Journal of Financial Stability 22 (2016) 88–100

Contents lists available at ScienceDirect

Journal of Financial Stability

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

Internet finance development and banking market discipline: Evidence from China

Xiaohui Hou[a,*], Zhixian Gao[a], Qing Wang[b]

[a] School of Economics and Finance, Xi'an Jiaotong University, Xi'an, Shaanxi, PR China
[b] Xi'an Branch, The People's Bank of China, Xi'an, Shaanxi, PR China

ARTICLE INFO

Article history:
Received 5 May 2015
Received in revised form 18 July 2015
Accepted 7 January 2016
Available online 21 January 2016

JEL classification:
G21
G28
G32

Keywords:
Depositor behavior
Market discipline
Internet finance development
Emerging markets

ABSTRACT

Depositor discipline is the only viable and universal source of banking market discipline in China. This paper investigates whether the depositor discipline of banking works in the context of an emerging economy under financial repression and implicit government guarantee, such as the Chinese economy; how banking market discipline is affected by Internet finance development; and whether the impact of Internet finance development on market discipline changes across heterogeneous banks. The results suggest that, in general, measures of bank risk are negatively associated with the growth of deposit volumes. Internet finance development alters the sensitivity of deposit growth ratios to some bank risk measures. For non-state-owned banks, fewer measures of bank risk are significantly negatively associated with the growth of deposit volumes, and the attenuation impact of Internet finance development on market discipline for bank capitalization instead relatively increases. For large banks, market discipline works significantly, except in the case of the bank capitalization variable; moreover, these significant market disciplines are strengthened with the development of Internet finance.

© 2016 Elsevier B.V. All rights reserved.

1. Introduction

The idea of employing market discipline as an adjunct to supervision in the regulation of commercial banks dates back to the mid-1970s. A number of studies have investigated the role of market discipline in controlling bank risks (Bliss, 2015), and market discipline is one of the three pillars in the capital adequacy framework of the Basel Accord II. The Basel Accord III also highlights the importance of market discipline. Since the financial crisis of 2008, banking market discipline has become a central issue in financial system reform. Empirical examinations of banking market discipline have been important contributions in the academic and regulatory banking literatures (Cubillas et al., 2012; Hasan et al., 2013; Balasubramnian and Cyree, 2014). In comparison, empirical evidence on the market discipline in China's banking sector remains very scarce.

China's economy has achieved remarkable developments over the last two decades. Nevertheless, reforms in the financial sector have lagged behind those in other economic sectors. Financial repression remains one of the essential characteristics of China's financial system; the pace of interest rate liberalization is considerably slow (Allen et al., 2013).

China has a bank-based financial system. Despite the reforms, the opening up of its financial system, and the significant achievements since joining the WTO, China's banking sector is still dominated by large state-owned banks, i.e., the "Big Four" banks of ICBC, CBC, BOC, and ABC[1]. The dominance of the large state-owned banks implies low competition within the banking sector. In addition, China's banking sector is under strict government intervention, with regulations on banking market access and the range of products. Meanwhile, the Chinese government is in a position to provide commercial banks with an implicit safety net[2]. The described context creates a unique opportunity to study the effectiveness of banking market discipline exercised by customer depositors in an emerging market country, such as China.

* Corresponding author at: P. O. Box 1787, Xi'an Jiaotong University, Xian Ning West Road No. 28, 710049, Xi'an, Shaanxi Province, P. R. China. Tel.: +86 13991900316.
E-mail address: hxiaoh2006@163.com (X. Hou).

http://dx.doi.org/10.1016/j.jfs.2016.01.001
1572-3089/© 2016 Elsevier B.V. All rights reserved.

[1] They are the Industrial & Commercial Bank of China, Construction Bank of China, Bank of China, and Agricultural Bank of China, respectively.

[2] To date, there has only been one bank failure case in China, i.e., the bankruptcy of the Hainan Development Bank, announced by the People's Bank of China in 1998, which makes the implicit safety net look like partly believable for Chinese depositors. More details about the implicit safety net are provided in Allen et al. (2007, 2013).

Furthermore, the explosive penetration of the Internet and mobile Internet has laid a sound foundation for Internet finance in China, which has been rapidly expanding[3]. Many people in China access the Internet not only on their computers but also on their mobile phones. Additionally, China's eCommerce industry is not strictly an urban phenomenon. It has taken off as a way for rural residents to access coveted products in China's vast and underdeveloped interior (Swanson, 2014). Internet finance, which integrates Internet technologies and financial activities, plays an important role in four major areas: payment and settlement, resource allocation, risk management and networking channels. It can effectively reduce the transaction costs and the degree of information asymmetry in financial activities. Internet finance has contributed to market-driven financial liberalization while financial control and regulation in China have not kept up with Internet finance's rapid growth (Lei, 2014).

