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Foreign activities of U.S. banks since 1997: The roles of regulations and market conditions in crises and normal times

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ABSTRACT

Using a unique newly constructed dataset on U.S. banks' foreign activities since 1997, this paper examines how bank, market and regulatory conditions in the U.S. and host countries affect U.S. banks' choices of which foreign markets to enter and how much claims and liabilities to take on there. Using a two-stage structural estimation framework, the determinants of foreign market entry/exit, cross-border claims, and foreign affiliate claims and liabilities choices are examined in 107 host countries around the world. It is shown that (1) the health of the balance sheet is the primary driver of foreign market entry/exit choices (especially so during the Subprime crisis), while host market and regulatory conditions play important roles in the choice of claims/liabilities volumes; (2) banks choose their foreign activities during banking and market crises differently than they do in 'normal' times; and (3) in addition to bank size, previous experience with managing a global lending network significantly increases the intensity of banks' foreign involvement. Structural estimates of the costs of foreign market entry/exit and host market regulatory stringency are also derived.

1. Introduction

The role of foreign banks in improving the growth prospects of developing countries is well established in the literature. Foreign banks generally bring efficiency and technological improvements

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to host countries' financial markets (Goldberg, 2007; Xu, 2011). The global activities of banks, on the other hand, can also expose source countries to macro shocks through contagion. From the perspectives of both development and regulatory policies, it is therefore important to understand how various host country and bank characteristics drive banks' foreign activities. This paper examines how foreign market macro conditions and banking regulations have affected U.S. banks' global activities since 1997. Using quarterly data for the 1997–2013 period in 107 host markets, the analysis examines the choices of U.S. banks of various sizes to enter/exit foreign markets and to take on claims and liabilities there. Using a two-stage simulations-based dynamic structural estimation method based on Bajari et al. (2007), the paper examines the choices of foreign market entry/exit, cross-border claims, foreign affiliate claims and affiliate liabilities separately, in 'normal' times as well as in three crisis episodes (the LTCM, the Dot.com and the Subprime crises).

This paper contributes to the existing related literature in several ways. First, the analysis is based on a unique dataset on U.S. banks' foreign exposure, newly constructed from regulatory sources. Data on the foreign affiliate claims, liabilities and cross-border claims of U.S. banks of various sizes, together with data on bank traits, are assembled from the Federal Financial Institutions Examination Council (FFIEC). For confidentiality reasons, the FFIEC does not make bank-level foreign exposure data publicly available: bilateral foreign claims data are aggregated by bank size category. By averaging claims data by bank size group, the dataset employed in this paper contributes beyond the country aggregates commonly used in the literature. Furthermore, the regulatory dataset used in this paper goes beyond other bilateral claims datasets in that it also contains some limited information on the characteristics of the lending U.S. banks (such as data on total assets and capital).

A second contribution is the examination of the impact of crisis episodes on U.S. banks' choices of foreign activities. There is a substantial and growing volume of literature that examines the effect of the recent financial crisis on banks' lending activities (Cotugno et al., 2013; Kleimeier et al., 2013; Ivashina and Scharfstein, 2010). Crises affect banks' balance sheets, which in turn can lead to significantly reduced credit in recipient host countries (de Haas and van Lelyveld, 2014). Previous work has found that U.S. and other developed country banking systems' foreign activities have fallen significantly in the aftermath of the recent crisis (Cetorelli and Goldberg, 2009, 2011). Berger and Bouwman (2013) find that banking and market crises episodes have a significant impact on the extent to which capital helps banks survive and accumulate market share. The analysis in this paper builds on the empirical specification of Berger and Bouwman (2013) in that it examines how various market and bank traits (returns, assets, capital, etc.) affect banks' foreign choices in crisis episodes and in normal (non-crisis) times. Motivated by Berger and Bouwman (2013), the impacts of two market crises (the LTCM crisis and the Dot.com crisis) and one banking crisis (the Subprime crisis) are examined. Results indicate that banks consider balance sheet and foreign market characteristics in their choices of foreign activities very differently in crisis periods than they do in normal times. These crisis effects are particularly pronounced in the choice of foreign market entry and exit. Overall, the Subprime banking crisis has had the strongest impact on U.S. banks' foreign banking decisions.

An interesting empirical regularity that arises from the study of this unique dataset is that there is no monotonic relationship between bank size and the breadth of U.S. banks' global networks. Relative to their asset growth, smaller U.S. banks have increased their foreign engagement substantially faster than did larger U.S. banks. This is an interesting phenomenon to explore, as it adds to past literature which has highlighted bank size as an important determinant of foreign exposure (Focarelli and Pozzolo, 2001). Working off of the hypothesis that there are 'returns' to previous international banking experience (such as know-how, expertise and relationship capital) that further help banks expand their future global activities, this paper develops various measures of bank 'scope'. These 'scope' measures are all designed to capture the breadth of a bank's existing global network. Results indicate that previous global experience (corresponding to a greater scope of foreign affiliate networks) is particularly important in promoting and enabling entry into additional, new markets and promoting more affiliate claims volumes there.

The paper also makes several technical contributions. The analysis relies on a dynamic structural estimation framework that can simultaneously establish the empirical relationship between the characteristics of markets and banks (the state variables), and U.S. banks' optimal choices of market entry/exit and claims volumes (the policy functions). The estimation method employed in this paper