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Capital structure and law around the world

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ABSTRACT

In this research paper we examine the determinants of capital structure using a large panel of firms from 31 countries, all with different legal systems and different levels of investor protection. Our results confirm that institutional variables play an important role in a firm's capital structure, although firm-level determinants seem to be similar around the world. The most important conclusion of this research concerns the negative impact of the interaction between shareholder rights and profitability on market leverage. It suggests that the more shareholder rights there are, the fewer asymmetric problems occur.

1. Introduction

Capital structure has been a perennial subject of study since Modigliani and Miller (1958). In the 1960s and 1970s a considerable amount of research was concentrated on the analysis of the benefits and costs of debt, always assuming the hypothesis of market efficiency and symmetric information. The main objective was to study how firms balance bankruptcy costs with the benefits of tax shields (Kraus and Litzenberger, 1973; Scott, 1976; Kim, 1978). This field of investigation is called static trade-off theory. It is characterised by the idea that firms set a target for a leverage ratio and move towards it.

In the mid 70s, Jensen and Meckling (1976) and Myers (1977) focused on agency costs. Jensen and Meckling (1976) gave more emphasis to the conflicts between management and shareholders (or between control and ownership) and to the conflicts of interest between bondholders and stockholders. The first conflict is characterised by managements' resource to perquisites or aberrant investments,

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destroying the wealth of the firms' owners. Jensen (1986) argued that one way to solve this problem was by issuing debt, avoiding the use of free cash flows in inadequate decisions. The latter conflict can be seen in two different angles: the underinvestment problem (Myers, 1977), when firms – even in the presence of projects with NPV > 0 – reject their execution wherein stockholders refuse to invest in low-risk assets to avoid shifting wealth from themselves to the debtholders; and the asset substitution problem (Jensen and Meckling, 1976), a problem that arises when a company exchanges its low-risk assets for high-risk investments. This substitution transfers value from a firm's bondholders to its shareholders. Corporate finance in the 1980s placed more emphasis on information asymmetries among investors and firms. This microeconomic problem was called Pecking order theory by Myers (1984) and Myers and Majluf (1984). In its purest version, managers cannot issue equity under any circumstance, resulting in the assumption that there is no optimal capital structure. It posits that firms, in consequence of information asymmetries, prefer to use internal rather than external resources, and secured securities rather than unsecured ones. That is, investors would require an incentive to invest in risky securities because they would know less about a firm than its management did. Thus, equity, considering its risk, would be the last alternative a firm would choose for investment, and on the contrary, funds internally generated would be the best financing choice. In fact, according to the Pecking order theory and in opposition to the static trade-off theory, a firm does not have a well-defined target for leverage. Baker and Wurgler (2002) introduced a new theory based on the idea that capital structure is a persistent result of past decisions. Market timing assumes that there are changes in market-to-book values that will produce permanent changes on leverage, contradicting the static trade-off theory point of view. A firm tends to issue (repurchase) equity instead of debt when market value is high (low) in comparison to book value and past market values. The foundations of their theory stem from the results obtained, among others, by: Ritter (1991), who diagnosed the underperformance, particularly of small growth firms after they had gone public, taking advantage of the optimism of investors concerning potential earnings; Pagano et al. (1998), who studied whether the positive relationship between initial public offerings and market valuation resulted from higher investments in industries with growth opportunities or, on the other hand, was an attempt by the owners to misprice those firms excessively, concluding that the latter alternative was the most plausible; and Hovakimian et al. (2001), who suggested that stock prices have an important role on the firm's financing choice, issuing (repurchasing) equity and repurchasing (issuing) debt when a firm experiences stock price increases (decreases), suggesting that managers do not issue equity for reasons related to optimal capital structure, but rather as a way to avoid sharing earnings per share.

The determinants of firm capital structure decisions are typically examined in terms of firm-level characteristics, despite the fact that capital structure choices are also likely to be determined by a firm's institutional environment or a country's infrastructure.[1] Institutional variables and market imperfections influence corporate financing choices. A firm is more likely to raise equity or debt depending, respectively, on whether the country has an efficient capital market or a developed banking system. In an illiquid capital market, investors will demand higher stock returns, increasing the cost of equity of the firms. Under these circumstances a firm has incentives to raise funds using either the banking system or internally generated funds. This is the typical reason, among many others, why research on capital structure, more recently, has focused on the interaction between firm determinants and country infrastructures, namely legal environment, shareholder and creditor rights, capital market development, banking development, and other variables. Variables related to a national financial environment, such as legal system and financial development, are plausible reasons to enlighten why France, Germany, and Japan, for example, have banking-based systems and also why capital markets play an important role in financial choices and in corporate control methods in the US and the UK. Financial environments explain the involvement of German banks in firm decisions, why French firms are controlled by the State, as well as why Turkish firms are owned by families. Anglo-Saxon countries,

[1] Variables related to a national financial environment, such as legal systems and financial development, are seen as relevant not only in theories of capital structure, but also in other areas of corporate finance. For example, La Porta et al. (1999) study the relationship between anti-director rights, highly influenced by law, and corporate ownership. Levine and Zervos (1998), on the other hand, show that long-run economic growth can be achieved through a liquid capital market, complemented by a developed banking system, particularly where securities can be settled efficiently.