

**Are Foreign Banks more Profitable than Domestic Banks?  
Home- and Host-Country Effects of Banking Market Structure,  
Governance, and Supervision**

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**Abstract**

Identifying key factors influencing bank profitability is of importance to improve bank internal management and perform banking policies. However, previous literature pays much less attention to the substantial influence of banking market structure, the quality of institution, and supervision across country on bank profitability, particular focusing on domestic versus foreign banks. Hence, using both bank- and country-level data on banking sectors from 70 countries over 1992 to 2006, this paper empirically identifies cross-country determinants of bank profitability in domestic versus foreign banks with respect to bank characteristics, macroeconomics environment, the quality of institution, country risk, banking regulation, and supervision across countries. More specifically, this paper further investigates the joint influences of differences in macroeconomic condition, and institution between host and home country on foreign banks. The empirical results reveal that foreign banks show better profitable than domestic banks. Banks operating in more comparative market show less profitable while the cross-country difference in regulation and supervision also affect foreign bank's margins. Specifically, our finding indicates that foreign banks profitability is partially and negatively related to inflation rate, develop level, regulatory quality in home country. While GDP growth rate, country risk, regulatory quality and government effectiveness in host country also significantly and negatively affect foreign bank profitability.

**Keywords:** Bank Profitability, Foreign Banks, Banking Competition, Panzar and Rosse *H*, Quality of Institution, Country Risk, Regulatory Supervision

**JEL Classification:** E32, L11, G21, G28

## 1. Introduction

In recent year, financial services have become increasingly important. Many banking institutions have also become international. On the one hand, internal determinants are factors that are mainly changed by a bank's management decision and policy destination. Such profitability determinants are related to the level of liquidity, provisioning policy, bank size, capital adequacy and expenses management. On the other hand, the external determinants, both industry-related and macroeconomic, are factors reflecting the legal environment and economic where the financial institutions operate. Bank profitability is mainly affected by domestic and foreign economic activity. Moreover, the impact of globalization wave, the transition of national governance or legal environment would alter the banking structure and affect bank profitability in turn. However, scarce literature pays close attention on the significant influence of banking structure on profitability persistence in domestic banks and foreign banks, but this issue is crucial for international competitive advantages. Therefore, the aim of this paper is to empirically investigate the key determinants of bank profitability in 70 countries with respect to banking market structure differentials, particular in foreign versus domestic banks. This paper further exploit the influence of cross-country differences in macroeconomic environment and institution governance between the host and home country on bank profitability, especially focusing on this impact on foreign banks.

According to the survey on global industry profit conducted by *The McKinsey Company* in 2006 (see Figure 1), Dietz et al. (2008) indicates that the revenues and profits in the banking industry amounted to 788 billion that is the

highest in comparison to other industry. As Figure 2 shown, it is noted that from 2000 to 2006 developed countries grew significantly faster profits than those in the world. However, previous studies on bank profitability focus on evaluating the impact of various factors explaining profits, such related research as Ho and Saunders (1998), Molyneux and Thornton (1992), Demirgüç-Kunt and Huizinga (2000) and Goddard et al. (2004). In addition, Jaffee (1989) earlier indicated that as economic theory suggested the interest spread would be affected by following factors: (i) the degree of market concentration that affected bank profitability; (ii) regulatory constraints that prohibited the bank from undertaking certain profitable activities and increased the cost of providing permissible activities; (iii) higher credit risk would reduce expected profits, and (iv) exposures to interest rate risk. In terms of macroeconomic factors, some researchers recently examined the impact of GDP on the bank profits (Brock and Suarez, 2000; Staikouras and Wood, 2003; Williams, 2003; Claeyns and Vennet, 2008) and the others assessed the impact of inflation on bank profit (Pasiouras and Kosmidou, 2007, Kosmidou et al., 2007; Athanasoglou et al., 2008). Furthermore, recent literature pays close attention on the effect of interest rates and banking market structure on bank profitability (see Saunders and Schumacher, 2000; Maudos and Guevara, 2004), credit risk (Angbazo, 1997; Maudos and Guevara, 2004), some bank-specific factors like interest rate, loans to assets, and bank's market shares (Claeyns and Vennet, 2008), non-interest revenue (Spathis et al., 2002). The paradigm of *Structure–Conduct–Performance* (SCP) is frequently utilized to evaluate bank's performance and indicated a positive empirical relationship between market concentration and bank profitability (Kosmidou et al., 2007; Pasiouras and Kosmidou, 2007). This relationship strongly implies that a bank

could gain monopoly rents as banking market concentration increasing. Even though there has been a number of studies identifying determinants of bank profitability in selective countries or regions, but understanding the impact of banking market structure across country on bank profitability persistence is few addressed for empirical analysis, particular in context of international comparison.

Traditional perspective of industrial organization explicitly suggests that bank entry leads to more competition ultimately helpful for borrowers welfare, but harmful to bank's monopoly rents. In recent, the market structure of the banking industry in many developing countries has undergone significant changes as ongoing financial liberalization encourages the entry of foreign bank into their domestic banking market and then results in a substantial impact on banking competition. As Peria and Mody (2004) indicated, it was found that the increasing in foreign bank entry to Latin America results in decreasing level of bank concentration in developing countries. Especially, Maudos and Guevara (2004) demonstrated that banking sectors in European (including Germany, France, the United Kingdom, Italy, and Spain) over the period 1993 to 2000, proxied the Herfindahl index and Lerner index, measured as the degree of concentration and market power. The authors pointed that the Herfindahl index and Lerner index presented the significantly positive impact of market concentration on the interest margin. Lately, proliferating studies focus on evaluating the effect of market structure on bank profitability in selective countries, but international evidences based upon cross-country difference in banking market structure is sparse to have clearer understanding.

Allowing the entry of foreign banks as a whole produced positive

externalities to the domestic banking sector due to spillover effect from know-how and expertise in foreign banks (Thorne, 1993). Claeyns and Hainz (2006) conducted a theoretical analysis in which domestic banks have private information about their incumbent clients but foreign banks have better screening skills. As a result, foreign bank entry would drive down a country's average interest rate for new loans. Otherwise, some studies have noted that foreign banks might not have knowledge of the specific market at the time of entrance or that they might be otherwise disadvantaged compared with domestic banks (Berger et al., 2000; Kosmidou et al., 2004; DeYoung and Nolle, 1996; and Mahajan and Zardkoohi, 1996), some studies found no significant performance differences between foreign and domestic banks (Vander Venet, 1996; Hasan and Lozano-Vivas, 1998) or other study finds better performance by domestic banks (Sturm and Williams, 2004). Foreign bank participation has been a fact of the larger process of financial liberalization and international coalition experienced by developing countries in recent years. Empirical evidence shows that in emerging markets, foreign banks are more profitable and more efficient than domestic banks (Demirgüç-Kunt and Huizinga, 2000; Claessens et al., 2001; Bonin et al., 2005; Grigorian and Manole, 2006; Berger et al., 2009). On the contrary, others find the opposite result (Nikiel and Opiela, 2002; Yildirim and Philippatos, 2007). And some studies find no significant difference between domestic and foreign banks (Crystal et al., 2001; Mian, 2003). The other studies have shown that foreign banks are disadvantaged compared to domestic banks in developed countries (Peek et al., 1999; Berger et al., 2000; Claessens et al., 2001; Sathye, 2001). However, empirical analysis for the performance of foreign banks mainly concentrated on the case of EU or US banks operating abroad. Extensions

to the case of foreign banks operating in other countries include studies by Williams (1996, 1998a, 1998b, 2003) for Australia; Minh and Tripe (2002) for New Zealand; Ursacki and Vertinsky (1992) for Japan and Korea; Engwall et al. (2001) for the Nordic countries, and Dietrich and Wanzenried (2009) for Switzerland. Most studies compared the performance of domestic banks with foreign banks for single country. Even though the issue on performance of foreign banks is not new, but there is lack of consensus on empirical evidences about whether foreign banks are more profitable than domestic banks as well as whether cross-country differences in banking market structure matter bank's profitability, particular in the context of international comparison. To this end, this study aims to empirically investigate key factors affecting bank profitability in foreign banks versus domestic banks in 70 countries with respect to cross-country differences in banking market structure, macroeconomic environment, and institutional governance. Next to macroeconomic environment measures and institutional governance variables, This study also use regulation and supervision variables to investigate the joint effects on banking environment. In addition, Jorion (2006) considered as a essential guideline for banking supervisors initially proposed by Basel Committee on Banking Supervision since 1996. It indicates that well informed market participants will reward a risk-conscious management strategy by credit institutions in their asset allocation decisions. And the country condition and financial development are proxied as the risk rating of country risk collected from *IHS Global Insight Inc.* The data on the rating of country risk only covers 1998 to 2006 and data of Government Supervision is over 2000 to 2006.

Therefore, this paper contributes to previous studies in three aspects.

Firstly, this study explore long relationship between bank profitability and changing market structure in banking industry in 70 countries for the period 1992 to 2006. Second, this study examine whether cross-country differences in macroeconomic condition and institutional governance between host country and home country where foreign banks and domestic banks compete make their profitability different. Third, this study use bank regulation and supervision and country risk to test the influence of market participants and institutional environment in host and home country.

## **2. Literature Review**

Previous literature related to bank profitability could be classified into two major categories. The first one conducts cross-country comparison of bank profitability. The second one investigates the impact of banking market structure on bank profit. The detailed findings are discussed in the following sections.

### *2.1 International Comparison of Bank Profitability*

The empirical literature on bank profit highly focuses on European countries. Williams (1996) constructed a model that attempts to explain the performance of Japanese financial institutions in Australia. In general the model proposed performs well for size measures, but comparatively poorly for measures of profitability. Brock and Suarez (2000) reported that bank spreads in the 1990s were influenced by liquidity and capital risk at the bank level, and by interest rate volatility, inflation and GDP growth at the macroeconomic level, although

the results differed across countries. Claessens et al. (2001) analyzed 7,900 banks from 80 countries for the period 1988 to 1995, indicating that foreign banks enjoyed higher profits than domestic banks especially operating in developing countries, but the opposite was the case for developed countries.

Additionally, Kosmidou et al. (2007) examined the determinants of profits for Greek banks operating abroad and analyzed 19 Greek bank subsidiaries operating in 11 nations over the period from 1995 to 2001. Their findings showed that the profitability of the parent bank and the operating experience of its host nation had a robust and positive impact on the profits of Greek banks abroad. In recent, Claey's and Vennet (2008) investigated the determinants of bank interest margins in the CEEC with a sample of 1,130 banks from 31 Western and Eastern European countries (hereafter, WEEC) over the years 1994 to 2001, indicating that capital ratio and market concentration were positive and significant for both the WECC and accession countries. Claessens and Horen (2009) Studying the performance of foreign banks in 51 countries between 1999 and 2006, foreign banks tend to perform better compared to domestic banks when coming from a high income country, but worse when coming from a developing country. Even though these related research reveals the cross-country determinants of bank profit some regions, but the international evidence is still at the earlier stage.

## *2.2 Banking Market Structure and Bank Profitability*

Investigating the impact of market structure on bank profit, Saunders and Schumacher (2000) found that over the period 1988 to 1995 interest margins in six European countries and the US were affected by the degree of bank

capitalization, bank market structure, and the volatility of interest rates, respectively. Moreover, Corvoisier and Gropp (2002) exhibited that higher concentration might have resulted in less competitive pricing by banks located in the euro area for the period 1993 to 1999. Bikker and Haaf (2002) applied the Panzar–Rosse model to measure banking competition as 23 countries considered, providing support for the conventional view that concentration impairs banking competitiveness.

Similarly, Beck et al. (2003) concluded that highly concentrated banking systems were less likely to suffer from crises. As Maudos and de Guevara (2004) shown, it was a statistically significant and positive correlation between concentration and bank interest margins for the period 1993 to 2000 for European banking markets. Furthermore, Maudos and Guevara (2004) used the Lerner index proxied as the degree of competition in banking markets. In resent, Athanasoglou et al., (2008) applied a GMM technique to a panel of Greek banks over the period 1985 to 2001, indicating that concentration negatively affected bank's profitability but this effect was relatively insignificant. Lately, Carbó et al. (2009) used five indicators as loan-deposit interest spread, Lerner Index, and bank's net income to the value of total assets, Panzar–Rosse  $H$ -statistics, and Hirschman–Herfindahl Index, to infer competitive behavior. They found that the determination of competition may differ depending on the measure chosen to assess it. This is because the competition indicators measure different things. Berger et al. (2009) test indicators of market power to measures the loan risk, bank risk, and bank equity capital, as well as indicators of the business environment. The results suggest that banks with a higher degree of market power also have less overall risk exposure and market power increases loan

portfolio risk. In summary, these authors indicate that banking market structure has a substantial influence on bank profitability.

### **3. The Model**

#### *3.1 Theoretical Framework*

Following the theoretical perspective from Ho and Saunders (1998) as well as Saunders and Schumacher (2000), a bank is viewed as a risk-averse dealer in the credit market, acting as a dealer in a market for the immediate provision of deposits and loans. Thus, the major portfolio risk come from interest-rate fluctuations or volatility, before any deposits or loans are made, Risk-averse banks facing asymmetric arrival time for the demand for loans and the supply of deposits select optimal loan and deposit rates which minimize the risk of excessive demand for loans or insufficient supply of deposits. Therefore, rates could be as set up as following structure:

$$R_D = R - \alpha, R_L = R + \beta \tag{1}$$

where  $R_D$  is the rate set on deposits,  $R_L$  is the rate set on loans,  $R$  is the expected risk-free interest rate,  $\alpha$  and  $\beta$  are fees charged by the bank in order to provide immediacy and to bear interest rate risk. The fees  $\alpha$  and  $\beta$  have to compensate the bank for bearing this interest-rate risk. The optimal fees  $\alpha$ ,  $\beta$  and thus the spread  $sp = (\alpha + \beta)^3$  is expressed as:

$$sp = (\alpha + \beta) = \frac{\gamma}{\theta} + \frac{1}{2}R\sigma_i^2Q \quad (2)$$

where  $\frac{\gamma}{\theta}$  measures the bank's risk neutral spread and is the ratio of the intercept ( $\gamma$ ) and the slope ( $\theta$ ) of the symmetric deposit and loan arrival functions of the bank. A large  $\gamma$  and a small  $\theta$  will result in a large  $\frac{\gamma}{\theta}$  and, hence, large spread ( $sp$ ). It means that, if a bank faces relatively inelastic demand and supply functions in the markets in which it operates, it may be able to exercise monopoly power by demanding a greater spread than it could get if banking markets were competitive (low  $\frac{\gamma}{\theta}$  ratio).

The ratio of  $\frac{\gamma}{\theta}$  provides some measure of the producer's surplus or monopoly rent element in bank spreads or margins. The second term is a first-order risk-adjustment term and depends on three factors: (i)  $R$ , the bank management's coefficient of absolute risk aversion; (ii)  $Q$ , the size of bank transactions; and (iii)  $\sigma^2$ , the instantaneous variance of the interest rate on deposits and loans. Note that the second term implies that, *ceteris paribus*, the greater the degree of risk aversion, the larger the size of transactions and the greater the variance of interest rates, the larger bank margins are. This spread equation has an important implication, even if banking markets are highly competitive, as long as a bank's management is risk-averse and faces transaction uncertainty, positive bank margins will exist as the price of providing deposit–loan immediacy.

### *3.2 Measuring Banking Market Structure*

There are four measures proxied as the market structure in the banking industry as follows: Panzar-Rosse  $H$ -statistics, Herfindhal Index (HHI), Lerner Index and Concentration Ratio (CR4).

### 3.2.1 Panzar-Rosse $H$ -statistic

This paper applies the widely used Panzar-Rosse model to measure competition in the banking industry. Earlier, Panzar and Rosse (1987) provide a convenient framework for assessing banking market structure. The P-R model uses bank-level data and measures how a change in factor input prices is reflected in equilibrium revenues earned by banks. In a situation of perfect competition, marginal costs and total revenues will increase proportionally to input prices. In a monopoly, however, an increase in factor input prices will raise marginal costs but reduce output and hence total revenues. In order to apply the P-R approach to our data, following Bikker et al. (2007) and Bikker and Haaf (2002) estimate for each country the following empirical reduced form equation of bank revenues :

$$\ln(\pi_{i,t}) = \alpha + \beta \ln PF_{i,t} + \gamma \ln PL_{i,t} + \delta \ln PK_{i,t} + \sum_j \xi_j + \eta OI + \varepsilon_{i,t} \quad (3)$$

where  $t$  is the number of periods observed, and  $i$  is the total number of banks.  $\ln$  denotes the natural logarithmic operator.  $\pi$  is bank's interest revenues.  $PF$  stands for annual funding rate, calculated as interest expense to total funds (IE/FUN) (as the proxy for unit price of fund).  $PL$  denotes price of personnel

expenses, calculated as annual personnel expenses to total assets (PE/TA) (as the proxy for unit price of labor).  $PK$  is the price of physical capital expenditure, calculated as non-interest expenses to fixed assets (ONIE/FA) (as the proxy for unit price of capital).  $OI$  is calculated as the ratio of the income to total assets. In order to apply the P-R approach to our data, this paper use the following empirical reduced form equation of bank revenues, in line with Equation (3):

$$\begin{aligned} \ln(\pi_{i,t}) = & \alpha + \beta \ln PF_{i,t} + \gamma \ln PL_{i,t} + \delta \ln PK_{i,t} + \eta_1 \ln LNASST_{i,t} \\ & + \eta_2 \ln NONTA_{i,t} + \eta_3 \ln DPSF_{i,t} + \eta_5 \ln EQTA_{i,t} + \eta_5 OI + \varepsilon_{i,t} \end{aligned} \quad (4)$$

$LNASST$  is the ratio of loans to total assets, representing the credit risk on banks.  $NONTA$  is defined as the ratio of other non-earning assets to total assets.  $DPSF$  is the ratio of customer deposits to the sum of customer deposits and short term funding.  $EQTA$  is generated by the ratio of equity to total assets ratio. Although the choice of dependent and explanatory variables often varies, Equation (4) is similar to what is commonly used in the literature.

The model posits that banks use three input factors-namely, deposits, labor, and physical capital.  $PF$ ,  $PL$  and  $PK$  are the unit prices of these three inputs or reasonable proxies. A number of bank-specific factors are included to account. The  $H$  statistic is calculated as the sum of the elasticities of a bank's total revenue with respect to that bank's input prices. Hence, based on Equation (4), this statistic equals  $H$  statistic equals  $H = \alpha + \beta + \gamma$ . The estimated value of the  $H$ -statistic ranges between  $-\infty$  and 1. Under perfect competition, a decrease in input prices reduces marginal costs and revenues by the same amount as a cost

reduction ( $H=1$ ). A value of the  $H$ -statistic between 0 and 1 indicates monopolistic competition. Values equal or less than 0 is consistent with monopoly behavior (as a decrease in input prices decreases marginal costs but would not also reduce revenues). This methodology is widely utilized in banking literature in recent year and some empirical findings are presented and summarized in Table 1.

### 3.2.2 Herfindhal Index

This paper defines the *Herfindhal Hirschman Index* as the following formula:

$$HHI = \sum_{i=1}^3 s_i^2, \quad (5)$$

where  $s_i$  stands for the share of the total volume of loans (deposits or assets) of the  $i$ th group of financial institutions. The HHI is calculated by summing the squared market shares of all banks in the industry is proxied on the assumption that competition takes place on a national scale, as only in the case of big banks and in wholesale markets could a greater than national market be assumed. The fewer the firms in the banking industry, and the more the industry is dominated by a small number of them, the higher the value of the index.

### 3.2.3 Lerner Index

Following the theoretical perspective from Berger et al. (2009), The Lerner Index, which can be characterized as the negative inverse of demand elasticity, is

used as a proxy of market power. The Lerner index represents the mark-up of price over marginal costs and is an indicator of the degree of market power. A high Lerner Index indicates a strong degree of monopoly in the banking market, while in a highly competitive market the sector has less capacity to set high margins resulting in a low Lerner index. It is a “level” indicator of the proportion by which price exceeds marginal cost. The empirical expression of the Lerner index is

$$\text{LERNER} = \frac{p - \text{MC}}{p} \quad (6)$$

where  $p$  is the average price of a bank (proxied as the quotient between total revenues and total assets) and MC is the marginal cost of total assets calculated from the estimation of a translogarithmic costs function. Where the total costs depend on the prices of three inputs, on the bank’s volume of production (total assets), the costs function estimated is as follows:

$$\begin{aligned} \ln \text{Cost}_{it} = & \beta_o + \beta_1 \ln Q_{it} + \frac{1}{2} \beta_2 \ln Q_{it}^2 + \sum_{k=1}^3 \gamma_{kt} \ln W_{k,it} + \sum_{k=1}^3 \phi_k \ln Q_{it} \ln W_{k,it} \\ & + \sum_{k=1}^3 \sum_{j=1}^3 \ln W_{k,it} \ln W_{j,it} + \varepsilon_{it} \end{aligned} \quad (7)$$

Where  $Q_{it}$  represents a proxy for bank output or total assets for bank  $i$  at time  $t$ , and  $W_{k,it}$  are three input prices.  $W_{1,it}$ ,  $W_{2,it}$  and  $W_{3,it}$  indicate the input prices of labor, funds, and fixed capital, respectively, the input prices are defined as follows:  $(W_{1,it}) = \text{personnel costs} / \text{total assets}$ ;  $(W_{2,it}) = \text{interest expenses} / \text{total}$

deposits; ( $W_{3,it}$ ) is other operating and administrative expenses / total assets.

$$MC_{TA_{it}} = \frac{Cost_{it}}{Q_{it}} \left[ \beta_1 + \beta_2 \ln Q_{it} + \sum_{k=1}^3 \phi \ln W_{k,it} \right] \quad (8)$$

Finally, the Lerner index is averaged over time for each bank  $i$  for inclusion in the regression model, and it is the measure of competition that is computed at the bank level.

