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Financial-Sector Foreign Direct Investment and Host Countries: New and Old Lessons

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Abstract

Many of the lessons from foreign direct investment (FDI) research on manufacturing and extractive resource industries are applicable to FDI research on the financial sector. This paper summarizes the main findings and policy themes of FDI research, with a primary focus on the implications of FDI for host countries, especially emerging market economies. I review evidence of technology transfers, productivity spillovers, wage effects, macroeconomic growth, and fiscal and tax concerns. Throughout this paper, I stress that parallel findings often arise from studies of general FDI and studies of financial-sector FDI. I also emphasize important differences between the effects of FDI in these sectors, especially with regard to local institution building and business cycles. These differences—more so than the similarities—should be the focus of research efforts.

Valuable comments were provided by participants in the Bank for International Settlements Committee on Global Financial Stability in Basel, the 2004 Allied Social Science Associations meetings in San Diego, California, and the Trinity College of Dublin Conference on Micro and Macro Perspectives on FDI. Goldberg: Research and Market Analysis Group, Federal Reserve Bank of New York (e-mail: linda.goldberg@ny.frb.org).

I. Introduction

In the 1990s, foreign direct investment (FDI) became the largest single source of external finance for many developing countries. For the most part, discussions of the causes and effects of FDI have mainly focussed on manufacturing and real production activity ("general" FDI). Financial-sector FDI also has soared. Yet, research efforts on the general FDI and the financial-sector FDI have been orthogonal, and cross citation has been rare. This orthogonality is surprising: financial FDI shares many of the features of more general FDI in productive services. This paper attempts to bridge this gap and emphasize the parallels and differences between the real and financial-sector FDI.

Conceptually, in each case a foreign producer of goods or services makes a two-fold decision. First, he decides whether to service a particular market; second, he determines whether this market should be served through exports or through setting up local production. While manufacturers use the language of exports or production by multinationals, there is a direct financial services (and in particular banking) analogue to this two-step decision: first, the bank decides whether to provide lending, deposit-taking and other services to a market; second, if so, the bank determines whether to service this market via cross-border activities (arms-length transactions) or foreign direct investment in the form of setting up branches or subsidiaries followed by local lending.

FDI is an activity that occurs as part of a multinational's broader strategic plan. Flows can respond to both microeconomic stimuli, such as tax incentives,[1] and macroeconomic stimuli, such as fluctuations in exchange rates and business cycles. The sometimes lumpy reallocation of capital across borders may occur when governments reduce their protection of inefficient or corrupt local industries.[2] Opportunities to gain local market share and exploit sales or production networks also trigger entry. These features are common to manufacturing industries, extractive resource industries, and financial services.

A well-established literature explores the causes and consequences of FDI in productive services, generally interpreted as manufacturing but sometimes extending to mining and natural resource extractive services. This research often uses data from

[1] See the edited volume by Feldstein, Hines, and Hubbard (1995) for a range of analyses of tax and FDI questions.

individual countries or industries within countries, as opposed to taking the form of sweeping multi-country studies. Consequently, the resulting stylized are usually based on theoretical arguments supplemented by selective case studies.[3] Mainly due to data limitations, distinctions are seldom made between FDI conducted in the form of mergers and acquisitions, versus those done as greenfield (*de novo*) investments.

A distinct and more recent literature has been addressing themes related to cross-border flows of products or ownership in the financial services industry. This literature generally focuses on the implications of foreign entry into local banking systems, either from the perspective of risk management by the investing firms and parents, or from the perspective of host markets that sometimes are skeptical about foreign entry.[4] Events of the early 1990s accelerated interest in this financial-sector FDI. Following the breakup of the Soviet Union, foreign bank entry into Central and Eastern European countries led to foreign ownership in local banking system often in excess of 80 percent of local banking system assets. Liberalizations in Latin America also may have been partially prompted by these events, especially where there were concerns about potential competitiveness losses relative to the East. Financial crises of the mid-to late1990s prompted further openings as countries sought to recapitalize and spur efficiency improvements in their financial systems.

Observers of these changes in financial sector ownership have appropriately begun to analyze the implications of this financial sector FDI on the host countries. In this paper, I argue that many of the lessons from the general FDI research (which has a manufacturing sector and extractive resource industry focus) directly pertain to financial-sector FDI (FSFDI). I review – without attempting to be exhaustive -- some of the main findings and policy themes, taking as a primary focus the host country implications of FDI, especially for emerging markets. I emphasize evidence on technology transfers, productivity spillovers, wage effects, macroeconomic growth, institutional development, and fiscal and tax concerns. Throughout the paper, I cite the applicable parallel results

[2] Dixit and Kyle (1985) provide an elegant conceptual exposition.

[3] The case studies employ distinct "definitions" of FDI – sometimes using a flow definition (for example, covering the foreign investment that took place within a particular period of time) or a stock definition, which is meant to represent the total cumulative value of all foreign investment up until some point in time. Data availability often drives the type of analysis conducted.

that have independently been reached in studies of financial sector FDI. While the language of these orthogonal research areas may have subtle differences, I emphasize that many of the conclusions from such research are similar. In cases where parallel results are not available, I discuss which host country implications of general FDI are likely to extend to financial services.

I conclude that both types of FDI can induce limited technology transfers and productivity and wage gains in the host country. Both types of FDI can also induce increased integration of the host country into world business cycles. Yet, FDI in banking and finance raises distinct concerns and benefits for the host country, including in the areas of institutional development and crisis avoidance. These differences, more so than the similarities, warrant further study. In particular, the balance of such evidence may provoke an examination of the question of whether emerging market governments should encourage financial-sector FDI even to the extent of providing explicit incentives for inflows.

II. Does FDI lead to technology transfer and productivity spillovers?

Development economists argue that multinationals, through FDI, can help to fill an "idea gap" between developed and developing countries and provide enhanced opportunities for developing country growth (Romer 1993). According to this view, foreign direct investors in a country presumably have access to productive knowledge that is not otherwise readily available to producers in the host country. However potent, such productive knowledge may be intangible, taking the form of technological know-how, marketing and managing skills, export contacts, coordinated relationships with suppliers and customers, and reputation (Markusen 1995). Technology transfer from FDI is posited to stimulate developing country growth.

