

Banks and the Bonding Hypothesis

A Thesis

Presented to the Faculty of the Graduate School

of Cornell University

In Partial Fulfillment of the Requirements for the Degree of

Master of Science in Management

by

Yadav Krishna Gopalan

May 2012

© 2012 Yadav Krishna Gopalan

ABSTRACT

Previous research has indicated the effect that regulatory jurisdictions have on firm corporate governance. Firms that need to finance investments can reduce their cost of capital by adopting stronger regulation by cross-listing their shares in overseas markets. By taking this idea as a point of departure, this study aims to see whether banks can improve governance by expanding banking operations into the United States.

This is measured by examining banks' loan loss provisions as a mechanism of earnings management through an event study. The event study is structured as a set of cross-sectional ordinary least squares over time trying to capture the effect of US financial regulation on tendencies to manage earnings via loan loss provisions. The results are mixed, stemming from weak data and limited observations; however, other considerations are taken into account to potentially further the study in the future.

BIOGRAPHICAL SKETCH

Yadav Gopalan attained a bachelor's of science (B.S.) in Economics from the College of Social Science at Michigan State University in 2006. He subsequently completed a master's of science (M.S.) degree from the John M. Olin School of Business at Washington University in St. Louis in 2009.

ACKNOWLEDGMENTS

I thank the Johnson School of Management for funding my studies at Cornell University. I am grateful for the support of my committee members, Warren Bailey, Julia D'Souza, and Gideon Saar. I especially thank Warren Bailey for his help and encouragement with this project.

I also wish to thank my parents, Krishnamachari and Padmini Gopalan, for continually and enthusiastically supporting my professional and scholastic goals.

TABLE OF CONTENTS

I.	Preliminary Section
	a. Biographical Sketch (iii)
	b. Acknowledgements(iv)
	c. Table of Contents (v)
	d. List of Figures (vi)
	e. List of Tables (vii)
II.	Introduction (1)
III.	History and Scope of Foreign Bank Supervision in the United States (3)
	a. Table 1 (5)
	b. Types of Institutions (6)
	c. Table II (8)
	d. Approval and Ongoing Supervision (9)
IV.	Literature Review (11)
V.	Data and Methodology (14)
	a. Table 3 (15)
	b. Figure 1 (16)
	c. Table 4 (17)
	d. Table 5 (19)
VI.	Further Considerations (19)
VII.	Conclusion (20)
VIII.	References (21)

LIST OF FIGURES

Figure 1: Number of banks' data available by time period (page 16)

LIST OF TABLES

Table 1: Number of foreign banking operations in the United States, by home country (Page 5)

Table 2: Foreign banking types by country (page 8)

Table 3: Event study sample (Page 15)

Table 4: Correlation results (Page 17)

Table 5: Event study results (Page 19)

Introduction

Proponents of the bonding hypothesis have recently come up with an alternative explanation behind firms' motivation in cross-listing their shares in foreign stock exchanges. They have argued that firms with growth opportunities expand internationally to limit company insider and management expropriation (Doidge, Karolyi, & Stulz, 2004). As international entities, these firms will have to submit to tighter regulation and scrutiny to attract lower-cost financing for investment projects. Thus, managers and controlling shareholders have incentive to curtail expropriation upon entrance into the new market.

This argument relies on the implicit assumption that corporate governance varies from one regulatory regime to another. La Porta, Lopez-De-Silanes, Shliefer, and Vishny (2000) have shown that the development of financial systems can be evaluated by how well the home country can protect outside shareholders. To put it more specifically, financial development is contingent upon how well legal systems can curtail manager and controlling-shareholder expropriation. Expropriation can take many forms; however, it broadly refers to the ability of managers and controlling shareholders (here collectively labeled as "insiders") to extract private benefit at the expense of returning investments to outside investors via dividends and higher share returns.

Similar to the set of legal rules and regulations that apply to publicly traded firms in general, financial regulation provides rules and regulations that apply specifically to financial institutions. In this setting, financial institutions (henceforth referred to as "banks") refer specifically to those financial firms that take deposits and make loans. Thus, just as regulatory agencies like the Securities and Exchange Commission (SEC) protect investors of publicly

traded firms in the United States, agencies like the Federal Deposit Insurance Corporation (FDIC) seek to protect minority investors of banks (depositors and the public at large).

While the recent financial crisis exposed severe flaws within the regulatory systems, most advanced economies have in place robust regulatory systems that ensure financial stability, a system of prudential supervision focused on the stability of the financial system overall (macroprudential supervision), and targeted evaluations of individual financial institutions that try to ensure the solvency of said institutions (microprudential supervision) (Borio, 2003). In addition, governmental or quasi-governmental insurance systems serve to protect retail and commercial depositors at depository institutions in the wake of a bank run or financial crisis (FDIC, 1998). In the United States, the deposit insurance authority is the FDIC.

Given the disparity in financial regulatory regimes for banks, an interesting question to address would be to what extent there is a “bonding” phenomenon when banks expand internationally into advanced regulatory jurisdictions. The aim of this question would be to study an exact analog of the work done on the bonding hypothesis to explain share cross-listing. Amending the theory put forth by Doidge et al. (2004), bank insiders would limit expropriation within their own firm to take advantage of growth opportunities that cannot be financed internally or through low-risk debt.

