Journal of Financial Stability 25 (2016) 70–82

Contents lists available at ScienceDirect

Journal of Financial Stability

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

How does banking sector globalization affect banking crisis?

Amit Ghosh (PhD)

Department of Economics, Illinois Wesleyan University, 1312 Park Street, PO Box 2900, Bloomington, IL 61702-2900, USA

ARTICLE INFO

Article history:
Received 13 March 2016
Received in revised form 11 July 2016
Accepted 12 July 2016
Available online 14 July 2016

JEL classification:
G21
G28
C25
E44

Keywords:
Financial stability
Foreign bank presence
Banking crisis
Banking-industry conditions
Macroeconomic factors
Discrete choice models

ABSTRACT

A key feature of financial services liberalization is increasing banking-sector globalization.

Using different measures to capture this phenomenon, the present study examines its impact on banking crisis for a dataset of 138 nations spanning the period 1998–2013, while controlling for other banking-industry specific, macroeconomic and external factors. Employing different econometric models and several robustness checks, I find greater banking sector globalization to reduce the occurrence of banking crisis. Moreover, greater bank asset concentration, diversification, credit flows, real interest rates, inflation rates, M2-to-foreign exchange reserves and nominal exchange rate depreciations significantly increase the likelihood of banking crisis, while higher bank profits, real GDP growth, economic development and economic freedom lower such chances. The results are further examined for nations across different levels of economic development and with different degrees of foreign bank penetration. The findings underscore that foreign bank presence provides greater financial stability in the banking industry of host nations.

1. Introduction

The last two decades have seen a rapid increase in the process of banking-sector globalization. However, arguments supporting a policy of openness towards the banking industry in a host nation are far from universally accepted. In the aftermath of the recent global financial crisis (henceforth GFC), there has been considerable academic focus and policy attention on the roles of foreign banks in creating economic vulnerability in host countries (see Anginer and Demirguc-Kunt, 2014; Cetorilli and Goldberg, 2012a,b; De Haas and Van Horen, 2011; De Nicolo and Juvenal, 2014). At the same time recent episodes of banking crisis across the globe has sparked a renewed interest in examining different aspects of such crises (for recent studies see Babecký et al., 2014; Honkapohja, 2014; Karim et al., 2013; Milne, 2014; Occhino, 2016; Palacios et al., 2014).

The present study makes three key contributions to the literature on banking crises. First, using different measures of banking sector globalization, I examine their impact on the probability of banking crisis. Secondly, I scrutinize not only the macroeconomic and external determinants of banking crises but also the banking-industry specific factors, an issue that has been less studied in the literature. Thirdly, the results are compared for countries according to their levels of economic development: emerging and developing market economies (EMs), low income countries (LICs) and advanced economies (AEs).[1] I also cover the widest possible range of nations for the most recent time period of 1998–2013.

From a policy perspective, economic success of any nation intrinsically hinges on the tradeoff between external policy choices and their internal consequences. One facet of external policy choice is the extent of banking sector openness. Hence, in guiding economic policy and promoting financial stability, the findings of the analysis will not only shed light on regulatory measures for central bankers and governments, but also for adequate risk management by banks. In a broader sense, the results of this study will either exacerbate or ameliorate any apprehensions about the adverse economic implications of liberalization in financial services, like the likelihood of banking crisis, due to increased banking sector globalization.

Conceptually foreign banks may influence banking crisis in both positive and harmful ways. In terms of potential harms, foreign banks are often accused of stimulating outflow of capital from the

E-mail address: aghosh@iwu.edu

[1] These nations are categorized under these categories following the World Economic Outlook (2012) of the IMF. The Appendix A provides their complete list.

http://dx.doi.org/10.1016/j.jfs.2016.07.003
1572-3089/

host nation. Thus in stressful times, foreign banks may facilitate economic crises, and financial instability. Secondly, many analysts fear that foreign banks will flee when faced with problems in local markets or when faced with problems in their own home market. This lack of commitment would enhance the fragility of the domestic banking sector, especially if foreign banks account for a large share of the domestic banking system. A third concern associated with foreign banks involves supervision and regulation. Reduced entry restrictions on foreign banks may accompany broader effort to deregulate the domestic banking system. This can create a more risky environment (Cetorelli and Goldberg, 2012b). Countervailing arguments, however, suggest that foreign bank activity may reduce occurrence of crises and enhance financial stability. During an economic crisis, local depositors often withdraw their funds from domestic banks in which they have lost confidence and redeposit their funds in less risky banks, like foreign ones. Depositors will find the branches of foreign banks, especially one from a country with better regulatory supervision, particularly attractive (Tschoegl, 2005). The parent bank of foreign banks may act as a “back-up facility” or lender of last resort during crisis periods and hence may translate into a more stable credit supply. Additionally, foreign banks can achieve better economies of scale and risk diversification than domestic banks, introduce more advanced technology, especially risk management, import better supervision and regulation, thereby increasing competition in the host nation’s banking industry. Because they are backed by their parent banks, foreign affiliates of international banks may also be perceived as safer than domestic banks, especially in times of economic crisis (Detragiache et al., 2008; Kouretas and Tsoumas, 2016).