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### 3.2.4 Concentration Ratio

The concentration ratio is proxy as the degree of banking competition in a national banking sector. This indicator could be measured as the combined market share of the four biggest banks (CR4) in terms of total assets (deposits or assets). Williams (2003) suggested that concentration ratio may act as a barrier to entry when entering markets where domestic banks are highly concentrated, implying a negative impact on profits.

## 4. Empirical Specification and Data

### 4.1 Empirical Specification

To investigate cross-country determinants of bank performance, we use bank- and country-level data and standard indicators of bank profitability such as net interest margins, return on assets (ROA), and return on equity (ROE), alternatively. Following previous studies on empirical specifications as Berger et

al. (2009), Claessens and Horen (2009), Dietrich and Wanzenried (2009), and Maudos and Fernández de Guevara (2004), we set up our model using a numbers of explanatory variables explained and described in Table 2:

$$\begin{aligned}
\Pi_{i,j,t} = & \alpha_0 + \alpha_1 FB_{i,j,t} + \alpha_2 COST_{i,j,t} + \alpha_3 SIZE_{i,j,t} + \alpha_4 LI_{i,j,t} + \alpha_5 CR_{i,j,t} + \alpha_6 IP_{i,j,t} \\
& + \alpha_7 OPC_{i,j,t} + \alpha_8 NOI_{i,j,t} + \alpha_9 OBS_{i,j,t} + \alpha_{10} EL_{i,j,t} + \alpha_{11} MS_{i,j,t} + \alpha_{12} OOI_{i,j,t} \\
& + \alpha_{13} MST_{j,t} + \sum_{s=1}^3 \left( \gamma_s FB_{i,j,t} \times MacEcon_{j,t}^{Host} + \delta_s FB_{i,j,t} \times MacEcon_{j,t}^{Home} \right) \\
& + \sum_{p=1}^3 \left( \lambda_p FB_{i,j,t} \times GQuality_{j,t}^{Host} + \mu_p FB_{i,j,t} \times GQuality_{j,t}^{Home} \right) \\
& + \sum_{r=1}^2 \left( \kappa_r FB_{i,j,t} \times Risk_{j,t}^{Host} + \theta_r FB_{i,j,t} \times Risk_{j,t}^{Home} \right) \\
& + \sum_{h=1}^{10} \left( \pi_h FB_{i,j,t} \times REG_{j,t}^{Host} + \phi_h FB_{i,j,t} \times REG_{j,t}^{Home} \right) + \xi_{i,j,t} \tag{9}
\end{aligned}$$

where  $\Pi_{i,j,t}$  in equation (9) stands for bank's profitability for bank  $i$  in country  $j$  in year  $t$ ;  $\xi_{i,j,t}$  represents for the error term. There are three measures on bank's profitability as *NIM*, *ROA*, and *ROE* used alternatively for dependent variable. *NIM* is the net interest margin generated by the net interest income (= interest income – interest expense) divided by current assets. This ratio suggests that the higher net interest margin implies better performance. *ROA* is defined as the net profit divided by total assets represents the earning performance of the bank based on the total assets. *ROE* is calculated as the return on equity which is the net profit after tax divided by the shareholders' equity and represents the earning performance of the bank based on the shareholders' stake.

As for several independent variables, we cover bank characteristics, foreign bank, banking market structure, macroeconomic and quality of institution between home and host country for empirical analysis.  $FB_{i,j,t}$  is the

foreignership-specific indicator proxied as the dummy variable which is equal to one for foreign-owned bank if their shareholding is up to 50% or more, and zero for domestic-owned banks. The list of foreign banks included for empirical analysis in our sample is shown in Appendix.  $MST_{j,t}$  represents the banking market structure in a country  $j$  in year  $t$ , measured and generated by four indicators as  $HHI$ , CR4, Lerner index and Panzar-Rosse  $H$ -statistics. Regarding control variables for bank characteristics as internal determinants of performance, bank's total assets, the cost to assets ratio, the ratio of equity to liability and the ratio of bank's loans divided by customers and short term funding, are used in our empirical model and defined detail in Table 2.

In addition, external factors as cross-country differences are utilized to examine the impact of macroeconomic environment on bank's performance (see Table 2).  $MacEcon_{j,t}^{Host}$  and  $MacEcon_{j,t}^{Home}$  denotes three macroeconomic variables, including growth rate of GDP per capita, inflation rate, and real interest rate in and between the host- and home- country.

Furthermore,  $GQuality_{j,t}^{Host}$  and  $GQuality_{j,t}^{Home}$  measure the quality of institution in the host- and home- country. We collect the data developed and ranked by Kaufmann et al. (2008). There are three indicators used separately for empirical model. The definition and explanation for these indicators are described as follows: 1) *Government Effectiveness* (GE), defined as the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies; 2) *Regulatory Quality* (RQ), defined as the ability of the government to formulate and implement sound policies and regulations that permit and promote private

sector development; 3) *Control of Corruption* (CO), defined as the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as “capture” of the state by elites and private interests.

The country level variables also cover country risk and banking supervision. The country risk data collected from HIS *Global Insight Inc.*, are ER which is the risk rating of economic risk and LR which is the risk rating of legal risk. Following Barth et al. (2004), we consider ten dimensions of banking regulation and supervision (SU), including *SU1* (Can related parties own capital in a bank?), *SU2* (Regulatory restrictiveness of ownership by one financial firms of banks), *SU3* (What is the 5-bank concentration ratio?), *SU4* (Is it risk-weighted in line with Basle guidelines?), *SU5* (Activities of Securities), *SU6* (Are auditors licensed or certified?), *SU7* (Is auditor's report given to supervisory agency?), *SU8* (Are consolidated accounts covering bank and any one-bank financial subsidiaries required?), *SU9* (Does the law establish pre-determined levels of solvency deterioration which forces automatic actions such as intervention?), and *SU10* (Frequency of onsite inspections conducted in large & medium size banks (1=1; 2 =2)). Based on Claessens and Horen (2009), we also consider foreign banks located in developing country, defined that dummy variable equals to one if foreign bank operated in a developing country and 0 otherwise.

#### 4.2 Data

Different data sources are collected for empirical analysis on 70 countries over the period 1992 to 2006. This paper performs a panel data approach. The

bank-level data on financial statement report is mainly collected from the database of *BankScope*, produced by *Bureau Van Dijk Corporation*. Macroeconomic variables in a country are obtained from *World Development Indicators* (WDI) and *World Bank* (WB). The information on supervision is taken from databases compiled by the World Bank and the Heritage Foundation. Cross-country differences in country condition and financial development are proxied as the risk rating of country risk collected from *HIS Global Insight Inc.* Specifically, country-level data on the quality of institution is collected from *Worldwide Governance Indicators* (WGI) developed and ranked by Kaufmann et al. (2008) for more than 50 countries, as free downloaded from the webpage at <http://www.govindicators.org>.

Using a nearly balanced panel of banks from 70 countries spanning the period 1992 to 2006, Table 4 reports some summary statistics of the variables used with regard to all banks, foreign banks, and domestic banks, namely. It is clear that foreign banks are more profitable than domestic banks based on the mean of measures as ROA of 0.848% to 0.797% and ROE of 9.954% to 8.994%, respectively. Compared with domestic banks, foreign banks exhibit lower ratio of operating cost (0.041), liquidity (42.217%), and logarithm of bank size (3.187), but also have higher ratio of interest payment (4.312), and total capital ratio (18.757%).

## **5. Empirical Results**

To describe the correlation between bank ownership and performance, we

investigate whether banking market structure, developing economy, governance, and supervision for foreign banks between host country and home country play a partial or joint role in driving this relationship. We proceed as follows: we start by estimating a baseline model where we compare how both foreign ownership and banking competition affect bank performance to using NIM, ROE, and ROA, namely. Next, we test whether banking competition, governance, and supervision from host country and home country individually or jointly influence the association between foreign ownership and profitability by interacting foreign dummy with those institutional characteristics namely.

### *5.1 Identifying Cross-Country Determinants of Bank Profitability*

Modeling this static relationship, we apply Generalized Least Squares (GLS) method for panel data model with random-effects (RE) to estimate the equation (9), but initially consider basic control variables for bank characteristics. As shown in Table 5, our empirical results from the estimation indicate that foreign banks demonstrate significantly positive related to better profitability relative to domestic ones, suggesting foreign banks as a whole in comparison to domestic banks generate impressive profitability in average among 70 countries over 1992 to 2006.

It is worthily noted that differences in banking market structure across country play a significant role on their profitability. From the perspective of P-R *H*-statistics, Panel A in Table 5 presents that there is significantly negative relationship between bank NIM and the degree of competition in banking industry, implicating bank net interest margin is more likely to be squeezed

when banking industry in a country trends to be competitive condition as a result of free market access to foreign or new banks. In contrary, the measure as HHI concentration indicates bank's interest margin is significantly positive related to monopolistic banking market structure, which is consistent with CR4 measure showing the similar results to the case of HHI. According to the result from NIM, banks with better profitability are significantly and negatively associated with their operating cost, but positively related to those using ROE as shown in Panel B. Our finding is in line with Maudos and Fernández de Guevara (2004) who used the NIM as dependent variable as well as Pasiouras and Kosmidou (2007) who used ROA as dependent variable. However, much profitable banks are positively and significantly associated with implicit payments in NIM model. This indicates that charging for bank's services more implicitly through lower remuneration of liabilities would lead to higher interest margins for banks, which is consistent with previous studies as Saunders and Schumacher (2000) and Maudos and Fernández de Guevara (2004). Liquidity robustly have significantly positive effect of NIM, ROA and ROE (in Panel C), indicating a positive relationship between liquidity and bank's profits. Furthermore, banks with better profitability are positively and significantly correlated to their opportunity cost, which is similar to Saunders and Schumacher (2000). This implicates that the opportunity costs of reserves stand for the average return on earning assets foregone by holding deposits in cash. As these increase the cost of funds beyond the observed rate, then banks gain the net interest margins by compensating this costs.

In addition, the relationship between bank profitability and off balance sheet is significantly negative in all estimation results from models; banks will

decrease profit if it does more off balance activities. The relationship between size (SIZE) and bank's profitability is negative effect on the net interest margin. This result is consistent with the studies by Kosmidou et al. (2007) and Pasiouras and Kosmidou (2007). The negative coefficient indicates that in both cases, larger (smaller) banks tend to earn lower (higher) profits. This perspective also provides additional evidence to the studies that found either economies of scale and scope for smaller banks or diseconomies for larger financial institutions. Non-interest Revenues significantly negative from the results using all models and other operating inc. is significantly negative. It means that operation income from non-interest operating will decrease the income, and other operation activities will decrease, too. Much profitable banks are positively and significantly associated with the ratio of market share. More importantly, based on the result from NIM and ROA models, the relationship between bank profitability and capital ratio is significantly positive. But in ROE model, it become negative and significantly.

## *5.2 The Home-Country Impacts of Macroeconomic Condition, Governance, and Supervision on Bank Profitability*

Controlling bank characteristics for bank's net interest margin (NIM), we next examine whether home-country institutional governance and macroeconomic condition for foreign banks have spillover impacts on their NIM, interacting foreign ownership with developing country, macroeconomic condition, home country risk, governance, and supervision, respectively. We report the estimated result in Table 6. First, foreign banks form developing economy show

lower NIM, even we find no evidence to support the fact foreign banks presenting higher NIM than domestic ones. Regarding the macroeconomic factors from home country for foreign banks, home country with higher inflation rate level would be more likely to lead to lower NIM for foreign banks, but we confirm the finding foreign banks ought to be more profitable than domestic ones as well. Though real interest rate and GDP at home country for foreign banks is not correlated with their NIMs, our results indicate the fact that foreign banks demonstrate higher NIM than domestic ones. Second, the level of legal and economic risk at home country for foreign banks have no substantial and significant effects on their NIMs, but it is noteworthy that foreign banks perform worse than domestic ones once controlling for such country risk. This implies that based on risk-adjusted perspective for foreign bank's profitability their home country risks would be potentially harmful for their ability to allocate multinational benefits. Finally, focusing the home-country effect of institutions for foreign banks, we find significantly negative correlation between NIM and the degree of control of corruption at home country for foreign banks, but yet supporting a positive and statistically significant fact that foreign banks exhibit better NIMs than domestic ones. We also indicate the similar results that the quality of regulation at home country for foreign banks has significantly negative influence on their NIMs, suggesting that foreign banks not necessarily show higher NIM than domestic ones in term of controlling home-country factors.

For the home-country effect of banking supervision on foreign bank's NIM, we find that foreign banks where home country presents stronger ownership restrictiveness, securities activities, licensed or certified auditor, and solvency intervention tend to enjoy higher NIM and perform better than domestic ones.

This suggests that the better quality of financial regulation and supervision at home country impose to foreign banks operation, the more likely foreign banks is profitable than domestic ones. Surprisingly, we find that the interaction term among foreign ownership, bank capital, and onsite inspections at home country, have a significantly negative coefficient, suggesting that foreign banks where home country implements more restrictive control on bank capital and onsite examination on their banks damage foreign bank's NIM.

More important to our purpose, we next focus on investigating the home-country effects of banking market structure for foreign banks using various measures for empirical analysis. It is found that the home-country bank competition proxied as HHI and CR4 index according to bank assets has a significantly positive effect on foreign bank's NIM, indicating that foreign banks are more likely to exploit their NIM when banking market structure at home country tends to be monopolistic competition. However, it is not necessary for all cases when we use other measures for proxy as banking competition, evidenced by the significantly coefficient of the interaction term between foreign ownership and banking market structure among HHI (Loans), HHI (Deposits), CR4 (Loans), CR4 (Deposits), P-R *H*-Statistics, and Lerner Index.

For the control variables, we indicate that (i) operation cost has a negative and significant effect on NIM, (ii) bank size has a significantly negative effect on NIM, (iii) interest payment has a significantly positive impact on NIM, (iv) liquidity has a significantly positive effect on bank NIM, suggesting that keeping higher liquidity make better NIM for bank, and (v) opportunity cost and other operating income have significantly positive effects on NIM, yet non-interest revenues and off-balance sheet activity have significantly negative influences on

NIM

### *5.3 The Host-Country Effects of Macroeconomic Condition, Governance, and Supervision on Bank Profitability*

Table 7 reports our mixed results for interaction terms among foreign ownership, developing economy, macroeconomic environment, institutions, banking regulation and supervision at host country on bank NIM. Foreign-owned banks located in developing countries tend to be more profitable as predicted by skilled management, but less profitable compared with domestic banks. Even though GDP at host country have significantly negative effect on NIM, foreign banks show extremely profitable in comparison to domestic ones. In addition, host country with higher inflation level would largely increase bank NIM. In terms of host country risk, host country with higher level of legal and economic risk tends to enhance bank NIM, suggesting the positive relationship between risk and return. However, this risk factor causes the opposite finding that foreign bank are less profitable than domestic ones, which is similar to the result from controlling for home-country effects on bank NIM.

Moreover, we find similar results when we focus on institution at host country. NIM of foreign-owned banks located in countries with better control corruption, the quality of regulation, and government effectiveness, tends to be lower while foreign banks present better profitability than domestic ones in those cases. In contrast, we find much reasonable evidence from interaction terms between foreign ownership and banking supervision at host country. Foreign banks operating in a country with strong standard on Basel risk weights,

allowing securities activities, requiring licensed or certified auditor's report, and solvency intervention procedure are more likely to enjoy a larger profitability. Besides controlling interaction term with Basel risk weights and licensed or certified auditor's report, however, we find that foreign banks are more profitable than domestic ones.

Focusing on banking market structure at host country where foreign banks compete with domestic ones, we support the conditional evidence that foreign-owned banks largely demonstrate better profitability than domestic ones, even this is partially insignificant while using CR4 (Deposits) and P-R *H*-Statistics as the degree of banking competition at host country. More specifically, foreign banks operating at host country with monopolistic competition in banking industry would tend to be less profitable using CR4 (Assets), CR4 (Loans), and CR4 (Deposits) as the proxy with banking market structure. Interestingly, the case is significantly opposite using HHI (Loans) and Lerner Index, namely, suggesting that foreign-owned banks are highly likely to exploit more profits when operating at host country in which loan market is dominated by larger domestic banks.

#### *5.4 Combining the Host- and Home-Country Effects of Macroeconomic Condition, Governance, and Supervision on Bank Profitability*

We also check if there are the joint effects of macroeconomic condition, governance, and supervision on bank profitability combining host- and home-country interaction. Here we have no clear predictions on whether foreign banks are more profitable than domestic ones, particularly focusing on different

measures for banking market structure. On the one hand, one may expect that foreign-owned banks should be more profitable than domestic-owned ones because bank profitability is positively correlated with the stronger and direct host-country impacts of macroeconomic condition, institution, and supervision. On the other hand, the opposite may be true if one thinks that even home-country effect of institution and banking regulation need to maintain some managerial advantage for foreign banks when compared with less skilled domestic banks.

dictators are more likely to be able to impose their will on the activity of state-owned banks. We find that the effect of elections on ROA is stronger in democracies (in fact, it is not statistically significant in dictatorships), but for margins we find no differences between democracies and dictatorships.

## **6. Conclusions**

Identifying key factors influencing bank profitability is of importance to improve bank internal management and perform banking policies. However, previous literature pays much less attention on the substantial influence of banking market structure and the quality of institution across country on bank profitability, particular in domestic banks versus foreign banks. Hence, using both bank- and country-level data on banking sector from 70 countries for the period 1992 to 2006, this paper empirically identifies cross-country determinants of bank profitability in domestic versus foreign banks with respect to bank characteristics, macroeconomics environment, and the quality of institution across country. More specifically, this paper further investigated the influences

of macroeconomic, country risk and bank government regulation and supervision between host and home country on foreign banks.

The empirical results reveal that foreign banks show better profitable than domestic banks based on the empirical evidence from 70 countries. In table 10, it is worthily noted that differences in banking market structure across country play a significant role on bank profitability. Banks operating in more comparative market show less profitable while the cross-country difference in macroeconomic condition also affect foreign bank's profits. From the perspective of P-R *H*-statistic, there is significant and negative relationship between bank profitability and the degree of competition in banking industry. This implicates that bank profitability would likely declined as banking industry in a country trend to a move competitive condition due to free market access.

Specifically, our finding indicates that banks profitability is partially and negatively related to institutional governance as *Control of Corruption*, *Regulatory Quality* and *Government Effectiveness* are more likely to affect bank's profitability in host country. And banks in developing country will more profitable than developed country. Nevertheless, it is interesting that the country risk have positive sign for bank profit and bank government regulation and supervision are in a very important role. And the combined model cannot show the identical result.