This concept of technology transfer between countries has a long and rich research history.[5] Nonetheless, formal evidence is mixed on the extent that technology transfers and productivity spillovers have occurred as a result of foreign direct

[4] The insurance industry has also received significant foreign investment flows, but less research attention. For example, see Skipper (2001).

investment. Some studies conclude that domestic firms in sectors with more foreign ownership are more productive than firms in sectors with less foreign participation.[6] Other studies dispute the spillover benefits of FDI into local markets[7]. Part of the disagreement among researchers stems from the extent to which the studies properly control for the conditions in a country or sector prior to the advent of FDI. Sometimes foreign investment enters sectors where firms are ex ante more productive. Observations of *ex post* high productivity are not, therefore, proof that foreign entry contributed to enhanced productivity via technology transfer or some other channel.

On balance, FDI researchers conclude that positive productivity and technology spillovers exist, but depend on the structure of host country production activity.[8] 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 appeared to be entirely captured by the joint ventures.[9] Overall, while the theoretical point of technology transfer from FDI is compelling, empirically the strength of technology transfer and aggregate productivity effects remains debated in the context of "manufacturing" FDI. Difficulty in quantifying the strength of this channel has complicated the proof of the idea that growth in developing countries is unambiguously spurred by the closing of idea gaps.

Another positive effect from FDI could arise if non-recipient-industries experience positive spillovers from the recipient industry. The view that a new plant will stimulate the local development of services and attract related producers is sometimes offered as a justification for (possibly excessive) incentive packages offered to foreign investors.[10] There is emerging support for a view of positive spillovers. Using data on Lithuanian firms, Smarzynska (2004) finds evidence of productivity spillovers from FDI taking place through contacts between foreign affiliates and their local suppliers in

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[5] See Horstmann and Markusen 1989 for an early discussion and formalization of this concept.
[6] For example, Blomstrom 1989 on Mexico.
[7] See Germidis 1977 for an early discussion of spillovers in the OECD.
[8] Gorg and Greenaway (2003) provide a rich and more exhaustive review of the evidence on this point. They are more skeptical that the balance of evidence is positive, but also emphasize that methodological issues need to be better addressed.
[9] Aitken and Harrison 1993, 1999 provide evidence for Venezuela and preliminary results for Indonesia.
[10] Such themes were developed in the elegant theoretical analysis of Markusen and Venables (1999) and in Rodriguez-Clare (1996).

upstream sectors (i.e. vertical linkages). This careful study finds no support for a claim of spillovers taking place within the same industry (i.e. horizontal linkages).

These technology transfer and productivity themes have close counterparts in the financial-sector FDI literature. Instead of using the language of *productivity*, recent research in this area asks whether foreign bank entry alters the *efficiency* of foreign-owned and domestically-owned banks. Efficiency calculations are done by using data on overhead costs (the ratio of bank overhead costs to bank total assets) and bank net interest margin (bank interest income minus interest expense over bank total assets). Foreign banks operating in developing countries appear to be more efficient than their domestic counterparts, whether privately-owned or government owned. Domestic banks are forced to become more efficient after foreign entry, especially in the business lines in which foreign banks choose to compete. Relevant research studies rely on either cross-country or case study approaches, and also are "within industry". For example, Claessens, Demiriguc-Kunt and Huizinga (2000) use data from a sample of 80 countries to show that foreign entry reduces the profitability of domestic banks and enhances their efficiency. Country studies that mainly using bank balance sheet data reach similar types of conclusions for the Philippines (Unite and Sullivan 2001), Colombia (Barajas, Steiner and Salazar 2000), and Argentina (Clarke, Cull, D'Amato and Molinari 2000).

This financial-sector FDI research, to my knowledge, does not directly distinguish between within-sector productivity enhancements due to changes in the market structure of the industries versus those due to technology transfers between foreign banks and domestic banks. Despite anecdotal accounts, direct evidence for technology transfer has not been formalized in relation to financial-sector FDI. Most of the discussion in the area of financial-sector FDI argues that these efficiency gains are induced by changes in industry competitive structure: foreign entry reduces the monopolistic excesses of domestic banks. Bank exit or mergers and acquisitions have changed local competitive structures in ways largely unparalleled in other sectors that have received FDI. The significant amount of bank consolidation during the past decade has been fostered by technological change and foreign entrants into emerging markets. Interestingly, Gelos and Roldos (2002) show convincingly that while this consolidation has been associated

with efficiency improvements, as previously noted, consolidation has not reduced competition in local financial markets.

III. Do FDI inflows change host country wages?

The productivity and technology transfer arguments lead directly to the question of whether local workers benefit (in terms of wages) from foreign entry. When the foreign firm possesses some intangible productive knowledge, technology transfer and other training after foreign entry should spur expanded human capital by the host-country employees of the foreign firm. This accumulation of human capital should manifest itself in greater worker productivity and be rewarded by higher wages.

Empirical studies of manufacturing industries have tied higher levels of foreign direct investment to higher wages. In Mexico and Venezuela, this wage growth was experienced only for the workers in foreign-owned firms without broader spillovers through the host country labor markets. In the United States, there have been smaller wage effects from foreign investment, but these wage gains have spilled over more into local labor markets (Aitken, Harrison and Lipsey 1996). In Indonesian industries, wages paid in domestically-owned manufacturing plants taken over by foreign firms increased sharply relative to wages paid in those plants that remained in domestic hands. These results persisted even after controlling for the initial characteristics of the plants that were taken over by foreign investors (Lipsey and Sjoholm 2002). On balance, some workers directly benefit from FDI through higher wages. Whether due to the accumulated capital being firm-specific, or foreign firm efforts to limit out-mobility of productive workers, analogous growth in wages and productivity are not generally observed outside the sector which receives FDI.

The same arguments for wage effects of FDI should apply to workers in emerging market financial services industries. However, the data on this issue has not yet been parsed out. There is evidence from bank balance sheet data that foreign bank operating costs are lower and domestic bank costs are pushed down by foreign entry. In some cases the wage expenditures decline for banks. More analysis is needed to decompose these cost reductions into components of reduced numbers of workers (often a result of

acquisitions and consolidations of banks) versus higher wages paid to the remaining workers.

A related theme is the employment effects of FDI. The overall employment implications for the host economy, summing across the jobs of the entrant firms and surrounding economy, most likely depend on whether the FDI takes the form of greenfield investment (referred to as *de novo* in the financial services industry) or occurs via mergers and acquisitions of pre-existing plants (or banking networks). Greenfield investments, like the construction of a new production plant, are expected to generate increased host country employment. This job growth might be strongest if the new plant does not directly compete with other local production facilities, especially in serving thin host country markets. The net employment effects also could be strong if there are agglomeration externalities, so that the infrastructural improvements have spillovers on other firms locally and all local producers gain.[11] These points are relevant for studies of general FDI, which do not typically distinguish between types of FDI, and would be expected to also be quite relevant for financial FDI.

