J. Japanese Int. Economies 40 (2016) 43–58

Contents lists available at ScienceDirect

Journal of The Japanese and International Economies

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

Does Government Intervention Affect Banking Globalization?[☆]

Anya Kleymenova[a], Andrew K. Rose[b,*], Tomasz Wieladek[c]

[a] University of Chicago, Booth School of Business, 5807 S Woodlawn Ave, Chicago, IL, USA, 60637
[b] Haas School of Business, Berkeley, CA, USA, 94720-1900
[c] Barclays Capital and CEPR

ARTICLE INFO

Article history:
Received 8 January 2016
Revised 17 March 2016
Accepted 21 March 2016
Available online 13 April 2016

JEL classification:
F36
G28

Keywords:
Bank
Empirical
Nationalization
Data
panel
Effect
Domestic
Foreign
Liability
TARP

ABSTRACT

Kleymenova, Anya, Rose, Andrew K., and Wieladek, Tomasz—Does Government Intervention Affect Banking Globalization?

Using data from British and American banks, we provide empirical evidence that government intervention affects the global activities of individual banks along three dimensions: depth, breadth and persistence. We examine depth by studying whether a bank's preference for domestic, as opposed to external, lending (funding) changes when it is subjected to a large public intervention, such as bank nationalization. Our results suggest that, following nationalization, non-British banks allocate their lending away from the UK and increase their external funding. Second, we find that nationalized banks from the same country tend to have portfolios of foreign assets that are spread across countries in a way that is far more similar than those of either private bank from the same country or nationalized banks from different countries, consistent with an impact on the breadth of globalization. Third, we study the Troubled Asset Relief Program (TARP) to examine the persistence of the effect of large government interventions. We find weak evidence that upon entry into the TARP, foreign lending declines but domestic does not. This effect is observable at the aggregate level, and seems to disappear upon TARP exit. Collectively, this evidence suggests that large government interventions affect the depth and breadth of banking globalization, but may not persist after public interventions are unwound. *J. Japanese Int. Economies* **40** (2016) 43–58. University of Chicago, Booth School of Business, 5807 S Woodlawn Ave, Chicago, IL, USA, 60637; Haas School of Business, Berkeley, CA, USA, 94720-1900; Barclays Capital and CEPR.

☆ Kleymenova is assistant professor of Accounting at Chicago-Booth. Rose is Rocca professor of International Business, Associate Dean, and Chair of the Faculty at Berkeley-Haas, ABFER Senior Fellow, CEPR Research Fellow, and NBER Research Associate. Wieladek is Senior International Economist at Barclays Capital and CEPR Research Affiliate. Wieladek's contribution to this work was completed while he was at the Bank of England. For helpful comments and suggestions we would like to thank an anonymous referee, Gianluca Benigno, Stijn Claessens, Charles Engel, Shinichi Fukuda, Kinda Hachem, Takeo Hoshi, Deborah Lucas, Stavros Panageas, Kenichi Ueda, Matthew Willison, Amir Yaron, Ariel Zetlin-Jones, and participants at the 2015 NBER Summer Institute, the 2015 Society for Economic Dynamics, the 2015 TRIO conference, and the 2016 AEA meetings. Rose thanks the Bank of England for hospitality as a senior Norman-Houblon/George fellow during the course of this research. Kleymenova gratefully acknowledges the financial support from the University of Chicago, Booth School of Business and the Harry W. Kirchheimer Faculty Research Fund at the University of Chicago Booth School of Business. For assistance with the data, we thank Mark Robson. All opinions expressed in this paper are those of the authors, not the Bank of England.

* Corresponding author. Tel.: +1 510 642 6609, fax: +1 510 642 4700.
E-mail addresses: anya.kleymenova@chicagobooth.edu (A. Kleymenova), arose@haas.berkeley.edu (A.K. Rose), tomaszwieladek@gmail.com (T. Wieladek).

http://dx.doi.org/10.1016/j.jjie.2016.03.002
0889-1583/

1. Introduction

International financial intermediation has changed significantly since the 2007–2009 global financial crisis: portfolio flows have taken up the slack left by the collapse in bank lending.[1] Several reasons have been proposed for this development, including a) a rise in bank regulation, b) weakness in loan demand, and c) political interference in banking as a result of government intervention.[2] In this paper, we explore the last explanation.

