Shaked, I., 1986. Multinational corporations vs. domestic corporations: Financial performance and characteristics. *Journal of International Business Studies*, 17(3), pp.89-100.

Mikkelson, W.H. and Ruback, R.S., 1985. An empirical analysis of the interfirm equity investment process. *Journal of Financial Economics*, 14(4), pp.523-553.

Miller, D., 1986. Configurations of strategy and structure: Towards a synthesis. *Strategic Management Journal*, 7(3), pp.233-249.

Miller, N.C. and M. v. N. Whitman, 1970. A mean-variance analysis of United States long-term portfolio foreign investment. *The Quarterly Journal of Economics*, 84(2), pp.175-196.

Mishra, D. and Tannous, G., 2010. Securities laws in the host countries and the capital structure of US multinationals. *International Review of Economics & Finance*, 19(3), pp.483-500.

Mittoo, U.R. and Zhang, Z., 2008. The capital structure of multinational corporations: Canadian versus US evidence. *Journal of Corporate Finance*, 14(5), pp.706-720.

Modigliani, F. and Miller, M.H., 1958. The cost of capital, corporation finance and the theory of investment. *The American Economic Review*, 48(3), pp.261-297.

Modigliani, F. and Miller, M.H., 1963. Corporate income taxes and the cost of capital: a correction. *The American Economic Review*, 53(3), pp.433-443.

Møen, J., Schindler, D., Schjelderup, G. and Tropina, J., 2011. International debt shifting: do multinationals shift internal or external debt?., CESifo Working Paper Series No. 3519, Munich.

Monteforte, D. and Staglianò, R., 2015. Firm Complexity and Capital Structure: Evidence from Italian Diversified Firms. *Managerial and Decision Economics*, 36(4), pp.205-220.

Morck, R. and Yeung, B., 1991. Why investors value multinationality. *Journal of Business*, 64(2), pp.165-187.

Myers, S.C. and Majluf, N.S., 1984. Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics*, 13(2), pp.187-221.

Myers, S.C., 1984. The capital structure puzzle. *The Journal of Finance*, 39(3), pp.574-592.

Myers, S.C., 1977. Determinants of corporate borrowing. *Journal of Financial Economics*, 5(2), pp.147-175.

Ngah-Kiing Lim, E., Das, S.S. and Das, A., 2009. Diversification strategy, capital structure, and the Asian financial crisis (1997–1998): Evidence from Singapore firms. *Strategic Management Journal*, 30(6), pp.577-594.

Niu, X., 2009. Theoretical and practical review of capital structure and its determinants. *International Journal of Business and Management*, 3(3), p.133-139.

O'brien, J.P., 2003. The capital structure implications of pursuing a strategy of innovation. *Strategic Management Journal*, 24(5), pp.415-431.

O'Brien, J.P., David, P., Yoshikawa, T. and Delios, A., 2014. How capital structure influences diversification performance: A transaction cost perspective. *Strategic Management Journal*, 35(7), pp.1013-1031.

Occhino, F., 2010. Is debt overhang causing firms to underinvest?. Federal Reserve Bank of Cleveland Economic Commentary issued July, 20, No. 2010-7.

Pagano, M., Röell, A.A. and Zechner, J., 2002. The geography of equity listing: why do companies list abroad?. *The Journal of Finance*, 57(6), pp.2651-2694.

Papaioannou, M.G., 2006. Exchange rate risk measurement and management: Issues and approaches for firms, IMF Working paper, Reference No. 572534, Available at: https://www.imf.org/external/pubs/ft/wp/2006/wp06255.pdf

Popescu, L. and Visinescu, S., 2009. A review of the capital structure theories. *Annals of Faculty of Economics*, 3(1), pp.315-320.

Porter, M.E., 2008. Competitive strategy: Techniques for analyzing industries and competitors. New York: Simon and Schuster.

Pound, J., 1988. Proxy contests and the efficiency of shareholder oversight. *Journal of Financial Economics*, 20, pp.237-265.

Prasad, D., Bruton, G.D. and Merikas, A.G., 1997. Long-run strategic capital structure. *Journal of Financial and Strategic Decisions*, 10(1), pp.47-58.