From commercial banks' standpoint, the development of Internet finance could lead to fluctuations in bank deposits because depositors' behavior would be affected by the change in status of transaction costs and agency problems on the basis of Internet finance development. We deepen this study by examining how banking market discipline is affected by Internet finance development. We also investigate whether the impact of Internet finance development on market discipline changes across heterogeneous banks. Following Demirgüç-Kunt and Huizinga (2004), Hasan et al. (2013), and Berger and Turk-Ariss (2013), we focus on market discipline exercised through deposit volume and therefore restrict the term "market discipline" to mean depositor discipline, i.e., the sensitivity of deposit growth rates to bank risk measures. This definition can be justified because competition in China's banking system expresses itself as a contention for deposit quantity due to the tight control of the deposit rate by the government. In addition, quantity effects may be less ambiguous when research questions on banking market discipline are investigated (Bliss, 2015).

Our main empirical results suggest that, in general, measures of bank risk are negatively associated with the growth of deposit volumes, even in the case of implicit government deposit guarantee. Internet finance development has significant impacts on banking market discipline by altering the sensitivity of the deposit growth rate to some bank risk measures. For non-state-owned banks, fewer measures of bank risk are significantly negatively associated with the growth of deposit volumes; the attenuation impact of Internet finance development on market discipline for bank capitalization instead relatively increases. Finally, for large banks, market discipline works significantly, except in the case of the bank capitalization variable; moreover, these significant market disciplines are strengthened with the development of Internet finance.

This study complements the existing empirical research on banking market discipline in four ways. First, this study increases our understanding of banking market discipline in an emerging economy by investigating the market discipline in China's banking sector, which is dominated by large state-owned banks that operate under strict government regulations and are guaranteed by an implicit government safety net. Second, the article constructs a novel index of China's Internet finance development using the word frequency statistics of "text mining", which is the premise of the following empirical test. Third, it provides empirical evidence, in the context of transitional economies, on the impacts of Internet finance development on banking market discipline. Fourth, we also investigate whether the impact of Internet finance development on market discipline changes across heterogeneous banks, such as non-state-owned banks and large banks. Although the evidence presented in this study is derived from the Chinese experience, the main findings are also relevant to other developing countries with similar banking competitive structures, especially when their banking sectors are undergoing marketization transition.

The remainder of the paper is organized as follows. Section 2 reviews the literature and presents our hypotheses. Section 3 describes the data, variables, and methodology. Section 4 discusses the empirical results and provides some robustness test results. Section 5 concludes this study.

2. Literature review and hypotheses development

The vast majority of studies on depositor market discipline address this topic in the context of developed countries. Most investigate changes in deposit quantity and yields. Bliss (2015) indicates that quantity effects may be less ambiguous; yield results are difficult to interpret. Park and Peristiani (1998), Jagtiani and Lemieux (2000), Goldberg and Hudgins (2002), and Shimizu (2009) demonstrate that banks in danger of bankruptcy do not attract uninsured deposits and that weak banks actively substitute insured deposits for lost uninsured liabilities. Berger and Turk-Ariss (2013) investigate depositor discipline in the US, EU and Switzerland before and after the financial crisis and find significant evidence of depositor discipline in the relationship between deposit growth rates and bank capital ratios in large US banks. Non-US banks show weak depositor discipline, which is consistent with the more widespread expectations of government intervention in distressed banks.

Furthermore, studies that employ data from emerging markets are more relevant to this investigation. Calomiris and Powell (2001) confirm that depositors have monitored the risk-taking activities of private banks in Argentina during the last years of the 20th century. Hosono (2005) demonstrates that a solid capital base and high profitability have insignificant impacts on the growth of bank deposit volumes. Hadad et al. (2011) find that higher deposit rates have been associated with higher default and liquidity risk in Indonesia. Hasan et al. (2013) find that the financial crisis did not change the sensitivity of deposit growth rates to bank risk measures using the data from transition countries. In addition, depositors react rationally to sources of information other than financial statements. In comparison, empirical evidence on the market discipline of China's banking sector remains very scarce. Zhang and She (2008) document that the implicit deposit insurance in the four original state banks undermines banking market discipline and creates a moral hazard.

Chinese bank supervisory authorities should reform polices to enhance market discipline. China's banking sector is dominated by large state-owned banks that operate under strict government regulations and are guaranteed by an implicit government safety net. The current literature does not answer the basic question of whether depositor market discipline in banking works in the context of an emerging economy under financial repression and implicit government guarantee, such as China. Moreover, in China, Internet finance has contributed to market-driven financial liberalization because financial control and regulation in China have not kept up with Internet finance's rapid growth. The existing studies also do not answer the question of whether banking market discipline is affected by the development of Internet finance or whether banking market discipline and the relationship between Internet finance development and depositor market discipline change across heterogeneous banks.

In this paper, we focus on market discipline exercised through deposit volume, and restrict the term "market discipline" to refer to depositor discipline, i.e., the sensitivity of deposit growth rates to

[3] China stands out for its Internet and mobile Internet development among emerging market economies with penetration ratios of 45.8% and 37.1%, respectively, in 2013 (Lei, 2014).

Download English Version:

https://daneshyari.com/en/article/999091

Download Persian Version:

https://daneshyari.com/article/999091

Daneshyari.com