THE PECKING ORDER THEORY IN THE CONTEXT OF SMALL AND MEDIUM-SIZED ENTERPRISES: A NOTE

by *Oscar Domenichelli*

1. Introduction

Since the publication of the seminal articles on capital structure of Modigliani and Miller (1958) and Modigliani and Miller (1963), new theories have been proposed to overcome the hypothesis of perfect capital markets or the presence of perfect capital markets except for taxes[1]. Thus, all these theories have focused on specific capital market imperfections, such as:

a) tax advantages of debt and costs of financial distress (trade-off theory);

b) agency costs (Jensen and Meckling, 1976) which, in particular, led Jensen (1986) to elaborate the free cash flow theory;

c) information asymmetry between firm management, acting in current shareholder interests, and new shareholders (pecking order theory, hereafter POT).

The POT was developed by Myers (1984) and Myers and Majluf (1984) who maintained that the actual financial policy of firms is not shaped by a trade-off of the advantages and drawbacks of taxes and financial distress, nor by agency costs. In fact, they referred to the work of Donaldson (1961) who had already observed that enterprises, requiring financial resources, do not tend to achieve a specific capital structure, that is an optimal leverage, rather they show a preference for internal funds over external ones and, in case of external funds, firms prefer debt first, then hybrid instruments like convertible bonds and ultimately equity issues.

[1] See Harris and Raviv (1991) and Brennan (1995) for thorough discussions of the theories on capital structure.

Owing to the characteristics of the Myers (1984) and Myers and Majluf (1984) models, which will be discussed in depth later, they have been mostly used to describe the financial behaviour of listed companies and not of other ones, i.e. essentially small and medium-sized enterprises (SMEs). Nevertheless, many scholars have given their contribution to the POT, trying to assess its relevance in the context of SMEs.

Therefore, the purpose of this paper is to explain the reasons why the financial behaviour of most SMEs clearly fits the POT, by drawing on recent international papers.

This work is structured as follows. In the following paragraph the main features of the POT will be outlined. In the next paragraph I will discuss the relevance of the mentioned above theory for SMEs, also with reference to the Italian context. In the final paragraph I will summarize the conclusions drawn from the quoted literature.

2. The foundations of the POT

The POT was first proposed by Myers (1984), drawing on the work of Jensen and Meckling (1976) on agency theory, Myers and Majluf (1984) on information asymmetry and Ross (1977) on signalling theory.

Specifically, Myers and Majluf (1984) analysed the case of a firm with assets-in-place and a growth opportunity requiring a new financing and assumed the presence of perfect capital market conditions, except that investors do not know the real value of either the existing assets or the new opportunity, thus they face and adverse selection problem (Stiglitz and Weiss, 1981). Hence, they are not able to precisely value the securities issued to finance the new investment: if a firm announces an issue of new shares which are offered at too low a price there can be a transfer of value from old to new shareholders. On the contrary, if the new shares are overvalued the transfer goes the other way (Myers, 2001).

This information asymmetry between managers, acting in the interest of existing shareholders, and external stockholders discourages issuing of new shares, as this probably indicates to the market that shares are overvalued and thus an attempt to transfer wealth from new to old stockholders. Now, in this case, firms would not be able to issue new equity at the market price, but certainly lower[2], sometimes much lower, and it may

[2] Several studies confirmed for the American market, the fact that an announcement of a share issue has an immediate downward impact on average stock price of 3% (for example, among others: Kolodny and Suler, 1985; Asquith and Mullins, 1986; Hess and Bhagat, 1986; Masulis and Korwar, 1986; Mikkelson and Partch, 1986; and Muhtaseb and Philippatos, 1991); while the reaction to a bond issue is not significant (Dann and Mikkelson, 1984; Eckbo, 1986; Mikkelson and

cause a wealth reduction for old shareholders, as well as an increase in the company control in favour of new investors. Consequently, as more external financing is needed, firms will use safe then riskier debt, perhaps convertible securities or preferred stocks, and finally equity as a last resort.

