**UNDERSTANDING BANKING SECTOR IN U.S**

**ABSTRACT:**

This article profiles the recent evolution and consequences of banking sector globalization. After presenting trends in international banking, the article overviews macroeconomic consequences of banking sector globalization, including the role of banks in the international transmission of shocks, co-movements of business cycles, financial crises, and economic growth. Other consequences of banking globalization have parallels with the effects of real-side foreign direct investment, including technology transfers, productivity enhancements, and wage spillovers into the host country. Finally, the article provides arguments that banking globalizing can have important consequences for financial supervision and regulation.

**INTRODUCTION:**

The past two decades have experienced a resurgence of international banking, continuing a well-documented general expansion of international financial integration within what has become known as the Second Age of Globalization.2 The shares in country banking systems of banks with sizable foreign positions has grown tremendously. Moreover, the form of banking globalization is evolving, moving away from a system with primarily cross-border flows to a system with both cross-border transactions and more internationally diversified ownership of banks. Other types of international transactions also have been growing, including the transactions extended by the branches and subsidiaries of parent banks that are located in host country markets, derivative use and other forms of international investments made by banks. All of these developments could have profound implications for the host countries receiving the services of globally-oriented banks, and for the parent countries of these same banks. Some implications are the immediately evident – for example related to the international transmission of shocks. Other implications are longer term and more structural by nature, such as those associated with productivity and technology spillovers, growth consequences, and institutional development. In this paper, we overview some of these key implications associated with banking sector globalization. The discussion is divided into three main sections.

First, in **Section i** the paper profiles the recent evolution of international banking, focusing on trends in cross-border acquisitions, shifting ownership forms, composition of lending by banks, and the growth of derivatives exposures. This discussion highlights the evolving outward-orientation of banks from countries with highly developed financial markets, and the differences across emerging market regions in patterns of state versus private ownership of banks. Sections III and IV turn to the consequences of banking sector globalization.

**Section ii** primarily discusses the role of banks in the international transmission of shocks and co-movements of business cycles. The main observation is that global banks enhance the international transmission of shocks through their activities, contributing to more integrated global business cycles. Indeed, this globalization of banking is consistent with observations that financial linkages are increasingly important in, and sometimes dominant channels for, international transmission of shocks.

**Section iii** explores other consequences of banking sector globalization, some of which are comparable to consequences of the more traditional topic of globalization via trade in goods and via foreign direct investment in manufacturing and extractive resource industries. Many consequences of FS FDI and real-side FDI may be similar, including along the dimensions of technology transfers, productivity enhancements, and wage spillovers into the host country. Other consequences are likely to differ. In particular, FS FDI is more likely to induce institutional changes in the host country, such as a strengthening of financial supervision when the host country markets have weaker institutions and supervisory regulations than those in the parent bank’s market. FS FDI also may have pronounced allocative consequences within the host country, as banks have the important function of intermediating capital from savers to borrowers across sectors of an economy.

**Section iv** concludes this article on banking globalization. The focus is on some potentially rich future areas of policy and research discussion. In particular, we argue that globalization of banking and other forms of financial services may influence regulatory and macroeconomic challenges for the countries involved.

**i. Evolving Banking Sector Globalization**

In this section, we begin by highlighting some of the forces behind recent advances in banking globalization and then overview some of the resulting international banking positions. Broader trends in global capital market integration have been discussed elsewhere in rich detail by Obstfeld and Taylor (2004) and in the empirical studies of Lane and Milesi-Ferretti (2001, 2006). More specific details on banking globalization in the latter part of the twentieth century are nicely overviewed by Turner (2006).

The impetus for the globalization of banking varies by player, by time, and by country. From the perspective of the parent bank, some episodes of enhanced international positions originate in bank-specific search for yield and diversification opportunities. Other episodes have followed regulatory changes in the home of host country markets, which have increased the accessibility of expanding services to the host country, either as cross border transactions or through establishing branches and subsidiaries in the host. Some cases of foreign bank entry into previously restricted markets have occurred in the aftermath of crises, or as a result of agreements made in conjunction with negotiations over international trade and specific forms of market access.

Particular episodes of expanded global banking include the period following the dissolution of the Soviet Union, when bank entry into Central and Eastern Europe in the early 1990s led to a rapid growth of foreign ownership in local banking systems. By the early part of the 21st century, foreign participation in the markets often exceeded 80 percent of local banking assets. Another episode of expansion occurred with the liberalization of financial sectors in Latin America through the mid to late 1990s. The first wave of liberalization was a follow-your-customer type, taking place in the aftermath of expanded FDI into manufacturing and resource extraction industries and enhanced competition that Latin American countries faced from Asian counterparts. Another burst of foreign banking activity within Latin America occurred as a result of financial crises of the mid-to-late 1990s, as countries sought to recapitalize their ailing banking systems and to improve the overall efficiency of their financial sectors.