The net employment effects of merger and acquisition FDI are less transparent. If the M&As imply that consolidation occurs over an inherited bloated infrastructure, there may be job loss. There may be fewer individuals employed at higher wages in a plant or banking system that ultimately is operating more efficiently. Financial-sector FDI is often done through acquisitions of host country banks. Evidence on branch closures and reduced wage bills post-acquisition are suggestive of within industry job loss with this form of FDI.

IV. Do FDI inflows accelerate macroeconomic growth?

Studies of the aggregate implications of FDI sometimes using data from larger groups of countries and taking the form of growth regressions. One level of motivation is drawn from the question of whether an idea gap had held back EME growth, with FDI

[11] Job creation by a single plant is generally not an appropriate welfare metric for employment calculations. The foreign plant employs workers and pays higher wages, drawing some workers from other local plants. In a situation where the foreign investor takes over a local plant, restructuring could lead to job loss, with

inducing a catch-up process (Romer 1993). Indeed, the most robust evidence on FDI and aggregate growth is found in studies of developing countries.[12] Some researchers conclude that inward investments to Greece, Taiwan, Indonesia, and Mexico have contributed significantly to their growth. However, research that uses detailed industry-level data also finds that growth spillovers across industries may be driven by the industries into which FDI is targeted. Spillovers are not expected to occur across all industries. 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.[13] Borensztein, DeGregorio, and Lee (1998) find positive threshold effects between FDI and growth, with human capital accumulation needing to be large enough before countries can absorb the beneficial effects of the foreign inflows.

Two strands of research specifically tie into the question of whether financial-sector FDI stimulates emerging market growth.[14] Cross-country growth regressions reach a broader finding that financial development is both positively and causally related to economic growth.[15] Beck, Demirguc-Kunt and Maksimovic (2001), however, find not evidence that distinguishing countries by financial structure (i.e. bank-based versus market-based) explain country differences in economic growth performance. None of the related studies have identified whether foreign bank entry per se is a growth driver.

A second relevant literature is more suggestive of positive growth effects from financial-sector FDI since it provides evidence of more efficient credit allocation within economies that receive financial-sector FDI. Prior to financial sector liberalization and

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only the remaining employees getting higher wages. The producer potentially generates larger income and tax revenues for local governments.

[12] See Lipsey 2000 for an informative overview.

[13] Markusen (1995) was an early advocate of the view that the competitive structure of an industry is a key driver behind FDI implications.

[14] A related strand of research looks broader than only financial-sector FDI and considers the growth implications of overall financial liberalization. The issue of financial FDI, as opposed to portfolio investments 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 lifting of interest rate ceilings. Despite considerable research output, the extent of long term growth benefits of capital account liberalizations is hotly debated and a consensus view has not developed. Sharply contrasting results have been generated by researchers due to differences in country coverage, sample periods, inclusion of crisis controls, and indicators of financial liberalization used in research. For recent examples and surveys, see Edison, Klein, Ricci, and Slok 2002; Eichengreen and Leblang 2002.

[15] For example, see Levine, Loayza and Beck (2000) and Rajan and Zingales (1998).

reform, some governments use the local banking system as a tool for providing directed credit to politically favored constituents or favored but loss-making sectors of the economy. The banks implicitly play a role in patronage, "development finance", and subsidize levels of activities that might not be viable on market terms. Suggestive evidence of the costliness of such strategies is found in work by LaPorta, Lopez-de-Silances, Shleifer (2002). Using data from around the world, they argue that higher levels of government ownership of banks is associated with lower growth of per capita income and productivity. Sapienza (2002), in a fascinating study of state-owned banks in Italy, shows that public bank lending has a pattern of rewarding political supporters.

While serving as a means of fiscal stimulus, this type of directed lending crowds out intermediation to worthy private borrowers. If banks are better regulated and subject to parent bank oversight, foreign banks operating in emerging markets may be better able to resist local suasion. As such, they may better discipline host country fiscal or monetary "irresponsibility" and be less amenable to forced purchases of government bonds or forced lending to favored political constituents.

Galindo and Schiantarelli (2002) document that financial liberalization tends to relax financing constraints on producers in developing countries, and make them less adversely influenced by financial crises. Foreign banks sometimes enter as a component of a larger scale financial liberalization and banking privatization effort, and sometimes enter as local governments seek to recapitalize their financial systems in the wake of crises. Outside of crisis periods, foreign banks might be expected to contribute to growth by providing capital to worthy but previously credit-constrained borrowers, and by not crowding out credit provision to worthy borrowers who are outside the scope of their business model. During crises, if foreign-owned banks are the destinations for local flight capital, instead of this capital leaving the country there are greater opportunities for these funds to continue to be intermediated locally.

Further evidence supportive of financial-sector FDI as a stimulus to growth is from research on lending comparisons across banks differentiated by owner types. U.S. bank credit provision to Latin American countries grew faster and was less sensitive to local cycles than credit provision by domestically-owned banks (Dages, Crystal and Goldberg 2002). The composition of credit provision also is important for long-term

growth, raising the concern that small businesses that rely on bank credit might have constrained access with foreign bank entry. In Latin America, foreign-owned banks operating have been providing credit to local constituents in similar patterns as healthy domestically-owned banks (Dages, Goldberg, and Kinney 2000). Other than possible biases in borrower orientation that often are linked to bank size (large banks lend relatively less to small and medium-sized enterprises), detailed evidence for Latin American countries shows that there has not been a systematic bias in orientation specifically associated with foreignness (Clarke, Cull, and Martinez Peria 2002). In Eastern Europe (specifically Hungary), on aggregate, foreign entry may even have been associated with expanded SME credits when the domestic banks had to more aggressively search for a broader clientele for lending (Bonin and Abel 2000).

Overall, these observations from research on credit provision in country and bank studies are supportive of the more general growth regression results. Namely, financial-sector FDI appears to support more rapid economic growth rates within economies.