In particular, Myers (1984) listed the following financial priorities:

1. firms prefer internal to external financing (information asymmetries are assumed relevant only for external capital);
2. they adapt their pay-out ratio to investment opportunities, but dividends are "sticky" and thus they slowly modify their target pay-out;
3. consequently, sticky dividend policies imply that internal cash flows are greater or lesser than required. If they are greater, the surplus is used to pay down debt or invest in negotiable securities, rather than repurchasing and retiring equity; if they are lesser, firms will first use their liquidity or sell negotiable securities;
4. if external finance is needed, then firms will issue the safest securities; therefore they will begin with debt, then carry on with hybrid forms of securities[3] such as convertible bonds and will ultimately issue equity.

According to Bianco (1997), the informational asymmetries of the POT suggest that when a firm does not own enough funds to finance all its profitable projects, external investors will require a risk premium to even finance a relatively good quality firm, so that they can compensate possible losses on "lemons". This premium may cause the cost of new equity for high quality firms to grow more than the opportunity cost of retained earnings. Asymmetry information on debt may determine similar questions, thus increasing the cost of incremental debt or rationing. For this reason internal funds may be less costly than new debt which is, in turn, less expensive than new share issues.

As it will be better realized afterwards, it is important to stress here that the POT specially applies to markets like the American one where shares are issued mainly by firm commitment underwritings and not through rights offerings and it is generally used to explain the capital structure of listed companies (Sànchez-Vidal and Martìn-Ugedo, 2005).

Moreover, the POT as well as the trade-off theory seem to be the most empirically studied models even if, so far, the evidence concerning the explanatory power of the trade-off and pecking order frameworks is to some

Partch, 1986; and Akhigbe, Easterwood and Pettit, 1997); and the reaction to a convertible bond issuing was in between the first two (Dann and Mikkelson, 1984; Eckbo, 1986; and Mikkelson and Partch, 1986).

[3] On the relationship between the POT and use of hybrid forms of debt/equity, you may read, among more recently published works, for example: Burlacu (2000); Bancel and Mittoo (2004); and Suchard and Singh (2006).

extent weak[4], not least owing to the fact that the validity of the trade-off model is often not denied, even when it should (Shyam-Sunder and Myers, 1999).

Nonetheless, as stressed by Hall *et al.* (2004), the specific importance of the POT for SMEs was emphasized by Ang (1991), Holmes and Kent (1991) and Cosh and Hughes (1994) and, by now, the relevance of the POT, in the context of SMEs, is well documented, for three main reasons which will be examined in detail in the following paragraph.

3. The relevance of the POT for SMEs

Firstly and paradoxically, the robustness of the POT is particularly strong for SMEs belonging to non-Anglo-Saxon countries, where a supposition of the Myers and Majluf (1984) model should not be applicable. In fact, in these countries the main method of selling shares is rights offerings and not firm commitment underwritings, such as the American one. Since in rights offerings the present shareholders have priority in buying new shares, this minimizes the possibility of wealth transfer; hence the Myers and Majluf position, whereby equity issue is the last method of financing additional investment of firms, appears to be weak in markets where rights offerings are the predominant method of equity issue.

Yet, as showed by Sànchez-Vidal and Martìn-Ugedo (2005), an important factor helps explain the observed hierarchy in financing choices of non-Anglo-Saxon SMEs. The point is that, especially in non-Anglo-Saxon countries, the access to capital markets is limited for SMEs; there is a so-called "finance gap" (see also Holmes and Kent, 1991) which can be divided into two components: a supply gap, concerning lack of funds or higher costs of acquisition and a knowledge gap, regarding limited awareness about all the possibilities and characteristics of external finance. Hence, as a result of the finance gap, the main long-term source of finance is internal funds and, if necessary, bank loans; therefore, the factor mentioned above makes possible a pecking order, which is very similar to that of Myers and Majluf (1984).