In turn, a bank’s expansion could be a mechanism to anchor market expectations about the bank’s financial strength, since it would then be subject to regulation by foreign (and, hypothetically, more stringent) financial regulators. This essay attempts to gauge whether expansion into the United States serves as a mechanism to reduce the ability of bank insiders to expropriate from minority shareholders. Leuz, Nanda, and Wysocki (2003) have shown that for commercial and industrial firms, earnings manipulation measures decrease as investor protection

increases. Fonseca and Gonzalez (2008) have reinforced these findings by examining banks specifically. This paper adds to this literature by examining whether the act of expanding into the United States serves as the driver to achieve better governance through recognizing losses more in a more timely manner. This essay will also include an overview of how foreign banks are supervised in the United States, a literature review, methodology and results, and then a conclusion.

History and Scope of Foreign Bank Supervision in the United States

While many foreign financial institutions are active in the financial services industry in the United States, only those institutions that receive charters from the federal government or state government are legally authorized to accept demand deposits. These institutions generally engage in “traditional” banking activities such as accepting deposits and making loans. Most banking activity, however, is concentrated in wholesale lending to firms rather than consumers (PricewaterhouseCoopers, 2005–06).

However, foreign banks that have a commercial bank subsidiary in the United States often engage in retail banking services, just as any other commercial bank headquartered in the United States would.¹ As of September 2011, 192 institutions from 59 countries had set up operations in the United States, through a variety of entities. As seen in Table 1, the majority of foreign banks originate in highly developed countries in the Asia/Pacific region, such as Australia, China, Japan, Taiwan, and South Korea, or in Canada and Western Europe.

Two important pieces of legislation govern and guide the supervision and regulation of foreign banks in the United States. Passed in 1978, the International Banking Act put procedures in place for chartering similar to the existing procedures for domestic commercial banks. In effect, it reinforced the concept of “national treatment,” which gives foreign banks the same

¹ Further detail on different entities will follow.

powers and the same limitations as their domestic counterparts (PricewaterhouseCoopers, 2005–06). More importantly, the International Banking Act compelled the Board of Governors of the Federal Reserve System to be the primary supervisor of foreign banking activity in the United States—although the Federal Reserve continues to rely upon the FDIC, the Office of the Comptroller of the Currency (OCC), and state banking regulators to perform regular exams in this area (PricewaterhouseCoopers, 2005–06).

The second major piece of legislation covering the supervision of foreign banks in the United States, the Foreign Bank Supervision Enhancement Act (FBSEA), was passed by the United States Congress in 1991. This act strengthened the role that the Federal Reserve plays in overseeing foreign banking activity. Most importantly, it gave the Federal Reserve the authority and responsibility to approve the establishment of any office, branch, or agency in the United States.

Through the process of approval, the FBSEA compelled the Federal Reserve to gauge whether the foreign entity was subject to comprehensive supervision in its home country (PricewaterhouseCoopers, 2005–06). In addition, the foreign entity must make sure that it furnishes information germane to the safety and soundness of its U.S. operations as often as the Federal Reserve sees fit. Most importantly, the FBSEA requires that any foreign entity in the United States be examined by the Federal Reserve or any other appropriate state or federal banking regulator (the OCC, the FDIC, or state banking agencies). This process requires ongoing coordination between the foreign entity and banking regulators. Moreover, it requires that the foreign entity report information on its U.S. activities through quarterly regulatory filings. As such, it is most likely the primary avenue through which the bonding effect takes

Table 1	
Number of foreign banking operations in the United States, by home country	
Country Name	Number of Institutions
Japan	18
Germany	16
Taiwan	13
Spain	10
South Korea	9
Canada	7
Brazil	6
China	6
United Kingdom	6
France	6
Australia	5
India	5
Belgium	4
Colombia	4
Sweden	4
Switzerland	4
Bahrain	3
Ireland	3
Israel	3
Italy	3
Philippines	3
Singapore	3
Thailand	3
The Netherlands	3
Austria	2
Chile	2
Ecuador	2
Hong Kong	2
Indonesia	2
Luxembourg	2
Portugal	2
Turkey	2
UAE	2
Venezuela	2
Argentina	1
Azerbaijan	1
Bermuda	1
British Virgin Islands	1
Channel Islands	1
Costa Rica	1
The Dominican Republic	1
Egypt	1
Greece	1
Honduras	1
Jamaica	1
Jordan	1
Kuwait	1
Liberia	1
Malaysia	1
Mexico	1
Nigeria	1
Norway	1
Pakistan	1
Panama	1
Qatar	1
Saudi Arabia	1
South Africa	1
Ukraine	1
Uruguay	1

place, since it requires foreign entities to be overseen by U.S. regulators and disclose information that they might not have had to disclose in their home country.

Types of Institutions

There are several types of entities that foreign banks can choose to expand into the United States. All of the entities require approval from the Federal Reserve but have different restrictions on their ongoing operations. Overall, Table 2 shows that foreign banks in the United States have 288 distinct entities open in the United States. The most popular way of expanding operations in the United States is through a branch.²

As mentioned before, the various entities have different regulations on their business practices. For instance, representative offices, the simplest form of foreign banking operation in the United States, can usually only perform representative or administrative functions on behalf of the foreign banks. They usually cannot make any business decisions on foreign banks' behalf (PricewaterhouseCoopers, 2005–06). Because of their limited powers, representative offices receive light oversight by U.S. banking regulators, with bank examinations focusing on whether a representative office maintains its operations within its legal parameters (PricewaterhouseCoopers, 2005–06). In addition, representative offices are not required to provide quarterly financial data, as other types of foreign bank entities are.

Similar to representative offices, branches are not separate corporate entities from the parent bank. Indeed, they are operational arms of the parent institution. Unlike representative offices however, branches have the ability to engage in banking activities and services, such as accepting wholesale and foreign deposits, making loans, and acting as fiduciaries

² The FBSE eliminated the eligibility of foreign banks to apply for deposit insurance, although those banks that already had deposit insurance were grandfathered into the system.

