#### JID: YJCEC

## ARTICLE IN PRESS

[m3Gsc;July 21, 2015;22:30]

Journal of COMPARATIVE ECONOMICS

Journal of Comparative Economics 000 (2015) 1-17



Contents lists available at ScienceDirect

# Journal of Comparative Economics

journal homepage: www.elsevier.com/locate/jce

# WTO accession, foreign bank entry, and the productivity of Chinese manufacturing firms $\!\!\!\!^{\star}$

## Tat-kei Lai<sup>a</sup>, Zhenjie Qian<sup>b,\*</sup>, Luhang Wang<sup>c</sup>

<sup>a</sup> Department of Economics, Copenhagen Business School, Denmark

<sup>b</sup> School of Banking and Finance, University of International Business and Economics, Huixin East 10, Beijing 100029 China

<sup>c</sup> Wang Yanan Institute for Studies in Economics and Department of International Economics and Business, Xiamen University, China

#### ARTICLE INFO

Article history: Received 31 July 2014 Revised 19 June 2015 Available online xxx

- JEL Classfication: D24 O14 G21
- Keywords: China Foreign bank entry WTO TFP Technical efficiency Reallocation

## ABSTRACT

Lai, Tat-kei, Qian, Zhenjie, and Wang, Luhang–WTO accession, foreign bank entry, and the productivity of Chinese manufacturing firms

After China's accession to the World Trade Organization (WTO) in December 2001, foreign banks are allowed to enter the Chinese banking market in phases. Using firm-level data from the National Bureau of Statistics of China which cover all state-owned and non state-owned manufacturing firms with sales over 5 million RMB, we examine the relationship between foreign bank entry and the industry-level productivity growth of China's manufacturing sector. Our empirical results suggest that (a) on average, opening up a region for foreign bank entry has no impact on aggregate productivity growth, (b) however, industries more dependent on external finance grow faster after a region is opened up for foreign bank entry, and (c) these results are due to changes in technical efficiency rather than reallocation. Overall, this paper provides new evidence on the relationship between banking market structure and manufacturing productivity in a fast growing developing country. *Journal of Comparative Economics* **000** () (2015) 1–17. Department of Economics, Copenhagen Business School, Denmark; School of Banking and Finance, University of International Business and Economics, Huixin East 10, Beijing 100029 China; Wang Yanan Institute for Studies in Economics and Department of International Economics and Business, Xiamen University, China.

© 2015 Association for Comparative Economic Studies. Published by Elsevier Inc. All rights reserved.

## 1. Introduction

The Chinese banking sector has traditionally been dominated by the "Big 4" state-owned commercial banks which, in general, have worse performance than other banks (Lin et al., 2009).<sup>1</sup> After China's accession to the World Trade Organization (WTO) on

Corresponding author. Fax: +861064493330.

## http://dx.doi.org/10.1016/j.jce.2015.06.003

0147-5967/© 2015 Association for Comparative Economic Studies. Published by Elsevier Inc. All rights reserved.

Please cite this article as: T.-k. Lai et al., WTO accession, foreign bank entry, and the productivity of Chinese manufacturing firms, Journal of Comparative Economics (2015), http://dx.doi.org/10.1016/j.jce.2015.06.003

<sup>\*</sup> We thank two anonymous referees, Colin Xu and seminar and conference participants at the Copenhagen Business School, Chinese Economics Association (U.K./ Europe) Conference 2012, Comparative Analysis of Enterprise Data & COST Conference 2012, European Association for Research in Industrial Economics Annual Conference 2013, and the Second Annual Xiamen University International Workshop on Economic Analysis of Institutions (2014) for comments and suggestions. Zhenjie Qian acknowledges financial support of Beijing Planning Office of Philosophy and Social Science (grant no.: 14JGB063) and the Fundamental Research Funds for the Central Universities in UIBE (grant no: CXTD4-03). Luhang Wang acknowledges the financial support from the Scientific Research Foundation for the Returned Overseas Chinese Scholars, State Education Ministry (grant no.: SRF-1231/K1300003). All remaining errors are our own.