Qureshi, M.A., Akhtar, W. and Imdadullah, M., 2012. Does diversification affect capital structure and profitability in Pakistan?. *Asian Social Science*, 8(4), pp.30-42.

Rajan, R. and Winton, A., 1995. Covenants and collateral as incentives to monitor. *The Journal of Finance*, 50(4), pp.1113-1146.

Rajan, R.G. and Zingales, L., 1995. What do we know about capital structure? Some evidence from international data. *The Journal of Finance*, 50(5), pp.1421-1460.

Ramanujam, V. and Varadarajan, P., 1989. Research on corporate diversification: A synthesis. *Strategic Management Journal*, 10(6), pp.523-551.

Ramirez, A. and Kwok, C., 2009. Multinationality as a moderator of national institutions: The case of culture and capital structure decisions. *Multinational Business Review*, 17(3), pp.2-28.

Ramirez, A. and Kwok, C.C., 2010. Settling the debate on multinational capital structure using the CEPR measure. *Journal of Multinational Financial Management*, 20(4), pp.251-271.

Reeb, D.M., Kwok, C.C. and Baek, H.Y., 1998. Systematic risk of the multinational corporation. *Journal of International Business Studies*, 29(2), pp.263-279.

Rhee, S.G., Chang, R.P. and Koveos, P.E., 1985. The currency-of-denomination decision for debt financing. *Journal of International Business Studies*, 16(3), pp.143-150.

Ripley, D.M., 1973. Systematic elements in the linkage of national stock market indices. *The Review of Economics and Statistics*, 55(3), pp.356-361.

Robbins, S.M. and Stobaugh, R.B., 1972a. Financing foreign affiliates. *Financial Management*, 1(3), pp.56-65.

Robbins, S.M. and Stobaugh, R.B., 1972b. Comments to Stevens G.V., 1972. Capital mobility and the international firm. In International Mobility and Movement of Capital. NBER, pp. 323-366

Ross, S.A., 1988. Comment on the Modigliani-Miller propositions. *The Journal of Economic Perspectives*, 2(4), pp.127-133.

Rugman, A.M., 1976. Risk reduction by international diversification. *Journal of International Business Studies*, 7(2), pp.75-80.

Rumelt, R.P., 1974. Strategy, structure, and economic performance. Boston, MA: Harvard University Press

Safavian, M. and Sharma, S., 2007. When do creditor rights work?. *Journal of Comparative Economics*, 35(3), pp.484-508.

Scott, J.H., 1977. Bankruptcy, secured debt, and optimal capital structure. *The Journal of Finance*, 32(1), pp.1-19.

Sekely, W.S. and Collins, J.M., 1988. Cultural influences on international capital structure. *Journal of International Business Studies*, 19(1), pp.87-100.

Senbet, L.W., 1979. International capital market equilibrium and the multinational firm financing and investment policies. *Journal of Financial and Quantitative Analysis*, 14(3), pp.455-480.

Senchack, A.J. and Beedles, W.L., 1980. Is indirect international diversification desirable?. *The Journal of Portfolio Management*, 6(2), pp.49-57.

Severn, A.K., 1974. Investor evaluation of foreign and domestic risk. *The Journal of Finance*, 29(2), pp.545-550.

Shaked, I., 1986. Are multinational corporations safer?. Journal of International Business Studies,17(1), pp.83-106.

Shapiro, A.C., 1978. Financial structure and cost of capital in the multinational corporation. *Journal of Financial and Quantitative Analysis*, 13(2), pp.211-226.

Shapiro, A.C., 1984. The impact of taxation on the currency-of-denomination decision for long-term foreign borrowing and lending. *Journal of International Business Studies*, 15(1), pp.15-25.

Sharpe, W.F., 1964. Capital asset prices: A theory of market equilibrium under conditions of risk. *The Journal of Finance*, 19(3), pp.425-442.

Shleifer, A. and Vishny, R.W., 1997. A survey of corporate governance. *The Journal of Finance*, 52(2), pp.737-783.

Shyam-Sunder, L. and Myers, S.C., 1999. Testing static tradeoff against pecking order models of capital structure. *Journal of Financial Economics*, 51(2), pp.219-244.