(PriceWaterhouseCoopers, 2005–06). Apart from the few branches that were grandfathered in before the implementation of FBSEA, branches cannot accept retail deposits.

Branches are less costly to establish than full-fledged subsidiary banks because they do not require a separate capital base. As such, whenever these entities make a loan decision, the loan capability is based on the parent bank's capitalization (PricewaterhouseCoopers, 2005–06). Because these entities do not require a separate capital investment and are capable of performing most wholesale banking activities, they are the most common type of foreign bank entity. As of September 2011, 124 such branches were functioning in the United States. For the purposes of entry into and operation in the United States, no distinction is made between federal and state branches. Both types of institutions have the same functionality (and limitations), but they are supervised by different regulators.

Agencies, like branches, are legal extensions of the foreign parent bank. In general, they are active in the same wholesale market as branches are but have limitations on their ability to accept deposits of any kind. Subsidiary banks involve the most cost and planning of any entity type in the United States, primarily because they require a separate legal structure (and capital investment) in the United States. As such, they behave exactly as if they were commercial banks headquartered in the United States, from the perspective of their business activities and regulatory oversight. As a result, subsidiary banks must have deposit insurance to protect retail depositors (PricewaterhouseCoopers, 2005–06).

Edge Act corporations behave similarly to branches and agencies, in that they are not separate entities from the foreign bank and are usually concentrated in wholesale banking. But Edge Act corporations' activities must be explicitly tied to foreign or international activities, an additional restriction (PricewaterhouseCoopers, 2005–06). It must be noted that federal law

Country Name	Rep. Office	Ins. Branch	Unin. Branch	Agency	Subsidiary Bk.	Edge	Agreement	Non-Dep. Tr. Co.	NY Inv. Office	Total
Japan	12	0	9	1	4	0	1	0	0	27
Canada	2	0	7	5	5	0	0	4	0	23
Germany	7	0	10	0	1	1	0	1	0	20
Spain	2	0	5	5	5	1	0	0	0	18
Taiwan	1	0	11	2	4	0	0	0	0	18
United Kingdom	4	0	5	1	3	2	1	1	0	17
France	5	0	5	3	1	0	0	2	1	17
South Korea	3	0	5	2	2	0	0	0	0	12
India	2	3	2	2	1	0	0	0	0	10
Brazil	3	0	4	0	0	1	0	0	0	8
China	2	1	5	0	0	0	0	0	0	8
Switzerland	3	0	3	0	1	0	0	1	0	8
Australia	1	0	4	0	1	0	0	0	0	6
The Netherlands	3	0	1	1	1	0	0	0	0	6
Ireland	3	0	2	0	0	0	0	0	0	5
Belgium	2	0	2	0	0	0	0	0	0	4
Colombia	1	0	1	2	0	0	0	0	0	4
Hong Kong	0	1	2	0	1	0	0	0	0	4
Sweden	0	0	4	0	0	0	0	0	0	4
Bahrain	1	0	2	0	0	0	0	0	0	3
Israel	0	1	0	1	1	0	0	0	0	3
Italy	0	0	3	0	0	0	0	0	0	3
Luxembourg	1	0	1	0	1	0	0	0	0	3
Philippines	0	1	1	0	1	0	0	0	0	3
Singapore	0	0	0	3	0	0	0	0	0	3
Thailand	0	0	1	2	0	0	0	0	0	3
Uruguay	0	1	1	0	1	0	0	0	0	3
Argentina	0	0	1	1	0	0	0	0	0	2
Austria	1	0	1	0	0	0	0	0	0	2
Chile	0	0	2	0	0	0	0	0	0	2
Ecuador	0	0	0	1	1	0	0	0	0	2
Indonesia	0	0	0	2	0	0	0	0	0	2
Jamaica	2	0	0	0	0	0	0	0	0	2
Norway	1	0	1	0	0	0	0	0	0	2
Pakistan	1	0	1	0	0	0	0	0	0	2
Panama	1	0	0	1	0	0	0	0	0	2
Portugal	1	0	1	0	0	0	0	0	0	2
Turkey	0	0	2	0	0	0	0	0	0	2
United Arab Emirates	0	0	2	0	0	0	0	0	0	2
Venezuela	0	0	2	0	0	0	0	0	0	2
Azerbaijan	1	0	0	0	0	0	0	0	0	1
Bermuda	0	0	0	1	0	0	0	0	0	1
British Virgin Islands	0	0	1	0	0	0	0	0	0	1
Channel Islands	1	0	0	0	0	0	0	0	0	1
Costa Rica	0	0	0	1	0	0	0	0	0	1
Dominican Republic	0	0	0	0	1	0	0	0	0	1
Egypt	0	0	1	0	0	0	0	0	0	1
Greece	0	0	0	0	1	0	0	0	0	1
Honduras	1	0	0	0	0	0	0	0	0	1
Jordan	0	0	0	1	0	0	0	0	0	1
Kuwait	0	0	1	0	0	0	0	0	0	1
Liberia	0	0	1	0	0	0	0	0	0	1
Malaysia	0	0	1	0	0	0	0	0	0	1
Mexico	0	0	0	0	1	0	0	0	0	1
Nigeria	0	0	1	0	0	0	0	0	0	1
Qatar	0	0	1	0	0	0	0	0	0	1
Saudi Arabia	0	0	0	1	0	0	0	0	0	1
South Africa	1	0	0	0	0	0	0	0	0	1
Ukraine	1	0	0	0	0	0	0	0	0	1

allows for the chartering of Edge Act corporations, while some states have laws that allow for agreement corporations that “agree” with the Fed to limit those corporations’ activities to match

those of an Edge Act corporation. There are also other entity types, such as New York investment offices and non-depository trust companies, but their prevalence is limited relative to the overall activity of foreign banks in the United States.