Also, this result seems to be in line with the paper of Mahérault (2000). This author studied two groups of SMEs which were all nearly the same size, but the first was composed of private companies and the second of listed firms. The nature of the financial behaviour of private firms is con-

[4] However, the analysis of the most recent empirical papers on the pecking order, taking into account the effects of specific factors, delineates an "extended" POT, which can substantially explain the features of capital structure of firms being observed (Domenichelli, 2007).

sistent with the POT and financial constraints clearly appear, whereas the financing policies of listed company are more classical, as investment and financing decisions seem to be independent and do not seem to be affected by lack of capital.

Secondly, when it comes to dealing with enterprises listed in very efficient capital markets, such as those of the USA or the United Kingdom, we have to take into account that the traditional hierarchy of the POT might experience a less clear evidence, because of greater diffusion of information concerning the values of assets-in-place or growth opportunities of companies (lesser informational asymmetry) and discretionary choices of managers which are often not totally aligned with current shareholder interests (thus undermining the maximization of wealth of current stockholders, via the pecking order sequence). Coherently, the empirical results of some recent researches on financial behaviour of firms which operate in more efficient capital markets, are not always concordant[5].

On the contrary, Watson and Wilson (2002) demonstrated that the harmony of interests between current shareholders and their managers (insiders), and the high information asymmetry between insiders and outsiders play a crucial role in verifying the pecking order model in SMEs which are owner-managed or closely held. Additionally, Lòpez-Gracia and Aybar-Arias (2000) showed that the financial policy of SMEs is significantly affected by company size; in particular, larger firms have higher level of self-finance, while smaller firms rely more on short-term financing; also business sector affects the short-term type of financing.

Thirdly, it is well established in the literature of SMEs that owner-managers of these firms show a strong aversion to partially relinquishing control of companies (Hamilton and Fox, 1998; Cressy and Olofsson, 1997; Jordan, Lowe and Taylor, 1998); what is more, this problem may even arise in case of rights issue, if current shareholders are not wealthy enough to purchase additional stocks, which would allow them to keep their ownership percentage. Consequently, the current shareholders would be unwilling to issue new equity. Interestingly, Ou and Haynes (2006) confirmed the importance of internal equity capital as a financing source for most small firms. Specifically, the authors describe the following pecking order: internal funds (included owner's capital and owner's loans); external borrowing from traditional lenders (such as commercial banks, finance companies, brokerage firms and leasing companies); and non-traditional lenders (such as families, other businesses, government and other individuals).

It is worth mentioning that the study of Ou and Haynes (2006) tends to

[5] Among supporters of the principle of the financial hierarchy, see Aggarwal and Zong (2006) and De Haan and Hinloopen (2003), while Gaud et al. (2005) show a more critical stance.

be general, that is it does not focus on the small dynamic firms, which are those small firms with high growth potential and high risk. In fact, these businesses, on the one hand, show, coherently with the majority of other SMEs, a strong preference for internal over external financing (Dahlstrand and Cetindamar, 2000; Giudici and Paleari, 2000; Hyytinen and Pajarinen, 2002); on the other hand, when external funds are required, then these enterprises tend to use equity capital rather than debt (i.e. venture capital from venture capital firms and business angels and equity capital acquired from the IPO market), especially in the first stage of their fast development (Brewer *et al.*, 1997; Hyytinen and Pajarinen, 2002; Hogan and Hutson, 2005), as the need to retain control disappears because of the necessity of supporting product and trade expansion (Domenichelli, 2007).

3.1 Some considerations about the applicability of the POT for Italian SMEs

The explanatory power of the POT for Italian SMEs has been studied for several years. While some of these surveys (Buttignon and De Leo, 1994; Bigelli *et al.*, 2001) clearly show the preference for retained earnings over external funds when firms finance new investments, others stress the importance of both the POT and trade-off theory in explaining the features of capital structure (Bontempi, 2002; Bonato *et al.*,1993); this may be due, at least partly, to the presence, in the empirical samples being examined, of firms of different size (that is not only SMEs). Therefore, additional research could confirm the relevancy of the POT for Italian SMEs and should be done.

Probably a few characteristics of Italian SMEs and their financial environment could help explain the validity of the POT.

