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Financial development and economic growth: Recent evidence from China

Jin Zhang [a], Lanfang Wang [b,*], Susheng Wang [c]

[a] The Research Center for Corporate Governance, Business School, Nankai University, 94 Weijin Road, Tianjin, China
[b] Institute of Accounting and Finance, Shanghai University of Finance and Economics, 111 Guoding Road, Shanghai,China
[c] Hong Kong University of Science and Technology, Clear Water Bay, Hong Kong

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ABSTRACT

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Using data from 286 Chinese cities over the period 2001–2006, this paper investigates the relationship between financial development and economic growth at the city level in China. Our results from both traditional cross-sectional regressions and first-differenced and system GMM estimators for dynamic panel data suggest that most traditional indicators of financial development are positively associated with economic growth. This result runs contrary to the existing conclusion that a state-ruled banking sector, such as that in China, hinders economic growth because of the distorting nature of the government. Since we focus on the years after China's accession to the World Trade Organization (WTO) in 2001 while the existing studies mainly covered the years before 2001, our finding suggests that the financial reforms that have taken place after China's accession to the WTO are in the right direction. To examine the sensitivity of our results, different conditioning information sets are experimented with. Our results are shown to be robust. *Journal of Comparative Economics* **40** (3) (2012) 393–412. The Research Center for Corporate Governance, Business School, Nankai University, 94 Weijin Road, Tianjin, China; Institute of Accounting and Finance, Shanghai University of Finance and Economics, 111 Guoding Road, Shanghai,China; Hong Kong University of Science and Technology, Clear Water Bay, Hong Kong.

1. Introduction

This paper investigates the relationship between financial intermediation and economic growth in China. China has been experiencing fast economic growth and rapid expansion of financial intermediation in the last 30 years. Since the start of its reforms in 1978, the Chinese economy has maintained an annual growth rate of 9.8% in real terms (China Statistical Yearbook 2007), while the total loans outstanding in its financial institutions relative to GDP has increased from 51% to 107% (China Compendium of Statistics, 1949–2004; China Statistical Yearbook 2007). As the largest emerging market and with many years of uninterrupted fast growth, China presents us with an interesting case for study. One fundamental question is: what is the relationship between financial development and economic growth in China? A unique feature of this paper is that our empirical investigation is based on a rich set of city-level data, in contrast to existing studies that are based on national or provincial datasets.

* Corresponding author.
E-mail addresses: zjnk@nankai.edu.cn (J. Zhang), wang.lanfang@mail.shufe.edu.cn (L. Wang), s.wang@ust.hk (S. Wang).

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In the finance-growth literature, China attracts great interest as a unique case. According to Allen et al. (2005), China is an important counterexample to the common finding in the finance-growth literature, since China has enjoyed fast economic growth for more than 30 years while its financial sector is very much under state control and is still quite under-developed today. The literature on the relationship between finance and growth in China generally finds a negative relationship. Using provincial data over the period 1990–1999, Boyreau-Debray (2003) found that financial inter-mediation has a negative impact on local economic growth. She attributed the negative influence to the banking sector's support of loss-making state-owned enterprises. Hasan et al. (2009) also found that the financial sector has a negative influence on economic growth using provincial data over the period 1986–2002. In contrast, using provincial data for the period 1985–1999, Chen (2006) showed that China' financial development contributes to economic growth. He further identified two channels for the financial sector to contribute to the economy: mobilization of savings and the substitution of loans for budget appropriation. In addition, using provincial data for the period 1995–2003, Cheng and Degryse (2007), who studied the impact of the development of banks and non-bank financial institutions on local economic growth, found that banking development has a significant positive effect on economic growth. Guariglia and Poncet (2008) used data from 1989 to 2003 and two different sets of indicators of financial development to examine the relationship between finance and growth in China. They found that their China-specific indicators measuring state intervention in finance are negatively associated with economic growth, while the indicators measuring market-driven financing are positively associated with economic growth. Finally, Ayyagari et al. (2008) used firm-level data to examine the relationship between firm growth and firm financing patterns, i.e., formal versus informal finance. They concluded that it is the formal financial system that spurs firm growth, while fundings from informal channels do not. In addition, Park and Sehrt (2001) found that policy lending by state banks did not fall during the period 1991–1997, and consequently the financial reforms in the mid-1990s were not able to turn the trend of worsening bank performance around.

We have a unique dataset from 286 Chinese cities over the period 2001–2006. Our data-set has two features: (1) Unlike the existing empirical studies on China's finance and growth that employ provincial data, we choose to use city-level data which have more local observations and information; (2) We focus on the period after China's accession to the World Trade Organization (WTO) in 2001 so as to investigate the effect of recent financial reforms. Results from both traditional cross-sectional regressions and first-differenced generalized method of moments (GMM) and system GMM estimators for dynamic panel data suggest that most traditional indicators of financial development are generally positively associated with economic growth. This result runs contrary to the existing conclusion that a state-ruled banking sector, such as that in China, hinders economic growth because of the distorting nature of the government. Since we focus on the years after China's accession to the World Trade Organization (WTO) in 2001 while the existing studies mainly covered the years before 2001, our finding suggests that the financial reforms that have taken place after China's accession to the WTO are in the right direction. To examine the sensitivity of our results, we experiment with different conditioning information sets. In addition, we conduct a sensitivity analysis by introducing a dummy variable to indicate coastal cities, capital cities and the cities that have hosted foreign bank entries. Our results are shown to be robust.

The rest of this paper is organized as follows. Section 2 presents a literature review. Section 3 briefly describes the development of the Chinese financial sector and provides some background information about financial intermediation in China. Section 4 describes the dataset, defines the variables, and presents summary statistics. Section 5 presents the results using purely cross-sectional data, while Section 6 discusses and presents the first-differenced and system dynamic panel results. Section 7 concludes the paper with a summary.

2. Literature review

Financial intermediaries serve as the medium of the savings-investment process. One fundamental question is: will development of financial intermediaries exert a positive effect on economic growth? For a long period of time, economists have had very different views on this. For example, Robert Lucas (1988) believed that "the importance of financial matters is very badly over-stressed in popular and even much professional discussion," while Merton Miller (1998) countered with "that financial markets contribute to economic growth is a proposition almost too obvious for serious discussion." Amid such disagreements, the literature on finance and growth continues to expand with new theoretical models and advanced empirical methods. Recently, a large body of research, especially empirical work, suggests that development of financial intermediaries exerts a positive effect on economic growth, rather than following economic growth passively.

A variety of theoretical models have been proposed to analyze the connection between financial development and economic growth. Levine (2005) presented a survey of theories on the issue and listed five possible channels through which finance may influence growth. These channels include: (i) providing information about possible investments so as to allocate capital efficiently; (ii) monitoring firms and exerting corporate governance; (iii) ameliorating risk; (iv) mobilizing and pooling savings; and (v) easing the exchange of goods and services.

There is also a vast empirical literature on the issue. Early cross-country studies based on cross-sectional regressions documented a positive correlation between financial development and economic activity (Goldsmith, 1969; King and Levine, 1993; Levine and Zervos, 1998; La Porta et al., 2002). Goldsmith (1969) did a ground-breaking empirical study using data from 35 countries. Although a positive link between finance and economic growth was found, the question on whether there is a causal relationship between financial development and growth was not addressed. Besides, his work did not systemat-