Approval and Ongoing Supervision

In addition to the application submitted to the Federal Reserve to open a banking office in the United States, foreign banks must also furnish documentation to the appropriate banking regulator, depending on the type of institution they wish to open. For federal branches, agencies, and subsidiary banks, foreign banks must also apply with the OCC. Foreign banks wishing to open state branches, agencies, and subsidiary banks must receive approval from the relevant state banking authorities. To receive approval from the Federal Reserve, the foreign bank must show that it is subject to the comprehensive supervision of its home country regulator and that it is active in banking outside of the United States, as well as provide other financial information the Federal Reserve might deem necessary to render judgment.

To assess whether the foreign bank receives comprehensive supervision from its home country regulator, the Federal Reserve requests materials that the foreign bank submits to its home country regulator (PricewaterhouseCoopers, 2005–06). In certain instances, it sends its staff to the home country of the foreign bank to meet with regulators there. In cases where the Federal Reserve cannot make an affirmative decision on the scope of home country supervision, foreign banks might elect to set up a representative office or expand via non-bank entities.

For foreign banks that wish to open full-fledged subsidiary banks, the process is even more involved. In addition to the assessment of the foreign bank's domestic regulatory oversight, the Federal Reserve also requires that the bank supply it with information detailing its proposed business plan, a strategy to be profitable within three years, and an explanation of how

the subsidiary bank fits into the foreign parent bank's overall business objectives within the U.S. market. Moreover, the foreign bank must submit a separate application to the FDIC for deposit insurance, upon which the FDIC will make a separate assessment of the bank's safety and soundness (PricewaterhouseCoopers, 2005–06). If the foreign parent bank is acquiring a domestic U.S. commercial bank, it must also clear the transaction with the SEC (if the U.S. institution is publicly held). With respect to the bonding hypothesis, the process by which a foreign bank enters the United States likely serves as a clear signal of its ability to comply with U.S. regulations. To outsiders, it is a message that the bank has internal controls and processes in place to meet the standards set by the Federal Reserve and other U.S. bank regulators.

Moreover, as an important step in the approval and supervision process, the Federal Reserve must make a determination as to whether the foreign bank parent is adequately capitalized in its home country, as stipulated in the Basel Accords. If the Federal Reserve determines that the minimum criteria for “well-capitalized” status is insufficient given the foreign parent bank's risk profile, it may require more capitalization before the foreign bank can expand its operations into the United States (PricewaterhouseCoopers, 2005–06).

The primary mechanism that U.S. banking regulators use to assess the strength of the parent banks that want to open entities in the United States is through examinations. While bank regulators assign a confidential rating to the U.S. subsidiary's risk management, operational controls, compliance, and asset (ROCA) quality, this rating is disclosed only to the U.S. subsidiary, not to the foreign parent bank directly. The Federal Reserve, however, assesses the strength of the parent bank through the assignment of a strength of support assessment (SOSA) ranking. The SOSA ranking, from 1 to 3, gauges the foreign parent bank's financial condition, the quality of regulatory oversight in the home country, the support available to the banking and

financial system from the home country government, and the foreign parent bank's oversight of its U.S. operations, as well as the likelihood that the financial troubles of the foreign parent bank would affect the performance of the U.S. subsidiary (Pricewaterhouse Coopers, 2005–06). The Federal Reserve assigns the SOSA ranking after consulting with other banking regulators and shares this otherwise confidential ranking with the foreign parent bank. As such, it is the primary tool that U.S. banking regulators have to affect changes to the foreign parent bank.

Literature Review

Scholars from various areas have contributed to researching how and why banks operate in foreign countries. Traditionally, research on banks and their international activity has focused on industrial organizations' concerns about competition and on the role of banks as facilitators of cross-country and cross-border currency flows (Aliber, 1984). More recently, Bernanke (2005) and Bernanke, Bertout, DeMarco, and Kamin (2011) have provided a broad characterization of financial institutions' motivations for international financial activity, especially their activity during the period leading to the recent financial crisis. Regarding the specific role that a bank plays as an intermediary for financial activities internationally, legal scholars such as Tarullo (2008) have shown the importance of creating international regulatory standards to reconcile disparate national standards.

Perhaps the most suitable point of departure for studying the bonding effect that may influence bank behavior when a bank expands into the United States would be to examine the law and finance literature. La Porta, Lopez-De-Silanes, and Shliefer (1997, 1998) have suggested that firms from countries with weak legal protections for minority shareholders have the greatest percentages of concentrated ownership. Because these legal systems are weak, the

cost of ceding control of the firm and thus becoming a minority shareholder would be relatively high, inducing controlling shareholders in these firms to hold on to control at all costs.

This essay argues that financial regulatory systems can play a similar role to that of legal systems at large. Ball (2001) has demonstrated how regulatory systems affect and influence the quality of financial reporting from institutions. Thus, the act of expanding banking operations into the United States is similar to “borrowing” better corporate governance from foreign legal jurisdictions (Doidge, Karolyi, & Stulz, 2007). Stronger corporate governance—in this case, the ability of minority shareholders to exert influence over firm decisions—is highly correlated with better operating performance and market valuation (Klapper & Love, 2004). As such, cross-listings have facilitated ownership divestitures by firm insiders (Ayyagari & Doidge, 2010). Moreover, the act of bonding enables firms from weaker regulatory regimes to access capital markets more cheaply than if they had not expanded into the United States.