These contrasting arguments call for a much needed examination of the implications of banking sector globalization on banking crisis that is presently lacking. To my knowledge, Demirguc-Kunt et al. (1998) is the only study that has examined this issue by using data on 7900 individual commercial banks covering 80 nations for the period 1988–1995. They find a greater share of foreign banks to significantly reduce the probability of banking crisis.

The rest of the paper proceeds as follows. Section 2, provides some trends and patterns of banking crises and on the extent of banking sector globalization. Section 3, presents the empirical model and the various determinants of banking crisis. Section 4, discusses different econometric results. Section 5 provides further robustness checks. Finally, Section 6 concludes.

2. Banking crisis and banking-sector globalization: trends and patterns

2.1. Identifying banking crisis

Following standard conventions in the literature, banking crises are proxied by using a binary variable with a value of 1 in the year of crisis, and zero otherwise. Demirguc-Kunt and Detragiache (1998), Honohan and Laeven (2005) identify a crisis that includes both systemic and non-systemic banking crises, when at least one of the following conditions are met: (1) The ratio of non-performing loans to total loans in the banking system exceeds 10 percent; (2) The cost of the rescue operation is at least 2 percent of GDP; (3) Banking sector problems result in a large-scale nationalization of banks; (4) Extensive bank runs take place or emergency measures.

This definition provides more precise metrics on the extent of banking-sector distress or on the magnitude of government bailouts than other definitions that are more subjective. Moreover, understanding the similarities and differences of the causes of banking crisis across different groups of nations is important in guiding economic policy. Hence, a key purpose of this present analysis is to cover a very broad range of nations and emphasize on its global nature. This definition of banking crisis enables me to do so for the entire time period. Incidentally, this is one of the most comprehensive databases used extensively in the banking crisis literature (see Beck et al., 2006; Demirguc-Kunt and Detragiache, 1998, 2002; Demirguc-Kunt et al., 1998; Domac and Peria, 2003; Klomp, 2010 among other studies).

Table 1
Number of banking crisis episodes.

Years	Full-sample	Emerging Markets	Low Income Countries	Advanced Economies
1998	33	21	8	4
1999	36	24	8	4
2000	46	27	15	4
2001	51	28	19	4
2002	45	27	16	2
2003	38	23	14	1
2004	32	19	12	1
2005	19	8	10	1
2006	15	6	8	1
2007	12	3	6	3
2008	32	8	6	18
2009	40	13	9	18
2010	29	14	10	5
2011	31	15	9	7
2012	32	15	9	8
2013	32	14	9	9

Table 1 shows the number of nations that underwent a banking crisis for the period 1998–2013. The highest occurrences of crises were in year 2001 followed by that in 2000. In these two years the maximum number of crisis episodes occurred in EMs. In year 2009, the peak of the GFC, 40 nations underwent a banking crisis out of which 18 were AEs.

2.2. Some trends and pattern in banking sector globalization

There are primarily two reasons that drive foreign banks to enter another country. First, in search of higher profits and more diversification opportunities. Foreign banks from a given home country have entered a host nation either through extending branches and subsidiaries of parent banks or through mergers and acquisitions with private banks in the host nation. Secondly, governments of host nations have increased the accessibility of expanding services for foreign banks. In some cases, foreign bank entry into previously restricted markets has occurred in the aftermath of a crisis or political upheaval. Claessens and Horen (2012), Goldberg (2009) provide recent trends and patterns.

Fig. 1 shows the yearly averages of the percent of foreign banks to total banks across the three categories of nations. A foreign bank is a bank where 50 percent or more of its shares are owned by foreigners. Across this time period, LICs had on average the highest share of foreign banks in their domestic banking industry, followed by that in EMs.

I also use two other measures to capture the extent of banking sector globalization—the ratio of outstanding loans from banks out-

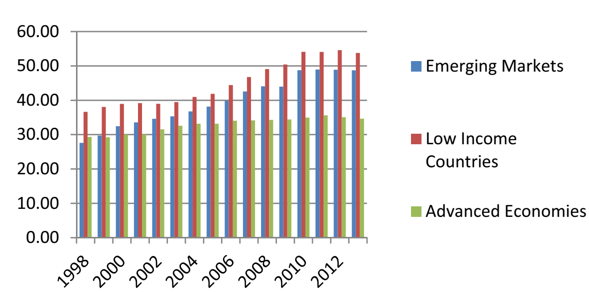

Fig. 1. Percentage of Foreign Banks to Total Banks.