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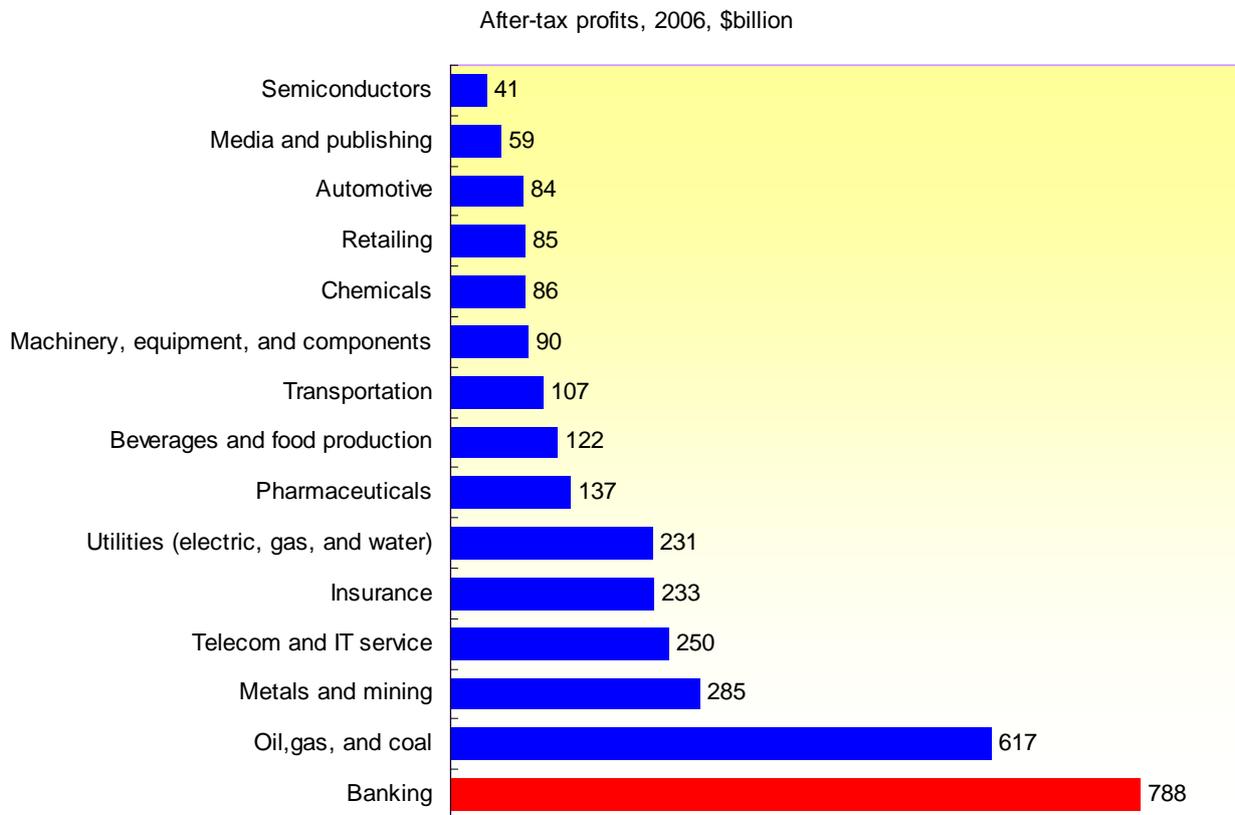


Figure 1 The Profit Leader in Global Sector in 2006

(Source: *The McKinsey Quarterly*, January 2008)

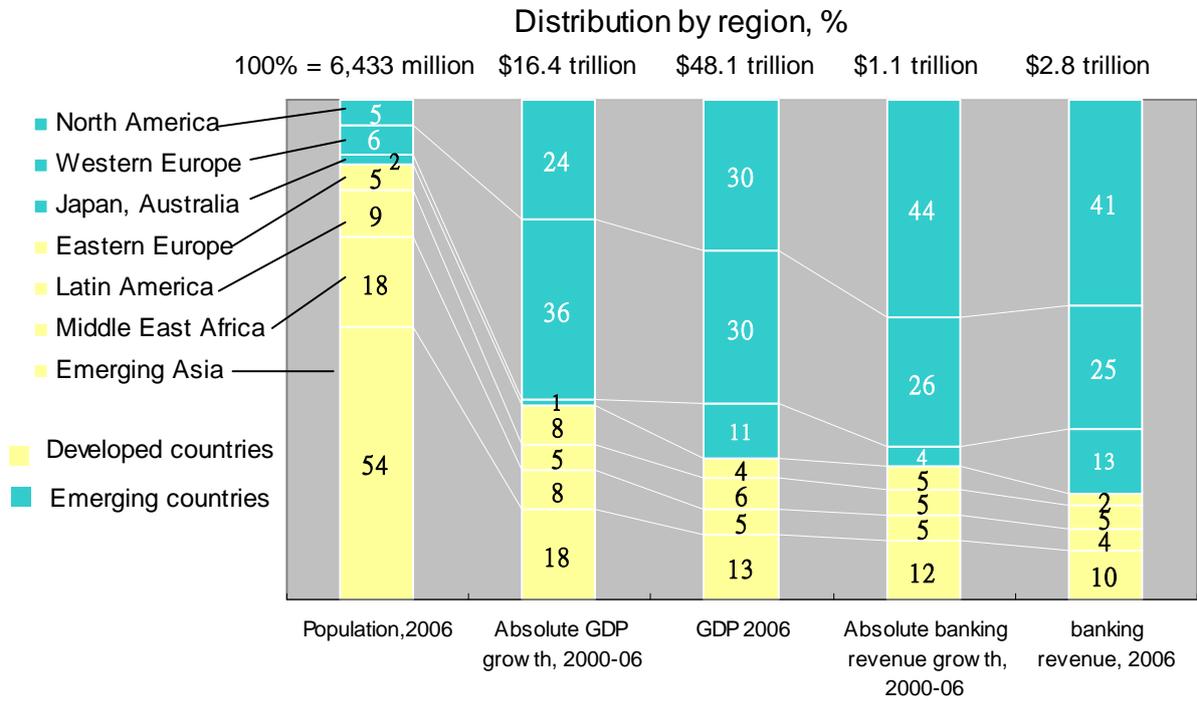


Figure 2 The Profit Pattern with Respect to Different Regions around the World

(Source: *The McKinsey Quarterly*, January 2008)

**Table 1**  
**Empirical Studies Using Panzar-Rosse Model**

Authors (Published Year)	Period	Countries	Empirical Findings
Shaffer (1982)	1979	New York	Monopolistic competition
Nathan and Neave (1989)	1982–1984	Canada	1982: perfect competition; 1983–84: monopolistic competition
Lloyd-Williams et al. (1991)	1986–1988	Japan	Monopoly
Molyneux et al. (1994)	1986–1989	France, Germany, Italy, Spain, UK	Monopoly: Italy; monopolistic competition: France, Germany, Spain, UK
Shaffer and Disalvo (1994)	1970–1986	Pennsylvania (USA)	Duopoly but high degree of competitiveness.
Vesala (1995)	1985–1992	Finland	Monopolistic competition for all but two years
Molyneux et al. (1996)	1986–1988	Japan	Monopoly
Coccorese (1998)	1988–1996	Italy	Monopolistic competition
Niimi (1998)	1989–1991, 1994–1996	Japan	1989–1991 is monopoly. 1994–1996 is monopolistic competition.
Rime (1999)	1987–1994	Switzerland	Monopolistic competition
Hondroyiannis et al. (1999)	1993–1995	Greece	Monopolistic competition
Bikker and Groeneveld (2000)	1989–1996	15 EU countries	Monopolistic competition
De Bandt and Davis (2000)	1992–1996	France, Germany, Italy	Large banks: monopolistic competition in all countries; small banks: monopolistic competition in Italy, monopoly in France, Germany
Bikker and Haaf (2002)	1988–1998	23 OECD countries	Monopolistic competition
Murjan and Ruza (2002)	1993–1997	Arab Middle East	Monopolistic competition. Oil-producing countries are less Competitive than non-oil
Gelos and Roldos (2002)	1994–2000	European and Latin American countries (eight countries)	Argentina and Hungary are near perfect competition. Others are monopolistic competition.
Hempell (2002)	1993–1998	Germany	Monopolistic competition
Coccorese (2004)	1997–1999	Italy	Monopolistic competition
Claessens and Laeven (2004)	1994–2001	50 countries	The competition of Brazil, Greece, and Mexico are high, but the degree of USA, Japan, Norway and Turkey are lower.
Mamatzakis et al. (2005)	1998–2002	South Eastern European	Monopolistic competition
Tsutsui and Kamesaka (2005)	1983–2002	Japan	1983–1988, 1997–2002 is monopoly equilibrium
Yuan (2006)	1996–2000	China	perfect competition
Al-Muharrami et al. (2006)	1993–2002	Arab Gulf Cooperation Council's (GCC) banking industry	Kuwait, Saudi Arabia and the UAE operate under perfect competition ; Bahrain and Qatar operate under conditions of monopolistic competition
Matthews et al. (2007)	1980–2004	British	Monopolistic competition.
Yildirim and Philippatos (2007)	1993–2000	Latin American	monopolistic competition
Rima (2008)	2000–2006	Middle East and North Africa	Monopolistic competition
Park (2008)	1992–2004	Korean commercial banking	Pre-crisis period and the post-crisis period: monopolistically Competitive ; crisis period: perfect competition
Bikker et al. (2008)	1995–2004	76 countries	80% are in monopoly equilibrium.

**Table 2**  
**Empirical results from other studies**

The letter after year means the dependent variable. (N=NIM, A=ROA and E=ROE )

Explanatory variable	Positive relation with	Negative relation with	No relation with
Default risk	Angbazo (1997) <sup>N</sup> Claeys and Vennet (2008) <sup>N</sup> Maudos and Fernández de Guevara (2004) <sup>N</sup>	Athanasoglou et al. (2008) <sup>A</sup>	Dietrich and Wanzenried (2009) <sup>A</sup>
Interest rate risk	Claessens et al. (2001) <sup>N</sup> Claeys and Vennet (2008) <sup>N</sup> Maudos and Fernández de Guevara (2004) <sup>N</sup>	Angbazo (1997) <sup>N</sup>	
Liquidity risk	Pasiouras and Kosmidou (2007) <sup>A</sup>	Angbazo (1997) <sup>N</sup>	Kosmidou et al. (2007) <sup>A</sup>
Capital adequacy	Angbazo (1997) <sup>N</sup> Athanasoglou et al. (2008) <sup>A</sup> , Claeys and Vennet (2008) <sup>N</sup> Pasiouras and Kosmidou (2007) <sup>A</sup> Saunders and Schumacher (2000) <sup>N</sup> Dietrich and Wanzenried (2009) <sup>A</sup>		Claessens et al. (2001) <sup>N</sup> Kosmidou et al. (2007) <sup>A</sup> Williams (2003) <sup>A</sup>
Implicit interest payments	Maudos and Fernández de Guevara (2004) <sup>N</sup> Saunders and Schumacher (2000) <sup>N</sup>		Angbazo (1997) <sup>N</sup>
Opportunity cost of non-interest bearing reserves	Angbazo (1997) <sup>N</sup>		
Opportunity cost of reserves	Saunders and Schumacher (2000) <sup>N</sup>		Maudos and Fernández de Guevara (2004) <sup>N</sup>
Management quality	Angbazo (1997) <sup>N</sup>	Maudos and Fernández de Guevara (2004) <sup>N</sup>	
Differences in barriers to statewide branching			Angbazo (1997) <sup>N</sup>
Productivity growth	Athanasoglou et al. (2008) <sup>A</sup> Claessens et al. (2001) <sup>N</sup>		
Operating expenses management		Athanasoglou et al. (2008) <sup>A</sup>	Williams (2003) <sup>A</sup>
Size	Bonin et al. (2005a) <sup>A</sup>	Kosmidou et al. (2007) <sup>A</sup> Pasiouras and Kosmidou (2007) <sup>A</sup>	Athanasoglou et al. (2008) <sup>A</sup> Maudos and Fernández de Guevara (2004) <sup>N</sup>
Size <sup>2</sup>			Athanasoglou et al. (2008) <sup>A</sup> Dietrich and Wanzenried (2009) <sup>A</sup>
Ownership			Athanasoglou et al. (2008) <sup>A</sup>
Concentration	Claeys and Vennet (2008) <sup>N</sup> Pasiouras and Kosmidou (2007) <sup>A</sup>		Athanasoglou et al. (2008) <sup>A</sup>
Cyclical output	Athanasoglou et al. (2008) <sup>A</sup>		
Foreign strategic			Bonin et al. (2005a) <sup>A</sup>
Government-owned			Bonin et al. (2005a) <sup>A</sup>
International participation			Bonin et al. (2005a) <sup>A</sup>
Foreign bank share			Claessens et al. (2001) <sup>N</sup>

**Table 2 (Continued)**

Explanatory variable	Positive relation with	Negative relation with	No relation with
Inflation expectations	Athanasoglou et al. (2008) <sup>A</sup> , Claessens et al. (2001) <sup>N</sup> Claeys and Vennet (2008) <sup>N</sup> Pasiouras and Kosmidou (2007) <sup>A</sup>		
Overhead/ta	Claessens et al. (2001) <sup>N</sup>		
Per capital income		Claessens et al. (2001) <sup>N</sup>	
Market share			Claeys and Vennet (2008) <sup>N</sup> Williams (2003) <sup>A</sup>
X-efficiency	Claeys and Vennet (2008) <sup>N</sup>		
S-efficiency			Claeys and Vennet (2008) <sup>N</sup>
Dem. and sav. deposits	Claeys and Vennet (2008) <sup>N</sup>		
GDP growth	Claeys and Vennet (2008) <sup>N</sup> Pasiouras and Kosmidou (2007) <sup>A</sup>		
Exports		Williams (1998b) <sup>A</sup>	Kosmidou et al. (2007) <sup>A</sup>
GDP growth rates difference			Kosmidou et al. (2007) <sup>A</sup>
Parent's banks ROA	Kosmidou et al. (2007) <sup>A</sup>		Kosmidou et al. (2007) <sup>A</sup>
Parent's banks SIZE	Williams (1998b) <sup>A</sup>	Kosmidou et al. (2007) <sup>A</sup>	Williams (2003) <sup>A</sup>
Experience in the host nation	Kosmidou et al. (2007) <sup>A</sup>		Williams (1998b) <sup>A</sup> Williams (2003) <sup>A</sup>
Stock market capitalization/total assets			Kosmidou et al. (2007) <sup>A</sup>
Time			Kosmidou et al. (2007) <sup>A</sup>
Cost	Maudos and Fernández de Guevara (2004) <sup>N</sup>	Pasiouras and Kosmidou (2007) <sup>A</sup> Dietrich and Wanzenried (2009) <sup>A</sup>	Kosmidou et al. (2007) <sup>A</sup>
C5			Kosmidou et al. (2007) <sup>A</sup>
Loan loss provisions	Maudos and Fernández de Guevara (2004) <sup>N</sup>		Kosmidou et al. (2007) <sup>A</sup>
Lerner index	Maudos and Fernández de Guevara (2004) <sup>N</sup>		
Capital flow			Williams (1998b) <sup>A</sup> Williams (2003) <sup>A</sup>
Home GDP			Williams (1998b) <sup>A</sup>
Home NIM			Williams (1998b) <sup>A</sup> Williams (2003) <sup>A</sup>
Licence	Williams (1998b) <sup>A</sup>	Williams (2003) <sup>A</sup>	
Home GDP growth	Williams (2003) <sup>A</sup>		
Asset growth			Williams (2003) <sup>A</sup>
Yearly growth of deposits			Dietrich and Wanzenried (2009) <sup>A</sup>
Diff.btw bank and market growth of total loans	Dietrich and Wanzenried (2009) <sup>A</sup>		
Large bank : Total assets>10 bio. USD		Dietrich and Wanzenried (2009) <sup>A</sup>	
Small bank : Total assets<500 mio. USD	Dietrich and Wanzenried (2009) <sup>A</sup>		
Interest income share		Dietrich and Wanzenried (2009) <sup>A</sup>	
Non-interest income	Williams (2003) <sup>A</sup>		

**Table 3**  
**Variables Description and Expected Sign**

Variables	Description	Notation	Expected sign
<b>Dependent variables</b>			
Net Interest Margin	(Net interest revenue)/total assets	NIM	
Return on Assets	(Net profits before taxes)/total assets	ROA	
Return on Equity	(Net profits before taxes)/total equities	ROE	
<b>Independent variables</b>			
<i>Bank-Specific</i>			
Foreign Banks	Dummy variable equals to one for foreign banks and 0 for domestic banks.	FB	+
Capital Strength	Calculated as equity/liability	EL	+
Bank Size	The natural logarithm of the accounting value of the total assets	SIZE	+/
Operation Cost	COST is total operation expenses provides information on the efficiency of the management.	COST	+/
Liquidity	A measure of liquidity, calculated as loans divided by customers and short term funding	LI	+
Opportunity Cost	This variable is proxied by the ratio of liquid reserves/total assets	OPC	+
Interest Payments	Ratio of operating expenses minus noninterest income to total assets reflect extra payments to depositors through service charge remission or other types of transfers due to competition in the market for deposits	IIP	+
Credit Risk	The credit risk is calculated as loan-loss provisions to loans ratio	CR	+
Non-interest Revenues	This variable is proxied by non-interest revenues/Total Revenue.	NOI	+
Off balance sheet	This variable is calculated as Off balance sheet/total assets.	OBS	?
Market share	It is a ratio of its assets relative to the total assets of the banking market	MS	?
Other Operating Inc.	Other Operating Income/total assets	OOI	?
<i>Industry-Specific</i>			
PR H-statistics	Estimates competitive behavior of banks on the basis of the comparative static properties of reduced-form revenue equations	PR H	
Lerner Index	A country-level indicator of bank competition, measured by the Lerner index, which is calculated as the average bank-level measure of the mark-up of price over marginal costs, with higher values indicating less competition in the banking sector.	LER	+
HHI Assets	The Herfindahl index measures market concentration and equals the sum of the squares of each bank's market share in total industry assets	HHIA	+
HHI Loan	The Herfindahl index measures market concentration and equals the sum of the squares of each bank's market share in total industry loans.	HHIA	?
HHI Deposit	The Herfindahl index measures market concentration and equals the sum of the squares of each bank's market share in total industry deposits.	HHIA	?
CR4 Assets	The CR4 concentration measure calculated by dividing the assets of the five largest banks with the assets of all banks operating in the market	CR4A	+
CR4 Loan	The CR4 concentration measure calculated by dividing the loans of the five largest banks with the loans of all banks operating in the market	CR4L	?

**Table 3 (Continued)**

Variables	Description	Notation	Hypot hesis
CR4 Deposit	The CR4 concentration measure calculated by dividing the deposits of the five largest banks with the deposits of all banks operating in the market	CR4D	
<i>Macroeconomic Environment</i>			
GDP Growth	Growth in nation GDP	GDP	+/
Inflation Rate	Current period inflation rate (consumer prices)	INF	+/
Real Interest Rate	Real interest rate	IR	+/
Developing countries	Dummy variable equals to 1 if a bank locates in developing country.	DC	?
<i>Country Risk</i>			
Legal risk	It is the risk rating of legal risk	LR	?
Economic risk	It is the risk rating of economic risk	ER	?
<i>Quality of Institution</i>			
Government Effectiveness	Defined as the quality of public services	GE	+
Regulatory Quality	Defined as the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development	RQ	+
Control of Corruption	Defined as the extent to which public power is exercised for private gain, including both petty and grand forms of corruption.	CC	+
<i>Bank Regulation and Supervision</i>			
Capital	Dummy variable that equals to 1 if related parties can own capital in a bank.	CAP	+
Ownership Restrictiveness	Dummy variable that equals to 1 if regulatory restrictiveness of ownership by one financial firms of banks.	OWN	+
Basel Risk Weights	Dummy variable that equals to 1 if it is risk-weighted in line with Basle guidelines.	BASEL	+
Securities Activities	What are the conditions under which banks can engage in securities activities?	SEC	+
Licensed/Certified Auditor	Dummy variable that equals to 1 if auditors licensed or certified	AUDLIC	+
Auditor's Report	Dummy variable that equals to 1 if auditor's report given to supervisory agency	AUDREP	+
Consolidated Accounts	Dummy variable that equals to 1 if consolidated accounts covering bank and any one-bank financial subsidiaries required	CACCS	+
Solvency Intervention	Dummy variable that equals to 1 if the law establish pre-determined levels of solvency deterioration which forces automatic actions such as intervention.	SOLACT	+
Onsite Inspections	Frequency of onsite inspections conducted in large & medium size banks.	ONINS	+

**Table 4**  
**Summary Statistics by Bank Ownership**

Variables	All Banks			Domestic Banks			Foreign Banks		
	N	Mean	Std. Dev.	N	Mean	Std. Dev.	N	Mean	Std. Dev.
<b>Dependent Variable</b>									
Net Interest Margin (NIM)	61,720	3.645	3.696	53,833	3.680	3.478	7,887	3.407	4.928
Return on Assets (ROA)	62,217	0.804	3.115	54,163	0.797	3.063	8,054	0.848	3.446
Return on Equity (ROE)	62,181	9.118	27.507	54,133	8.994	25.765	8,048	9.954	37.149
<b>Independent Variables</b>									
<i>Bank Characteristics</i>									
Operation Cost	62,098	0.038	0.059	54,070	0.038	0.059	8,028	0.041	0.062
Interest Payments	61,669	4.003	5.349	53,786	3.957	5.226	7,883	4.312	6.119
Liquidity Ratio	62,146	52.198	23.723	54,094	53.684	23.067	8,052	42.217	25.584
Opportunity Cost	61,862	0.029	0.043	53,901	0.029	0.040	7,961	0.032	0.058
Credit Risk	62,605	0.002	0.046	54,447	0.002	0.041	8,158	0.005	0.070
Log(Bank Size)	62,546	3.164	0.975	54,413	3.161	0.954	8,133	3.187	1.108
Non-Interest Revenues	61,731	0.628	0.407	53,836	0.615	0.424	7,895	0.715	0.245
Capital Strength	62,362	12.853	35.641	54,270	11.972	32.666	8,092	18.757	50.927
Off Balance Sheet	60,451	0.264	4.862	52,796	0.251	5.175	7,655	0.349	1.408
Market Shares	55,584	0.013	0.043	48,066	0.012	0.040	7,518	0.025	0.060
Other Operating Income	61,668	1.796	5.323	53,780	1.707	5.227	7,888	2.405	5.900
<i>Banking Market Structure</i>									
P-R <i>H</i> -statistics	60,832	0.915	31.287	53,170	0.603	19.324	7,662	3.077	71.942
Lerner Index	49,590	0.140	1.467	44,452	0.152	1.271	5,138	0.034	2.606
HHI (Assets)	55,668	0.064	0.065	48,150	0.060	0.060	7,518	0.101	0.074
HHI (Loans)	55,668	0.600	0.0566	48,150	0.054	0.053	7,518	0.094	0.038
HHI (Deposits)	55,668	0.0653	0.063	48,150	0.060	0.060	7,518	0.1001	0.074
CR4 (Assets)	55,668	0.0005	0.016	48,150	0.0003	0.012	7,518	0.001	0.028
CR4 (Loans)	45,108	0.0007	0.017	38,322	0.0004	0.015	6,786	0.002	0.025
CR4 (Deposits)	24,371	0.001	0.228	20,567	0.0009	0.019	3,804	0.003	0.038
<i>Macroeconomic Condition</i>									
Growth Rate of GDP	62,739	2.559	2.346	54,659	2.471	2.218	8,080	3.151	3.005
Inflation Rate	62,585	7.470	81.726	54,538	6.911	79.397	8,047	11.260	95.953
Real Interest Rate	55,611	6.816	7.380	48,437	6.768	6.859	7,174	7.136	10.219

**Table 5**

**Cross-Country Determinants of Bank Profitability form Random-Effects Panel Data Model**

Numbers in parenthesis are *t*-values. \*, \*\*, \*\*\* denote statistically significant at level of 10%, 5%, and 1%, respectively.