If we look at the first question, the majority of Italian SMEs are not listed. Thus the asymmetric information costs of possible firm commitment underwritings are remarkable, because new shareholders cannot possess the same information as insiders; thus outsiders find it difficult to correctly value the assets-in-place and growth opportunities of SMEs (in this case informational costs may also be represented by the type of internal agreements between old and new shareholders which favour the latter ones; these may concern, for example, discipline of voting rights, ownership percentage not proportional to underwritten capital, etc.). Furthermore, in the most profitable SMEs the fraction of retained earning is often significant as a result of the strong commitment and identification of owners towards family or closely-held firms. Finally, their shareholders strongly avoid control dilution.

In terms of financial system, Italian capital markets are still rather inefficient, when they are compared to Anglo-Saxon ones (even if, since the end of the 90s, they have been quantitatively and qualitatively developing), whereas the role of banks in financing Italian SMEs is traditionally predominant.

Both the nature of Italian SMEs and features of the Italian financial system support the POT for Italian SMEs, that is mainly internal funds (included owner's capital and owner's loans), debt (often multiple bank debt as a consequence of the lack of personal or real-estate guarantees) and, as a last resort, "external" equity issues.

4. Conclusion

The objective of this paper was to discuss the key factors whereby the POT is applicable to SMEs. The analysis of recent international papers led me to conclude that the financial choices of SMEs clearly fit the POT, for three principal reasons.

Firstly, SMEs undergo a problem of "finance gap", which prevents them from acquiring capital or low cost capital, as well as from getting awareness about all the possibilities and aspects of external finance; thus the main long-term source of finance is retained earnings, and, if necessary, bank loans, similarly to the prescriptions of the POT.

Secondly, both the harmony of interests between current shareholders and their managers (insiders), who, very often, are the same individuals, and the high information asymmetry between insiders and outsiders (investors) do support the traditional hierarchy of the POT for SMEs.

Thirdly, the strong aversion to partially relinquishing control, even in case of rights offering if current shareholders cannot afford to buy extra securities, may determine the following pecking order for small businesses in general: internal funds (included owner's capital and oner's loans), external borrowing from traditional lenders and external borrowing from non-traditional lenders.

Furthermore, the study drew attention to the possibility that some characteristics of Italian SMEs (owner management, strong commitment and identification of owners towards firms and aversion to control dilution) and their financial environment (still rather inefficient capital markets and predominant presence of banks) may confirm the relevance of the POT in the Italian context. Hence new research could further explore this, by empirically examining the Italian context.

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Riassunto

Le scelte finanziarie delle PMI sono chiaramente conformi alla teoria del *pecking order* (PO) per tre principali motivi. In primo luogo, le PMI subiscono un problema di "lacuna finanziaria", sia in termini di offerta che di conoscenza. In secondo luogo, nelle PMI vi è unità di interessi tra gli interni (vale a dire gli attuali azionisti e i loro manager che, molto spesso, coincidono), come pure un'elevata asimmetria informativa tra gli interni e gli esterni (gli investitori). Infine, i proprietari delle PMI evitano fortemente la rinuncia al controllo, perfino nel caso di emissioni azionarie con diritto di opzione se gli attuali azionisti non possono permettersi di comperare nuovi titoli di *equity*. Vi è la possibilità di effettuare ulteriori ricerche che tentino di confermare empiricamente la rilevanza del PO nel contesto delle PMI italiane.

Abstract

The financial choices of SMEs clearly fit the pecking order theory (POT) for three main reasons. Firstly, SMEs undergo a problem of financial gap, in both terms of supply gap and knowledge gap. Secondly, in SMEs there is unity of interests between insiders (i.e. current shareholders and their managers who, very often, are the same individuals), as well as a high information asymmetry between insiders and outsiders (investors). Finally, owners of SMEs strongly avoid relinquishing control, even in case of rights offerings if current shareholders cannot afford to buy extra securities. There is possibility for further research which tries to empirically confirm the relevance of the POT in the context of Italian SMEs.

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