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The Effectiveness of Public Credit Guarantees in the Japanese Loan Market ☆

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ABSTRACT

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This paper examines the effectiveness of public credit guarantee programs in not only increasing the availability of loans to small and medium enterprises (SMEs), but in also improving the ex-post performance of borrowing firms. Using a unique panel data set, we identify the effects of a massive credit guarantee program implemented by the Japanese government from 1998 to 2001. While we do find that the availability of loans increased for program participants, when loans were provided by undercapitalized banks the increased liquidity persisted for only a few years. Further, the ex-post performance of program participants, with the exception of firms with sizable net worth, deteriorated relative to their non-participating counterparts. *J. Japanese Int. Economies* **24** (4) (2010) 457–480. Research Institute of Economy, Trade and Industry, Japan; Department of Economics, Kyoto Sangyo University, Japan; Department of Economics, California State University, Long Beach, United States.

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1. Introduction

To facilitate the flow of funds to small businesses, governments often rely on credit guarantees, which ensure the repayment of defaulted loans. In fact, according to Green (2003), credit guarantee programs are employed in almost 100 countries – about half of all countries in the world. In contrast to other similar policy measures, such as direct lending, credit guarantee schemes are used more frequently and appear to be gaining momentum. Further, their importance has become even more pronounced in the face of the current financial crises. Since the onset of the crisis, credit guarantees have been the most frequently employed policy for SMEs in the OECD countries. As shown in Table 1, nineteen of the 23 OECD nations have created or enhanced their credit guarantee programs.

The economic impact of credit guarantees has been examined in a variety of theoretical studies, including Mankiw (1986), Gale (1990, 1991), and Li (1998), to name a few.[1] Broadly, the justification for government intervention in credit markets is that information problems result in inefficiencies in SME financing. On the other hand, government intervention may exacerbate information problems and worsen credit conditions.

Because of the importance, politically and in terms of financial commitment, of these programs, researchers from many countries have tried to empirically investigate the impact of these programs. Studies using aggregated data include Hancock and Wilcox (1998), Craig et al. (2005, 2007), and Hancock et al. (2008). The reliance of these studies on aggregated data, however, makes it difficult to reach a definitive conclusion about the effectiveness of these programs by masking the true reactions of individual firms.

Recently, there have been a few disaggregated studies, which attempt to quantitatively analyze the effectiveness of credit guarantees. Cowling (2007) finds that firms participating in the credit guarantee program in the UK have a reduced probability of being credit rationed. Riding and Haines (2001) and Riding et al. (2006) find positive job creation and increased loan availability amongst Canadian guarantee program users.[2]

Even these firm-level studies have limitations, however. Some studies limit the scope of analysis to program participants without also considering non-participants, while others are unable to identify when firms enter into a guarantee program. Further, several studies rely on cross-sectional data, meaning firm performance prior to and following the introduction of the program is not available. These issues make a precise identification of the guarantee scheme's effectiveness very difficult. Finally, among the studies using firm-level data, very few also have information on each firm's financial institutions.

In this study, by utilizing a new and unique dataset, we are able to overcome many of these difficulties and better identify the effectiveness of the credit guarantee program in Japan. We employ a panel data set of 2066 guarantee program users and 7980 non-users, accompanied by information on each firm's financial institutions. We also focus on a specific credit guarantee program, which was unprecedented in size. For a limited period of time (1998–2001), the Japanese government guaranteed approximately 30 trillion yen (300 billion US dollars) worth of loans or about 10% of total lending to SMEs in a program officially known as the "Special Credit Guarantee Program for Financial Stability" (SCG program). Its intent was to alleviate the effects of a severe credit crunch among SMEs brought about by a contraction in the financial sector. What sets the SCG program apart from other credit guarantee schemes is that it was accessible by nearly all SMEs as long as they were not in default, were not tax delinquent, did not have significantly negative net worth, or were not "window-dressing" their balance sheets. In addition, the SCG program, like Japan's other loan guarantee programs implemented during the period, covered 100% of the default cost incurred by borrowers. Because of this setup, the SCG program provides a unique opportunity to determine if government credit programs improve the availability of loans and the performance of borrower firms.

The primary contributions of this paper are as follows. First, we provide a comprehensive examination of the "effectiveness" of the credit guarantee scheme. In addition to considering loan availability, we also examine asset allocation and the ex-post performance of participating firms. To

[1] Other notable papers include Smith and Stutzer (1989), Innes (1991), and Williamson (1994).

[2] Other articles include Zecchini and Ventura (2007) on the credit guarantees in Italy with a limited scope on fund availability.