Available online at www.sciencedirect.com
ScienceDirect
Journal of Financial Economics 83 (2007) 453–469
JOURNAL OF Financial ECONOMICS
www.elsevier.com/locate/jfec

Trade credit and bank credit: Evidence from recent financial crises ☆

Inessa Love[a], Lorenzo A. Preve[b,*], Virginia Sarria-Allende[b]

[a]*Development Research Group, The World Bank, Washington, DC 20433, USA*
[b]*IAE, Universidad Austral, Buenos Aires, Argentina*

Received 17 January 2005; received in revised form 28 October 2005; accepted 4 November 2005
Available online 18 September 2006

Abstract

This paper studies the effect of financial crises on trade credit for a sample of 890 firms in six emerging economies. Although the provision of trade credit increases right after a crisis, it contracts in the following months and years. Firms that are financially more vulnerable to crises extend less trade credit to their customers. We argue that the decline in aggregate trade credit ratios is driven by the reduction in the supply of trade credit that follows a bank credit crunch, consistent with the "redistribution view" of trade credit provision, whereby bank credit is redistributed via trade credit from financially stronger firms to weaker firms.

JEL classification: G20; G32

Keywords: Emerging markets; Financial crises; Trade credit

☆ This paper is part of the dissertation of Lorenzo Preve (University of Texas, Austin) and Virginia Sarria-Allende (Columbia Business School). We thank Andres Almazan, Charles Calomiris, Raymond Fisman, Jay Hartzell, Charles Himmelberg, Laurie Simon Hodrick, Patrick Honohan, Ross Jennings, Andrei Kirilenko, Pamela Moulton, Bob Parrino, Mitchell Petersen, Francisco Perez Gonzalez, Sheridan Titman, Roberto Wessels, participants at the University of Texas seminar and the World Bank seminar, and an anonymous referee for helpful comments and suggestions. We thank Leora Klapper for sharing the foreign debt data. This paper's findings, interpretations, and conclusions are entirely those of the authors and do not necessarily represent the views of the World Bank, its Executive Directors, or the countries they represent.
*Corresponding author.
E-mail address: LPreve@iae.edu.ar (L.A. Preve).

0304-405X/$ - see front matter
doi:10.1016/j.jfineco.2005.11.002

1. Introduction

The emerging markets financial crises of the 1990s present extreme cases of the collapse of institutional financing. Consequently, they provide researchers an opportunity to study the role of alternative sources of financing during periods of severe monetary contraction. Previous evidence from non-crisis settings suggests that trade credit can play an important role by compensating for unavailable bank credit.[1] In this paper, we study the use of trade credit during financial crises to examine the role played by trade credit as a last resort for funding under more extreme circumstances.

In particular, we study the effects of the 1997 Asian crisis on firms operating in Indonesia, South Korea, Malaysia, the Philippines, and Thailand, and the effects of the 1994 peso devaluation on Mexican firms. We find an increase in the amount of trade credit provided and received immediately after a crisis. Surprisingly, however, the amount of credit provided (as opposed to received) collapses in the aftermath of the crisis, and continues to contract for several years. Our sample contains mostly large, publicly traded companies, which are likely to be the most resilient to crisis events. This makes the post-crisis decline in trade credit provision even more puzzling.

The interpretation of these aggregate results presents a familiar identification problem: the decrease in trade credit after the crisis could be due to either the unwillingness of customers to take on more credit (demand effect) or the inability of suppliers to provide such credit (supply effect). Prior research (e.g., Petersen and Rajan, 1997) generally presupposes that firms will take any credit offered, thereby assuming away the problem. Our unique identification strategy relies on pre-crisis indicators of a firm's vulnerability to financial crises together with exogenous crisis events. Firms with more vulnerable financial positions are more likely to be (negatively) affected by crisis events, and are thus more likely to reduce their supply of credit to customers and increase their use of credit from suppliers. We use a firm's reliance on short-term debt as our main indicator of financial vulnerability to a crisis (due to increased interest rates and difficulties in rolling over debt). We find that firms with high short-term debt reduce the provision of trade credit relatively more in response to an aggregate contraction in bank credit, consistent with a reduction in the supply of trade credit caused by the crisis. We find similar results using alternative indicators of a firm's financial health, such as foreign currency denominated debt, cash stocks, and cash flows.

The temporary increase in trade credit at the peak of a financial crisis is likely to be caused by the accumulation of unpaid credit until suppliers take write-downs (or buyers resume payments). We conclude that while trade credit terms can be extended temporarily in the short-run, such terms can not fully compensate for the long-term contraction in bank credit that stems from a financial crisis.

On the surface, our results seem to contradict previous findings that when bank credit is unavailable, trade credit is often used as a substitute (e.g., Petersen and Rajan, 1997; Nilsen, 2002; Fisman and Love, 2003; and Wilner, 2000). Based on this literature, one might expect that during a financial crisis, when bank credit shrinks, trade credit should become relatively more important as a source of finance and therefore the use of trade credit (scaled by economic activity) should increase.

[1] See, for example, Petersen and Rajan (1997), Nilsen (2002), Fisman and Love (2003), and Wilner (2000).