V. FDI, Business Cycles, and Institutional Development

FDI can also be important the importance for the multiplier on foreign and domestically generated business cycles, crisis contagion, and institutional development.[16] Recently, researchers engaged in analyses of business cycle comovements across countries have looked for explanations for changes in synchronization. Kose, Prasad, and Terrones (2003) explore the changes in global linkages across different types of developing countries in recent decades. They divide developing countries into two coarse groups – more financially integrated economies (MFI) and less financially integrated countries (LFI). Both groups have low correlations with "world macroeconomic aggregates, with these correlations not statistically higher in recent decades compared, for example, with the 1960s and the 1970s.[17]

[16] I do not delve substantively into the other important range of issues surrounding the alternative modes of entry into a country (*de novo* versus merger and/or acquisitions with local banks) or the alternative organizational forms for bank entrants (branch, subsidiary, or as a representative agent of the parent bank).

[17] Prasad, Rogoff, Wei, and Kose (2003) provide an extensive review of this evidence, noting the broad group of papers that look at financial integration and growth. The role of FDI within financial integration is less well documented. Imbs (2003) finds that financial integration raises correlations among a sample of industrialized countries. Kose and Yi (2003) argue that the increased vertical integration of production in

The independent role of general FDI, and specifically multinational firms in business cycle integration, is less well explored. While Hanson and Slaughter (2003) posit a role for multinationals that relies on profit sharing between parent and affiliate firms, especially through wages, the strength of this channel has not been tested empirically or assessed relative to other channels.[18] As a general point, the specific contribution of FDI to business cycle linkages, as opposed to financial integration more broadly defined, remains a largely open question. Likewise, the relative importance of general FDI versus financial-sector FDI in changing the nature of local business cycles has not been determined.

Empirical analyses show that financial-sector FDI clearly has consequences for local business cycles. This type of research typically uses bank-level data to relate lending activities to shock transmission within and across national borders. In principle, bank lending activity can either be procyclical or countercyclical with respect to local business cycles and other shocks. On the loan supply side, the availability of loanable funds via the deposit base contributes to procyclicality. To the extent that foreign bank entrants are less reliant on host country funding sources, and more reliant on foreign sources of funds, the procyclicality of their supply of loanable funds may be reduced. Loan demand can either be procyclical or countercyclical. Procyclicality can arise as individuals or businesses borrow more to expand their holdings in good times, or countercyclical as individuals try to intertemporally smooth consumption.

Researchers typically find strong evidence of procyclicality in bank lending. In addition to the aforementioned points, other arguments for procyclicality rely on information asymmetries between borrowers and lenders, as within a financial accelerator view of credit cycles.[19] Or, as Borio, Furfine, and Lowe (2001) contend, procyclicality may be the result of inappropriate responses by financial market participants to changes in risk over time. These inappropriate responses can be caused by under-estimating risk

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world trade poses a powerful channel for business cycle transmission. Such vertical production linkages are frequently supported by patterns of general FDI, and would be suggestive of FDI in manufacturing and extractive resource industries as stimulating business cycle comovements.

[18] The arguments draw from Budd and Slaughter (2003) on international rent sharing.

[19] The "financial accelerator" argument maintains that information asymmetries between lenders and borrowers contribute to the procyclicality of lending. When economic conditions are subject to an adverse shock, and collateral values decline, even those borrowers with profitable projects have difficulty obtaining funding.

in good times and over-overestimating risk in bad times. Inappropriate credit cycles can also derive from market participants having incentives to react to risk, even if correctly measured, in ways that are socially suboptimal. Related arguments for procyclicality stem from bank provisioning practices and their links to rules on regulatory capital (Cavallo and Majnoni 2001).

These cyclical lending responses could potentially differ between foreign-owned and domestically owned banks. Goldberg, Dages, and Crystal (2002) find that while foreign banks are procyclical lenders, they do not appear to magnify the boom-bust cycles in emerging markets. Analysis of individual bank data from Chile, Colombia, and Argentina supports broad similarities between the lending patterns of private domestically-owned domestic banks and longer-established foreign banks. The similarities with newer established foreign banks are less systematic. While foreign banks had higher average loan growth, they did not add significant volatility to local financial systems or act as relatively destabilizing lenders.[20]

Financial-sector FDI can reduce the magnitude of host country cycles if foreign bank involvement reduces the incidence of crises. The boom / bust cycles in international capital flows are often derided as wreaking havoc on economies, with lending booms contributing to financial crises. Financial liberalization, by giving banks and other intermediaries more freedom of action and allowing them to take greater risks, is sometimes argued to increase the financial fragility in an emerging market. Studies by Demirguc-Kunt and Detragiache (1998, 2001), as well as work by Rojas-Suarez (2001), find that find financial liberalization (defined as interest rate liberalization) has costs in terms of increased financial fragility, especially in developing countries where the institutions needed to support a well-functioning financial system are generally not well-established.

Yet institutions in developing countries can respond positively to FDFDI. Crystal, Dages, and Goldberg (2002) show that foreign owned banks appear to contribute to the overall soundness of local banking systems via more aggressive screening and treatment of problem loans. If foreign entry spurs additional regulatory improvements, financial crisis risk declines. Demiriguc-Kunt, Levine, and Min (1998) relate foreign bank entry

[20] See also Goldberg (2002), Dages, Kinney and Goldberg (2000), and Horvath (2002).

per se to the probability that a banking crisis will occur. The foreign bank presence was found to have a negative and statistically significant coefficient, leading the authors to conclude that (controlling for other factors likely to produce banking crises) greater foreign bank participation had a stabilizing effect.

The transmission of shocks across borders is another issue that bears on financial crises. Foreign banks may contribute to contagion through common lender effects, as documented in Van Rijckeghem and Weder (2000). Foreign banks could also be subject to foreign cyclical flows. However, any private bank with access to foreign loanable funds can be similarly effected: foreign cycles have been shown to effect the lending and deposit bases of both domestically and foreign owned private banks in emerging markets (Crystal, Dages, and Goldberg 2002). More evidence is needed on the question of whether foreign banks have access to – and receive – additional capital from their head offices in times of stress. Anecdotal evidence suggests that there is not a systematic relationship, but this warrants more rigorous study.