Managers of firms from weaker regulatory regimes have the ability to distort the financial performance of the firm so that they can retain their private benefits (Leuz et al., 2003). For instance, firm insiders can manage the reported earnings of the firm to distort “true” performance and in turn keep outsider interference at bay (Leuz et al., 2003). For firms wishing to expand that cannot finance projects internally, the ability to operate in the United States can provide an opportunity for them to adopt the regulation and supervisory standards of the host country, thereby reducing the cost of capital. Legal systems play the part of the missing enforcement mechanisms, whereby outsiders could potentially replace management or enforce contracts that could limit the strength of insider control (La Porta et al., 1998; Nenova, 2000; Claessens, Djankov, Fan, & Lang, 2002; Dyck and Zingales, 2002). In complementary research, Bhattacharya, Daouk, and Welker (2003) have reasoned that the quality of accounting

information helps outsiders (and minority shareholders) distinguish between good and poor performance, management, and investments.

Bhattacharya et al. (2003) also provided some tools to help measure the strength of financial reporting quality. A firm's earnings aggressiveness and whether it deals with the timely incorporation of economic gains versus losses in accounting earnings are two of the measures. Lower aggressiveness (or higher earnings conservatism) reduces information asymmetry (Bhattacharya et al., 2002). More timely recognition of losses plays a role in corporate governance because it increases the speed by which external users of financial statements (like minority shareholders) can make a decision as to how fruitful the investment decisions made by management have been. Thus, a measure of earnings aggressiveness—in this case, accounting accruals—serves as a measure of the efficacy of regulatory systems in forcing banks to recognize losses in a timely manner.

Fonseca and Gonzalez (2008) used loan-loss provisions as their measure of earnings aggressiveness, since provisions are banks' largest source of accruals. Banks also have discretion in setting the appropriate level of provisions to guard against future losses. The Federal Reserve, however, requires foreign banks operating in the United States to have effective loan-loss review systems in place to adequately identify losses in their loan portfolios (Pricewaterhouse Coopers, 2005–06). Fonseca and Gonzalez (2008) also examined the validity of the conclusions reached by Leuz et al. (2003), who had argued that the financial theory that earnings management is inversely related to investor protection can be applied to banks. Their results reinforced the earlier study's findings.

Data and Methodology

The Thomson Reuters Worldscope database provides income statements and balance sheet data for publicly traded firms worldwide, including financial institutions. As mentioned above, the Federal Reserve lists 192 institutions that have operations inside the United States. While most banks have unique parent banks, some do not. Thus, I sought to include only those parent banks that are unique.³ This procedure was done in order to gauge the fullest extent to which U.S. banking regulators might have an effect on the financial statement reporting quality of the foreign parent bank. In assigning SOSA rankings, the Federal Reserve assesses the strength of top-tier foreign parent banks.

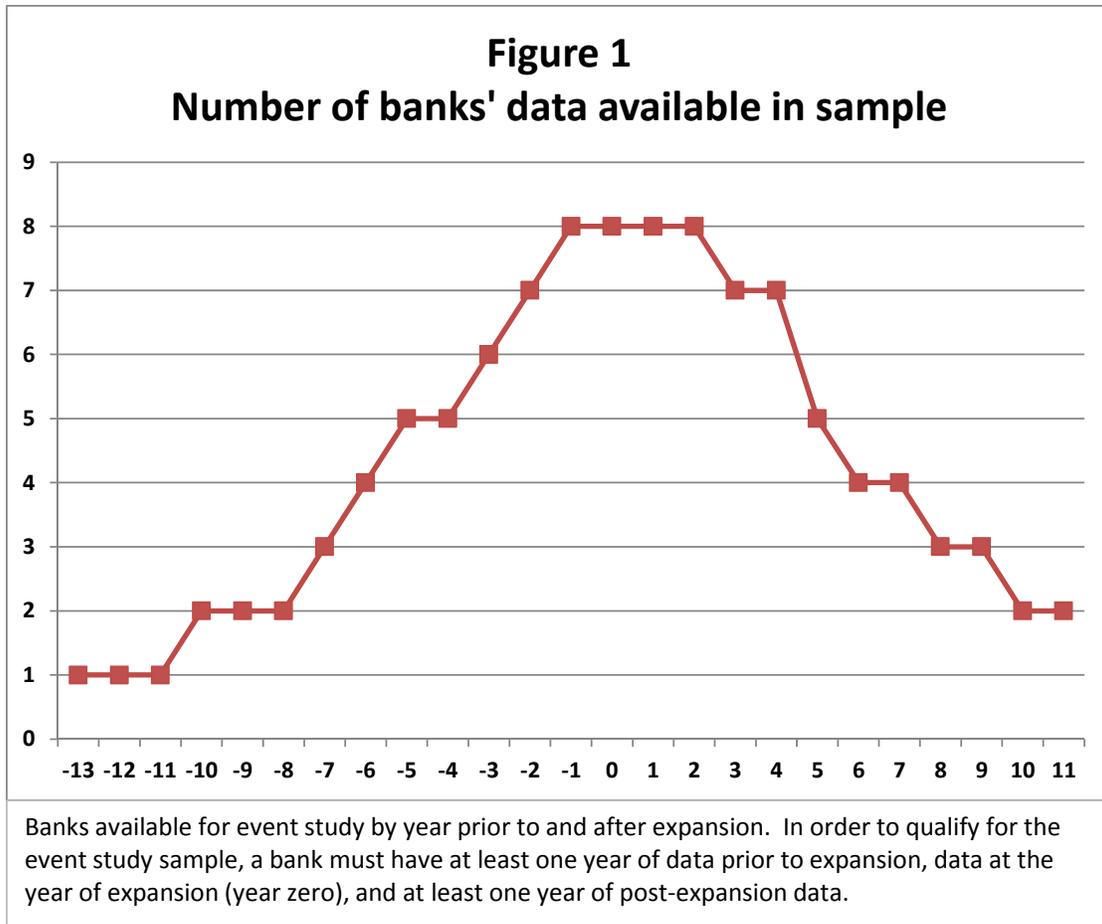
Only 109 of those 192 institutions have data available on Datastream. Of those, I used only banks that have data available pre- and post-entry into the United States so that I could test the effect of U.S. financial supervision and regulation on their measure of earnings aggressiveness. Datastream reports “base date,” which reflects the earliest date for which data exist for a particular bank, and the Federal Reserve reports “date open” from the National Information Center (NIC) attributes table, which reports the date on which banks opened their U.S. operations.⁴ This last criterion limits our bank sample to only 22 banks. From Table 3, it can be seen that the 22 banks in the study sample come from a variety of countries, but the striking feature is that they are all from advanced economies with regulatory regimes comparable to the regulatory system in the United States.

