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Foreign bank entry and firms' access to bank credit: Evidence from China

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A B S T R A C T

This paper studies the impact of foreign bank entry on domestic firms' access to bank credit using a within-country staggered geographic variation in the policy of foreign bank lending in China. The paper finds that after foreign bank entry profitable firms use more long-term bank loans; whereas firms with higher value of potential collateral do not. It also finds that non-state-owned firms become able to substitute some trade credit with long-term bank loans. The findings suggest that less opaque firms and non-state-owned firms benefit more from foreign bank entry and that collateral may only play a limited role in mitigating the problem of information asymmetry when creditors' rights are not well protected in a host country.

1. Introduction

Recently, many developing countries have allowed foreign banks access to domestic corporate borrowers with the belief that foreign bank competition may provide a greater supply of aggregate bank credit to all domestic borrowers and improve the efficiency of the banking system since foreign banks are able to overcome cross-border disadvantages and operate more efficiently than their domestic competitors. Moreover, to the extent that firms are financially constrained, an increase in the supply of aggregate bank credit can help firms finance more projects with positive NPV. However, due to the information asymmetry between borrowers and lenders, foreign bank entry may benefit only a certain type of borrowers. This paper revisits the relationship between foreign bank entry and domestic firms' use of bank credit. It asks whether domestic firms use more bank credit after foreign bank entry and whether the impact of foreign bank entry varies with the firm heterogeneity.

To answer these questions, this paper explores the consequences of a series of commitments on the banking sector liberalization that the Chinese government made upon accession to the WTO at the end of 2001. These commitments cause a geographic variation across regions in China regarding *when* foreign banks can conduct local-currency business with domestic firms located in the same region. As a result, during a given period firms across the country have different accesses to foreign bank credit. Furthermore, the timing and region choices were made by the central government and were unrelated to the firm-specific demand. Some recent studies (e.g., Cetorelli and Strahan, 2006; Zarutskie, 2006; Bertrand et al., 2007) use a firm-level within-country variation to identify the impact of greater bank competition. A within-country variation can mitigate the endogeneity problem in the supply of foreign bank credit.

This paper finds no significant change on average in either the incidence or the amount of long-term bank loans among publicly-traded non-financial firms in China. However, the results indicate that the impact of foreign bank entry varies with the firm heterogeneity: profitability, state ownership, and value of potential collateral. After foreign bank loans become available, profitable firms use more long-term bank loans (scaled by total assets in 2001) by 4.7% points and are more likely to have long-term bank loans by 8.5% than unprofitable firms. Furthermore, profitable firms increase sales and investment afterward, consistent with the hypothesis that firms are financially constrained, while unprofitable firms do not. As profitable firms are generally thought to be less opaque, the findings above are consistent with the hypothesis that less opaque firms benefit more from foreign bank entry. Non-state-owned firms also benefit more from foreign bank entry. Non-state-owned firms were disadvantaged in competing for the support of domestic bank credit. They had to use more expensive trade credit for both financing and transaction purposes. The results in the present paper indicate that non-state-owned firms decrease net trade credit (scaled by total assets in 2001) by 2.3% points after foreign bank loans become available. It suggests that foreign bank entry enables non-state-owned firms to substitute

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bank loans for some trade credit, also consistent with the hypothesis that firms are financially constrained. By contrast, firms with higher value of potential collateral have no incremental increase in long-term bank loans after foreign bank loans become available.

To validate the identification assumption that foreign bank entry causes changes in the supply of bank loans, the paper tests for a pre-existing trend in the use of long-term bank loans by domestic firms. If changes in long-term bank loans started before foreign bank loans become available, it may be symptomatic of reverse causality and the changes cannot be attributed to foreign bank entry. The results show that the changes happen either after foreign bank entry or in the year of foreign bank entry.

This paper adds to the literature that exploits a cross-country variation in foreign bank competition to investigate the relationship between bank competition and firm outcomes (e.g., Clarke et al., 2006; Giannetti and Ongena, 2007; Detragiache et al., 2008).[1] The paper also complements the growing empirical literature that studies the impact of foreign bank competition on domestic firms' corporate finance and real outcomes in a within-country context (e.g., Berger et al., 2001; Haber and Musaccio, 2004; Mian, 2006).

A closely related paper is Gormley (2010). He studies the impact of foreign bank entry using the variation in the location of foreign banks in India following a change in India's foreign bank lending policy. He finds that, on average, firms are less likely to get bank credit after the policy change, but profitable firms are more likely to secure bank credit. The present paper differs from his in one important dimension. Unlike India, the Chinese banking market was gradually liberated to foreign competition. Moreover, foreign banks in China were not able to choose freely where to lend local-currency loans to domestic firms. The change in the foreign bank lending policy directly causes a geographic variation in the supply of foreign bank loans, which facilitates the identification.

