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European Economic Review 50 (2006) 603–629
EUROPEAN ECONOMIC REVIEW
www.elsevier.com/locate/econbase

Trade credit, bank lending and monetary policy transmission

Simona Mateut, Spiros Bougheas*, Paul Mizen

School of Economics, University of Nottingham, University Park, Nottingham NG7 2RD, UK

Received 31 March 2003; accepted 12 January 2005
Available online 19 February 2005

Abstract

This paper investigates the role of trade credit in the transmission of monetary policy. Most models of the transmission mechanism allow firms to access only financial markets or bank lending according to some net worth criterion. In our model we consider external finance from trade credit as an additional source of funding for firms that cannot obtain credit from banks. We predict that when monetary policy tightens there will be a reduction in bank lending relative to trade credit. This is confirmed with an empirical investigation of 16,000 UK manufacturing firms.

JEL classification: E44; E52

Keywords: Trade credit; Bank lending; Monetary policy transmission; Credit channel

1. Introduction

Recent research has ensured that market imperfections have a central place in the transmission of monetary policy through the credit channel. When there is imperfect information, alternative types of credit cannot be regarded as perfect substitutes and hence the choice of external finance on the part of firms, and the availability and

*Corresponding author. Tel.: +44 115 8466108.
E-mail address: spiros.bougheas@nottingham.ac.uk (S. Bougheas).

0014-2921/$ - see front matter
doi:10.1016/j.euroecorev.2005.01.002

price of external funds offered by financial intermediaries will depend on factors related to the strength of firms' balance sheets. This approach to the monetary policy transmission is known as the *broad credit channel view*, extensively surveyed in Gertler (1988), Hubbard (1995) and Kashyap and Stein (1994). Some firms with characteristics that prevent effective access to alternative markets for funds such as corporate paper or bond markets may be particularly dependent on bank finance and this gives rise to the *bank lending channel*.

It has been a characteristic of this literature to think of market finance and bank finance as the two available external finance options. For example theoretical research has been developed to allow bank lending and a capital market to co-exist even though the former is more expensive (see Diamond, 1991; Besanko and Kanatas, 1993; Hoshi et al., 1993; Holmstrom and Tirole, 1997; Bolton and Freixas, 2000; Repullo and Suarez, 2000). In these papers, capital market imperfections mean that access is denied to the capital market for firms with a weak financial position. These models predict that periods of monetary tightening will mostly affect financially weak firms (usually small firms) by restricting their access to bank loans and will cause a proportionate decline in aggregate investment, which has been corroborated using disaggregated data in Gertler and Gilchrist (1994) and Oliner and Rudebush (1996).

In this paper, we consider another important source of external finance for firms, namely trade credit. According to a Federal Reserve Board Study by Elliehausen and Wolken (1993) trade credit represents about 20% of non-bank non-farm businesses' liabilities, and up to 35% of total assets. A later study by Rajan and Zingales (1995) calculated that trade credit represented 17.8% of total assets for all American firms in 1991. In many other countries, such as Germany, France and Italy, trade credit represents more than a quarter of total corporate assets. And in the United Kingdom 70% of total short-term debt (credit extended) and 55% of total credit received by firms comprised trade credit (Kohler et al., 2000). Eighty per cent of all firms use trade credit according to a review by Atanasova and Wilson (2002), and the scale of trade credit usage is much increased during periods of monetary contractions.

Meltzer (1960) was the first to suggest that a *trade credit channel* might be a substitute for the *bank lending channel*, but from a theoretical point of view the implications of trade credit for the broad credit channel view have not yet been explored. Existing theoretical works are mostly concerned with explaining the use of trade credit. For example, Ferris (1981) and Schwartz (1974) have suggested that trade credit provides transactions services to firms, and Cunat (2003) demonstrates that, in the context of limited enforceability of debts, firms may use *both* trade credit and bank credit when the supplier and the buyer engage in specific production processes. Other papers have explained why trade credit is extended at all. Jain (2001) argues that non-financial firms extend credit to their customers as intermediaries between banks and the ultimate buyers. This supports the conjecture of Biais and Gollier (1997) that the seller's provision of trade credit can provide a valuable signal to the banker that the buyer is worthy of credit, thus mitigating credit rationing. However, these papers do not explain what the consequences might be for corporate finance and monetary policy making if firms take up trade credit when