Simerly, R.L. and Li, M., 2000. Environmental dynamism, capital structure and performance: a theoretical integration and an empirical test. *Strategic Management Journal*, 21(1), pp.31-49.

Singh, M. and Nejadmalayeri, A., 2004. Internationalization, capital structure, and cost of capital: evidence from French corporations. *Journal of Multinational Financial Management*, 14(2), pp.153-169.

Singh, M., Davidson, W.N. and Suchard, J.A., 2003. Corporate diversification strategies and capital structure. *The Quarterly Review of Economics and Finance*, 43(1), pp.147-167.

Solnik, B.H., 1974. An equilibrium model of the international capital market. *Journal of Economic Theory*, 8(4), pp.500-524.

Stanley, M.T., 1981. Capital Structure and Cost-of-capital for the Multinational Firm. *Journal of International Business Studies*, 12(1), pp.103-120.

Statman, M., 1987. How many stocks make a diversified portfolio?. *Journal of Financial and Quantitative Analysis*, 22(3), pp.353-363.

Stein, J.C., 1997. Internal capital markets and the competition for corporate resources. *The Journal of Finance*, 52(1), pp.111-133.

Stewart, G.B., 1991. The quest for value. New York, NY: Harper Business.

Stobaugh, R., 1970. Financing foreign subsidiaries of US-controlled multinational enterprises. *Journal of International Business Studies*, 1(1), pp.43-64.

Stonehill, A. and Stitzel, T., 1969. Financial structure and multinational corporations. *California Management Review*, 12(1) p. 91-95.

Taylor, P. and Lowe, J., 1995. A note on corporate strategy and capital structure. *Strategic Management Journal*, 16(5), pp.411-414.

Tomak, S., 2013. The impact of overconfidence on capital structure in Turkey. *International Journal of Economics and Financial Issues*, 3(2), pp.512-518

Truitt, J.F., 1970. Expropriation of foreign investment: Summary of the post World War II experience of American and British investors in the less developed countries. *Journal of International Business Studies*, 1(2), pp.21-34.

Vachani, S., 1991. Distinguishing between related and unrelated international geographic diversification: A comprehensive measure of global diversification. *Journal of International Business Studies*, 22(2), pp.307-322.

Van Horne, J.C. and Wachowicz, J.M., 2009. Fundamentals of financial management. 13th edition. Harlow: Financial Times Prentice Hall

Vicente-Lorente, J.D., 2001. Specificity and opacity as resource-based determinants of capital structure: evidence for Spanish manufacturing firms. *Strategic Management Journal*, 22(2), pp.157-177.

Vilasuso, J. and Minkler, A., 2001. Agency costs, asset specificity, and the capital structure of the firm. *Journal of Economic Behavior & Organization*, 44(1), pp.55-69.

Wardhani, R., 2015. The role of investor protection in corporate governance and accounting harmonization: Cross-country analysis in Asia. *Journal of Economics, Business & Accountancy Ventura*, 18(2), pp.267-282.

Williamson, O.E., 1979. Transaction-cost economics: the governance of contractual relations. *The journal of Law and Economics*, 22(2), pp.233-261.

Williamson, O.E., 1987. The economic institutions of capitalism: firms, markets, relational contracting, New York: Free Press

Williamson, O.E., 1988. Corporate finance and corporate governance. *The Journal of Finance*, 43(3), pp.567-591.

Williamson, O.E., 1991a. Strategizing, economizing, and economic organization. Strategic Management Journal, 12(S2), pp.75-94.

Williamson, O.E., 1991b. Comparative economic organization: The analysis of discrete structural alternatives. *Administrative Science Quarterly*, 36(2), pp.269-296.

Wrigley, L., 1970. Diversification and divisional autonomy. Unpublished doctoral dissertation, Harvard Business School.

Yilgor, A.G., Öz, İ.M.C. and Erkol, A.Y., 2015. Capital structure decision in multinational corporations: A study on companies traded on borsa Instanbul. *International Journal of Business Quantitative Economics and Applied Management Research*, 2(7), pp.1-23.