E-mail addresses: tl.eco@cbs.dk (T.-k. Lai), qianzhj@gmail.com, qianzhj@uibe.edu.cn (Z. Qian), luhang.wang@xmu.edu.cn (L. Wang).

<sup>&</sup>lt;sup>1</sup> The "Big 4" banks include the Bank of China (BOC), the Agricultural Bank of China (ABC), the Construction Bank of China (CBC), and the Industrial and Commercial Bank of China (ICBC).

2

# ARTICLE IN PRES

#### T.-k. Lai et al./Journal of Comparative Economics 000 (2015) 1-17

December 11, 2001, foreign banks can enter the local currency market in phases; since the end of 2006, there have been no restrictions on foreign bank entry. Recent studies have documented that the entry of these foreign banks tends to be associated with a more competitive and efficient banking environment in China (e.g., Jiang et al., 2009; Lin et al., 2009; Xu, 2011).<sup>2</sup> During the same period, the Chinese economy has grown rapidly with GDP growth rate increasing from roughly 8% in 2001 to above 14% in 2007.<sup>3</sup>

To the extent that the banking sector becomes more competitive and efficient after foreign bank entry is allowed in China. does opening up the banking sector for foreign bank entry contribute to the phenomenal growth of China's manufacturing sector, the main engine of the Chinese economy? The answer to this question is not straightforward for at least two reasons. First, the existing literature suggests a non-trivial relationship between banks and manufacturing firms because of sorting. Second, domestic banks may not all compete against foreign banks in the same way. Therefore, the impact of foreign bank entry will depend on the sorting pattern between banks and manufacturing firms. Furthermore, the external dependence of the industries (Rajan et al., 1998) may also influence the impact of foreign bank entry and the associated change in banking market structure. In this paper, we try to shed light on these issues by relating different dimensions of the performance of Chinese manufacturing firms to the removal of foreign bank entry barriers. Theoretically, banking competition can improve allocation efficiency and promote economic growth (Pagano (1993)); with higher credit availability, firms can benefit, and those in more financially dependent industries can benefit even more. On the other hand, due to information asymmetry, banks with market power can internalize the benefits of helping financially constrained firms (Petersen et al., 1995). Banking competition thus discourages banks from forming lending relationships with firms so that firms should suffer. However, firms that are more financially dependent can suffer less (or can even benefit) because banks' returns for the formation of lending relationship with these firms should be higher. Empirically, studies using industry-level data do show mixed results.<sup>4</sup> This relationship is further complicated since foreign bank entry may have different effects on the access to credit by firms of different sizes. The extant literature finds that small- and medium-sized enterprises (SMEs) tend to borrow from smaller banks which have informational advantages over the larger banks (e.g., Berger et al., 2005; Cole et al., 2004).<sup>5</sup> In the case of foreign bank entry into developing countries, Detragiache et al. (2008) argue that, relative to domestic banks, foreign banks have comparative disadvantage in monitoring "soft" information customers so that these customers may be hurt by foreign bank entry. Detragiache et al. (2008) also find evidence that developing countries with more foreign bank penetration have a shallower banking sector. Other existing studies also suggest that foreign bank entry tends to benefit larger firms and may even hurt SMEs (see, e.g., Gormley (2010); Mian (2006)).<sup>6</sup>