Independent Variables	Panel A. Dependent Variable: Net Interest Margin (NIM)							
	Panzar-Rosse <i>H</i> -Statistics	Lerner Index	Hirschman–Herfindahl Index			Concentration Ratio on Top 4 Banks		
			Assets	Loans	Deposits	Assets	Loans	Deposits
Constant	7.541*** (81.34)	6.374*** (60.90)	7.794*** (78.73)	7.514*** (74.96)	7.751*** (77.15)	7.794*** (78.73)	7.787*** (71.38)	11.078*** (55.67)
Foreign Bank	0.188*** (2.655)	0.199** (2.151)	0.253*** (3.402)	0.122 (1.636)	0.234*** (3.139)	0.253*** (3.402)	0.213*** (2.827)	0.110 (0.769)
Degree of Market Power	-0.009*** (-3.602)	-0.015*** (-2.788)	-0.002*** (-9.996)	4.419*** (14.55)	0.609** (2.135)	-0.002*** (-9.990)	-2.685*** (-3.526)	-4.549*** (-4.538)
Operation Cost	-3.876*** (-12.21)	-1.465*** (-4.885)	-3.039*** (-8.785)	-2.913*** (-8.416)	-3.034*** (-8.755)	-3.039*** (-8.785)	-4.285*** (-8.878)	-2.918*** (-6.212)
Bank Size	-0.530*** (-24.58)	-0.410*** (-16.87)	-0.556*** (-24.17)	-0.519*** (-22.67)	-0.545*** (-23.71)	-0.556*** (-24.17)	-0.526*** (-20.68)	-1.054*** (-21.83)
Market Shares	4.246*** (9.307)	3.544*** (4.907)	5.346*** (12.53)	2.585*** (5.536)	5.013*** (10.88)	5.346*** (12.53)	6.341*** (12.74)	7.470*** (10.22)
Credit Risk	1.161** (2.260)	1.487** (2.327)	1.076* (1.954)	1.163** (2.131)	1.044* (1.903)	1.076* (1.954)	0.935* (1.694)	0.443 (0.591)
Interest Payments	0.236*** (49.76)	0.217*** (42.94)	0.233*** (47.10)	0.233*** (47.06)	0.234*** (47.16)	0.233*** (47.10)	0.256*** (41.22)	0.239*** (32.79)
Liquidity	0.004*** (6.293)	0.005*** (6.687)	0.002*** (2.760)	0.002*** (3.186)	0.002*** (2.774)	0.002*** (2.761)	0.001 (1.525)	0.005*** (3.960)
Opportunity Cost	9.144*** (28.19)	7.568*** (18.32)	9.017*** (26.78)	8.897*** (26.45)	9.039*** (26.80)	9.017*** (26.78)	10.179*** (26.73)	8.587*** (16.19)
Capital Strength	0.002*** (5.156)	0.001*** (3.141)	0.002*** (5.265)	0.002*** (4.920)	0.002*** (5.229)	0.002*** (5.265)	0.003*** (6.954)	0.003*** (4.014)
Non-Interest Revenues	-5.298*** (-87.77)	-4.101*** (-63.11)	-5.346*** (-82.62)	-5.419*** (-83.87)	-5.387*** (-83.21)	-5.346*** (-82.62)	-5.541*** (-75.68)	-7.689*** (-64.88)
Off Balance Sheet	-0.026*** (-13.47)	-0.016*** (-8.674)	-0.017*** (-8.511)	-0.016*** (-7.812)	-0.017*** (-8.470)	-0.017*** (-8.511)	0.025*** (2.904)	-0.018*** (-6.295)
Other Operating Income	-0.136*** (-37.72)	-0.169*** (-41.28)	-0.162*** (-43.10)	-0.165*** (-44.08)	-0.162*** (-43.14)	-0.162*** (-43.10)	-0.169*** (-38.22)	-0.169*** (-28.42)
Observations	51,005	41,714	52,024	52,024	52,024	52,024	41,715	21,808
Number of Banks	4,778	3,918	4,843	4,843	4,843	4,843	4,839	2,123
$R^2$	0.357	0.325	0.339	0.345	0.340	0.339	0.355	0.326
$\chi^2$	14,208	8,632	13,370	13,575	13,290	13,370	11,346	6,910

**Table 5 (Continued)**Numbers in parenthesis are *t*-values. \*, \*\*, \*\*\* denote statistically significant at level of 10%, 5%, and 1%, respectively.

Independent Variables	Panel B. Dependent Variable: Return on Asset (ROA)							
	Panzar-Rosse <i>H</i> -Statistics	Lerner Index	Hirschman–Herfindahl Index			Concentration Ratio on Top 4 Banks		
			Assets	Loans	Deposits	Assets	Loans	Deposits
Constant	5.173*** (71.71)	4.160*** (50.38)	5.274*** (70.75)	5.079*** (67.19)	5.231*** (69.08)	5.274*** (70.75)	5.293*** (65.31)	7.602*** (51.77)
Foreign Bank	0.130*** (2.593)	0.100 (1.431)	0.177*** (3.450)	0.088* (1.723)	0.158*** (3.087)	0.177*** (3.450)	0.159*** (3.081)	0.107 (1.131)
Degree of Market Power	-0.021*** (-9.624)	0.010** (2.298)	-0.002*** (-11.620)	3.005*** (12.520)	0.599*** (2.707)	-0.002*** (-11.620)	-2.351*** (-3.767)	-3.868*** (-4.854)
Operation Cost	-1.029*** (-3.764)	-0.746*** (-3.025)	-1.222*** (-4.272)	-1.125*** (-3.929)	-1.216*** (-4.244)	-1.222*** (-4.272)	-3.182*** (-8.099)	-1.392*** (-3.672)
Bank Size	-0.326*** (-20.190)	-0.268*** (-14.140)	-0.337*** (-20.180)	-0.309*** (-18.570)	-0.327*** (-19.590)	-0.337*** (-20.180)	-0.315*** (-17.380)	-0.673*** (-19.320)
Market Shares	3.550*** (9.935)	2.400*** (4.162)	4.058*** (12.41)	2.218*** (6.191)	3.723*** (10.55)	4.058*** (12.41)	4.746*** (12.78)	5.662*** (10.50)
Credit Risk	1.273*** (3.481)	1.373*** (2.815)	1.205*** (3.148)	1.265*** (3.341)	1.174*** (3.083)	1.205*** (3.148)	1.119*** (2.925)	0.812 (1.628)
Interest Payments	-0.665*** (-163.9)	-0.616*** (-147.8)	-0.645*** (-158.4)	-0.645*** (-158.2)	-0.644*** (-157.9)	-0.645*** (-158.4)	-0.631*** (-124.7)	-0.656*** (-111.5)
Liquidity	0.004*** (8.530)	0.005*** (8.239)	0.003*** (6.403)	0.004*** (6.902)	0.003*** (6.445)	0.003*** (6.403)	0.004*** (6.204)	0.006*** (7.392)
Opportunity Cost	1.583*** (5.840)	0.498 (1.469)	1.483*** (5.468)	1.411*** (5.206)	1.504*** (5.539)	1.483*** (5.467)	1.969*** (6.505)	1.154*** (2.754)
Capital Strength	0.004*** (14.55)	0.005*** (14.22)	0.005*** (14.64)	0.005*** (14.33)	0.005*** (14.57)	0.005*** (14.64)	0.006*** (14.94)	0.005*** (7.853)
Non-Interest Revenues	-3.664*** (-71.73)	-2.575*** (-48.22)	-3.744*** (-71.07)	-3.812*** (-72.41)	-3.784*** (-71.76)	-3.744*** (-71.08)	-3.922*** (-66.49)	-5.583*** (-59.12)
Off balance Sheet	-0.017*** (-10.28)	-0.015*** (-10.07)	-0.017*** (-10.03)	-0.016*** (-9.462)	-0.017*** (-9.990)	-0.017*** (-10.03)	-0.008 (-1.136)	-0.021*** (-9.082)
Other Operating Income	0.706*** (229.1)	0.649*** (192.4)	0.689*** (223.4)	0.686*** (222.1)	0.688*** (222.6)	0.689*** (223.4)	0.701*** (195.3)	0.707*** (147.8)
Observations	51,037	41,746	52,056	52,056	52,056	52,056	41,739	21,830
Number of Banks	4,782	3,922	4,847	4,847	4,847	4,847	4,843	2,125
$R^2$	0.456	0.359	0.438	0.442	0.438	0.438	0.434	0.458
$\chi^2$	65,541	42,144	59,855	59,689	59,441	59,855	46,794	27,392

**Table 5 (Continued)**

Numbers in parenthesis are *t*-values. \*, \*\*, \*\*\* denote statistically significant at level of 10%, 5%, and 1%, respectively.

Independent Variables	Panel C. Dependent Variable: Return on Equity (ROE)							
	Panzar-Rosse <i>H</i> -Statistics	Lerner Index	Hirschman–Herfindahl Index			Concentration Ratio on Top 4 Banks		
			Assets	Loans	Deposits	Assets	Loans	Deposits
Constant	12.519*** (13.810)	5.158*** (5.2540)	14.217*** (15.520)	12.233*** (13.100)	13.475*** (14.460)	14.217*** (15.520)	13.784*** (14.460)	20.353*** (12.420)
Foreign Bank	1.260*** (2.594)	1.233* (1.865)	1.749*** (3.549)	0.808 (1.619)	1.384*** (2.778)	1.749*** (3.549)	2.034*** (4.227)	1.686** (2.245)
Degree of Market Power	-0.360*** (-8.153)	0.407*** (6.008)	-0.020*** (-7.764)	33.799*** (10.70)	12.816*** (4.665)	-0.022*** (-7.764)	20.078* (1.951)	-4.062 (-0.294)
Operation Cost	-6.975 (-1.469)	13.438*** (3.568)	-3.384 (-0.713)	-1.491 (-0.314)	-2.994 (-0.631)	-3.384 (-0.713)	-8.962 (-1.436)	1.586 (0.237)
Bank Size	0.339* (1.941)	0.522** (2.571)	0.040 (0.224)	0.373** (2.071)	0.198 (1.101)	0.040 (0.225)	-0.198 (-1.075)	-1.784*** (-5.389)
Market shares	33.433*** (8.048)	29.453*** (4.320)	46.920*** (12.14)	26.685*** (6.230)	39.124*** (9.349)	46.919*** (12.14)	45.770*** (11.60)	54.426*** (10.36)
Credit Risk	4.523 (1.190)	2.357 (0.472)	3.157 (0.803)	3.918 (0.999)	2.513 (0.639)	3.157 (0.803)	2.653 (0.705)	0.328 (0.075)
Interest Payments	-1.160*** (-17.26)	-0.525*** (-8.454)	-1.247*** (-19.12)	-1.277*** (-19.58)	-1.251*** (-19.17)	-1.247*** (-19.12)	-1.043*** (-13.37)	-1.234*** (-12.51)
Liquidity	0.049*** (7.669)	0.036*** (4.854)	0.045*** (6.843)	0.050*** (7.531)	0.046*** (6.959)	0.045*** (6.843)	0.046*** (6.691)	0.115*** (11.16)
Opportunity Cost	24.739*** (6.305)	26.585*** (5.580)	27.546*** (7.168)	25.742*** (6.699)	27.034*** (7.028)	27.544*** (7.168)	30.219*** (7.463)	29.719*** (5.188)
Capital Strength	-0.023*** (-5.040)	-0.024*** (-5.081)	-0.024*** (-5.250)	-0.026*** (-5.796)	-0.025*** (-5.566)	-0.024*** (-5.250)	-0.025*** (-4.745)	-0.039*** (-4.647)
Non-Interest Revenues	-9.846*** (-12.55)	-0.616 (-0.806)	-10.440*** (-13.32)	-11.598*** (-14.75)	-11.128*** (-14.12)	-10.441*** (-13.32)	-9.577*** (-11.39)	-15.050*** (-10.93)
Off Balance Sheet	-0.164*** (-5.921)	-0.136*** (-6.081)	-0.131*** (-4.794)	-0.118*** (-4.325)	-0.127*** (-4.667)	-0.131*** (-4.795)	0.148 (1.409)	-0.110*** (-2.949)
Other Operating Income	1.654*** (33.22)	0.800*** (16.03)	1.624*** (33.58)	1.613*** (33.38)	1.620*** (33.48)	1.624*** (33.58)	1.497*** (27.89)	1.540*** (19.75)
Observations	51,010	41,739	52,027	52,027	52,027	52,027	41,710	21,805
Number of Banks	4,782	3,922	4,847	4,847	4,847	4,847	4,843	2,125
$R^2$	0.0336	0.0241	0.0359	0.0369	0.0353	0.0359	0.0303	0.0330
$\chi^2$	1,405	522.6	1,525	1,583	1,487	1,525	1,143	720.1

**Table 6**  
**Cross-Country Determinants of Bank Profitability: Controlling Home-Country Characteristics for Foreign Banks**

Dependent variable is Net Interest Margin (NIM). Numbers in parenthesis are *t*-values. \*, \*\*, \*\*\* denote statistically significant at level of 10%, 5%, and 1%, respectively.

Independent Variables	Home-Country Characteristics for Foreign Banks						
	Developing Country	GDP	Real Interest Rate	Inflation Rate Level	Legal Risk	Economic Risk	Control of Corruption
Constant	9.449*** (17.19)	7.823*** (78.55)	8.181*** (81.70)	7.835*** (78.58)	14.849*** (5.885)	14.885*** (5.897)	6.908*** (59.56)
Foreign Bank (FB)	0.665 (1.413)	0.241*** (2.911)	0.341*** (4.151)	0.229*** (2.962)	-6.026** (-2.490)	-6.372*** (-2.602)	1.435*** (12.76)
FB×Developing Country (Home)	-0.394** (-2.075)						
FB×GDP (Home)		-0.010 (-0.845)					
FB×Real Interest Rate (Home)			0.002 (0.478)				
FB×Inflation Rate Level (Home)				-0.002*** (-6.791)			
FB×Legal Risk (Home)					0.255 (1.315)		
FB×Economic Risk (Home)						0.398 (1.568)	
FB×Control of Corruption (Home)							-1.092*** (-15.60)
Operation Cost	-36.663*** (-13.55)	-3.015*** (-8.769)	-3.142*** (-9.763)	-3.002*** (-8.748)	-73.137*** (-15.61)	-73.041*** (-15.59)	-2.957*** (-8.239)
Bank Size	-0.526*** (-7.776)	-0.564*** (-24.37)	-0.514*** (-22.55)	-0.571*** (-24.60)	-0.346*** (-2.881)	-0.350*** (-2.915)	-0.522*** (-19.56)
Market Share	2.808*** (2.908)	6.414*** (14.02)	6.328*** (13.62)	6.516*** (14.07)	4.641** (1.982)	4.579* (1.960)	3.824*** (6.939)
Credit Risk	0.807 (0.714)	1.014* (1.848)	1.138** (2.125)	1.001* (1.821)	0.085 (0.0593)	0.038 (0.0263)	1.024* (1.715)
Interest Payments	0.612*** (21.52)	0.223*** (45.12)	0.238*** (49.10)	0.222*** (45.02)	1.080*** (21.36)	1.079*** (21.34)	0.184*** (34.87)
Liquidity	0.006*** (2.813)	0.001** (2.036)	0.000 (0.707)	0.001* (1.940)	0.004 (1.010)	0.004 (0.990)	0.005*** (5.874)
Opportunity Cost	7.972*** (9.513)	9.118*** (26.90)	8.801*** (26.59)	9.053*** (26.61)	15.026*** (8.877)	15.048*** (8.891)	9.405*** (23.73)
Capital Strength	0.001 (0.773)	0.003*** (6.251)	0.004*** (8.870)	0.003*** (6.250)	-0.001 (-0.145)	-0.001 (-0.186)	0.004*** (8.373)
Non-Interest Revenues	-8.541*** (-42.36)	-5.301*** (-81.70)	-6.141*** (-85.99)	-5.272*** (-81.25)	-8.508*** (-21.12)	-8.497*** (-21.11)	-4.315*** (-59.52)
Off Balance Sheet	-0.047* (-1.845)	-0.017*** (-8.357)	-0.017*** (-9.153)	-0.017*** (-8.269)	-0.202 (-1.620)	-0.206* (-1.645)	-0.009*** (-4.178)
Other Operating Income	-0.196*** (-18.27)	-0.154*** (-41.13)	-0.165*** (-44.35)	-0.154*** (-41.19)	-0.261*** (-14.38)	-0.261*** (-14.38)	-0.143*** (-34.91)
Observations	6,622	50,868	47,496	50,706	2,040	2,040	37,312
Number of Banks	607	4,746	4,701	4,738	313	313	4,763
$R^2$	0.489	0.331	0.357	0.329	0.553	0.553	0.306
$\chi^2$	3,365	12,771	14,062	12,727	1,561	1,562	7,766

**Table 6 (Continued)**

Independent Variables	Home-Country Characteristics for Foreign Banks						
	Regulatory Quality	Government Effectiveness	Bank Capital	Ownership Restrictiveness	Basel Risk Weights	Securities Activities	Licensed/Certified Auditor
Constant	12.628*** (4.532)	12.703*** (4.557)	6.068*** (44.49)	6.075*** (44.51)	6.075*** (44.54)	6.065*** (44.44)	6.074*** (44.51)
Foreign Bank (FB)	-4.851* (-1.785)	-4.951* (-1.821)	0.777*** (6.726)	0.346*** (3.131)	0.250 (1.566)	0.327*** (3.275)	0.252* (1.764)
FB×Regulatory Quality (Home)	-0.117* (-1.888)						
FB×Government Effectiveness (Home)		-0.045 (-0.906)					
FB×Bank Capital (Home)			-0.505*** (-4.813)				
FB×Ownership Restrictiveness (Home)				0.143* (1.955)			
FB×Basel Risk Weights (Home)					0.207 (1.613)		
FB×Securities Activities (Home)						0.294*** (4.145)	
FB×Licensed/Certified Auditor (Home)							0.175* (1.922)
Operation Cost	-82.239*** (-18.16)	-82.447*** (-18.20)	-3.932*** (-10.09)	-3.933*** (-10.09)	-3.929*** (-10.08)	-3.929*** (-10.09)	-3.928*** (-10.08)
Bank Size	-0.311*** (-3.307)	-0.324*** (-3.459)	-0.462*** (-14.86)	-0.462*** (-14.85)	-0.462*** (-14.85)	-0.460*** (-14.77)	-0.462*** (-14.86)
Market Shares	4.456** (2.289)	4.318** (2.219)	3.812*** (6.071)	3.790*** (6.032)	3.819*** (6.082)	3.701*** (5.888)	3.847*** (6.122)
Credit Risk	0.066 (0.0626)	0.049 (0.0465)	0.862 (1.265)	0.902 (1.322)	0.852 (1.248)	0.917 (1.343)	0.862 (1.262)
Interest Payments	1.187*** (23.97)	1.189*** (24.00)	0.214*** (35.62)	0.214*** (35.64)	0.214*** (35.66)	0.214*** (35.65)	0.214*** (35.65)
Liquidity	0.010*** (3.138)	0.010*** (3.159)	0.009*** (8.986)	0.009*** (8.868)	0.009*** (8.874)	0.009*** (8.827)	0.009*** (8.909)
Opportunity Cost	7.602*** (6.219)	7.607*** (6.217)	11.025*** (23.08)	11.029*** (23.08)	11.050*** (23.12)	11.017*** (23.06)	11.053*** (23.13)
Capital Strength	0.002 (1.316)	0.002 (1.281)	0.005*** (8.507)	0.005*** (8.437)	0.005*** (8.401)	0.005*** (8.452)	0.005*** (8.417)
Non-Interest Revenues	-7.354*** (-23.59)	-7.331*** (-23.51)	-4.079*** (-51.10)	-4.080*** (-51.09)	-4.084*** (-51.15)	-4.071*** (-50.96)	-4.085*** (-51.15)
Off Balance Sheet	-0.083 (-1.349)	-0.085 (-1.397)	-0.019*** (-7.814)	-0.019*** (-7.820)	-0.019*** (-7.831)	-0.019*** (-7.810)	-0.019*** (-7.840)
Other Operating Income	-0.134*** (-7.105)	-0.134*** (-7.130)	-0.128*** (-26.45)	-0.129*** (-26.49)	-0.129*** (-26.48)	-0.129*** (-26.52)	-0.128*** (-26.46)
Observations	2,624	2,624	28,177	28,177	28,177	28,177	28,177
Number of Banks	317	317	4,633	4,633	4,633	4,633	4,633
$R^2$	0.556	0.556	0.318	0.318	0.319	0.319	0.319
$\chi^2$	1,729	1,725	5,681	5,655	5,658	5,671	5,655