The rest of the paper proceeds as follows. The next section presents the institutional background and develops main hypotheses. Section 3 describes the data. Section 4 presents results and conducts robustness checks. Section 5 concludes.

2. Institutional background and hypothesis development

2.1. Institutional background

Prior to 1978, China's financial system only consisted of one bank – People's Bank of China (PBOC), which served as both the central bank and a commercial bank. In 1978, the PBOC was split into four state-owned banks: the PBOC was established as China's central bank; the Bank of China (BOC) specialized in transactions related to foreign trade and investment; the People's Construction Bank of China (PCBC) specialized in transactions related to fixed investment; and the Agriculture Bank of China (ABC) specialized in all banking business in rural area. In 1984, the Industrial and Commercial Bank of China (ICBC) took over all commercial transactions of the PBOC.

However, Chinese private firms were highly discriminated in access to bank credit. Until 1998, the four state-owned commercial banks (the BOC, PCBC, ABC, and ICBC) were instructed to lend to SOEs, whereas smaller credit cooperatives were instructed to lend to private enterprises. Park and Sehrt (2001) find that the importance of policy lending by state-owned banks did not fall towards late 1990s and that lending by financial institutions did not respond to economic fundamentals. A number of international surveys (e.g., Batra et al., 2003) show that, although China has one of the biggest banking systems in the world, its private firms are more financially constrained than private firms in other countries. Four nationwide surveys of the private sector in China conducted by the Chinese government prior to 2002 show that private firms consistently ranked financing as their top constraint (Huang, 2005).

The Chinese private sector was not acknowledged as an integral part of the economy until 1999 by an amendment to the Chinese constitution. However, in practice, banks still consider private enterprises to be riskier than their state-owned counterparts either owing to their shorter credit history or lower chance of being bailed out by the government. As a result, most of China's financial resources were allocated to the least efficient firms – SOEs (Havrylchyk and Poncet, 2007).[2]

After years of directed lending and administered interest rates, the four state-owned commercial banks have accumulated large non-performing loans and become insolvent. Berger et al. (2009) find that state-owned commercial banks have much higher rates of non-performing loans. Similarly, García-Herrero et al. (2009) and Lin and Zhang (2009) find that the four state-owned commercial banks have been least profitable in the banking system; and Jia (2009) shows that lending by state-owned banks is less prudent than lending by joint-equity banks. The government started the process of thoroughly overhauling the banking system in 1993. The program included making the PBOC independent from the executive arm of the government and political influence of the communist party, liberalizing the interest rate control and credit control, establishing prudential supervision and strengthening risk management control, and financial opening to allow foreign banks to conduct local-currency business. Reform of the Chinese banking industry is important because it is larger than the stock market in China and is very inefficient (Berger et al., 2009).

Foreign bank entry predominantly takes the form of Greenfield investment, that is, setting up branches directly. Before 1993, the government allowed foreign banks to establish branches in certain cities to conduct foreign-currency business with foreign firms and citizens only. Starting 1993, the banking sector started lifting various geographic and client restrictions on foreign bank lending. The government allowed foreign banks in China to conduct both foreign- and local-currency business with foreign firms and citizens, and to conduct foreign-currency business with domestic firms. By 2001, there were 190 foreign bank branches, and their total assets in China tripled the level in 1993. During 2001–2006, the geographic and client restrictions on local-currency business of foreign banks were further phased out based on the WTO accession agenda.[3] By 2006, there were over 300 foreign bank branches in China.[4] Table 1 shows the geographic distribution of foreign bank branches in selected years. However, as of the end of 2008, foreign banks had total assets of only RMB 1374 billion, comprising only 2% of total assets of all Other Depository Corporations (ODCs), while state-owned commercial banks had total assets of RMB 31,030 billion, about half of total assets of all ODCs.

Nevertheless, China's experience during 2001–2006 provides an excellent laboratory for studying the impact of foreign bank entry on domestic firms' access to bank credit. According to the commitments upon accession to WTO at the end of 2001, the geographic and client restrictions on foreign bank lending in China were

[1] These papers, even though extremely insightful, are less able to rule out the possibility that foreign bank entry is correlated with other reforms, institutional changes, or future growth opportunities at the country level.

[2] Havrylchyk and Poncet (2007) suggest that such distortion may force private Chinese firms to look for foreign investors and that foreign direct investment may serve as a way to alleviate the credit constraint of private Chinese firms due to the inefficient allocation of resources in China.

[3] See Appendix A.

[4] Statistics numbers in the text are from "Report on China Banking Liberalization" by China Banking Regulatory Commission: www.cbrc.gov.cn.