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The determinants of corporate capital structure

5.1 Introduction

Following the descriptive analysis of financial ratios in the previous chapter, this chapter investigates the determinants of corporate capital structure and, in particular, bank debt. This analysis also aims at revealing the existence of constraints on firms' choices, thus providing information on the degree of imperfections that characterise credit and financial markets in Hungary. It should be noted, however, that our analysis does not represent a direct a test for the presence of financial market imperfections. It is rather an empirical investigation of firms' capital structure that can *indirectly* reveal the presence of such imperfections.

The empirical literature on capital structure choice is vast, mainly referring to industrialised countries (see e.g. Titman and Wessels (1988) and Rajan and Zingales (1995)), but also to Eastern European economies: Cornelli *et al.* (1998) for Hungary and Poland, Revoltella (1998) for the Czech Republic, and Carare and Perotti (1997) for Romania. Nevertheless, while in all the above mentioned works the analysis is conducted on cross-section data, we analyse panel data spanning over 10 years of the transition process. The panel structure of the data set and the size of both the sectional and time dimensions can considerably improve our understanding of the determinants of firms' capital structure in transition economies.

The chapter is organised as follows: Sec. 5.2 introduces the theoretical framework, Sec. 5.3 describes the data set and provides some descriptive statistics, Sec. 5.4 discusses the methodology, and Sec. 5.5 presents the results.

5.2 The theory

As emphasised in chapter 2, the analysis of corporate capital structure assumes relevance mainly in the presence of financial market imperfections. It is

because of such imperfections that different financing methods become imperfect substitutes and determine the existence of an optimal capital structure. We have also argued that there are two good reasons why these imperfections are likely to be particularly severe in Eastern Europe.

The first is that in the planned system, banks did not carry out monitoring or risk assessment activities: they were lending to firms what was stated in the plan, but they were not actually concerned with the creditworthiness of the borrower, given that the solvency of the whole system was guaranteed by the state. As a consequence, even if there existed a relationship between borrowers and lenders, this relationship was largely uninformative. With the beginning of transition, lenders had to learn to be concerned about the creditworthiness of borrowers. However, on the one hand the former did not have any experience in monitoring activity, and on the other hand the latter did not have a credit history or reputation to rely on.

The second reason is the economic instability that characterised the early stages of transition. In an unstable economic system, current performance is a poor indicator of future performance. Therefore, not only borrowers did not have a reputation deriving from the past, but they also had great difficulties in building one *ex novo*. In this context, the informational problems that are likely to emerge may cause severe forms of credit rationing and constrain firms in their capital structure decisions.

In this section we analyse from a theoretical perspective the factors that are likely to affect the capital structure of firms. We will not consider theories based on tax considerations, that give rise to what are called static trade/off models.[1] We focus instead on the theories that emphasise the relevance of informational failures, known also as *pecking order* theories (see Harris and Raviv, 1991). The reason for such a choice is twofold: firstly, as recently shown by Shyam-Sunder and Myers (1999), the pecking order theory describes extremely well corporate structure decisions, while the same does not apply to tests of the static trade-off theories. The second and more important reason is that the measure of debt used in the present analysis is short term debt. It is well known that tax rates are more likely to affect long term debt decisions rather than short term ones.

Nevertheless, it should be noted that "pecking order" theories have to be amended in order to be applicable to the context of Eastern Europe. In particular, the limited size of equity markets in transitional economies has so far excluded an important element in the choice about the capital structure, whereas the widespread use of trade credit, inherited from the planned system, has introduced an additional determinant of firms' decisions. In addition, ownership characteristics may also constitute an important factor.

[1] These models identify an optimal capital structure that arises from trading off the tax advantages of borrowing and the bankruptcy costs caused by an excessive level of debt (see Bradley *et al.*, 1984).