**Table 6 (Continued)**

Independent Variables	Home-Country Characteristics for Foreign Banks						
	Auditor's Report	Consolidated Accounts	Solvency Intervention	Onsite Inspections	HHI Assets	HHI Loans	HHI Deposits
Constant	6.074*** (44.50)	6.090*** (44.44)	6.101*** (44.58)	6.061*** (44.46)	6.474*** (34.72)	6.466*** (34.69)	6.469*** (34.70)
Foreign Bank (FB)	0.080 (0.274)	0.516*** (4.714)	0.355*** (3.317)	0.552*** (5.645)	0.151 (0.841)	0.182 (0.974)	0.178 (0.959)
FB×Auditor's Report(Home)	0.385 (1.372)						
FB×Consolidated Accounts (Home)		-0.108 (-1.036)					
FB×Solvency Intervention (Home)			0.197** (2.130)				
FB×Onsite Inspections (Home)				-0.020*** (-3.638)			
FB×HHI Assets (Home)					2.320* (1.957)		
FB×HHI Loans (Home)						2.182 (1.467)	
FB×HHI Deposits (Home)							1.980 (1.525)
Operation Cost	-3.930*** (-10.09)	-3.983*** (-10.19)	-3.962*** (-10.16)	-3.911*** (-10.04)	-40.626*** (-17.33)	-40.633*** (-17.33)	-40.585*** (-17.31)
Bank Size	-0.461*** (-14.81)	-0.463*** (-14.84)	-0.462*** (-14.82)	-0.458*** (-14.72)	-0.288*** (-7.258)	-0.288*** (-7.244)	-0.288*** (-7.240)
Market Shares	3.809*** (6.063)	3.795*** (6.021)	3.798*** (6.043)	3.779*** (6.020)	-1.309 (-1.226)	-1.323 (-1.239)	-1.326 (-1.242)
Credit Risk	0.889 (1.303)	0.875 (1.283)	0.889 (1.304)	0.912 (1.338)	1.763** (2.307)	1.755** (2.298)	1.763** (2.308)
Interest Payments	0.214*** (35.64)	0.215*** (35.53)	0.215*** (35.60)	0.213*** (35.59)	0.425*** (16.36)	0.425*** (16.37)	0.424*** (16.34)
Liquidity	0.009*** (8.886)	0.009*** (8.946)	0.009*** (8.836)	0.009*** (8.852)	0.012*** (9.903)	0.012*** (9.926)	0.012*** (9.903)
Opportunity Cost	11.044*** (23.11)	11.181*** (23.24)	11.016*** (23.01)	11.015*** (23.06)	4.388*** (6.206)	4.383*** (6.197)	4.383*** (6.197)
Capital Strength	0.005*** (8.387)	0.005*** (8.349)	0.005*** (8.383)	0.005*** (8.390)	-0.001 (-1.638)	-0.001* (-1.647)	-0.001 (-1.627)
Non-Interest Revenues	-4.085*** (-51.16)	-4.117*** (-50.95)	-4.125*** (-51.19)	-4.083*** (-51.15)	-5.343*** (-36.87)	-5.337*** (-36.84)	-5.340*** (-36.85)
Off Balance Sheet	-0.019*** (-7.816)	-0.019*** (-7.811)	-0.020*** (-7.867)	-0.019*** (-7.771)	-0.061* (-1.744)	-0.061* (-1.746)	-0.061* (-1.748)
Other Operating Income	-0.129*** (-26.49)	-0.129*** (-26.25)	-0.129*** (-26.29)	-0.128*** (-26.48)	0.109*** (8.770)	0.109*** (8.763)	0.109*** (8.770)
Observations	28,177	28,023	28,142	28,148	5,182	5,182	5,182
Number of Banks	4,633	4,633	4,633	4,633	774	774	774
$R^2$	0.319	0.319	0.319	0.318	0.381	0.382	0.382
$\chi^2$	5,653	5,596	5,621	5,660	2,141	2,139	2,140

**Table 6 (Continued)**

Independent Variables	Home-Country Characteristics for Foreign Banks				
	CR4 Assets	CR4 Loans	CR4 Deposits	P-R <i>H</i> -statistics	Lerner Index
Constant	6.461*** (34.73)	6.582*** (32.16)	6.711*** (18.34)	6.829*** (37.41)	6.847*** (34.16)
Foreign Bank (FB)	0.311** (2.072)	0.352** (2.248)	0.323 (1.191)	0.295* (1.725)	0.096 (0.603)
FB×CR4 Assets (Home)	4.257*** (4.844)				
FB×CR4 Loans (Home)		-5.069 (-0.412)			
FB×CR4 Deposits (Home)			-7.900 (-0.400)		
FB×P-R <i>H</i> -statistics (Home)				0.134 (1.269)	
FB×Lerner Index (Home)					-0.003 (-0.101)
Operation Cost	-40.885*** (-17.47)	-42.898*** (-16.55)	-38.755*** (-9.119)	-37.892*** (-18.02)	-38.761*** (-15.21)
Bank Size	-0.289*** (-7.281)	-0.295*** (-6.845)	-0.114 (-1.509)	-0.397*** (-9.905)	-0.327*** (-7.760)
Market Shares	-1.226 (-1.150)	-1.514 (-1.334)	-2.500 (-1.583)	-1.117 (-1.064)	-2.019* (-1.745)
Credit Risk	1.776** (2.327)	1.971** (2.474)	3.086* (1.919)	2.653*** (3.888)	2.814*** (4.600)
Interest Payments	0.428*** (16.51)	0.445*** (15.41)	0.333*** (7.009)	0.394*** (16.72)	0.405*** (13.76)
Liquidity	0.012*** (9.769)	0.011*** (8.788)	0.014*** (5.503)	0.010*** (8.983)	0.010*** (7.415)
Opportunity Cost	4.280*** (6.067)	3.634*** (4.679)	0.926 (0.652)	3.546*** (5.543)	3.376*** (4.451)
Capital Strength	-0.001* (-1.705)	-0.001 (-1.434)	-0.001 (-0.684)	-0.001 (-1.595)	0.002*** (2.848)
Non-Interest Revenues	-5.302*** (-36.64)	-5.457*** (-33.66)	-6.691*** (-24.73)	-4.869*** (-36.13)	-5.217*** (-32.03)
Off Balance Sheet	-0.062* (-1.772)	-0.053 (-1.436)	0.520*** (2.704)	-0.202*** (-7.656)	-0.259*** (-9.096)
Other Operating Income	0.109*** (8.807)	0.118*** (8.782)	0.184*** (9.154)	0.025*** (2.701)	0.039*** (3.470)
Observations	5,182	4,354	1,751	6,058	4,916
Number of Banks	774	755	320	815	668
$R^2$	0.383	0.386	0.302	0.309	0.319
$\chi^2$	2,169	1,876	967.2	2,151	1,876

**Table 7**  
**Cross-Country Determinants of Bank Profitability: Controlling Host-Country Characteristics for Foreign Banks**

Numbers in parenthesis are *t*-values. \*, \*\*, \*\*\* denote statistically significant at level of 10%, 5%, and 1%, respectively.

Independent Variables	Host-Country Characteristics for Foreign Banks						
	Developing Country	GDP	Real Interest Rate	Inflation Rate Level	Legal Risk	Economic Risk	Control of Corruption
Constant	7.683*** (77.09)	7.794*** (78.21)	8.127*** (80.84)	7.734*** (77.59)	5.645*** (44.78)	5.643*** (44.95)	6.908*** (59.56)
Foreign Bank (FB)	-0.331*** (-3.536)	0.717*** (8.901)	0.378*** (4.864)	0.222*** (2.932)	-1.029*** (-5.450)	-1.711*** (-9.174)	1.435*** (12.76)
FB×Developing Country (Host)	1.526*** (10.51)						
FB×GDP (Host)		-0.141*** (-16.28)					
FB×Real Interest Rate (Host)			0.001 (0.404)				
FB×Inflation Rate Level (Host)				0.005*** (19.05)			
FB×Legal Risk (Host)					0.746*** (7.291)		
FB×Economic Risk (Host)						1.006*** (11.57)	
FB×Control of Corruption (Host)							-1.092*** (-15.60)
Operation Cost	-3.019*** (-8.712)	-3.018*** (-8.719)	-3.229*** (-9.705)	-3.064*** (-8.882)	-2.254*** (-6.544)	-2.217*** (-6.444)	-2.957*** (-8.239)
Bank Size	-0.526*** (-22.68)	-0.554*** (-23.96)	-0.490*** (-21.56)	-0.556*** (-23.98)	-0.406*** (-13.83)	-0.398*** (-13.62)	-0.522*** (-19.56)
Market Shares	5.366*** (11.91)	6.258*** (13.49)	6.370*** (13.45)	6.221*** (13.21)	2.134*** (3.365)	2.146*** (3.404)	3.824*** (6.939)
Credit Risk	0.818 (1.487)	1.071* (1.942)	1.119** (2.098)	1.003* (1.819)	1.205* (1.911)	1.120* (1.779)	1.024* (1.715)
Interest Payments	0.230*** (46.35)	0.225*** (45.20)	0.248*** (50.34)	0.229*** (46.25)	0.138*** (25.33)	0.134*** (24.56)	0.184*** (34.87)
Liquidity	0.002*** (2.702)	0.002*** (3.129)	0.001** (2.061)	0.002*** (3.185)	0.011*** (12.05)	0.011*** (12.13)	0.005*** (5.874)
Opportunity Cost	8.872*** (26.05)	9.049*** (26.63)	9.074*** (27.05)	9.111*** (26.76)	8.713*** (19.80)	8.666*** (19.74)	9.405*** (23.73)
Capital Strength	0.002*** (5.752)	0.002*** (5.459)	0.003*** (8.219)	0.002*** (5.727)	0.004*** (8.170)	0.004*** (8.003)	0.004*** (8.373)
Non-Interest Revenues	-5.307*** (-81.52)	-5.358*** (-82.35)	-6.324*** (-87.58)	-5.273*** (-81.20)	-3.492*** (-50.12)	-3.517*** (-50.58)	-4.315*** (-59.52)
Off Balance Sheet	-0.017*** (-8.480)	-0.017*** (-8.119)	-0.020*** (-10.01)	-0.016*** (-7.785)	-0.009*** (-3.931)	-0.009*** (-3.802)	-0.009*** (-4.178)
Other Operating Income	-0.159*** (-42.31)	-0.156*** (-41.48)	-0.167*** (-44.22)	-0.161*** (-43.01)	-0.101*** (-22.43)	-0.099*** (-21.83)	-0.143*** (-34.91)
Observations	51,296	51,167	47,950	51,065	27,779	27,779	37,312
Number of Banks	4,783	4,771	4,733	4,769	4,576	4,576	4,763
$R^2$	0.342	0.339	0.366	0.341	0.273	0.275	0.306
$\chi^2$	13,100	13,232	14,421	13,257	4,736	4,832	7,766

**Table 7 (Continued)**

Independent Variables	Host-Country Characteristics for Foreign Banks						
	Regulatory Quality	Government Effectiveness	Bank Capital	Ownership Restrictiveness	Basel Risk Weights	Securities Activities	Licensed/Certified Auditor
Constant	6.923*** (59.77)	6.932*** (59.88)	5.989*** (44.28)	5.994*** (44.32)	5.993*** (44.32)	5.965*** (44.11)	5.993*** (44.32)
Foreign Bank (FB)	1.349*** (11.86)	1.566*** (13.12)	0.533** (2.052)	0.384*** (3.393)	-4.148*** (-6.733)	0.067 (0.655)	-0.643** (-1.974)
FB×Regulatory Quality (Host)	-1.117*** (-14.08)						
FB×Government Effectiveness (Host)		-1.104*** (-15.32)					
FB×Bank Capital (Host)			-0.237 (-0.965)				
FB×Ownership Restrictiveness (Host)				-0.082 (-1.357)			
FB×Basel Risk Weights (Host)					4.475*** (7.306)		
FB×Securities Activities (Host)						0.365*** (5.852)	
FB×Licensed/Certified Auditor (Host)							0.951*** (3.023)
Operation Cost	-2.951*** (-8.212)	-2.971*** (-8.273)	-3.681*** (-9.604)	-3.686*** (-9.617)	-3.678*** (-9.608)	-3.671*** (-9.585)	-3.683*** (-9.611)
Bank Size	-0.528*** (-19.82)	-0.530*** (-19.90)	-0.462*** (-14.91)	-0.464*** (-14.95)	-0.463*** (-14.94)	-0.454*** (-14.64)	-0.462*** (-14.89)
Market Shares	4.404*** (8.048)	3.993*** (7.265)	3.879*** (6.227)	3.915*** (6.278)	3.809*** (6.116)	3.672*** (5.888)	3.923*** (6.295)
Credit Risk	0.949 (1.594)	0.822 (1.380)	0.932 (1.390)	0.950 (1.417)	2.301*** (3.305)	0.913 (1.364)	0.926 (1.382)
Interest Payments	0.184*** (34.89)	0.185*** (35.00)	0.190*** (31.80)	0.190*** (31.81)	0.189*** (31.69)	0.191*** (31.95)	0.190*** (31.82)
Liquidity	0.005*** (6.183)	0.005*** (5.920)	0.010*** (9.990)	0.010*** (9.993)	0.010*** (10.02)	0.009*** (9.746)	0.010*** (9.993)
Opportunity Cost	9.613*** (24.28)	9.468*** (23.90)	10.582*** (22.78)	10.610*** (22.83)	10.558*** (22.75)	10.466*** (22.52)	10.601*** (22.82)
Capital Strength	0.004*** (8.186)	0.004*** (8.269)	0.004*** (8.084)	0.004*** (8.072)	0.004*** (8.069)	0.005*** (8.221)	0.004*** (8.090)
Non-Interest Revenues	-4.353*** (-60.03)	-4.324*** (-59.64)	-3.894*** (-49.93)	-3.895*** (-49.95)	-3.894*** (-49.99)	-3.873*** (-49.64)	-3.905*** (-50.03)
Off Balance Sheet	-0.009*** (-4.270)	-0.009*** (-4.080)	-0.016*** (-6.338)	-0.016*** (-6.324)	-0.016*** (-6.310)	-0.016*** (-6.363)	-0.016*** (-6.339)
Other Operating Income	-0.142*** (-34.72)	-0.144*** (-35.15)	-0.120*** (-24.14)	-0.120*** (-24.17)	-0.119*** (-24.07)	-0.120*** (-24.29)	-0.120*** (-24.14)
Observations	37,312	37,312	28,155	28,155	28,155	28,155	28,155
Number of Banks	4,763	4,763	4,627	4,627	4,627	4,627	4,627
$R^2$	0.314	0.311	0.303	0.304	0.298	0.306	0.303
$\chi^2$	7,730	7,766	5,064	5,064	5,119	5,105	5,073

**Table 7 (Continued)**

Independent Variables	Host-Country Characteristics for Foreign Banks					
	Auditor's Report	Consolidated Accounts	Solvency Intervention	Onsite Inspections	HHI (Assets)	HHI (Loans)
Constant	5.990*** (44.30)	5.991*** (44.12)	6.004*** (44.28)	5.975*** (44.23)	7.757*** (77.90)	7.745*** (77.75)
Foreign Bank (FB)	0.214 (1.165)	0.303* (1.673)	0.110 (1.073)	0.306** (2.313)	0.275*** (3.088)	0.033 (0.371)
FB×Auditor's Report (Host)	0.090 (0.544)					
FB×Consolidated Accounts (Host)		-0.007 (-0.0420)				
FB×Solvency Intervention (Host)			0.504*** (4.736)			
FB×Onsite Inspections (Host)				-0.005 (-0.0740)		
FB×HHI Assets (Host)					-0.191 (-0.380)	
FB×HHI Loans (Host)						2.480*** (4.606)
Operation Cost	-3.683*** (-9.609)	-3.724*** (-9.687)	-3.693*** (-9.629)	-3.664*** (-9.566)	-3.062*** (-8.829)	-3.051*** (-8.798)
Bank Size	-0.462*** (-14.91)	-0.461*** (-14.83)	-0.460*** (-14.82)	-0.457*** (-14.74)	-0.552*** (-23.89)	-0.546*** (-23.58)
Market Shares	3.877*** (6.224)	3.857*** (6.167)	3.738*** (5.992)	3.801*** (6.104)	5.955*** (13.03)	5.440*** (11.83)
Credit Risk	0.930 (1.388)	0.925 (1.383)	0.855 (1.277)	0.942 (1.409)	1.036* (1.880)	1.070* (1.941)
Interest Payments	0.191*** (31.84)	0.191*** (31.66)	0.190*** (31.60)	0.190*** (31.78)	0.231*** (46.60)	0.231*** (46.59)
Liquidity	0.010*** (9.973)	0.010*** (10.10)	0.009*** (9.899)	0.009*** (9.910)	0.002*** (2.943)	0.002*** (2.940)
Opportunity Cost	10.584*** (22.78)	10.714*** (22.89)	10.460*** (22.44)	10.574*** (22.78)	9.124*** (26.82)	9.108*** (26.78)
Capital Strength	0.004*** (8.103)	0.004*** (7.994)	0.004*** (7.941)	0.004*** (8.098)	0.002*** (5.557)	0.002*** (5.537)
Non-Interest Revenues	-3.895*** (-49.94)	-3.921*** (-49.68)	-3.913*** (-49.69)	-3.896*** (-49.98)	-5.331*** (-81.86)	-5.334*** (-81.92)
Off Balance Sheet	-0.016*** (-6.342)	-0.016*** (-6.345)	-0.016*** (-6.360)	-0.016*** (-6.276)	-0.017*** (-8.478)	-0.017*** (-8.330)
Other Operating Income	-0.120*** (-24.17)	-0.120*** (-23.87)	-0.119*** (-23.88)	-0.120*** (-24.16)	-0.160*** (-42.47)	-0.161*** (-42.65)
Observations	28,155	27,989	28,108	28,120	51,296	51,296
Number of Banks	4,627	4,627	4,627	4,627	4,783	4,783
$R^2$	0.304	0.303	0.306	0.303	0.339	0.339
$\chi^2$	5,065	4,987	5,029	5,052	12,958	12,978

**Table 7 (Continued)**

Independent Variables	Host-Country Characteristics for Foreign Banks					
	HHI (Deposits)	CR4 (Assets)	CR4 (Loans)	CR4 (Deposits)	P-R <i>H</i> -Statistics	Lerner Index
Constant	7.758*** (77.89)	7.762*** (77.97)	7.732*** (70.54)	10.985*** (54.34)	7.487*** (80.41)	6.361*** (60.92)
Foreign Bank (FB)	0.289*** (3.143)	0.256*** (3.407)	0.224*** (2.942)	0.152 (1.037)	0.190*** (2.653)	0.213** (2.279)
FB×HHI Deposits (Host)	-0.333 (-0.609)					
FB×Host CR4 Assets (Host)		-3.998*** (-3.546)				
FB×CR4 Loans (Host)			-4.962*** (-3.599)			
FB×CR4 Deposits (Host)				-4.444*** (-2.953)		
FB×P-R <i>H</i> -Statistics (Host)					-0.000 (-1.126)	
FB×Lerner Index (Host)						0.068*** (7.273)
Operation Cost	-3.063*** (-8.830)	-3.060*** (-8.824)	-4.329*** (-8.941)	-2.956*** (-6.228)	-3.893*** (-12.26)	-1.516*** (-5.089)
Bank Size	-0.553*** (-23.89)	-0.555*** (-24.03)	-0.524*** (-20.55)	-1.042*** (-21.28)	-0.532*** (-24.56)	-0.431*** (-17.83)
Market Shares	5.980*** (13.04)	6.289*** (13.68)	6.578*** (13.46)	7.162*** (10.08)	4.828*** (9.889)	3.648*** (4.952)
Credit Risk	1.039* (1.885)	1.011* (1.835)	0.906 (1.642)	0.442 (0.586)	1.115** (2.169)	1.489** (2.334)
Interest Payments	0.231*** (46.59)	0.231*** (46.57)	0.255*** (40.86)	0.238*** (32.23)	0.234*** (49.21)	0.215*** (42.73)
Liquidity	0.002*** (2.943)	0.002*** (2.982)	0.001* (1.733)	0.005*** (4.193)	0.004*** (6.619)	0.005*** (7.061)
Opportunity Cost	9.124*** (26.82)	9.113*** (26.79)	10.301*** (26.74)	8.692*** (16.05)	9.207*** (28.11)	7.469*** (18.08)
Capital Strength	0.002*** (5.556)	0.002*** (5.544)	0.003*** (7.145)	0.003*** (4.293)	0.002*** (5.538)	0.002*** (3.727)
Non-Interest Revenues	-5.331*** (-81.86)	-5.331*** (-81.87)	-5.490*** (-74.34)	-7.633*** (-63.11)	-5.233*** (-86.27)	-3.996*** (-61.75)
Off Balance Sheet	-0.017*** (-8.481)	-0.017*** (-8.463)	0.025*** (2.924)	-0.018*** (-6.218)	-0.026*** (-13.45)	-0.016*** (-8.807)
Other Operating Income	-0.160*** (-42.46)	-0.160*** (-42.49)	-0.168*** (-37.75)	-0.167*** (-27.82)	-0.134*** (-37.10)	-0.166*** (-40.89)
Observations	51,296	51,296	40,987	21,080	50,277	41,458
Number of Banks	4,783	4,783	4,779	2,063	4,718	3,896
$R^2$	0.339	0.340	0.356	0.325	0.358	0.324
$\chi^2$	12,956	12,974	11,077	6,586	13,864	8,512

Table 8

### Cross-Country Determinants of Bank Profitability: Combining Host- and Home-Country Characteristics for Foreign Banks

Numbers in parenthesis are *t*-values. \*, \*\*, \*\*\* denote statistically significant at level of 10%, 5%, and 1%, respectively.

