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Do firms use the trade credit channel to manage growth? ☆

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ABSTRACT

While many theories of accounts payable and receivable are related to firm performance, there has not been a direct test whether firms actively use them to manage their growth. We argue that it is not just the accounts payable but also the accounts receivable that matter. While the former help to alleviate imperfections in the financial market, the latter do so in the product market. Using over 2.5 million observations for 600.000 firms in 8 euro area countries in the period 1993–2009, we show that firms use the trade credit channel to manage growth. In countries where the trade credit channel is more present, the marginal impact is lower, but the total impact is still higher. Further, firms that are more vulnerable to financial market imperfections, rely more on the trade credit channel to manage growth. Finally, we show that also the overall conditions of the financial market matter for the importance of the trade credit channel for growth.

1. Introduction

Trade credit is an important source of finance for firms, especially when firms find it difficult to obtain external funding via credit institutions. Over recent years, trade credit in the form of accounts payable and receivable of euro area non-financial firms has moved broadly in line with the business cycle. This confirms the typically procyclical pattern of accounts payable and receivable, as they are closely linked to the exchange of goods and services and, hence, to economic activity (see Fig. 1). In general, the flows of trade credit have remained a stable source of finance for euro area companies but tended to decline when bank credit was becoming easily accessible since 2005.

During the recent financial crisis there has been an increase in the use of trade credit, in particular from mid-2009, likely to compensate the strong decline in short-term bank loans, which can be seen in Fig. 1. Interestingly, the fact that the decline in the annual growth of accounts payable and receivable between non-financial firms has been less pronounced than that in nominal GDP growth may indicate that trade credit between companies has played a buffer role in the recent crisis.

If so, it is important to know through which mechanism trade credit plays this role. Trade credit is provided when there is a delay between the delivery of goods and services and the payment for them. While early trade credit theories relate the use of trade credit to the presence of information asymmetries and the monitoring advantage that suppliers have over banks, more recent analyses focus on the importance of trade credit (mainly in the form of accounts receivable) as a cash management tool. As illustrated in Fig. 2, the use of trade credit of a firm is indeed twofold and is interlinked with the need to finance production. A firm can be seen as a supplier and therefore its accounts receivable (TCR) are a proxy for how much it lends to customers. However, a firm is also a customer and its accounts payable (TCP) are its borrowing from suppliers. Moreover it is often shown that firms that receive trade credit from their own suppliers are more likely to extend trade credit to their customers.

In this paper we argue that it is the combination of both aspects of trade credit (accounts payable and receivable) that is important for a firm's performance. First, because firms manage both their

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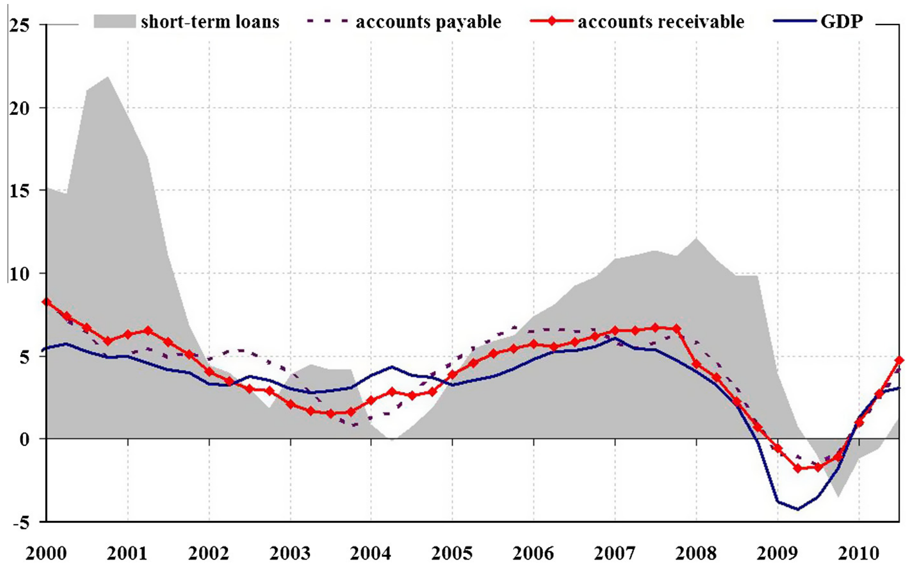