³ For instance, Société Generale (a French bank) has a Swiss subsidiary that has its own representative office in the United States. Only the parent bank, Société Generale, was chosen.

⁴ Although “base date” reflects the earliest possible date for data availability in Datastream, I later discovered that it does not mean all data will be available from that date onward. I will discuss this more later.

Table 3	
Countries and number of institutions that comprise event study sample	
Country	Number of Institutions
Brazil	1
Germany	1
Italy	1
Japan	4
Luxembourg	1
Netherlands	1
Norway	1
Singapore	1
South Korea	2
Spain	1
Sweden	1
Switzerland	1
Taiwan	5
United Kingdom	1

As mentioned earlier, base date reflects the earliest possible data available in Datastream. However, the fields available vary greatly over time. For instance, it could be the case that Datastream started to track share prices for institutions at the base date but did not start to record balance sheet and income statement data until much later. This issue also significantly affected the sample size, *reducing the sample size from 22 banks to fewer than 10*. The banks used in the sample are then normalized so that the time series is made up of years prior to expansion into the United States and years since expansion into the United States (as shown in Figure 1).



Nonetheless, an abridged version of the model used by Fonseca and Gonzalez (2008) was used to test the effects on earnings management of foreign banks entering the U.S. market. The model borrows from earlier work from Greenwalt and Sinkey (1988) as well as from Laeven and Manjoni (2003). Because of the limited sample of banks, a limited version of the model was used to circumvent matrix rank issues. Thus, the model that is estimated is:

$$\frac{Prov}{Assets} = \frac{Before-Tax Earnings}{Assets} + \frac{Ch.in Loans}{Assets} + \frac{Loan-Loss Res.}{Assets} + \frac{Equity}{Assets} + (GDP Gr) + \varepsilon$$

The variables are for each year available in the event study sample, for each bank at each year available. Before-tax earnings (earnings before taxes and provisioning) measures income smoothing. Thus, the higher the positive coefficient, the more prevalent the strategy of income smoothing (Fonseca & Gonzalez, 2008). Change in loans is meant to capture changes in

provisions that reflect the motivations of the bank management to adequately plan for deteriorating asset quality. Changes in loans should be positively related to provisions, as a larger loan portfolio is more susceptible to greater efforts to provision for loan losses. Equity to total assets is meant to capture capital management efforts by the bank (Fonseca & Gonzalez, 2008).

Table 4, which shows the correlations among the variables used in the model, shows an inverse (and statistically significant) correlation between provisioning and before-tax and provisioning income. This result is consistent with Fonseca and Gonzalez's (2008) findings. A lower—or, in this case, negative—correlation between before-tax earnings and provisions would indicate that as earnings decrease, so does earnings management. For this amended bonding hypothesis, this could stem from U.S. banking regulators forcing banks to recognize losses in a more timely manner. In addition, there are statistically significant correlations between change in loans and with loan-loss reserves and capital. Thus, as banks originate more loans, they also seem to safeguard against any potential loan losses.

	Provisions	Before-Tax and Prov. Income	Change in Loans	Loan-Loss Reserves	Equity (Capital)	GDP Growth
Provisions	1	-0.46586	0.10555	0.0797	0.19181	0.15292
		0.0011	0.4902	0.5985	0.2016	0.3103
	46	46	45	46	46	46
Before-Tax and Prov. Income	-0.46586	1	-0.19336	0.03469	0.26232	0.03367
	0.0011		0.2031	0.819	0.0782	0.8242
	46	46	45	46	46	46
Change in Loans	0.10555	-0.19336	1	0.43894	0.26823	-0.41914
	0.4902	0.2031		0.0026	0.0748	0.0042
	45	45	45	45	45	45
Loan-Loss Reserves	0.0797	0.03469	0.43894	1	0.16245	-0.21949
	0.5985	0.819	0.0026		0.2807	0.1427
	46	46	45	46	46	46
Equity	0.19181	0.26232	0.26823	0.16245	1	0.05752
	0.2016	0.0782	0.0748	0.2807		0.7042
	46	46	45	46	46	46
GDP Growth	0.15292	0.03367	-0.41914	-0.21949	0.05752	1
	0.3103	0.8242	0.0042	0.1427	0.7042	
	46	46	45	46	46	46

The results displayed in Table 5 show the cross-sectional regressions for the sample by time period. As the intention of the study is to evaluate whether the act of expansion into the

United States had any effect on earnings management, separating the sample into time periods will assess any effect, if one exists at all. It should be noted that the time periods were shortened to those periods where the number of banks in the sample were greatest, so as to avoid non-full rank issues.