Independent Variables	FB*Host HHI Loan	FB*Host CR4 Assets	FB*Host CR4 Loan	FB*Host CR4 Deposits	FB*Host Lerner	FB*Home CR4 Assets	FB*Home HHI Assets
Constant	5.481*** (42.43)	5.472*** (42.32)	5.526*** (38.54)	10.268*** (39.70)	4.266*** (31.65)	5.887*** (25.49)	5.962*** (25.34)
Foreign Bank	-5.599*** (-5.367)	-6.184*** (-5.983)	-4.671*** (-3.817)	-7.026*** (-4.920)	-1.513 (-0.560)	-2.156 (-1.290)	-3.370** (-1.993)
FB*Host Developing	0.547* (1.837)	0.371 (1.258)	0.079 (0.261)	0.139 (0.282)	0.328 (0.794)	0.872 (1.582)	0.748 (1.332)
FB* Host GDP	-0.028** (-2.031)	-0.026* (-1.902)	-0.020 (-1.265)	-0.053*** (-2.930)	0.003 (0.111)	-0.046* (-1.664)	-0.047* (-1.690)
FB*Host INF	0.014* (1.796)	0.013 (1.607)	0.012 (1.291)	0.015 (1.599)	-0.018 (-1.643)	-0.072*** (-5.258)	-0.080*** (-5.820)
FB*Host RE	-0.133 (-0.684)	-0.179 (-0.924)	-0.132 (-0.607)	-0.272 (-0.932)	0.209 (0.739)	0.987** (2.037)	0.938* (1.905)
FB*Host GO	-0.030 (-0.132)	0.013 (0.0563)	-0.224 (-0.869)	-0.014 (-0.0391)	-0.298 (-0.967)	-0.600 (-1.202)	-0.283 (-0.559)
FB*Host LR	-0.149 (-0.783)	-0.137 (-0.721)	-0.138 (-0.663)	-0.055 (-0.200)	0.374 (1.349)	0.526 (1.206)	0.777* (1.750)
FB*Host ER	0.719*** (4.351)	0.744*** (4.508)	0.669*** (3.590)	0.637*** (2.785)	0.887*** (3.310)	0.568* (1.859)	0.816*** (2.641)
FB*Host SU3	0.022 (1.464)	0.024 (1.561)	0.024 (1.486)	0.024 (1.334)	-0.405 (-0.804)	-1.830** (-2.320)	-2.222*** (-2.747)
FB*Host SU4	3.606*** (4.717)	3.629*** (4.746)	2.753*** (3.294)	3.511*** (3.894)	-1.957 (-0.801)	2.981*** (3.609)	1.901* (1.837)
FB*Host SU5	0.085 (0.868)	0.112 (1.149)	0.023 (0.201)	0.149 (1.135)	-0.147 (-1.195)	-0.535*** (-3.042)	-0.449** (-2.521)
FB*Host SU6	1.539*** (4.213)	1.723*** (4.754)	1.615*** (3.891)	2.683*** (5.944)	2.078*** (3.920)	1.645*** (4.318)	1.145** (2.021)
FB*Host SU9	0.335** (2.161)	0.302* (1.953)	0.362** (1.981)	0.529** (2.063)	0.226 (1.039)	-0.155 (-0.458)	-0.412 (-1.199)
FB*Home SU1	-0.305** (-2.004)	-0.266* (-1.753)	-0.250 (-1.487)	-0.554** (-2.100)	-0.345 (-1.395)	-0.279 (-0.872)	-0.387 (-1.191)
FB*Home SU2	0.041 (0.491)	0.024 (0.284)	-0.008 (-0.0860)	0.361** (2.398)	-0.048 (-0.484)	-0.057 (-0.347)	-0.001 (-0.00404)
FB*Home SU3	0.011 (0.620)	0.009 (0.546)	0.013 (0.715)	0.015 (0.750)	0.069 (0.139)	1.170 (1.551)	1.346* (1.753)
FB*Home SU5	0.073 (0.691)	0.055 (0.514)	0.082 (0.657)	-0.076 (-0.505)	0.258** (1.963)	0.806*** (4.177)	1.094*** (5.671)
FB*Home SU6	-0.429** (-2.506)	-0.433** (-2.528)	-0.353* (-1.769)	-0.964*** (-3.495)	-0.385* (-1.853)	0.588** (1.995)	0.559* (1.870)
FB*Home SU7	0.345 (1.399)	0.337 (1.365)	0.183 (0.364)	0.132 (0.246)	0.423* (1.748)	0.301 (1.072)	0.120 (0.421)
FB*Home SU9	-0.119 (-0.886)	-0.105 (-0.778)	-0.167 (-1.022)	0.002 (0.00782)	-0.034 (-0.196)	-0.085 (-0.316)	-0.086 (-0.313)
FB*Home SU10	0.013 (1.437)	0.014 (1.527)	0.010 (0.955)	0.050*** (3.244)	0.008 (0.631)	-0.009 (-0.497)	-0.008 (-0.424)
FB*Host HHI Loan	-4.106*** (-4.046)						
FB*Host CR4 Assets		-1.835 (-1.063)					
FB*Host CR4 Loan			-2.501 (-1.270)				
FB*Host CR4 Deposits				-3.375 (-1.643)			
FB*Host Lerner					-0.086*** (-3.193)		
FB*Home CR4 Assets						10.244*** (9.602)	
FB*Home HHI Assets							4.156*** (3.099)

**Table 8 (Continued)**

Independent Variables	FB*Host HHI Loan	FB*Host CR4 Assets	FB*Host CR4 Loan	FB*Host CR4 Deposits	FB*Host Lerner	FB*Home CR4 Assets	FB*Home HHI Assets
Operation Cost	-2.507*** (-7.292)	-2.504*** (-7.281)	-4.579*** (-7.103)	-2.887*** (-6.687)	-2.565*** (-7.493)	-34.013*** (-11.71)	-33.412*** (-11.37)
Bank Size	-0.376*** (-12.55)	-0.372*** (-12.38)	-0.366*** (-11.12)	-1.143*** (-18.55)	-0.224*** (-7.509)	-0.249*** (-5.514)	-0.240*** (-5.218)
Market Share	2.883*** (4.265)	2.433*** (3.467)	3.122*** (4.160)	4.908*** (4.826)	0.939 (0.822)	-2.614** (-2.098)	-2.966** (-2.339)
Credit Risk	1.795*** (2.589)	1.860*** (2.683)	1.594** (2.307)	1.285 (1.551)	-0.708 (-0.676)	2.510*** (3.073)	2.582*** (3.093)
Interest Payments	0.132*** (23.52)	0.133*** (23.56)	0.164*** (19.50)	0.129*** (16.73)	0.147*** (21.62)	0.300*** (9.170)	0.293*** (8.835)
Liquidity	0.011*** (11.75)	0.010*** (11.74)	0.009*** (8.780)	0.014*** (10.69)	0.015*** (14.92)	0.018*** (11.13)	0.018*** (10.79)
Opportunity Cost	9.847*** (21.05)	9.849*** (21.04)	10.816*** (19.36)	7.173*** (9.992)	11.709*** (20.17)	5.789*** (5.964)	5.790*** (5.872)
Capital Strength	0.005*** (8.753)	0.005*** (8.719)	0.006*** (8.669)	0.008*** (8.889)	0.005*** (8.552)	0.001 (1.355)	0.001 (1.396)
Non-Interest Revenues	-3.404*** (-47.59)	-3.405*** (-47.58)	-3.526*** (-41.56)	-6.566*** (-48.68)	-2.856*** (-36.82)	-5.595*** (-30.95)	-5.747*** (-31.41)
Off Balance Sheet	-0.007*** (-3.004)	-0.007*** (-3.016)	0.125*** (7.124)	-0.010*** (-2.787)	-0.008*** (-3.666)	0.083* (1.793)	0.079* (1.693)
Other Operating Inc.	-0.100*** (-21.56)	-0.101*** (-21.59)	-0.113*** (-18.00)	-0.091*** (-13.30)	-0.106*** (-18.49)	0.172*** (11.59)	0.175*** (11.63)
Observations	26544	26544	19579	10991	21672	2882	2882
Number of Banks	4523	4523	4504	1840	3729	628	628
R <sup>2</sup>	0.259	0.259	0.280	0.283	0.256	0.394	0.392
$\chi^2$	4,664	4,647	3,857	3,526	3,424	1,977	1,842

**Table 9**  
**Impact of Foreign Ownership on Profitability: Results from Individual Country**  
**Regressions**

The table provides summarized results from examining the impact of foreign ownership on profitability for each country in the sample based on regression model (9).

Criteria	Significant		Insignificant	
Foreign banks perform better than domestic ones	Austria	Algeria	Australia	Algeria
	Egypt	Indonesia	Bangladesh	Colombia
	Italy	Kenya	Switzerland	Denmark
	Panama	Poland	Cyprus	Greece
	Singapore	Slovenia	France	Macau
	Tunisia	United States	Honduras	Norway
			Netherlands	Reunion
			Peru	Zimbabwe
		Venezuela		
Domestic banks perform better than foreign ones	Croatia	Hong Kong	Bulgaria	Bolivia
	Egypt	Thailand	Canada	Hungary
	Luxembourg		Ireland	Mexico
			South Africa	Portugal
			Slovakia	Spain
			Czech	Indonesia
			Korea, Republic	

## Appendix 1

### List of Foreign Banks in Sample: Bank Name, Specialization, Home Country, Total Assets

Country (# of Bank)	Bank Name	Specialization	Home Country	Total Assets (US Dollars in (Year) millions)	
ARGENTINA (17)	ABN Amro Bank	Commercial Bank	Netherlands	327.7	(2006)
	American Express Bank Ltd SA	Commercial Bank	USA	17.3	(2006)
	Banco B.I. Creditanstalt S.A.	Commercial Bank	Austria	30.7	(2006)
	Banco de la Republica Oriental del	Commercial Bank	Singapore	105.7	(2002)
	Banco de San Juan S.A.	Commercial Bank	Uruguay	447.7	(2004)
	Banco do Brasil SA	Commercial Bank	Brazil	30.8	(2004)
	Banco Empresario de Tucuman	Commercial Bank	Brazil	37.8	(2004)
	Banco Europeo para America Latina -	Commercial Bank	Germany	217.7	(2005)
	Banco Itau Buen Ayres SA	Commercial Bank	Brazil	741.3	(2003)
	Bank of America NA	Commercial Bank	USA	207	(2003)
	Bank of Tokyo - Mitsubishi UFJ	Commercial Bank	Japan	58.1	(2002)
	BBVA Banco Frances SA	Commercial Bank	Spain	4,703.1	(2002)
	BNP Paribas	Commercial Bank	France	3,278.8	(2006)
	Citibank NA	Commercial Bank	USA	2,758.8	(2006)
	ING Bank	Commercial Bank	South Africa	1,492.1	(2006)
	JP Morgan Chase Bank	Commercial Bank	USA	379.1	(2006)
	Standard Bank Argentina	Commercial Bank	South Africa	2,715.1	(2006)
AUSTRIA (6)	Adria Bank AG	Commercial Bank	Slovenia	257.1	(2006)
	Banco do Brasil AG	Commercial Bank	Brazil	124.8	(2006)
	Bank Vontobel Oesterreich AG	Commercial Bank	Switzerland	276.2	(2006)
	Constantia PrivatBank AG	Commercial Bank	Netherlands	254.7	(2005)
	Privatinvest Bank AG	Commercial Bank	Germany	461.1	(2006)
	VTB Bank (Austria) AG	Commercial Bank	Russian Federation	772.5	(2005)
AUSTRALIA (6)	BA Australia Ltd	Commercial Bank	USA	1,711.1	(2000)
	Calyon Australia Limited	Commercial Bank	United Kingdom	911.1	(2004)
	Citigroup Pty Limited	Commercial Bank	Singapore	14,257.5	(2004)
	Dai-Ichi Kangyo Australia Ltd.	Commercial Bank	Japan	726.3	(2001)
	SG Australia Limited	Commercial Bank	France	10,414.2	(2004)
	Toronto Dominion Australia Ltd.	Commercial Bank	Canda	140.6	(2004)
	AXA Bank Belgium	Savings Bank	France	19,773.4	(2005)
	Banca Monte Paschi Belgio SA	Commercial Bank	Italy	1,229.4	(2006)
	Byblos Bank Europe SA	Commercial Bank	Lebanon	592.4	(2005)
	Citibank Belgium N.V./S.A.	Commercial Bank	USA	2,822.3	(2005)
	CP Banque-Banque de Credit	Cooperative Bank	France	593.1	(2005)

## Appendix 1 (Continued)

Country (# of Bank)	Bank Name	Specialization	Home Country	Total Assets (US Dollars in millions)	(Year)
	Delta Lloyd Bank	Commercial Bank	Netherlands	4,309.9	(2005)
	Deutsche Bank NV-Deutsche Bank SA	Commercial Bank	Germany	5,075.2	(2005)
	F. van Lanschot Bankiers Belgie	Commercial Bank	Netherlands	1,767.3	(2005)
	GOFFIN Bank NV	Savings Bank	Luxembourg	229.0	(2005)
	ING-ING Belgium SA/NV	Commercial Bank	Netherlands	200,562.4	(2006)
BELGIUM	Puilaetco Dewaay Private Bankers NV/SA	Commercial Bank	Luxembourg	351.2	(2005)
(17)	Record Bank SA/NV	Commercial Bank	Netherlands	8,330.2	(2004)
	Santander Benelux SA/NV	Commercial Bank	Spain	698.5	(2005)
	SG Private Banking	Commercial Bank	France	681.8	(2005)
	Shizuoka Bank (Europe) SA	Commercial Bank	Japan	565.9	(2006)
	United Taiwan Bank	Commercial Bank	Taiwan	362.2	(2006)
	UPAR	Savings Bank	France	2.3	(2003)
	BNP Paribas (Bulgaria) E.A.D.	Commercial Bank	France	183.1	(2006)
	Bulgarian Post Bank JSC	Commercial Bank	Greece	1,033.1	(2006)
	DSK Bank Plc	Savings Bank	Hungary	4,077.6	(2006)
BULGARIA	MKB Unionbank AD	Commercial Bank	Hungary	409.9	(2005)
(9)	Piraeus Bank Bulgaria AD	Commercial Bank	Greece	325.5	(2006)
	Raiffeisenbank (Bulgaria) EAD	Commercial Bank	Austria	2,631.5	(2005)
	Societe Generale Expressbank	Commercial Bank	France	319.1	(2002)
	UniCredit Bulbank AD	Commercial Bank	Italy	1,061.2	(2005)
	United Bulgarian Bank - UBB	Commercial Bank	Greece	2,667.0	(2006)
	Banco de Credito de Bolivia S.A.	Commercial Bank	Bermuda	646.5	(2006)
BOLIVIA	Banco de la Nacion Argentina	Commercial Bank	Argentina	14.7	(2006)
(4)	Banco do Brasil SA	Commercial Bank	Brazil	31.6	(2006)
	Citibank NA	Commercial Bank	USA	50.2	(2006)
	Banco ABC - Brasil SA	Commercial Bank	Bahrain	1,767.2	(2006)
	Banco Citibank	Commercial Bank	USA	10,412.1	(2005)
	Banco Credit Suisse First Boston SA	Commercial Bank	Switzerland	273.1	(2003)
BRAZIL	Banco de Tokyo-Mitsubishi UFJ Brasil	Commercial Bank	Japan	367.7	(2006)
(16)	Banco JP Morgan SA	Commercial Bank	USA	2,469.5	(2004)
	Banco Rabobank International Brasil S.A.	Commercial Bank	Netherlands	1,766.6	(2006)
	Banco Societe General Brasil SA	Commercial Bank	France	132.4	(2003)
	Banco Sofisa S.A.	Commercial Bank	USA	869.9	(2006)
	Banco Sumitomo Mitsui Brasileiro SA	Commercial Bank	Japan	468.1	(2006)

### Appendix 1 (Continued)

Country (# of Bank)	Bank Name	Specialization	Home Country	Total Assets (US Dollars in millions)	(Year)
BRAZIL (16)	Banco UBS Pactual SA	Commercial Bank	Switzerland	8,474.9	(2005)
	Banco Volkswagen SA	Commercial Bank	Germany	2,233.8	(2005)
	Banco WestLB do Brasil SA	Commercial Bank	Germany	849.7	(2005)
	Banif - Banco Internacional de Funchal	Commercial Bank	Portugal	464.0	(2006)
	Citibank NA	Commercial Bank	USA	1,523.9	(2006)
	Deutsche Bank SA - Banco Alemao	Commercial Bank	Germany	2,302.0	(2004)
	Dresdner Bank Brasil S.A. - Banco	Commercial Bank	Germany	374.2	(2005)
CANADA (13)	ABN Amro Bank NV	Commercial Bank	Netherlands	2.2	(2006)
	Amex Bank of Canada	Commercial Bank	USA	3,652.8	(2006)
	Bank of China (Canada)	Commercial Bank	China	201.8	(2006)
	Bank of East Asia (Canada)	Commercial Bank	Hong Kong	363.2	(2006)
	Bank of Tokyo - Mitsubishi UFJ (Canada)	Commercial Bank	Japan	2,752.6	(2006)
	BNP Paribas (Canada)	Commercial Bank	France	4,258.8	(2005)
	Citibank Canada	Commercial Bank	USA	13,244.1	(2002)
	Citizens Bank of Canada	Commercial Bank	Greece	1409.3	(2005)
	Korea Exchange Bank of Canada	Commercial Bank	Korea Rep. of	605.6	(2006)
	Mega International Commercial Bank	Commercial Bank	Taiwan	212.4	(2006)
	National Bank of Greece (Canada)	Commercial Bank	United Kingdom	473.6	(2004)
	Societe Grale (Canada)	Commercial Bank	France	2,310.3	(2006)
State Bank of India (Canada)	Commercial Bank	India	356.4	(2006)	
BOLIVIA (4)	Banco de Credito de Bolivia S.A.	Commercial Bank	Bermuda	646.5	(2006)
	Banco de la Nacion Argentina	Commercial Bank	Argentina	14.7	(2006)
	Banco do Brasil SA	Commercial Bank	Brazil	31.6	(2006)
	Citibank NA	Commercial Bank	USA	50.2	(2006)
BRAZIL (9)	Banco ABC - Brasil SA	Commercial Bank	Bahrain	1,767.2	(2006)
	Banco Citibank	Commercial Bank	USA	10,412.1	(2005)
	Banco Credit Suisse First Boston SA	Commercial Bank	Switzerland	273.1	(2003)
	Banco de Tokyo-Mitsubishi UFJ Brasil	Commercial Bank	Japan	367.7	(2006)
	Banco JP Morgan SA	Commercial Bank	USA	2,469.5	(2004)
	Banco Rabobank International Brasil S.A.	Commercial Bank	Netherlands	1,766.6	(2006)
	Banco Societe General Brasil SA	Commercial Bank	France	132.4	(2003)
	Banco Sofisa S.A.	Commercial Bank	USA	869.9	(2006)
Banco Sumitomo Mitsui Brasileiro SA	Commercial Bank	Japan	468.1	(2006)	

