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Financial constraints and investment decisions

6.1 Introduction

This chapter investigates whether and to what extent reforms to the Hungarian financial system have succeeded in increasing the efficiency of credit allocation to the corporate sector.[1] In particular, we examine the role of financial factors for the investment decisions of a large panel of Hungarian firms in the period 1989 to 1999, focusing on changes in corporate behaviour before and after the introduction of major financial reforms.

The task of establishing an efficient credit allocation system is particulary difficult in transition economies, as it requires to design institutions and rules to impose financial discipline on firms that were often subject to a soft budget constraint. In the past two decades a number of major changes introduced in order to increase the efficiency of the Hungarian financial system, with the banking sector reform and the new bankruptcy law playing a major role (see chapter 3). Institutional reforms, however, are only a necessary condition increasing the efficiency of credit allocation.

A number of recent studies have examined the transition process of formerly centrally planned economies, focusing on the progresses made in establishing a functioning financial system (see e.g. Bonin and Schaffer (1995, 2002), Halpern and Körösi (2000), Colombo and Driffill (2003), Halpern and Wyplosz (1998), Stephan, 1999). In particular, the role of financial constraints for corporate financial decisions has been addressed by several studies for a number of transition economies (see e.g. Schaffer (1998), Lízal and Svejnar (2002), Budina *et al.* (2000), Bratkowski *et al.* (2000), Volchova (2003), Maurel (2001), Sgard, 2001).

The analysis presented in this chapter is the first investigation of the role of financial factors for investment decisions based on a comprehensive firm-level panel data set for the Hungarian economy. In addition, the long time

[1] This chapter draws on Colombo and Stanca (2003)).

period covered by our data set allows us to compare firms' investment behaviour *before* and *after* the introduction of major financial reforms. We can therefore provide evidence not only on the extent to which firms face a soft budget constraint, but also on whether financial system reforms have affected the degree of credit rationing or softness of the budget constraint. We also provide a disaggregate analysis by ownership type, comparing the investment behaviour of state-owned, private domestic and foreign-owned firms.

We find that the role of financial factors for investment decisions has changed significantly after the introduction of financial reforms, and firms were affected differently depending on their ownership type. In the post-reform period, small private firms came to face binding financial constraints, whereas state firms kept facing a soft budget constraint, although the investment decisions of small state firms became more sensitive to financial conditions. Foreign-owned firms were subject to a hard budget constraint in both periods, but became less sensitive to financial conditions after 1993, indicating that reforms have been successful in lowering informational costs.

The chapter is structured as follows. Section 2 reviews the empirical literature on the role of financial factors and informational asymmetries for corporate investment decisions, considering both market and transition economies. Sections 3 and 4 describe the data set and the econometric methodology, respectively. Section 5 presents and discusses the results of the empirical analysis.

6.2 Related literature

In the last decades, the neoclassical view that the investment decisions of firms are independent of financial factors has been gradually challenged by both theoretical and empirical studies. First, a number of authors showed that the costs of internal and external finance may differ under more realistic assumptions about capital market imperfections (see e.g. Stiglitz and Weiss (1981)) and Myers and Majluf, 1984). More recently, it has been shown that, under asymmetric information, the net worth positions of borrowers determine their capacity to obtain external funds and, in turn, their investment and production levels (see e.g. Bernanke and Gertler (1989), Calomiris and Hubbard (1990), Gertler (1992), Greenwald and Stiglitz (1993b), and Kiyotaki and Moore, 1997a).

At the empirical level, following the seminal work by Fazzari *et al.* (1988), the relevance of financial factors for corporate investment decisions has been commonly investigated by adding financial indicators to empirical specifications derived from a real investment model, and testing that financial factors are more important for firms that a-priori can be considered likely to be credit