On the issue of crises it is worth noting that foreign banks may contribute to domestic financial stability by being within a country's borders, rather than abroad. If flight to quality occurs under stress periods, it may be better to have domestic depositors keep their money within the domestic financial system (to be reintermediated locally) rather than leave the country through capital flight. Martinez-Peria and Schmukler (1999) document that depositors recognize differences in health and efficiency of banks, moving their assets to better functioning banks or demanding higher deposit rates. Locally generated claims from foreign-owned banks substitute, in part, for cross border flows, with the latter sometimes more volatile.[21]

[21] More evidence is needed on the extent to which there is substitutability between cross border flows and locally-generated claims by foreign branches and subsidiaries. There are direct parallels between these types of questions in financial FDI and questions long raised in the area of real-side FDI. In manufacturing industries, there is no clear pattern of substitutability versus complementarity in bilateral flows between Latin American countries and the United States. But, manufacturers in different countries may engage in distinct FDI strategies. Research has shown that for Southeast Asian countries, FDI from Japan enhanced Japanese exports to those countries (consistent with intermediate input trade) while FDI from the United States substituted for exports from the United States to Southeast Asia. FDI from these two sources did not systematically influence exports from the U.S. or Japan to Latin American countries. (Goldberg and Klein 1998, 2001).

Host country institutional development

In theory, general and financial-sector FDI can play a causal role in host country institutional development. The direct role of general FDI in host country institutional reform is not well-documented by researchers. Financial-sector FDI has been more closely linked to institutional reforms, but systematic analysis of this institutional response is warranted. The recent availability of rich institutional databases, such as the World Bank database on Bank Regulation and Supervision, may facilitate this type of testing.[22]

Numerous studies assert the 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. In the cases of Argentina, Chile, and Colombia, for example, foreign banks have contributed to enhanced domestic financial stability by engaging in more aggressive risk management techniques (Crystal, Dages and Goldberg 2002). Calomiris and Powell (2001) argued that Argentina's bank regulatory system in the late 1990s was one of the most successful among emerging market economies. Reliance on market discipline was viewed as playing an important role in prudential regulation by strengthening risk management among banks.

The transitions to improved local supervision might be bumpy. Major international banks may try to build market share by offering a variety of new financial products, including OTC derivatives, structured notes, and equity swaps. These new derivative products can provide improved opportunities for hedging a variety of 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 with under-prepared supervisors (Garber 2000). One clear implication is that local supervisors in emerging markets may need to make early investments in upgrading their skills in order to better evaluate the use and effects of new products. Other challenges for supervisors arise in the

[22] See Barth, Caprio, and Levine (2002).

context of relationships with parent banks, and may depend on whether the foreign entry is accomplished through branches or subsidiaries.[23]

Foreign bank entry also raises issues of competition policy within host country banking systems. While the actual experiences of host countries have been extensively elaborated elsewhere (see the collection of articles in BIS 2001, and its overview by Hawkins and Mihaljek), on average consolidation has occurred without deterioration of the competitiveness of the financial services industry within a country (Gelos and Roldos 2002).

Another challenge arises in the case where the financial services industry becomes highly concentrated with monopolistic pricing tendencies exerted by banks (for example). If foreign banks are among the few surviving banks, local regulators may be tempted to conclude that foreign banks bear specific responsibility for adverse outcomes. Yet in many cases, foreign bank entry occurs as part of a process of larger scale restructuring and recapitalization of the EME financial system. More concentrated market power may have occurred regardless of whether owners were foreign or domestic. Even with monopolistic pricing, there may be other benefits through scale economies and improved services that are the by-products of consolidation. These issues challenge regulators to engage in careful cost-benefit analyses and policy reactions.

VI. Fiscal and tax questions raised by FDI

Public finance decisions concerning multinationals[24] and host country governments have received considerable analytical attention, particularly in the area of general FDI. One pertinent and very important issue is that of incentives offered to foreign investors in order to attract them to a country (or locality within a country). Such efforts to attract multinationals and foreign investment capital have been extensive. As reported in UNCTAD (2001:6-7), nearly 95 percent of the almost 1200 changes in

[23] One recent study considers the stability of cross border versus FDI flows in banking for Central and Eastern European countries (Buch, Kleinert, and Zajc 2003). In preliminary work, the authors argue that FDI should have an additional stabilizing feature since it should allow banks in CEECs to draw on the liquidity buffer of their headquarters abroad. Branches and subsidiaries are not distinguished in the conceptual presentation.

[24] See *The Effects of Taxation on Multinational Corporations*, edited by Martin Feldstein, James Hines, Jr. and R. Glenn Hubbard (NBER and U. Chicago Press, 1995).

national FDI legislation during 1991 through 2000 were favorable to foreign investors --- sometimes taking the form of special incentives to foreign enterprises, including lower income taxes, income tax holidays, import duty exemptions, and subsidies for infrastructure.

Researchers and policymakers correctly ask whether (quantitatively) there is reason to believe that the benefits from FDI justify the costs. When governments compete actively against each other for FDI, profits from the investments are shifted from the host country to multinational enterprises (Oman 2000).[25] While debate over this point remains, Blomstrom and Kokko (2003) provide a compelling argument that the types of long-term benefits that are generated by FDI may not justify the short-term costs. These benefits include the positive spillovers between firms and across sectors that researchers continue to try to identify. Governments may make excessive long-term financial commitments for the employment and political gains that are received in the short term.

> "strong promotion efforts show that the government is actively doing something to strengthen employment, productivity, growth, or some other policy objective … Another reason is that some of the perceived benefits (in particular, the jobs created by FDI) are easily observable while some of the costs (particularly related to tax breaks and fiscal incentives) are distributed over long periods of time and hard to measure."
>
> Blomstrom and Kokko 2003.

The same questions, to date applied almost exclusively in the area of general FDI, also are pertinent in the area of financial-sector FDI. We have suggested a number of important dimensions along which financial-sector FDI is expected to have distinct implications from the more general forms of FDI. These areas include changes in crisis incidence, business cycle magnitudes, and institutional development. Clearly, given the welfare consequences of business cycles and crises, the calculus of costs and benefits of actively promoting and subsidizing such foreign entry is a topic worthy of further analysis. The quantities that have been implicitly or explicitly put on the table for attracting financial FDI have not been, to my knowledge, systematically studied.

[25] Similar arguments apply to states within countries that compete against each other to attract new production facilities.

VII. Concluding Remarks.

This paper has argued that multinationals and FDI into emerging markets generally have a number of important effects on host countries, with some of these effects specific to FDI in financial services. Some effects are associated with changes in allocative efficiency, technology transfer and diffusion, wage spillovers, institution building, macroeconomic cycles, and overall economic stability.

In brief, research concludes that FDI is typically associated with improved allocative efficiency. This improvement can occur when foreign investors enter into industries with high entry barriers and then reduce local monopolistic distortions. The presence of foreign producers may also induce higher technical efficiency: the increased competitive pressure or some demonstration effect may spur local firms to more efficient use of existing resources.