Acquisition data present one window into the vibrant changes in international banking in recent decades. Chart 1 shows the value and number of acquisitions of banks in developing countries by sources countries between 1990 and 2003. During this period, banks in countries with highly developed financial systems were the main sources of financial sector FDI. Through this FS FDI parent banks based in industrialized countries assumed substantial, if not majority, control of assets in host-country financial systems.

The United States and Spain were particularly active in their expansion into foreign markets this period, as measured either in terms of value of positions or numbers of acquisitions. Indeed, the result was substantial inroads into Central and South America, as well as into Mexico by both U.S. and Spanish parent banks. By contrast, as we further elaborate below, the next most active group of banks in mergers and acquisition were the U.K. banks and those from other euro-area countries. These banks took a regional focus, with targeted positions that were more concentrated across industrialized and developing Europe.

Foreign bank entry, and the regulatory evolution that often preceded it, altered the mix of public and private control over emerging market financial assets. These changes are illustrated in Chart 2, which shows the evolution of commercial banks by ownership between 1994 and 2004, and distinguishes between shares attributable to private domestic owners, private foreign owners, and state or public sector owners. In the early part of the 1990s, foreign control of banks was typically below 10 percent of banking system credit. By the late 1990s, foreign banks had made substantial inroads into markets in Latin America and Central Europe, accounting for 34 and 48 percent of bank credit respectively. Acquisitions of local banks continued through the early 2000s in both of these regions, significantly expanding foreign bank presence into majority ownership in many countries. Over this decade the largest change in bank ownership occurred in Central Europe, where the foreign ownership share in the region rose to 77 percent.

**ii. Globally-Oriented Banks, Cyclical Lending, and International Linkages**

As banking becomes more globalized, the international comovement of business cycles of linked economies is potentially altered, along with the transmission of shocks across markets. In principal, with banks are viewed as agents for international risk sharing, diversification, and financial intermediation, consequences for the host markets depend on whether the foreign bank is filling a gap and providing a service that previously was missing in the host market, and on whether the foreign bank’s lending activities are financed with alternative source funds or on alternative terms compared to in its absence. The globalized banks have business cycle consequences that also depend on whether host markets are served through cross-border flows or in the host markets by branches and subsidiaries of the parent bank.

First, it is informative to consider how a change in the structure or ownership of banks in an economy may influence business cycles. There are lessons from a broader literature on banking, with the net effect on business cycles working in two general ways. As in the macro-banking model by Morgan, Strahan, and Rime (2004) used to study the implications of relaxed restrictions on cross-border banking within the United States, integration tends to dampen the effect of bank capital shocks within borders, but amplifies the effect of bank-specific shocks across borders.

A basic observation is that the availability of loanable funds via the deposit base contributes to procyclicality. If foreign-owned bank entrants are less reliant on host- country funding sources and more reliant on foreign sources than are their domestically- owned counterparts, the procyclicality of their supply of loanable funds may be lower. Loan demand, too, can either be procyclical, as individuals or businesses borrow more to expand their holdings in prosperous times, or countercyclical, as individuals try to smooth consumption intertemporally. While the existence of foreign banks *per se* may not influence local loan demand substantially, it is possible that foreign banks may have a different client base than domestically-owned banks or offer different products. This potentially can give rise to an observation of altered cyclicality of loan demand.

Most empirical studies of these issues find that foreign banks, like domestic banks, are procyclical lenders. In Chile, Colombia, and Argentina the lending patterns of private, domestically-owned banks and longer-established foreign-owned banks were similar, especially when foreign bank entry occurred through acquisition of local banks [Crystal, Dages, and Goldberg (2001)]. The cases of statistically relevant differences across banks were weak, but mainly observed when existing banks – foreign-owned or domestic-owned, were compared with newer foreign entrants. While foreign banks had higher average loan growth, they did not add significant volatility to local financial systems or act as relatively destabilizing lenders.

The degree of monetary transmission across markets should be influenced by the monetary regimes in place in the host markets. Countries with de jure or de facto currency pegs with respect to the U.S. dollar have their interest rates move largely in step with U.S. interest rates. The consequence is greater comovement of monetary stances, which also ties the broader business cycles more closely [di Giovanni and Shambaugh (forthcoming), Frankel, Schmukler and Serven (2004), and Obstfeld, Shambaugh, and Taylor (2005)]. Yet, despite establishing international transmission of shocks and policy-induced comovements, the literature on business-cycle comovements surveyed thus far is not predicated on a role for international banks in international linkages.