Fig. 1. Trade credit, short-term loans and euro area GDP (annual percentage changes). *Source:* ECB and Eurostat, euro area integrated accounts. *Notes:* Annual percentage changes are calculated as the four-quarter sum of transactions over the amounts outstanding four quarters earlier. Accounts receivable and payable are estimated by the ECB on the basis of partial information. The year-on-year percentage changes in euro area GDP are expressed in seasonally adjusted current prices.

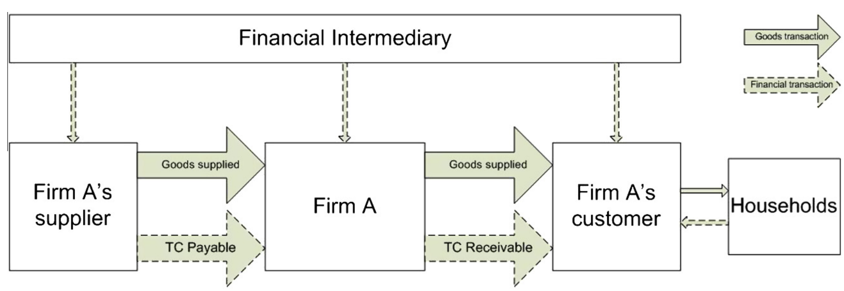

Fig. 2. Firm performance and the financial environment. *Notes:* Figure based on Petersen and Rajan (1997).

accounts payable and accounts receivable to optimise their firm performance. And second, because in our view there is an interaction between the financial market and this trade credit channel. In the textbook example, all firms in a production chain finance their production through a financial intermediary, and so, every firm is paid for his goods at the moment of delivery. If, for some reason, these financial intermediaries do not (or no longer) provide sufficient means to finance production, firms might deliver the goods to their costumers down the chain without requiring immediate payment. Hence each customer, as seen in Fig. 2, will receive trade credit (TCP) from his supplier and in turn he will extend trade credit (TCR) to his own customers. This chain continues until the final firm sells his goods to the households, after which the final goods firm repays his trade credit and, after that, every firm up the production chain.

Overall, it is thus crucial for a firm to receive trade credit from its suppliers in order to finance production, but it is also important to extend trade credit in order to sell its goods to its constrained customers. We argue that firms do not need to finance these accounts receivable with internal funds fully, but that firms may have a contract with a financial intermediary which allows them to draw on short term liabilities to finance a large portion of their accounts receivable. Mester et al. (2001) cite such a contract between a small-business borrower and a Canadian bank:

> *"Total outstandings are not to exceed 75% of good accounts receivable, excluding accounts over 90 days and inter-company accounts plus 50% of inventory, up to a maximum of $5 million dollars, including raw material, work in process and finished products, less priority claims."*

Basically, such credit lines imply that most of a firm's accounts receivable do not affect the firm's working capital and that the bank is indirectly financing the firm's customers, while it is still the firm (and not the bank) that is bearing the monitoring costs and the default risk.[1] This mechanism, where receivables are partially self-financing, has not received much attention in the literature, although it has been noted by few authors (Stowe et al., 1980; Mian and Smith, 1992; Mester et al., 2001; Burkart and Ellingsen, 2004).

In order to protect their accounts receivables from credit risk related to losses, firms can purchase credit insurance. Moreover, firms with insured receivables will be more likely to get a bank contract that allows them to draw on short term liabilities with receivables as pledged collateral. According to the International Credit Insurance and Surety Association (ICISA) in 2010 its members insured trade credit in excess of 1,6 trillion euro. This popular

[1] As argued in the literature, there are many economic reasons why a firm would perform these tasks rather than a financial intermediary.