FDI also is associated with higher rates of technology transfer and diffusion, and higher wages. While there is evidence of technological improvements from FDI, and a presumption that FDI will consequently stimulate economic growth, the strength of these effects is disputed. Higher wages also are induced by FDI into host countries, although sometimes these wage effects are limited to the foreign-owned production facilities and do not spillover more broadly.

Institutional change is another potential implication of FDI. At least in the context of FDI in financial services, the outcome is in the direction of improved regulation and supervision. Sometimes these improvements occur with a lag, as supervisors in host countries may be initially unprepared for evaluating the new products and processes introduced by foreign entrants.

FDI can also play a role in non-crisis and crisis macroeconomic conditions. Foreign banks are procyclical lenders in emerging markets. Domestic privately-owned banks also are procyclical lenders, so the presence of foreign banks does not aggravate the boom-bust cycle in lending and international capital flows. Foreign entrants may introduce a more diversified supply of funds, in principle leading loan supply to be less procyclical but also more sensitive to foreign fluctuations. Foreign bank entry into emerging markets reduces the incidence of crises, but enhances the potential for greater

contagion through common lender effects. The contagion issue is reduced when foreign banks have a stronger subsidiary presence, as opposed to supporting local markets through cross-border flows.

A debate actively rages on the issue of whether governments should actively pursue FDI through subsidies and other incentive programs. In the literature on FDI (real side) there is some skepticism about whether the real benefits from FDI to the host country justify the sometimes large incentives offered to attract foreign investors. These investment incentives may be off-budget items in developing countries – for example as tax holidays that do not require payment of scare public funds.

The special features of financial FDI add other dimensions to this debate, and warrant further exploration. There are some broad similarities, but also some differences, between the effects of manufacturing FDI and financial FDI. . The employment effects of financial FDI are more subtle,[26] depending in part on whether the investment is greenfield or merger and acquisition. In the latter case, the effects also depend on whether the acquired institution was financially sound or needing restructuring, regardless of the nationality of the new owners.

The institutional effects are clearer. Financial FDI from well-regulated and supervised source countries can support emerging market institutional development and governance, improve the mix of financial services and risk management tools of a host country, and potentially reduce the sharp crises associated with financial underdevelopment in emerging markets. This type of financial FDI can initially pose strong regulatory challenges to local supervisors, who need to develop expertise in the practices and products introduced into their local economies. A range of analytical and policy questions arise. The most basic decision point is whether developing countries should open up to foreign financial-sector entrants. Many emerging markets have responded with strong affirmative statements in the past decade. A second question, goes beyond the decision point of whether or not to open to financial foreign investment, and asks whether the benefits of this financial sector FDI are such that a country should

[26] If manufacturing FDI evidence is a guide to where spillovers are likely, Kokko (1994) shows that the incidence of spillovers is related to a host country's ability to absorb them.

actively encourage and support entry. Careful discussion and further rigorous analyses would better inform this important issue.

References:

Aitken, Brian and Ann Harrison. 1999. "Do Domestic Firms Benefit from Direct Foreign Investment? Evidence from Venezuela" *American Economic Review* vol.89 no.3 (June) pp.606-618.

Aitken, Brian, Ann Harrison, and Robert E. Lipsey. 1996. "Wages and Foreign Ownership: A Comparative Study of Mexico, Venezuela, and the United States", *Journal of International Economics*, Vol. 40, No. 3/4, (May), pp. 345-371.

Bank for International Settlements, 2001. *The banking industry in the emerging market economies: competition, consolidation, and systemic stability*. BIS papers no. 4 Monetary and Economics Department (August).

Barajas, Adolfo, Roberto Steiner, and Natalia Salazar. 2000. "The Impact of Liberalization and Foreign Investment in Colombia's Financial Sector." *Journal of Development Economics* 63 (1): 157-96.

Barth, James, Gerard Caprio, and Ross Levine. 2001. "Banking Systems Around the Globe: Do Regulation and Ownership Affect Performance and Stability?" in Frederic Mishkin, ed., *Prudential Regulation and Supervision: What Works and What Doesn't*. (Boston Ma: National Bureau of Economic Research).

Barth, James, Gerard Caprio, and Ross Levine. 2002. "Bank Regulation and Supervision: What Works Best?" NBER working paper 9323 (November).

Blomstrom, Magnus. 1989. *Foreign Investment and Spillovers*. London: Routledge.

Blomstrom, Magnus, and Ari Kokko. 2003. "The Economics of Foreign Direct Investment Incentives" NBER 9489. http://papers.nber.org/papers/W9489

Bonin, John and I. Abel. 2000. "Retail Banking in Hungary: A Foreign Affair?" William Davidson Institute working paper no. 356.

Borensztein, Eduardo, Jose de Gregorio, and J.W. Lee. 1998. "How does foreign direct investment affect economic growth?" *Journal of International Economics* vol. 45, pp. 115-135.

Borio, C., C. Furfine, and P. Lowe. 2001. *Procyclicality of the financial system and financial stability: Issues and Policy options*. BIS working paper.

Buch, Claudia, Jorn Kleinert, and Peter Zajc. January 2003. "Financial Integration and Stability in Transition Economies: Does the Mode of Entry Matter?" manuscript, Kiel Institute for World Economics.

Budd, John, and Matthew Slaughter. forthcoming. "Are Profits Shared Across Borders? Evidence on International Rent Sharing," *Journal of Labor Economics*.

Burdisso, Tamaro, Laura D'Amato, and Andrea Molinari. 1998. "The Bank Privatization Process in Argentina: Toward a More Efficient Banking System?" Unpublished paper, Banco Central de la República Argentina (October).

Calomiris, Charles and Andrew Powell. 2001. "Can Emerging Market Bank Regulators Establish Credible Discipline? The Case of Argentina, 1992-1999." In *Prudential Supervision: What Works and What Doesn't*, edited by Frederic Mishkin (NBER and University of Chicago Press).

Cavallo, Michele and Giovanni Majnoni. 2001. "Do Banks Provision for Bad Loans in Good Times?" World Bank Policy Research working paper no. 2619.

Claessens, Stijn, Asli Demiriguc-Kunt, and Harry Huizinga. 2000. "The Role of Foreign Banks in Domestic Banking Systems." In Stijn Claessens and Marion Jansen, eds. *The Internationalization of Financial Services: Issues and Lessons for Developing Countries*. (Boston MA: Kluwer Academic Press)

Claessens, Stijn, Asli Demiriguc-Kunt, and Harry Huizinga. 2001. "How does foreign entry affect domestic banking markets?" *Journal of Banking and Finance*, 25, pp.891-911.