The specific role of banks is nicely demonstrated in analyses using bank-specific data and focused on establishing the consequences of foreign- versus domestically-owned banks for international linkages. Overall, these studies support an explicit role for foreign-owned banks in enhancing the transmission of monetary policy and interest rate shocks across markets. Seminal work documented that Japanese banks transmitted the shocks that hit their own capital bases, which arose from Japanese stock price movements, into the U.S. real estate market through Japanese bank branches operating in the United States [Peek and Rosengren (1997, 2000)]. Recent concrete evidence of transmission through individual U.S. banks is established by, who examine individual bank balance sheet data for all U.S. banks with global operations between 1980 and 2006 [Cetorelli and Goldberg (2008)]. This analysis, which also considers the effect of banking globalization on the lending channel within the United States, demonstrates that not only is the lending of foreign offices of U.S. banks affected by U.S. monetary policy, but these foreign offices can rely less on support from parent bank balance sheets in times of tighter liquidity conditions in the United States.

The specific role of banks transmission in shocks across borders is another issue that bears on financial crises. The common-lender effects occur when banks have significant exposures to financial crises and substantial potential losses [Masson (1998)]. Bank actions to restore capital asset ratios have spillovers across other markets in which the bank networks operated, with a bank creditor withdrawing from a country in which it holds a position after experience an unexpected loss in another country. Interesting observations can be drawn from the behavior of international bank lending during alternative crises. Using a panel data set of 11 creditor countries and 30 emerging market debtor countries in a period spanning the Mexican, Asian, and Russian currency crises, there was a large and statistically significant common lender effect during the Thai crisis [Van Rijckeghem and Weder (2003)]. The effect was somewhat smaller in the Mexican crisis and not statistically significant in the Russian crisis. The policy conclusion reached by these authors was that emerging market economies could reduce their contagion risk by diversifying the sources of their funding and carefully monitoring their vulnerability through shared bank creditors.

**iii. Globally-Oriented Banks and Other Real-Side Consequences**

In this section we consider consequences for host markets of entry by foreign- owned banks. Financial sector FDI shares many of the consequences already established by analyses of FDI into manufacturing and extractive resource industries, as elaborated in Goldberg (2007). One caveat to the complete adoption of findings from “real-side” research on FDI is that studies seldom distinguish between FDI that arose via mergers and acquisitions and the FDI that arose via greenfield investments. In the FS-FDI area, the analogies are between acquisitions of local banks and de novo investments in the financial services industry. In both financial-sector and real-side FDI, the form of entry is relevant for measuring and interpreting the employment, growth, and efficiency consequences of FDI.

Below, the primary discussion focus is on the host-country implications of banking globalization, especially for emerging markets. Our main conclusions are that financial sector FDI, like real-side FDI, can induce limited technology transfers and productivity gains for the host country. We conclude our expositions by considering the distinct concerns that FS-FDI pose for the host country, especially in terms of institutional development and crisis avoidance. Banks provide key financial intermediation services, and their activities have externalities for bank regulation and supervision that cannot be overlooked and certainly have come to the attention of host countries.

**Technology Transfer and Productivity Spillovers**. It has long been argued that the international investments by multinationals generate growth opportunities by transferring knowledge to countries and consequently filling an “idea gap” [Romer (1993)]. Studies of technology transfer reach mixed conclusions on the extent to which the transfers and productivity spillovers have occurred as a result of foreign direct investment in manufacturing and extractive resource industries. Some conclude that domestic firms in sectors with greater foreign ownership are more productive than firms in sectors with less foreign participation. Others dispute the spillover benefits of FDI into local markets. Part of the disagreement arises when studies do not control for sample selection, that is, that foreign investment may enters sectors where firms are *ex ante* more productive. On balance, research on real-side FDI supports the finding of positive productivity and technology spillovers into host markets.

Lessons from real-side FDI include paying careful attention to the characteristics of the acquired operations. Small plants may have the largest productivity gains from foreign entry. Some local plants may lose workers and experience productivity declines. In some cases, the gains from foreign investment appear to be captured entirely by the joint ventures. Technology transfers can also flow into local industries that are not themselves direct recipients of foreign capitals.

**FS-FDI and Host-Country Workers.** The productivity and technology transfer arguments lead directly to the question of whether foreign entry benefits local workers in terms of wages. When the foreign firm has some intangible productive knowledge, technology transfer and other training after entry should expand the human capital of the employees of the foreign firm within the host country. This expansion of human capital should manifest itself in greater worker productivity and be rewarded by higher wages.