While the results are, broadly speaking, inconclusive, some trends can be observed. As mentioned previously, when foreign parent banks choose to enter into the United States, the Federal Reserve makes a determination of their capital adequacy. While capital was not available via Datastream as a reliable variable, equity is available. Thus, equity to total assets is used to try to measure capital adequacy. From period -1 to 0 , the t-value for equity increases, as does the estimate, suggesting that this increase could be an effect of a supervisory review by U.S. banking regulators before the foreign institution is allowed to operate in the United States. Furthermore, at time period $+3$, the estimate for before-tax earnings is positive and significant at the 10 percent levels. This could be indicative of the full effect of being forced to abide by to U.S. regulations, because it would indicate a relationship between before-tax earnings and provisions that would run counter to what one would expect if banks were managing earnings. However, since the estimates for before-tax earnings in other time periods are not statistically significant, it would be difficult to infer with any certainty.

Table 5: Event Study Regression							
Event study regressions. Cross-sectional regressions by time period, from one year prior to expansion into the United States (time period = -1) to four years after regression (time period = 4)							
Time Period	Measure	Intercept	Pre-tax and Provision Income	Change in Loans	Loan-Loss Reserve	Equity (Capital)	GDP Growth
-1	Estimate	0.02	0.02	0.04	-0.83	0.19	-0.18
	Std. Error	0.02	0.29	0.05	0.80	0.10	0.11
	t - Value	0.74	0.06	0.79	-1.05	1.82	-1.68
	Pr > t	0.59	0.96	0.57	0.49	0.32	0.34
0	Estimate	-0.01	-0.28	-0.01	-0.70	0.36	0.06
	Std. Error	0.01	0.20	0.02	0.44	0.17	0.04
	t - Value	-0.76	-1.43	-0.51	-1.59	2.13	1.68
	Pr > t	0.53	0.29	0.66	0.25	0.17	0.23
1	Estimate	0.00	-0.29	0.00	-0.14	0.11	0.02
	Std. Error	0.02	0.36	0.04	0.49	0.27	0.13
	t - Value	0.16	-0.80	0.01	-0.29	0.40	0.14
	Pr > t	0.89	0.51	0.99	0.80	0.73	0.90
2	Estimate	0.01	-1.23	-0.02	0.17	0.05	-0.08
	Std. Error	0.02	1.76	0.08	0.52	0.28	0.14
	t - Value	0.45	-0.70	-0.18	0.34	0.18	-0.59
	Pr > t	0.70	0.56	0.87	0.77	0.88	0.61
3	Estimate	-0.03	-1.41	-0.16	0.75	0.50	-0.29
	Std. Error	0.00	0.21	0.03	0.17	0.07	0.06
	t - Value	-5.31	-6.77	-4.75	4.51	7.19	-4.97
	Pr > t	0.12	0.09	0.13	0.14	0.09	0.13
4	Estimate	0.01	0.06	0.01	0.03	-0.12	0.14
	Std. Error	0.01	0.25	0.02	0.20	0.16	0.08
	t - Value	1.17	0.22	0.79	0.14	-0.79	1.89
	Pr > t	0.45	0.86	0.57	0.91	0.57	0.31

Further Considerations

The most significant challenge to implementing this study was the lack of reliable data for a vast number of the financial institutions that are operating in the United States. Since over 100 publicly traded foreign parent banks have operations in the United States, one way to further strengthen the study would be to collect data individually for each bank so that more banks could be added to the panel dataset. With more banks, the full specification of the Fonseca and Gonzalez (2008) model could be used to evaluate the relationship between earnings management and expansion into the United States with more certainty.

In addition, given more data, tests specifically centered on those banks that choose to expand from weaker regulatory regimes could be examined. As mentioned previously, most of the banks in the event study sample were banks from regulatory regimes with standards similar to those of the United States. Thus, their bonding effect might be more muted than for those banks that can strengthen their regulatory standards more substantially. Furthermore, the United

States may not be an ideal destination for regulatory bonding for banks. With more data, tests could be run for banks that expand into other countries, such as Canada or the United Kingdom.

One other factor that could have influenced the results is the relationship among regulators. Publicly traded firms, especially those from advanced economies, aim to provide financial reporting that users without special or regulatory access can digest (Koch & Wall, 2000). This aim is in line with the concept papers set for financial accounting standards by the Financial Accounting Standards Board (FASB).

However, this may run counter to the demands of U.S. banking regulators. Bank regulators who rate a financial institution's prudential strength often prefer more conservative, future-oriented loan-loss accounting procedures (Koch & Wall, 2000). These procedures generally aim to serve the regulators' goal of maintaining financial health at that bank. As a direct consequence of desiring more conservative loan-loss accounting, higher provisions result in reducing before-tax income (Koch & Wall, 2000). Given the two different considerations that banks need to make when provisioning for loan losses, there may be unexplored relationships between traditional measures of earnings management that may be useful for commercial and industrial firms but which may not work when applied to financial institutions. The negative correlation between provisioning and before-tax income seems to suggest that banks use the latter approach when setting their provisions for future loan losses. However, this cannot be said for certain with parameter estimates that are not consistently statistically significant.

Conclusion

This paper aims to build upon previous attempts to explain why foreign firms choose to expand internationally. Other studies, such as Doidge, Karolyi, and Stulz (2007), have looked at firms that cannot finance investment projects internally and need to access capital markets. To

lower their cost of capital, they seek to cross-list their shares internationally in order to adopt the regulatory standards of the host country. With that action, they credibly commit themselves to better corporate governance and improve their operating performance (Klapper & Love 2004).