### Appendix 1 (Continued)

Country (# of Bank)	Bank Name	Specialization	Home Country	Total Assets (US Dollars in (Year) millions)	
	ABN Amro Bank (Schweiz) AG	Commercial Bank	Netherlands	2,816.4	(2005)
	American Express Bank (Switzerland) SA	Commercial Bank	USA	424.6	(2006)
	Banca Popolare di Sondrio (Suisse)	Commercial Bank	Italy	1,335.2	(2005)
	Bank Hapoalim (Schweiz) AG	Commercial Bank	Israel	3,344.7	(2006)
	Bank Leumi Le-Israel (Schweiz) AG	Commercial Bank	Israel Federation	739.1	(2006)
	Bank Linth	Commercial Bank	Liechtenstein	3,135.5	(2006)
	BankMed (Suisse) SA	Commercial Bank	Lebanon	171.2	(2005)
	Banque de Commerce et de Placements	Commercial Bank	Turkey	1,288.0	(2006)
	Banque Du Bois AG	Commercial Bank	Singapore	65.1	(2005)
	Banque Privet Espirito Santo SA	Commercial Bank	Luxembourg	265.7	(2006)
	Barclays Bank (Suisse) SA	Commercial Bank	United Kindom	2,340.3	(2006)
	BBVA (Suiza) SA	Commercial Bank	Spain	648.9	(2005)
	BHF-BANK (Schweiz) AG	Commercial Bank	Germany	274.1	(2006)
	BIPIELLE Bank (Suisse) SA	Commercial Bank	Italy	439.2	(2002)
	BLOM Bank (Switzerland) SA	Commercial Bank	France	115.2	(2005)
SWITZERLAND	BSI AG	Commercial Bank	Netherlands	10,042.9	(2006)
(39)	Credit Europe Bank (Suisse) SA	Commercial Bank	Netherlands	485.4	(2006)
	Credit Agricole (Suisse) SA	Commercial Bank	France	21,220.1	(2005)
	Deutsche Bank (Suisse) SA	Commercial Bank	Germany	4,616.3	(2006)
	FIBI Bank (Schweiz) AG	Commercial Bank	Israel	169.0	(2006)
	Fortis Banque (Suisse) SA	Commercial Bank	Luxembourg	1,597.2	(2006)
	GE Money Bank	Commercial Bank	USA	4,063.3	(2006)
	Goldman Sachs Bank AG	Commercial Bank	USA	477.4	(2006)
	IBI Bank AG	Commercial Bank	Czech Republic	55.5	(2006)
	ING Bank (Suisse) SA	Commercial Bank	Belgium	3,645.0	(2006)
	JP Morgan (Suisse) SA	Commercial Bank	USA	2,193.3	(2005)
	Kredietbank (Suisse) SA	Commercial Bank	Netherlands	296.3	(2003)
	Mizuho Bank (Schweiz) AG	Commercial Bank	Japan	269.1	(2006)
	Nomura Bank (Switzerland) Ltd	Commercial Bank	Japan	318.4	(2004)
	Pargesa Holding SA	Commercial Bank	Netherlands	1,799.4	(2006)
	PKB Privatbank AG	Commercial Bank	Luxembourg	1,126.0	(2003)
	Rosbank (Switzerland) SA	Commercial Bank	Russian Federation	359.0	(2006)
	Rothschild Bank AG	Commercial Bank	Netherlands	741.7	(2006)

### Appendix 1 (Continued)

Country (# of Bank)	Bank Name	Specialization	Home Country	Total Assets (US Dollars in millions)	(Year)
SWITZERLAND (39)	Russische Kommerzial Bank AG-Russian	Commercial Bank	Russian Federation	1,174.7	(2005)
	Russische, Blass & Cie AG	Commercial Bank	USA	840.0	(2006)
	Skandifinanz Bank AG	Commercial Bank	Luxembourg	534.0	(2005)
	SLB Commercial Bank	Commercial Bank	Israel	217.8	(2005)
	United Bank Ltd. (Zurich)-United Bank	Commercial Bank	Pakistan	28.2	(2006)
CHILE (7)	ABN AMRO Bank (Chile)	Commercial Bank	Netherlands	923.5	(2006)
	Banco de la Nacion Argentina	Commercial Bank	Argentina	30.9	(2005)
	Banco GNB Sudameris	Commercial Bank	Colombia	268.5	(2006)
	Banco Itau Chile	Commercial Bank	Brazil	3,329.5	(2006)
	Banco Santander - Chile	Commercial Bank	Spain	8,041.2	(2004)
	Bank of Tokyo - Mitsubishi UFJ	Commercial Bank	Japan	142.4	(2006)
	JP Morgan Chase Bank	Commercial Bank	USA	623.3	(2003)
COLOMBIA (3)	Banco GNB Sudameris SA	Commercial Bank	Israel Federation	1,648.6	(2006)
	Banco Santander Colombia SA	Commercial Bank	Spain	1,844.7	(2006)
	Citibank Colombia	Commercial Bank	USA	2,351.8	(2006)
COSTA RICA (3)	Banco Banex	Commercial Bank	United Kingdom	789.0	(2006)
	Banco Interfin S.A.	Commercial Bank	Canada	805.1	(2005)
	Citibank (Costa Rica) SA	Commercial Bank	USA	101.7	(2006)
CYPRUS (2)	Alpha Bank Cyprus Limited	Commercial Bank	Greece	2,917.8	(2005)
	Cyprus Turkish Cooperative Central	Cooperative Bank	United Kingdom	817.4	(2005)
CZECH REPUBLIC (9)	BAWAG Bank CZ a.s	Commercial Bank	Austria	547.9	(2003)
	Calyon SA	Commercial Bank	France	31.9	(2005)
	Ceska Sporitelna a.s.	Commercial Bank	Austria	34,891.4	(2006)
	Ceskoslovenska Obchodni Banka - CSOB	Commercial Bank	Belgium	36,515.7	(2006)
	Citibank a.s.	Commercial Bank	USA	4,931.5	(2006)
	HVB Bank Czech Republic AS	Commercial Bank	Italy	6,386.5	(2004)
	Komercni Banka	Commercial Bank	France	28,624.0	(2006)
	Volksbank CZ as	Cooperative Bank	France	1,217.4	(2006)
Zivnostenska banka, a.s.	Commercial Bank	Italy	1,988.7	(2005)	
GERMANY (39)	ABN Amro Bank (Deutschland) AG	Commercial Bank	Netherlands	689.3	(2005)
	ABN Amro Holding (Deutschland) AG	Bank Holding Company	Netherlands	7,028.7	(2002)
	American Express Bank GmbH	Commercial Bank	USA	1,808.0	(2005)
	AXA Bank AG	Commercial Bank	France	875.7	(2006)
	BANK COMPANIE NORG GmbH	Commercial Bank	United Kingdom	121.2	(2005)
	Bank Melli Iran	Commercial Bank	Iran, Islamic	838.7	(2006)

### Appendix 1 (Continued)

Country (# of Bank)	Bank Name	Specialization	Home Country	Total Assets (US Dollars in millions)	(Year)
	Bank Sepah	Commercial Bank	Iran, Islamic Republic	159.9	(2006)
	Bankhaus Neelmeyer AG	Commercial Bank	Italy	1,407.2	(2006)
	Bayerische Hypo-und Vereinsbank AG	Commercial Bank	Italy	669,080.7	(2006)
	CIT Industrie Bank GmbH	Commercial Bank	United Kingdom	532.2	(2005)
	Citibank Privatkunden AG & Co KGaA	Commercial Bank	USA	16,097.7	(2005)
	CreditPlus Bank AG	Commercial Bank	France	1,785.9	(2006)
	Crown Westfalen Bank AG	Commercial Bank	USA	1481.6	(2005)
	Delbrueck Bethmann Maffei AG	Commercial Bank	Netherlands	5,481.1	(2005)
	Diskont und Kredit AG	Commercial Bank	USA	1,354.2	(2005)
	Dresdner-Cetelem Kreditbank GmbH	Commercial Bank	France	1,652.2	(2006)
	Europaisch-Iranische Handelsbank AG	Commercial Bank	Iran, Islamic Republic	1,571.7	(2005)
	Fiat Bank GmbH	Commercial Bank	Italy	1,984.2	(2006)
	GEFA Gesellschaft fuer	Commercial Bank	France	6,879.6	(2006)
	HSBC Trinkaus & Burkhardt AG	Commercial Bank	United Kingdom	24,596.9	(2006)
	ING-DiBa AG	Commercial Bank	Netherlands	75,495.1	(2005)
	Isbank GmbH	Commercial Bank	Turkey	430.0	(2005)
GERMANY	JP Morgan AG	Commercial Bank	USA	8,235.4	(2005)
(39)	KBC Bank Deutschland AG	Commercial Bank	Belgium	2,680.1	(2006)
	Korea Exchange Bank (Deutschland) AG	Commercial Bank	Korea Rep. of	394.0	(2006)
	LHB Internationale Handelsbank AG	Commercial Bank	Slovenia	1,281.0	(2005)
	Maple Bank GmbH	Commercial Bank	Netherlands	19,344.3	(2006)
	MCE Bank GmbH	Commercial Bank	Japan	1,890.7	(2005)
	Merck Finck & Co Privatbankiers	Commercial Bank	Netherlands	1,594.1	(2005)
	MHB-Bank AG	Commercial Bank	USA	268.6	(2005)
	Misr Bank - Europe GmbH	Commercial Bank	EGYPT	398.3	(2005)
	Mizuho Corporate Bank (Germany) AG	Commercial Bank	Japan	2,092.0	(2005)
	Mizuho Corporate Bank Ltd	Commercial Bank	Japan	825.6	(2004)
	Nomura Bank (Deutschland) GmbH	Commercial Bank	Japan	109.9	(2004)
	Oyak Anker Bank GmbH	Commercial Bank	Turkey	450.2	(2005)
	Salzburg Muenchen Bank AG	Commercial Bank	Austria	278.1	(2005)
	Santander Consumer Bank AG	Commercial Bank	Spain	21,483.3	(2006)
	SEB AG	Commercial Bank	Sweden	44,677.5	(2004)
	Shinhan Bank Europe GmbH	Commercial Bank	Korea Rep. of	276.4	(2006)
	State Bank of India	Commercial Bank	India	1,261.1	(2006)
	State Street Bank GmbH	Commercial Bank	USA	6,935.4	(2005)

### Appendix 1 (Continued)

Country (# of Bank)	Bank Name	Specialization	Home Country	Total Assets (US Dollars in millions)	(Year)
GERMANY (39)	Toyota Kreditbank Gmbh	Commercial Bank	Japan	3,421.6	(2004)
	UBS Deutschland AG	Commercial Bank	Switzerland	1,053.4	(2000)
DENMARK (3)	Nordea Bank Danmark A/S	Commercial Bank	Sweden	85,999.9	(2004)
	Salling Bank A/S	Commercial Bank	USA	277.5	(2006)
	Skandinaviska Enskilda Banken A/S	Commercial Bank	Sweden	1,362.3	(2005)
DOMINICAN REPUBLIC (3)	Citibank NA	Commercial Bank	USA	244.4	(2006)
	Republic Bank (DR) SA	Commercial Bank	Trinidad Tobago	126.2	(2006)
	Scotiabank	Commercial Bank	Canada	765.2	(2006)
EGYPT (10)	Ahli United Bank of Egypt	Commercial Bank	Bahrain	706.4	(2006)
	Alexandria Commercial and Maritime	Commercial Bank	United Arab Emirates	400.2	(2006)
	Arab International Bank	Commercial Bank	Libya Arab	3,651.6	(2005)
	Bank Audi SAE	Commercial Bank	Lebanon	999.9	(2006)
	Bank of Alexandria	Commercial Bank	Italy	5,764.5	(2006)
	Barclays Bank - Egypt S.A.E.	Commercial Bank	United Kingdom	2,374.1	(2006)
	BLOM Bank Egypt SAE	Commercial Bank	Lebanon	705.2	(2005)
	Credit Agricole Egypt	Commercial Bank	France	2,763.4	(2006)
	HSBC Bank Egypt S A E	Commercial Bank	United Kingdom	3,110.1	(2006)
	Piraeus Bank Egypt SAE	Commercial Bank	Greece	980.4	(2006)
SPAIN (11)	Banco Arabe Espa SA	Commercial Bank	Libya Arab	267.4	(2004)
	Banco Caixa Geral SA	Commercial Bank	Portugal	3,275.6	(2004)
	Banco de Finanzas e Inversiones - Fibanc	Commercial Bank	Italy	812.5	(2004)
	Banco Espirito Santo S.A. Sucursal en	Commercial Bank	Luxembourg	2,536.4	(2004)
	Banco Halifax Hispania SA	Commercial Bank	United Kingdom	1,329.5	(2004)
	Banque Marocaine du Commerce Extieur	Commercial Bank	Morocco	95.6	(2004)
	Barclays Bank S.A.	Commercial Bank	United Kingdom	20,366.1	(2004)
	BNP Paribas Espa SA	Commercial Bank	France	344.2	(2004)
	Citibank Espa	Commercial Bank	USA	4,245.8	(2004)
	Deutsche Bank Credit	Commercial Bank	Germany	1,079.2	(2004)
Deutsche Bank SAE	Commercial Bank	Germany	16,214.6	(2004)	
FRANCE (47)	Aareal Bank France S.A.	Commercial Bank	Germany	420.3	(2005)
	ABN Amro France	Commercial Bank	Netherlands	10,773.3	(2005)
	Banca Intesa (France) SA	Commercial Bank	Italy	1,913.8	(2005)
	Banco Popular France	Commercial Bank	Spain	473.0	(2003)
	Banque Accord	Commercial Bank	Poland	2,206.1	(2004)
Banque AGF	Commercial Bank	Germany	3,988.3	(2006)	

### Appendix 1 (Continued)

Country (# of Bank)	Bank Name	Specialization	Home Country	Total Assets (US Dollars in millions)	(Year)
	Banque AIG	Commercial Bank	USA	14,504.5	(2005)
	Banque Audi Saradar France SA	Commercial Bank	Lebanon	663.1	(2005)
	Banque Chaabi du Maroc	Commercial Bank	Morocco	87.4	(2003)
	Banque Chaix	Commercial Bank	United Kingdom	1,596.8	(2005)
	Banque de Neuflyze OBC	Commercial Bank	Netherlands	2,073.6	(2005)
	Banque de Savoie	Commercial Bank	United Kingdom	1,068.2	(2005)
	Banque Dupuy, de Parseval	Commercial Bank	United Kingdom	963.1	(2006)
	Banque Espirito Santo et de la Vie	Commercial Bank	Luxembourg	1,601.6	(2006)
	Banque Intercontinentale Arabe BIA	Commercial Bank	Algeria	999.5	(2006)
	Banque Marze	Commercial Bank	United Kingdom	214.4	(2005)
	Banque Pelletier	Commercial Bank	United Kingdom	296.8	(2005)
	Banque Priv Quilvest	Commercial Bank	Luxembourg	71.0	(2005)
	Banque Reillon	Commercial Bank	Belgium	166.8	(2005)
	BLC Bank (France) SA	Commercial Bank	Lebanon	323.8	(2005)
	BLOM Bank France SA	Commercial Bank	Lebanon	1,469.8	(2005)
	BSI-Ifabanque SA	Commercial Bank	Italy	193.1	(2005)
FRANCE	Caisse Centrale de R scompte	Commercial Bank	Germany	3,557.6	(2005)
(47)	Credit Suisse (France)	Commercial Bank	Switzerland	238.3	(2001)
	Dexia CLF Banque	Commercial Bank	Belgium	4,984.7	(2006)
	Dexia Credit Local SA	Commercial Bank	Belgium	155,161.8	(2005)
	Dresdner Bank Gestions France	Commercial Bank	Germany	329.0	(2002)
	Fortis Banque France SA	Commercial Bank	Belgium	6,213.5	(2005)
	Fransabank (France) SA	Commercial Bank	Belgium	97.1	(2005)
	GMAC Banque SA	Commercial Bank	USA	920.6	(2006)
	Goldman Sachs Paris Inc et Cie	Commercial Bank	USA	1,188.8	(2005)
	HSBC France	Commercial Bank	United Kingdom	184,171.6	(2006)
	HSBC Hervet	Commercial Bank	United Kingdom	3,932.7	(2006)
	HSBC Private Bank France	Commercial Bank	United Kingdom	1,214.3	(2005)
	HSBC UBP	Commercial Bank	United Kingdom	2,914.5	(2006)
	JP Morgan et Cie SA	Commercial Bank	USA	683.4	(2005)
	KBL France SA	Commercial Bank	Netherlands	121.0	(2005)
	La Compagnie Financide Edmond de	Commercial Bank	Switzerland	3,073.7	(2005)
	Monte Paschi Banque S.A.	Commercial Bank	Italy	1,574.1	(2005)
	National Bank of Greece	Commercial Bank	Greece	411.8	(2001)
	State Street Banque SA	Commercial Bank	USA	447.2	(2005)

### Appendix 1 (Continued)

Country (# of Bank)	Bank Name	Specialization	Home Country	Total Assets (US Dollars in millions)	(Year)
FRANCE (47)	Sudameris S.A.	Commercial Bank	Italy	2,418.9	(2003)
	SwissLife banque	Commercial Bank	Switzerland	210.5	(2006)
	UBS (France) SA	Commercial Bank	Switzerland	1,490.2	(2005)
	Union Tunisienne de Banques	Commercial Bank	Tunisia	322.8	(2005)
UNITED KINGDOM (41)	Abbey National Treasury Services Plc	Commercial Bank	Spain	227,090.8	(2005)
	Ahli United Bank (UK) Plc	Commercial Bank	Ghana	2,619.6	(2005)
	AIB Bank (CI) Limited	Commercial Bank	Ireland	2,979.4	(2005)
	Alpha Bank London Limited	Commercial Bank	Greece	97,186	(2006)
	Anglo-Romanian Bank Limited	Commercial Bank	Romania	738.8	(2006)
	Bank Leumi (UK) Plc	Commercial Bank	Israel	2,505.9	(2006)
	BNP Paribas Finance Plc	Commercial Bank	France	160.1	(2006)
	Butterfield Bank (Guernsey) Limited	Commercial Bank	Bermuda	1,496.1	(2005)
	Butterfield Holdings (UK) Ltd	Commercial Bank	Bermuda	1,205.2	(2005)
	Cater Allen Ltd	Commercial Bank	Spain	7,361.9	(2005)
	CIBC World Markets Plc	Commercial Bank	Canada	3,870.8	(2006)
	CitiFinancial Europe Plc	Commercial Bank	USA	5,015.9	(2005)
	Clydesdale Bank Plc	Commercial Bank	Australia	54,202.4	(2006)
	Credit Suisse (Guernsey) Ltd	Commercial Bank	Switzerland	4,087.3	(2005)
	Daiwa Securities Trust and Banking	Commercial Bank	Japan	99.6	(2006)
	Dresdner Kleinwort Group Limited	Commercial Bank	Germany	48,018.4	(2005)
	EFG Private Bank (Channel Islands)	Commercial Bank	Switzerland	1,693.1	(2006)
	EFG Private Bank Limited	Commercial Bank	Luxembourg	2,426.5	(2005)
	FCE Bank Plc	Commercial Bank	USA	33,296.7	(2006)
	FIBI Bank (UK) Plc	Commercial Bank	Israel	503.8	(2005)
	Fortis Bank (C.I.) Limited	Commercial Bank	Belgium	1,515.6	(2005)
	GE Capital Bank Limited	Commercial Bank	USA	3,512.5	(2005)
	Habibsons Bank Ltd	Commercial Bank	Luxembourg	422.2	(2006)
	Havin Bank Limited	Commercial Bank	Cuba	993.1	(2005)
	HSBC Private Bank (Jersey) Limited	Commercial Bank	Switzerland	2,888.9	(2005)
	Kexim Bank (UK) Limited	Commercial Bank	Korea Rep. of	276.9	(2005)
	Kleinwort Benson Private Bank Limited	Commercial Bank	Germany	2,404.6	(2005)
	MBNA Europe Bank Ltd.	Commercial Bank	USA	25,714.2	(2005)
	National Bank of Egypt (UK) Limited	Commercial Bank	Egypt	2,318.3	(2006)
	National Bank of Kuwait (International)	Commercial Bank	Kuwait	1,773.9	(2005)