While studied extensively in the context of real-side FDI, these consequences are less extensively documented for financial service industries. Bank balance-sheet data indicate that foreign bank operating costs are lower and that domestic bank costs are pushed down by foreign entry [Crystal, Dages, and Goldberg (2001)]. In some cases, wage expenditures also decline. The analysis has not determined whether these cost reductions are due to decreases in the numbers of workers (often a result of acquisitions and consolidations of banks) without wage declines or to reductions in employment with higher wages paid to the remaining workers.

**FS-FDI and Macroeconomic Growth.** The spillovers and growth ramifications are expected to be strongest when foreign affiliates and local firms compete most directly with each other, as may be the case in previously protected industries. Positive threshold effects may exist between FDI and growth, with human capital accumulation in the host country needing to be sufficiently large before countries can reap the beneficial growth effects of the foreign inflows [Borensztein, DeGregorio, and Lee (1998)].

Studies of financial sector FDI effects conclude that growth may expand both through the technology transfer channel and through improved intermediation of capital flows from savers to investment opportunities. A broad literature looks beyond financial sector FDI and considers the growth implications of overall financial liberalization. The issue of financial-sector FDI, as opposed to portfolio investment or other forms of capital inflows, is not explicitly addressed. In this literature, financial liberalization events are usually defined in terms of regulatory changes, such as the relaxation of capital controls or the lifting of interest rate ceilings. Despite the considerable research undertaken, the extent of the long-term growth benefits of capital account liberalizations is hotly debated, and a consensus view has not emerged. Researchers have found sharply contrasting results owing to differences in country coverage, sample periods, inclusion of crisis controls, and indicators of financial liberalization.

**FS-FDI and Host-Country Institutional Development.** Institutions in developing countries can respond positively to financial sector FDI. Foreign-owned banks appear to contribute to the overall soundness of local banking systems by screening and treating problem loans more aggressively [Crystal, Dages, and Goldberg (2001)]. If foreign entry spurs additional regulatory improvements, the risk of financial crisis declines. Numerous studies assert that financial sector FDI spurs improvements in bank supervision, with regulatory spillovers. The entry into emerging markets of foreign banks that are healthier than domestic banks implicitly allows a country to import stronger prudential regulation and increase the soundness of the local banking sector. The transition to improved local supervision, however, might be bumpy. Major international banks may try to build market share by offering a variety of new financial products, including over-the-counter derivatives, structured notes, and equity swaps. These new derivative products can provide greater opportunities for hedging risks. Yet some new products may also be used to evade prudential regulations and take on excess risks, especially in countries with weak financial systems and underprepared supervisors [Garber (2000)]. One clear implication is that local supervisors in emerging markets may have to invest in upgrading their skills in order to evaluate more efficiently the use and effects of new products. Other challenges for supervisors arise in the context of relationships with parent banks, and may depend on whether the foreign entry is accomplished through branches or subsidiaries.

**iv. CONCLUSION:**

These consequences are grouped into the international transmission of shocks and cycles, allocative efficiency of credit and growth, technology transfer and diffusion, wage and employment spillovers, and institution building.

First, we show that banking globalization expanded rapidly in the 1990s. This occurred through acquisitions, which were impressive in their number and scale, and through new entry into foreign markets. In some markets the entrants displaced state- owned banks, while entry in other markets occurred via acquisitions of privately-held banks. In the developing world, large strides were made in Latin America and Developing Europe. Recently China has been making more progress in the area of banking openness, while India still has significant scope for private entry. The participation of foreign-owned banks in local markets has led to some substitution of cross-border lending, which tends to be more volatile, in favor of locally-generated claims.

The paper also has presented evidence that bank globalization has been changing international transmission and business cycles. General changes in cyclicality of lending depend on what type of bank is being displaced when a foreign bank enters a host market. A changing in loan volumes and cyclicality is not a generalized feature when a foreign owner purchases a healthy bank that is either foreign or domestically-owned. The change in behavior arises when the bank that is acquired is a troubled entity or is a previously state-owned bank. Another key feature of banking globalization is that it has been associated with a reduced incidence of financial crises in emerging market economies, and thereby with a reduced incidence of the sharp output contractions that accompany such crises. So, while foreign bank entry into emerging markets reduces the incidence of crises, it enhances the potential for greater contagion through common-lender effects. The contagion problem is reduced when foreign banks have a stronger subsidiary presence, as opposed to supporting local markets through cross-border flows. Bank globalization alters shock transmission across international markets, both through the internal capital markets of banks and their foreign subsidiaries, and also through what has been described as common lender effects across the markets in which foreign banks have staked out positions.