Clarke, George, Robert Cull, Laura D'Amato, and Andrea Molinari. 1999. "The Effect of Foreign Entry on Argentina's Banking System." In *The Internationalization of Financial Services: Issues and Lessons for Developing Countries*, edited by Stijn Claessens and Marion Jansen. (Doredrecht, The Netherlands: Kluwer Academic).

Clarke, George, Robert Cull and Maria Soledad Martinez Peria. 2002. Does Foreign Bank Penetration Reduce Access to Credit in Developing Countries? Evidence from Asking Borrowers. Manuscript.

Clarke, George, Robert Cull and Maria Soledad Martinez Peria. 2002. "Foreign Bank Entry: Experience, Implications for Developing Countries, and Agenda for Further Research". Manuscript (June).

Crystal, Jennifer, B. Gerard Dages, and Linda Goldberg. 2001. "Does Foreign Ownership Contribute to Sounder Banks? The Latin American Experience." In *Open Doors: Foreign Participation in Financial Systems in Developing Countries*, edited by Robert Litan, Paul

Masson, and Michael Pomerleano (Washington DC: Brookings Institution and the World Bank): 217-266.

Dages, B. Gerard, Daniel Kinney, and Linda Goldberg. 2000. "Foreign and Domestic Bank Participation in Emerging Markets: Lessons from Mexico and Argentina" in Federal Reserve Bank of New York, *Economic Policy Review* 6(3): 17-36.

Demirgic-Kunt, Asli and Enrica Detragiache. 1998. "The Determinants of Banking Crises: Evidence from Industrial and Developing Countries." *IMF Staff Papers* 45(1): 81-109.

Demirgic-Kunt, Asli and Enrica Detragiache. 2001. "Financial Liberalization and Financial Fragility" in *Financial Liberalization: How Far, How Fast?* Edited by Gerard Caprio, Patrick Honohan, and Joseph Stiglitz (New York: Cambridge University Press).

Demirguc-Kunt, Asli, Ross Levine, and Hong-Ghi Min. 1998. "Opening to Foreign Banks: Issues of Stability, Efficiency, and Growth." In Seongtae Lee, ed., *The Implications of Globalization of World Financial Markets*. (Seoul: Bank of Korea).

Detragaiche, Enrica and Poonam Gupta. 2002. "Foreign Bank in Emerging Market Crises: Malaysia, 1996-98" International Monetary Fund, Washington DC.

Dixit, Avinash and A.S. Kyle. 1985. "The Use of Protection and Subsidies for Entry Promotion and Deterrence." *American Economic Review* 75: 139-152.

Edison, Hali, Michael Klein, Luca Ricci, and Torsten Slok. 2002. Capital Account Liberalization and Economic Performance: Survey and Synthesis. IMF working paper (May).

Eichengreen, Barry and David Leblang. 2002. Capital Account Liberalization and Growth: Was Mr. Mahathir Right? NBER working paper no. 9427 (December).

Feldstein, Martin, James R. Hines, and R. Glenn Hubbard. *The Effects of Taxation on Multinational Corporations*. (Chicago: NBER and University of Chicago Press).

Focarelli, Daio and Alberto Franco Pozzolo. "Where do Banks Expand Abroad? An Empirical Analysis." Manuscript.

Fosfuri, A., M. Motta, and T. Ronde. 2001. "Foreign Direct Investment and Spillovers through Worker's Mobility". *Journal of International Economics* vol. 53, pp. 205-222.

Galindo, Arturo, Alejandro Micco, and Serra, "Better the Devil that You Know: Evidence on Entry Costs Faced by Foreign Banks" IADB September 2002.

Galindo, Arturo, and Fabio Schiantarelli, "Credit Contraints on Firms in Latin America: An Overview of the Micro Evidence" IADB 2002.

Garber, Peter. 2000. "What you see vs. what you get: Derivatives in International Capital Flows" in Managing Financial and Corporate Distress: Lessons from Asia, edited by Charles Adams, Robert E. Litan, Michael Pomerleano (Brookings). http://brookings.nap.edu/books/0815701039/html/362.html#pagetop

Gelos, Gaston and Jorge Roldos. 2002. Consolidation and Market Structure in Emerging Market Banking Systems. Manuscript.

Germidis, Dimitri. Transfers of technology by multinational corporations. Paris. OECD 1977.

Goldberg, Linda. 2002. "When Is Foreign Bank Lending to Emerging Markets Volatile?" in *Preventing Currency Crises in Emerging Markets*, edited by Sebastian Edwards and Jeffrey Frankel (NBER and University of Chicago Press).

Goldberg, Linda, B. Gerard Dages, and Jennifer Crystal. 2002. "The Lending Cycles of Banks in Emerging Markets: Foreign and Domestic Owners Compared". Manuscript, Federal Reserve Bank of New York.

Goldberg, Linda and Michael Klein. 1998. "Foreign Direct Investment, Trade and Real Exchange Rate Linkages in Developing Countries", 1998, in *Managing Capital Flows and Exchange Rates: Perspectives from the Pacific Basin*, edited by Reuven Glick. (Cambridge University Press).

Goldberg, Linda and Michael Klein. 2001. "International Trade and Factor Mobility: An Empirical Investigation", in *Money, Capital Mobility and Trade: Essays in Honor of Robert Mundell*, edited by G. Calvo, R. Dornbusch, and M. Obstfeld. (M.I.T. Press).

Gorg, Holger and David Greenaway. 2003. "Much Ado About Nothing? Do Domestic Firms Really Benefit from Foreign Direct Investment?" *World Bank Research Observer* (forthcoming).

Hanson, Gordon and Matthew Slaughter. 2003. "The Role of Multinational Corporations in International Business Cycle Transmission." Manuscript.

Hawkins, John and Dubravko Mihaljek. 2001. "The banking industry in the emerging market economies: competition, consolidation and systemic stability: an overview". In *The banking industry in the emerging market economies: competition, consolidation and systemic stability* Bank for International Settlements papers no. 4 (August).

Horstmann, Ignatius and James Markusen. "Firm-specific Assets and the Gains from Direct Foreign Investment". *Economica*, February 1989, 56 (221) pp.41-48.