In this study, I have sought to understand whether expanding banking operations into the United States has any effect on corporate governance, as measured by the ability of bank management to report earnings that reflect true operating performance. Given the limited data available, an abridged model based on Fonseca and Gonzalez (2008) was used, and results, ultimately, were not meaningful. However, given the unique business of banking, there may be other forces at work that could influence motivations for financial reporting standards. With more data, further tests could be run to evaluate alternative ways to gauge bank bonding.

References

- Aliber, R. (1984). International banking: A survey. *Journal of Money, Credit, and Banking*, 661–678
- Ayyagari, M., & Doidge, C. (2010). Does cross-listing facilitate changes in corporate ownership and control? *Journal of Banking and Finance*, 34, 208–223.
- Ball, R. (2001). Infrastructure requirements for an economically efficient system of public financial reporting and disclosure (*Brookings-Wharton Papers on Financial Services*), 127–169. Washington, D.C.: Brookings Institution Press
- Bernanke, B. S. (2005). The global saving glut and the U.S. current account deficit. Remarks delivered at the Homer Jones Lecture at the Federal Reserve Bank of St. Louis.
- Bernanke, B. S., Bertout, C., DeMarco, L. P., & Kamin, S. (2011). International capital flows and the returns to safe assets in the United States, 2003–2007 (Federal Reserve Board International Finance Discussion Papers). Washington, D.C.: Federal Reserve.
- Bhattacharya, U., Daouk, H., & Welker, M. (2003). The world price of earnings opacity. *The Accounting Review*, 78(3), 641–678.
- Borio, C. (2003). Towards a macroprudential framework for financial supervision and regulation? (Bank for International Settlements (BIS) Working Paper). Basel: Bank for International Settlements.

- Claessens, S., Djankov, S., Fan, J., & Lang, L. (2002). Disentangling the incentive and entrenchment effects of large shareholdings. *Journal of Finance*, 57, 2741–2772.
- Coffee, J. (1999). The future as history: The prospects for global convergence in corporate governance and its implications. *Northwestern University Law Review*, 93, 641–708.
- Coffee, J. (2002). Racing towards the top?: The impact of cross-listings and stock market competition on international corporate governance. *Columbia Law Review*, 102, 1757–1831.
- Doidge, C., Karolyi, G. A., & Stulz, R. M. (2004). Why are firms listed in the U.S. worth more? *Journal of Financial Economics*, 71, 205–238.
- Doidge, C., Karolyi, G. A., & Stulz, R. M. (2007). Why do countries matter so much for corporate governance? *Journal of Financial Economics*, 86, 1–39.
- Dyck, A., & Zingales, L. (2002). Private benefits of control: An international comparison. Unpublished NBER Working Paper (8711).
- Federal Deposit Insurance Corporation (FDIC). (1998). A Brief History of deposit insurance in the United States, September 1998.
- Fonseca, A. R., & Gonzalez, F. (2008). Cross-country determinants of bank income smoothing by managing loan-loss provisions. *Journal of Banking and Finance*, 32, 217–228.
- Greenwalt, M.B. & Sinkey J.F. (1988). Bank loan-loss provisions and the income smoothing hypothesis: An empirical analysis, 1976 – 1984. *Journal of Financial Services Research*, 1(4), 301-318
- Hail, L., Leuz, C. (2009). Cost of capital effects and changes in growth expectations around U.S. cross-listings. *Journal of Financial Economics*, 93, 428 – 454.
- Karolyi, G. A., & Stulz, R. M. (2002). Are financial assets priced locally or globally? (NBER Working Paper 8994). Cambridge, MA: National Bureau of Economic Research.
- Klapper, L. F., & Love, I. (2004). Corporate governance, investor protection, and performance in emerging markets. *Journal of Corporate Finance*, 10, 703– 728.
- Koch, T. W., & Wall, L. D. (2000). Bank loan-loss accounting: A review of theoretical and empirical evidence. *Federal Reserve Bank of Atlanta Economic Review*, 1–19.
- Laeven, L. & Manjoni, G. (2003). Loan loss provisioning and economic slowdowns: Too Much, Too Late? *Journal of Financial Intermediation*, 12, 178 – 197.
- La Porta, R., Lopez-De-Silanes F., & Shliefer, A. (1998). Law and finance. *The Journal of Political Economy*, 106, 1113–1150.

- La Porta, R., Lopez-De-Silanes, F., & Shleifer, A. (1999). Corporate ownership around the world. *The Journal of Finance*, 54(2), 471–517.
- La Porta, R., Lopez-De-Silanes, F., Shleifer, A., & Vishny, R. (2000). Investor protection and corporate governance. *Journal of Financial Economics*, 58, 3–27.
- Leuz, C., Nanda, D., & Wysocki, P. (2003). Earnings management and investor protection: An international comparison. *Journal of Financial Economics*, 69, 505–527.
- Nenova, T. (2003). The value of corporate votes and control benefits: A cross-country analysis. *The Journal of Financial Economics*, 68, 325–351.
- Perino, M. (2003). American corporate reform abroad: Sarbanes-Oxley and the foreign private issuer. *European Business Organization Law Review*, 4, 213–244.
- PricewaterhouseCoopers. (2005–06). *Regulatory guide for foreign banks in the United States*. Washington, D.C.
- Stulz, R. M. (1999). Globalization, corporate finance, and the cost of capital. *Journal of Applied Corporate Finance*, 68 No. 3, 8–26.
- Tarullo, D. K. (2008). *Banking on Basel: The future of international financial regulation*. Washington, D.C.: Peter G. Peterson Institute for International Economics.