One main limitation of the existing empirical studies in the literature using industry-level data is that with these data one cannot separate productivity improvement due to within-firm technological progress from the efficiency gain following across-firm reallocation. Such differentiation is crucial in evaluating the impact of foreign bank entry when there is sorting between banks and manufacturing firms. In this paper, we use the firm-level manufacturing data obtained from the National Bureau of Statistics of China to shed light on the interaction between banking market structure and industry growth. This data set covers all manufacturing state-owned firms and non state-owned firms having sales over 5 million RMB between 1998 and 2007, representing about 90% of the gross total output in the manufacturing industries. Motivated by recent studies using micro-level data to study productivity of Chinese firms which highlight the importance of technical efficiency and allocation efficiency (e.g., Brandt et al., 2012a; Hsieh et al., 2009), we use these data to examine whether foreign bank entry into China is associated with the productivity improvements of the domestic manufacturing firms and whether such changes are related to technical or allocation efficiency.<sup>7</sup> Interestingly, Brandt et al. (2012b) find that reallocation at the extensive margin contributes substantially

<sup>5</sup> Within China, Shen et al. (2009) find that bank size alone does not matter much for SME lending; other factors such as hierarchical levels, local bank incentives, competition and law enforcement are also important. On the other hand, Chong et al. (2013) find that lower market concentration in general reduces financing constraints of SMEs, and the effect also depends on bank size and ownership structure.

<sup>6</sup> One exception is Clarke et al. (2006), who use data from the World Business Environment Survey (WBES) covering 35 countries and find that foreign bank entry helps reduce the financing constraints for all firms (including SMEs).

Please cite this article as: T.-k. Lai et al., WTO accession, foreign bank entry, and the productivity of Chinese manufacturing firms, Journal of Comparative Economics (2015), http://dx.doi.org/10.1016/j.jce.2015.06.003

<sup>&</sup>lt;sup>2</sup> Other empirical studies also document that foreign banks or foreign ownership of local banks are more efficient than state-owned banks (e.g., Berger et al., 2009). In an international context, using a sample of bank observations from 80 countries between 1988 and 1995, Claessens et al. (2001) find that increased presence of foreign banks is related to a lower profitability and net interest margins for local banks. Besides, foreign banks are found to be more efficient than the local ones in developing countries (see, e.g., the survey by Clarke et al. (2003)) and their presence enhances the access to credits across firms in developing countries (Clarke et al., 2006).

<sup>&</sup>lt;sup>3</sup> See data from the World Bank: http://data.worldbank.org/indicator/NY.GDP.MKTP.CD.

<sup>&</sup>lt;sup>4</sup> For instance, using industry-level cross-country data (similar to the set of countries studied by Rajan et al. (1998)), Cetorelli et al. (2001) find that bank concentration has a negative impact on industry growth; but bank concentration promotes growth of those industries that are more dependent on external finance. Claessens et al. (2005) use industry-level data in 16 European countries and find that bank competition has a positive impact on growth of more financially dependent industries. Moreover, the state of economic development may also affect such interactions. For example, Demirgüc-Kunt et al. (2013) use data on 72 countries between 1980 and 2008 and find that the banking sector is less important relative to the securities market as the economy develops; Cull et al. (2013) examine the relationship between labor growth rate and the development of banking and financial sectors using data from the World Bank Enterprise Survey which covers 89 countries in various years between 2000 and 2009. They find that in poorer countries labor growth is positively related to the level of stock market capitalization.

<sup>&</sup>lt;sup>7</sup> Hsieh et al. (2009) examine the efficiency loss driven by the differential between actual and optimal marginal revenue caused by distortions in goods and factor market. Using an efficiency index, defined as the ratio of a hypothetical TFP without distortions to the actual TFP, to reflect the allocation efficiency in manufacturing industry, they find that allocation efficiency has improved since 1998 in China's manufacturing industry. In contrast to the misallocation emphasis in Hsieh et al. (2009), Brandt et al. (2012b) calculate TFP with industry data and find that the creative entry has taken over half over the TFP growth at industry while the incumbents contribute the rest. On the whole, these previous works on productivity of Chinese manufacturing industry show that technical efficiency, allocation efficiency, and net entry of new firms are all relevant.

Download English Version:

https://daneshyari.com/en/article/5092287

Download Persian Version:

https://daneshyari.com/article/5092287

Daneshyari.com