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Access to external finance: Theory and evidence on the impact of monetary policy and firm-specific characteristics

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Abstract

This paper examines firms' access to bank and market finance when allowance is made for differences in firm-specific characteristics. A theoretical model determines the characteristics such as size, risk and debt that would determine firms' access to bank or market finance; these characteristics can result in greater (or lesser) tightening of credit when interest rates increase. An empirical evaluation of the predictions of the model is conducted on a large panel of UK manufacturing firms. We confirm that small, young and risky firms are more significantly affected by tight monetary conditions than large, old and secure firms.

JEL classification: E32; E44; E51

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1. Introduction

A considerable body of literature has explored the credit channel of monetary transmission under imperfect information including papers by Bernanke and Blinder (1988), Romer and Romer (1990), Friedman and Kuttner (1993), Bernanke (1995) to mention just a few. The influence of this channel is felt through the balance sheet (Gertler and Gilchrist, 1994), the effects of bank lending on those firms that are particularly bank dependent (Kashyap et al., 1993) and through the stimulation of endogenous cycles or accelerator effects (Fuerst, 1995; Kiyotaki and Moore, 1997; Bernanke et al., 1999).

Institutions that use information from company's balance sheets as market signals of creditworthiness are referred to by Bernanke (1995) as offering credit through the *balance sheet channel*. Rationing is exercised by pricing the loans to reflect the observed risks in balance sheet information, driving a wedge in the relative price of lending to alternative sources of external funds. The price is based on factors that are easily monitored such as the profitability, financial wealth, previous loan payments history (see Leland and Pyle, 1977; Fama, 1984) as well as outstanding debt, and will be influential in determining the eligibility of a company for access to loans.

For small and medium sized enterprises banks play a crucial role in the provision of external finance and this gives rise to the *bank lending channel*, see Bernanke and Blinder (1988). It is assumed that bank loans and alternative sources of finance are imperfect substitutes and that persistent differentials in the spreads emerge because there is imperfect arbitrage. Imperfection in substitutability arises because small and medium sized firms may be unable to access other markets for funds and therefore have a certain dependence on banks for external sources of funds (see Kashyap and Stein, 1994). It also arise because of imperfect substitutability on the supply side since banks themselves might not regard bank loans and securities as perfect substitutes in their own portfolios, and therefore the response of the banking sector to a monetary tightening has a direct effect on the provision of loans, which affects small and medium sized firms disproportionately.

Financially constrained firms are more exposed than unconstrained firms to monetary cycle through both channels, and this implies that monetary policy is unlikely to have uniform effects across firms. A significant literature has developed to attempt to detect the impact of financial constraints on real activity by exogenously classifying firms into constrained and unconstrained groups on the basis of their size, dividend payouts and capital structure (cf. Fazzari et al., 1988, and the survey by Hubbard, 1998).[1] This approach has raised a number of criticisms. Kaplan and

[1] The original approach by Fazzari et al. (1988) classified firms according to whether they were likely to be financially constrained. Once classified, the firms were analysed within the high-dividend, medium dividend and low-dividend groupings to assess the sensitivity of investment to net worth measured by cash flow. The highest sensitivities were found for firms categorized as financially constrained, and this was taken to indicate that financial constraints were binding in this case. However, Kaplan and Zingales (1997, 2000) have made use of more detailed information in financial statements from annual reports to classify the same firms over the same sample period into three categories 'financially constrained', 'possibly financially constrained' and 'not financially constrained'. Using this classification they find that financially constrained firms have the lowest sensitivity of investment to cash flow.