We hypothesize that public intervention can affect the amount (*depth)*, cross-country allocation (*breadth)*, and *persistence* of the external activities of individual banks. We employ three different empirical approaches. First, we use the same bank-level balance sheet data from the Bank of England that Rose and Wieladek (2014) used to analyze the effect of bank nationalization on *assets*, but we examine the depth effects of large public interventions on the composition of domestic and foreign bank *liabilities*. Second, we assess to what extent bank nationalization leads to the convergence (*breadth)* of banks' cross-border portfolios when the affected banks are from the same country. Finally, we study whether these effects persist or disappear following the unwinding of government interventions. Given the significant number of foreign and domestic banks with substantial lending to/funding from a large and diverse number of countries, the UK banking system provides an ideal empirical setup to test the first two hypotheses. To our knowledge, the only large recent public capital injection that has been unwound on a large scale is the American Troubled Asset Relief Program (TARP). Accordingly, we test the *persistence* hypothesis using American data.

Government intervention may affect the *depth* of banking globalization. On the asset side of a bank's balance sheet, a disproportionate reduction in external (as opposed to domestic) lending following nationalization constitutes *prima facie* evidence of a negative impact on banking globalization, referred to as "financial protectionism" by Rose and Wieladek (2014). As part of government support, banks were often asked to increase domestic lending. For example, French banks in receipt of government support pledged to increase lending domestically by three to four percent, and the Dutch bank ING announced that it would lend EUR25 billion to Dutch businesses and households as part of receiving government assistance (World Bank, 2009). Similarly, the US TARP program specifically stated that one of its objectives was to increase domestic lending. That is, the "home bias" exhibited by many banks and documented by prior literature (e.g., Cerutti and Claessens, 2014; Cerutti, Claessens and Ratnovski, 2014, De Haas and Van Horen, 2012; Giannetti and Laeven, 2012; Presbitero, Udell and Zazarro, 2014, Forbes, Reinhardt and Wieladek, 2016) would be exacerbated in a crisis if the bank received a large public intervention, because of the natural preference of a regulator or government towards domestic lending. Furthermore, this effect would be even more pronounced during a credit crunch as banks face competing demands from regulators and funding constraints (Cerutti and Claessens, 2014).

But the "depth" effect need not affect only the asset side of the balance sheet. In a crisis, nationalized banks are also perceived to be the safest home for deposits, as they are owned and backed by the government. Unsurprisingly, Berger and Roman (2015) find that the TARP gave participating institutions a competitive advantage in raising deposits, mainly because those banks were perceived to be safer. Similarly, following the introduction of TARP, Acharya and Mora (2015) document a "flight to safety" effect in those previously liquidity-constrained banks experienced an increase in deposits. This suggests that banks which received government aid may have been faced with an excess supply of deposits. That is, government intervention may induce banks to accept more domestic, as opposed to external, deposits. Our analysis of British data clearly indicates that government interventions affect banking globalization on both the asset and liability sides.

Large banks, such as those in our sample, usually lend (and borrow) in many different foreign countries. The mix of these assets (*breadth)* across countries differs by bank for a variety of reasons, often having to do with the particular regional or industrial expertise of the bank. For example, Standard Chartered is a large UK bank whose lending is primarily focused on Asia; Santander, a Spanish bank with substantial operations in Latin America, is now the third largest mortgage lender in the UK. For any given pair of banks, the similarity in exposure to different countries (which we refer to as 'the asset mix') can be measured quantitatively; we use the general measure of cosine similarity. We study similarity of the asset mix across pairs of banks, after abstracting from dyadic fixed effects and common trends. In particular, we ask if the asset mix converges *when a pair of banks from the same country is nationalized*. If the public authorities from a certain country who take charge of a bank upon nationalization simply shrink the size of the balance sheet of a bank, there is no reason to expect the asset mix for a pair of nationalized banks from the same country to begin to converge. Similarly, if good and bad assets are randomly distributed across countries, banks will not begin to look more similar upon nationalization. Even if bad assets are concentrated in a particular country, there would be no reason why the reduction in lending should be different for nationalized (as opposed to private sector) banks. But if the authorities impose their political preferences on nationalized banks, leading to a reduction in lending to a particular set of countries, then one might expect bank nationalization to result in cross-country asset portfolios that *diverge* if the nationalized banks are from different countries but *converge* if nationalized banks are from the same country. This is, in fact, exactly what we find in the data.

Finally, we examine the *persistence* of the depth effect. Unlike banks in other countries that received public support during the global financial crisis, most American banks have now repaid the funds they received through TARP. This makes

[1] See the 2014 annual report of the BIS, http://www.bis.org/publ/arpdf/ar2014e.htm.

[2] The April 2015 *Global Financial Stability Report* provides evidence of financial fragmentation and links it to tighter cross-border regulation, especially due to European bank retrenchment; see chapter 2 of the *GFSR*.