Horvath, E. 2002. Lending booms, credit risk and the dynamic provisioning system, in Studies on the Procyclical Behaviour of Banks, National Bank of Hungary Occasional Papers #10. http://www.mnb.hu/english/

Imbs, Jean. 2003. "Trade, Finance, Specialization, and Synchronization" *Review of Economics and Statistics*. August.

Kiraly, Julia, Bea Majer, Lazlo Matyas, Bela Ocsi, Andras Sugar and Eva Varhegyi. 2000. "Experience with Internationalization of Financial Services Providers – Case Study: Hungary." In Stijn Claessens and Marion Jansen, eds *The Internationalization of Financial Services: Issues and Lessons for Developing Countries*. (Boston, Mass.: Kluwer Academic Press.)

Kokko, Ari, 1994. "Technology, Market Characteristics, and Spillovers," *Journal of Development Economics* vol. 43 pp.279-293.

Kose, M. Ayhan, Eswar S. Prasad, and Marco E. Terrones. 2003. "Volatility and Comovement in a Globalized World Economy: An Empirical Exploration." International Monetary Fund, working paper wp/03/246.

LaPorta, Rafael, Florencio Lopez-de-Silances, and Andrei Shleifer. 2002. "Government Ownership of Banks" *Journal of Finance*, forthcoming.

Levine, Ross. 1999. "Foreign Bank Entry and Capital Control Liberalization: Effects on Growth and Stability." Manuscript, University of Minnesota.

Levine, Ross, Norman Loayza, and Thorsten Beck. 2000. "Financial Intermediation and Growth: Causality and Causes". *Journal of Monetary Economics*, vol. 46 (1): 31-77.

Lipsey. 2000. "Inward FDI and Economic Growth in Developing Countries," *Transnational Corporations*, Vol. 9, No. 1, (April), Geneva, United Nations Conference on Trade and Development, pp. 67-96.

Lipsey, Robert E. and Frederik Sjoholm. 2002. "Foreign Firms and Indonesian Manufacturing Wages: An Analysis with Panel Data". NBER working paper no. 9417 (December).

Markusen, James R. 1995. "The Boundaries of Multinational Enterprises and the Theory of International Trade." *Journal of Economic Perspectives* vol. 9, pp. 169-189.

Markusen, James R. and Anthony J. Venables. 1999. "Foreign Direct Investment as a Catalyst for Industrial Development." *European Economic Review*, vol. 43, pp.335-356.

Mathieson, Donald J. and Jorge Roldas, 2001. "Foreign Banks in Emerging Markets". In Robert E. Litan, Paul Masson, and Michael Pomerleano, eds. *Open Doors: Foreign Participation in Financial Systems in Developing Countries*. (Washington DC: Brookings Institute Press.)

Martinez Peria, Maria Soledad, and Sergio Schmukler. 1999. "Do Depositors Punish Banks for 'Bad' Behavior? Market Discipline in Argentina, Chile, and Mexico." World Bank Policy Research Working Paper no. 2058 (February).

Novaes and Sergio Werlang. "Political Risk and capital Structure choice of foreign subsidiaries: An Empirical Analysis" November 2001
http://www.bis.org/pub/joint04.pdf

Oman, C. 2000. *Policy Competition for Foreign Direct Investment: A Study of Competition Among Governments to Attract FDI*. (Paris OECD).

Peek, Joe, and Eric Rosengren. 1997. "The International Transmission of Financial Shocks: The Case of Japan." *American Economic Review* 87, no. 4 (September): 495-505.

Peek, Joe, and Eric Rosengren. 2000. "The Role of Foreign Banks in Latin America." Manuscript.

Prasad, Eswar, Kenneth Rogoff, Shang-Jin Wei, and M. Ayhan Kose. 2003. "Effects of Financial Globalization on Developing Countries: Some Empirical Evidence." International Monetary Fund Occasional Paper #220 (Washington D.C.).

Rajan, Raghuram G. and Luigi Zingales. "Financial Dependence and Growth." *American Economic Review* vol. 88 (3). June. Pp. 559-586.

Rodriguez-Clare, Andres. 1996. "Multinational Linkages and Economic Development." *American Economic Review* vol. 86 pp. 852-873.

Rojas-Suarez, Liliana. 2001. "Rating banks in emerging markets: What credit rating agencies should learn from financial indicators." Institute for International Economics working paper 01-6.

Romer, Paul. 1993. "Idea gaps and object gaps in economic development" *Journal of Monetary Economics* 32 pp. 543-573.

Sapienza, Paola. "Lending Incentives of State-Owned Banks" Northwestern University working paper. 2002.

Seth, Rama, Daniel E. Nolle, and Sunil K. Mohanty. 1998. "Do Banks Follow Their Customers Abroad?" *Financial Markets, Institutions, and Instruments* 7 (4): 1-25.

Skipper, Harold, Jr.. 2001. "Liberalization of Insurance Markets: Issues and Concerns". In *Open Doors: Foreign Participation in Financial Systems in Developing Countries*, edited by Robert Litan, Paul Masson, and Michael Pomerleano (Washington DC: Brookings Institution and the World Bank): 105-156.

Smarzynska, Beata. 2004. "Does Foreign Direct Investment Increase the Productivity of Domestic Firms? In Search of Spillovers through Backward Linkages." *American Economic Review*, forthcoming.

Stallings, Barbara and Rogerio Studart. 2001. "Financial Regulation and Supervision in Emerging Markets: The Experience of Latin America since the Tequila Crisis". CEPAL.

Ter Wengel. 1995. "International Trade in Banking Services," *Journal of International Money and Finance*, 14, 47-64.

UNCTAD. 2001. *World Investment Report 2001. Promoting Linkages*. (Switzerland: The United Nations)

Unite, Angelo and Michael Sullivan. 2001. "The Impact of Liberalization of Foreign Bank Entry on the Philippine Domestic Banking Market." Philippine Institute PASCN discussion paper 2001-08.

Van Rijckeghem, Caroline and Beatrice Weder. 2000. "Spillovers through Banking Centers: A Panel Data Analysis of Bank Flows" *Journal of International Money and Finance* (forthcoming).

Weller (2001) "The Supply of Credit by Multinational Banks in Developing and Transition Economies: Determinants and Effects". United Nations DESA Discussion Paper no. 16 http://www.un.org/esa/esa01dp16.pdf

Zhang, Kevin Honglin and James Markusen. 1999. "Vertical Multinational and Host-Country Characteristics". *Journal of Development Economics* 59: 233-252.