### Appendix 1 (Continued)

Country (# of Bank)	Bank Name	Specialization	Home Country	Total Assets (US Dollars in (Year) millions)
UNITED KINGDOM (41)	Nomura International Plc	Bank Holding Company	Japan	122,199.0 (2006)
	Northern Bank Limited	Commercial Bank	Denmark	11,205.7 (2006)
	Private Financial Holdings Limited	Bank Holding Company	Switzerland	1,928.1 (2003)
	Riggs Bank Europe Limited	Commercial Bank	USA	101.0 (2004)
	Sabancı Bank Limited	Commercial Bank	Turkey	1,205.2 (2005)
	SG Hambros Bank Limited	Commercial Bank	France	1,692.3 (2005)
	Turkish Bank (UK) Limited	Commercial Bank	Cyprus	255.6 (2006)
	VTB Bank Europe Plc	Commercial Bank	Russian Federation	2,543.1 (2005)
GREECE (9)	Egnatia Bank SA	Commercial Bank	Cyprus	3,868.6 (2004)
	Emporiki Bank of Greece SA	Commercial Bank	France	24,838.9 (2004)
	Ergobank SA	Commercial Bank	France	6,583.3 (2004)
	General Bank of Greece SA	Commercial Bank	France	4,746.1 (2004)
	Ionian and Popular Bank of Greece	Commercial Bank	France	6,652.2 (2004)
	Laiki Bank (Hellas) SA	Commercial Bank	United Kingdom	2,490.5 (2003)
	Macedonia Thrace Bank SA	Commercial Bank	United Kingdom	2,536.2 (2003)
	Marfin Bank	Commercial Bank	Cyprus	962.1 (2004)
	National Bank of Greece SA	Commercial Bank	USA	65,792.3 (2004)
GUATEMALA (2)	Citibank NA	Commercial Bank	USA	118.3 (2003)
	Lloyds TSB Bank Plc	Commercial Bank	United Kingdom	112.8 (2003)
HONG KONG (10)	BII Finance Company Ltd.	Commercial Bank	Indonesia	43.9 (2004)
	China Construction Bank (Asia) Limited	Commercial Bank	China	503.4 (2004)
	CITIC International Financial Holdings	Bank Holding Company	Spain	10,751.7 (2004)
	DBS Bank (Hong Kong) Limited	Commercial Bank	Singapore	24,026.5 (2005)
	Fubon Bank (Hong Kong) Limited	Commercial Bank	Taiwan	6,424.2 (2005)
	Hongkong and Shanghai Banking	Commercial Bank	Netherlands	316,369.5 (2004)
	Indover Bank (Asia) Limited	Commercial Bank	Netherlands	228.2 (2004)
	Industrial and Commercial Bank of China	Commercial Bank	China	14,885.4 (2005)
	Public Bank (Hong Kong) Limited	Commercial Bank	Bermuda	1,845.9 (2004)
Shanghai Commercial Bank Ltd	Commercial Bank	Taiwan	9,802.2 (2004)	
HONDURAS (2)	Banco de Honduras, SA	Commercial Bank	USA	111.6 (2006)
	Banco Grupo el Ahorro Hondureno	Commercial Bank	United Kingdom	902.0 (2006)
CROATIA (7)	Erste & Steierm kische Bank dd	Commercial Bank	Austria	6,397.4 (2006)
	Medimurska banka dd	Commercial Bank	Italy	425.2 (2006)
	Privredna Banka Zagreb	Commercial Bank	Italy	11,109.6 (2006)

### Appendix 1 (Continued)

Country (# of Bank)	Bank Name	Specialization	Home Country	Total Assets (US Dollars in (Year) millions)
CROATIA (7)	Raiffeisenbank Austria d.d., Zagreb	Commercial Bank	Austria	6,046.7 (2006)
	Slavonska Banka dd, Osijek	Commercial Bank	Austria	1,147.1 (2005)
	Splitska Banka dd	Commercial Bank	France	3,747.9 (2005)
	Zagrebacka Banka dd	Commercial Bank	Italy	14,305.5 (2006)
HUNGARY (13)	BNP Paribas Hungaria Bank Rt.	Commercial Bank	France	741.6 (2005)
	Budapest Hitel Fejleszi Bank	Commercial Bank	USA	1,178.5 (2000)
	Calyon Bank Hungary-Calyon Bank	Commercial Bank	France	804.4 (2005)
	Citibank Zrt	Commercial Bank	USA	2,148.2 (2005)
	Commerzbank (Budapest) Rt	Commercial Bank	Germany	1,113.0 (2006)
	Erste Bank Hungary Nyrt	Commercial Bank	Austria	6,759.2 (2005)
	Inter-Europa Bank Nyrt	Commercial Bank	Italy	1,139.4 (2005)
	K&H Bank-Kereskedelmi es Hitelbank	Commercial Bank	Belgium	11,235.9 (2006)
	KDB Bank (Hungary) Ltd	Commercial Bank	Korea Rep. of	373.2 (2005)
	MKB Bank Nyrt	Commercial Bank	Germany	10,422.6 (2006)
	Raiffeisen Bank Zrt	Commercial Bank	Austria	3,993.8 (2003)
	UniCredit Bank Hungary Zrt	Commercial Bank	Italy	6,965.3 (2006)
WestLB Hungaria Bank Rt	Commercial Bank	Germany	264.2 (2006)	
INDONESIA (14)	Bank BNP Paribas Indonesia	Commercial Bank	France	126.1 (2005)
	Bank Central Asia	Commercial Bank	Mauritius	19,600.7 (2006)
	Bank Chinatrust Indonesia	Commercial Bank	Taiwan	443.3 (2006)
	Bank Commonwealth	Commercial Bank	Australia	554.0 (2005)
	Bank DBS Indonesia	Commercial Bank	Singapore	1,352.6 (2006)
	Bank Haga	Commercial Bank	Netherlands	310.3 (2005)
	Bank Hagakita	Commercial Bank	Netherlands	93.2 (2005)
	Bank KEB Indonesia PT	Commercial Bank	Korea Rep. of	238.6 (2005)
	Bank Lippo Tbk.	Commercial Bank	Netherlands	3,698.2 (2006)
	Bank Nisp	Commercial Bank	Singapore	2,683.6 (2006)
	Bank Sumitomo Mitsui Indonesia	Commercial Bank	Japan	592.8 (2006)
	PT Bank Mizuho Indonesia	Commercial Bank	Japan	689.9 (2005)
	PT Bank Niaga Tbk	Commercial Bank	Malaysia	5,160.1 (2006)
PT Bank Resona Perdania	Commercial Bank	Japan	392.5 (2003)	
IRELAND (8)	Bank of Scotland (Ireland) Limited	Commercial Bank	United Kingdom	22,708.5 (2004)
	Bear Stearns Bank Plc	Commercial Bank	Germany	5,960.3 (2004)
	Helaba Dublin - Landesbank Hessen	Commercial Bank	Germany	4,666.7 (2005)
	IIB Bank Plc	Commercial Bank	Belgium	28,908.9 (2006)

### Appendix 1 (Continued)

Country (# of Bank)	Bank Name	Specialization	Home Country	Total Assets (US Dollars in (Year) millions)
IRELAND (8)	LBBW Bank Ireland plc	Commercial Bank	Germany	9,096.7 (2005)
	Naspa Dublin	Commercial Bank	Germany	5,090.7 (2006)
	National Irish Bank limited	Commercial Bank	Denmark	7,527.0 (2005)
	WestLB (Ireland) Plc	Commercial Bank	Denmark	3,430.7 (2005)
INDIA (2)	Development Credit Bank Limited	Commercial Bank	Switzerland	838.9 (2006)
	Saraswat Co-Operative Bank	Commercial Bank	United Kingdom	1,746.9 (2006)
ITALY (10)	2S Banca SpA	Commercial Bank	France	6,989.6 (2004)
	Banca Antonveneta-Banca Antoniana	Commercial Bank	Netherlands	61,861.4 (2004)
	Banca Nazionale del Lavoro SpA - BNL	Commercial Bank	France	106,358.4 (2004)
	Banca Popolare FriulAdria SpA	Commercial Bank	France	5,694.5 (2004)
	Cassa di Risparmio di Parma e Piacenza	Savings Bank	France	19,929.3 (2004)
	Cassa Lombarda SpA	Commercial Bank	Switzerland	551.0 (2005)
	Cassa Per Il Credito Alle Imprese	Commercial Bank	France	895.4 (2005)
	Deutsche Bank SpA	Commercial Bank	Germany	21,985.0 (2005)
	Hypo Alpe-Adria-Bank Italia Spa	Commercial Bank	Austria	3,945.2 (2005)
Rasbank SpA	Commercial Bank	Germany	5,635.3 (2004)	
KENYA (4)	Barclays Bank of Kenya Ltd	Commercial Bank	United Kingdom	1,700.7 (2006)
	Diamond Trust Bank Kenya Limited	Commercial Bank	Belgium	313.2 (2006)
	Stanbic Bank Kenya Limited	Commercial Bank	South Africa	372.1 (2006)
	Standard Chartered Bank Kenya	Commercial Bank	United Kingdom	1,167.4 (2006)
KOREA REP. OF (2)	Korea Exchange Bank	Commercial Bank	Belgium	76,879.4 (2006)
	Standard Chartered First Bank Korea	Commercial Bank	United Kingdom	61,511.7 (2006)
LUXEMBOURG (65)	ABN Amro Bank (Luxembourg) SA	Commercial Bank	Netherlands	7,825.8 (2005)
	Alcor Bank Luxembourg SA	Commercial Bank	France	190.5 (2003)
	Bank of China (Luxembourg) SA	Commercial Bank	China	119.2 (2005)
	Bank Sal. Oppenheim jr. & Cie	Commercial Bank	Germany	1,065.7 (2006)
	Bank Sarasin Europe S.A.	Commercial Bank	Switzerland	833.2 (2005)
	Banque BCP SA	Commercial Bank	Portugal	177.1 (2000)
	Banque Carnegie Luxembourg S.A.	Commercial Bank	Sweden	566.2 (2006)
	Banque de Luxembourg SA	Commercial Bank	France	16,780.6 (2006)
	Banque Degroof Luxembourg SA	Commercial Bank	Belgium	2,292.0 (2006)
	Banque et Caisse d'Epargne de l'Etat	Savings Bank	Luxembourg	53,842.8 (2006)
	Banque Invik S.A.	Commercial Bank	Sweden	794.2 (2006)
	Banque LBLux SA	Commercial Bank	Germany	18,290.0 (2006)
Banque Transatlantique Luxembourg SA	Commercial Bank	France	187.0 (2004)	

### Appendix 1 (Continued)

Country (# of Bank)	Bank Name	Specialization	Home Country	Total Assets (US Dollars in millions)	(Year)
	BHF-Bank International	Commercial Bank	Germany	5,418.0	(2005)
	Capitalia Luxembourg SA	Commercial Bank	Italy	1,726.7	(2004)
	Commerzbank International SA	Commercial Bank	Germany	14,691.7	(2006)
	Corner Banque (Luxembourg), SA	Commercial Bank	Switzerland	907.9	(2005)
	Credem International (Lux) SA	Commercial Bank	Italy	460.9	(2005)
	Credit Suisse (Luxembourg) SA	Commercial Bank	Switzerland	2,345.1	(2005)
	Danske Bank International SA	Commercial Bank	Denmark	6,713.0	(2006)
	DekaBank Deutsche Girozentrale	Commercial Bank	Germany	11,100.0	(2005)
	Deutsche Bank Luxembourg SA	Commercial Bank	Germany	85,122.9	(2006)
	Deutsche Postbank International SA	Commercial Bank	Germany	22,955.1	(2006)
	Dexia Banque Internationale	Commercial Bank	Belgium	77,525.6	(2005)
	DnB NOR Luxembourg SA	Commercial Bank	Norway	885.0	(2005)
	Dresdner Bank Luxembourg SA	Commercial Bank	Germany	14,859.1	(2006)
	DZ BANK International S.A.	Commercial Bank	Germany	20,005.4	(2006)
	EFG Private Bank (Luxembourg) SA	Commercial Bank	Greece	1,717.5	(2005)
	EUROHYPO Eurosche Hypothekenbank	Commercial Bank	Germany	33,969.6	(2006)
	Fortis Banque Luxembourg SA	Commercial Bank	Belgium	61,762.1	(2006)
LUXEMBOURG (65)	Hauck & Aufhser Banquiers Luxembourg	Commercial Bank	Germany	313.8	(2005)
	HSBC Private Bank (Luxembourg) S.A.	Commercial Bank	United Kingdom	2,361.4	(2005)
	HSBC Republic Holdings (Luxembourg)	Bank Holding Company	United Kingdom	20,812.6	(2000)
	HSBC Trinkaus & Burkhardt	Commercial Bank	United Kingdom	2,843.0	(2006)
	HSH Nordbank Private Banking SA	Commercial Bank	Germany	1,152.2	(2005)
	HVB Luxembourg-HVB Banque	Commercial Bank	Italy	42,633.5	(2006)
	IKB International SA	Commercial Bank	Germany	10,558.8	(2006)
	ING Luxembourg	Commercial Bank	Belgium	12,635.5	(2005)
	Kredietbank S.A. Luxembourggeoise KBL	Commercial Bank	Netherlands	28,551.2	(2005)
	Lampebank International SA	Commercial Bank	Germany	597.2	(2003)
	Landesbank Berlin International SA	Commercial Bank	Germany	6,872.0	(2006)
	LRI Landesbank Rheinland-Pfalz	Commercial Bank	Germany	18,543.0	(2006)
	M.M. Warburg & CO Luxembourg S.A.	Commercial Bank	Germany	558.0	(2006)
	Mitsubishi UFJ Global Custody SA	Commercial Bank	Japan	1,360.9	(2005)
	Mizuho Trust and Banking (Luxembourg)	Commercial Bank	Japan	527.1	(2005)
	Natixis (Luxembourg) S.A.	Commercial Bank	France	454.9	(2005)
	Natixis Private Banking Luxembourg SA	Commercial Bank	France	855.4	(2005)
	Norddeutsche Landesbank Luxembourg	Commercial Bank	Germany	30,378.5	(2006)

### Appendix 1 (Continued)

Country (# of Bank)	Bank Name	Specialization	Home Country	Total Assets (US Dollars in millions)	(Year)
LUXEMBOURG (65)	Nordea Bank S.A.	Commercial Bank	Sweden	3834.7	(2005)
	Pictet & Cie (Europe) SA	Commercial Bank	Switzerland	458.7	(2000)
	SanPaolo Bank S.A.	Commercial Bank	Italy	8,247.4	(2005)
	Soci Europeenne de Banque SA	Commercial Bank	France	47,941.4	(2006)
	Sumitomo Trust & Banking	Commercial Bank	Japan	232.7	(2005)
	Svenska Handelsbanken S.A.	Commercial Bank	Sweden	1,236.3	(2006)
	Swedbank SA	Commercial Bank	Sweden	472.5	(2005)
	UBS (Luxembourg) SA	Commercial Bank	Switzerland	14,388.0	(2005)
	Unibanco - Uniao de Bancos Brasileiros	Commercial Bank	Cayman Islands	231.0	(2006)
	Union Bancaire Privee (Luxembourg) SA	Commercial Bank	Switzerland	861.5	(2001)
	Van Lanschot Bankiers (Luxembourg) SA	Commercial Bank	Netherlands	269.1	(2002)
	Verwaltungsgesellschaft Val Ste Croix	Commercial Bank	Netherlands	313.3	(2003)
	VP Bank (Luxembourg) SA	Commercial Bank	Liechtenstein	959.4	(2005)
	WestLB International SA	Commercial Bank	Germany	11,990.4	(2005)
WGZ Bank Luxembourg SA	Commercial Bank	Germany	4,453.6	(2006)	
LATVIA (9)	AS DnB NORD Banka	Commercial Bank	Norway	2,445.7	(2006)
	Hansabanka	Commercial Bank	Sweden	7,103.5	(2006)
	Latvijas KrajBanka	Commercial Bank	Lithuania	749.6	(2006)
	Latvijas Tirdzniecibas Banka-Latvian	Commercial Bank	Russian Federation	513.8	(2006)
	Multibanka	Commercial Bank	Russian Federation	66.8	(2006)
	Norvik Banka	Commercial Bank	Iceland	568.7	(2006)
	Sampo Banka	Commercial Bank	Denmark	256.9	(2006)
	SEB Latvijas Unibanka	Commercial Bank	Sweden	4,714.9	(2006)
UniCredit Bank AS	Commercial Bank	Austria	678.2	(2006)	
MONACO (6)	Banque de Gestion Edmond de Rothschild	Commercial Bank	Switzerland	691.0	(2005)
	Banque J Safra (Monaco) SA	Commercial Bank	Switzerland	1,133.0	(2003)
	Banque Monasque de Gestion	Commercial Bank	Switzerland	246.4	(2005)
	Compagnie Monasque de Banque	Commercial Bank	Italy	2,344.5	(2005)
	Credit Foncier de Monaco	Commercial Bank	France	2,678.5	(2005)
	UBS (Monaco) S.A.	Commercial Bank	Switzerland	1,892.6	(2005)
MACAU (6)	Banco Comercial de Macau SA	Commercial Bank	Hong Kong	1,079.9	(2005)
	Banco Espirito Santo do Oriente SA	Commercial Bank	Luxembourg	92.2	(2005)
	Banco Weng Hang S.A.	Commercial Bank	Hong Kong	1,654.5	(2005)
	China Construction Bank (Macau)	Commercial Bank	Hong Kong	321.8	(2005)
	Luso International Banking Limited	Commercial Bank	China	1,883.8	(2006)
	Tai Fung Bank Ltd-Banco Tai Fung	Commercial Bank	China	3541.2	(2005)

### Appendix 1 (Continued)

Country (# of Bank)	Bank Name	Specialization	Home Country	Total Assets (US Dollars in millions)	(Year)
MEXICO (7)	Banco del Bajio	Commercial Bank	Spain	4,522.2	(2006)
	Banco Santander SA	Commercial Bank	Spain	15,524.1	(2004)
	Bank of America (Mexico)	Commercial Bank	USA	1,416.0	(2005)
	Bank of Tokyo - Mitsubishi UFJ (Mexico)	Commercial Bank	Japan	242.6	(2004)
	BBVA Bancomer S.A.	Commercial Bank	Spain	48,807.3	(2004)
	BBVA Bancomer Servicios	Commercial Bank	Spain	380.9	(2004)
	HSBC Mexico, SA	Commercial Bank	United Kingdom	18,005.8	(2004)
MALAYSIA (12)	ABN AMRO Bank Berhad	Commercial Bank	Netherlands	1,236.4	(2006)
	Bangkok Bank Berhad	Commercial Bank	Thailand	321.7	(2006)
	Bank of America Malaysia Berhad	Commercial Bank	USA	415.3	(2006)
	Bank of Nova Scotia Berhad	Commercial Bank	Canada	829.6	(2006)
	Bank of Tokyo-Mitsubishi UFJ (Malaysia)	Commercial Bank	Japan	1,198.4	(2005)
	Citibank Berhad	Commercial Bank	USA	10,835.6	(2006)
	Deutsche Bank (Malaysia) Bhd.	Commercial Bank	Germany	1,423.7	(2005)
	HSBC Bank Malaysia Berhad	Commercial Bank	United Kingdom	11,610.6	(2006)
	JP Morgan Chase Bank Berhad	Commercial Bank	USA	598.8	(2005)
	OCBC Bank (Malaysia) Berhad	Commercial Bank	Singapore	10,392.2	(2006)
	Standard Chartered Bank Malaysia	Commercial Bank	United Kingdom	11,079.8	(2006)
United Overseas Bank (Malaysia) Bhd.	Commercial Bank	Singapore	9,055.2	(2006)	
NETHERLANDS (8)	Commerzbank (Nederland) NV	Commercial Bank	Germany	3,584.2	(2004)
	Fortis Bank Nederland (Holding) N.V.	Commercial Bank	Belgium	214,901.4	(2004)
	GarantiBank International NV	Commercial Bank	Turkey	3,455.6	(2006)
	GWK Bank N.V	Commercial Bank	United Kingdom	72.9	(2005)
	Indonesische Overzeese Bank NV -	Commercial Bank	Indonesia	984.0	(2005)
	KBC Bank Nederland NV	Commercial Bank	Belgium	1,261.7	(2005)
	Mizuho Corporate Bank Nederland NV	Commercial Bank	Japan	2,071.1	(2005)
	TD Waterhouse Bank NV	Commercial Bank	Canada	7,595.9	(2006)
NORWAY (3)	Fokus Bank ASA	Commercial Bank	Denmark	14,541.6	(2005)
	Glitnir Bank ASA	Commercial Bank	Iceland	910.9	(2006)
	Nordea Bank Norge ASA	Commercial Bank	Sweden	43,874.8	(2004)
PANAMA (10)	Banco Bilbao Vizcaya Argentaria	Commercial Bank	Spain	900.6	(2004)
	Banco de Occidente (Panama) S.A	Commercial Bank	Colombia	293.5	(2006)
	Banco Santander (Panama) SA	Commercial Bank	Spain	79.7	(2005)
	Bancolombia (Panama) SA	Commercial Bank	Colombia	977.6	(2005)

### Appendix 1 (Continued)

Country (# of Bank)	Bank Name	Specialization	Home Country	Total Assets (US Dollars in millions)	(Year)
PANAMA  (10)	Bank Leumi le Israel b.m.	Commercial Bank	Israel Federation	97.4	(2004)
	Bank of Nova Scotia - Scotiabank	Commercial Bank	Canada	408.6	(2004)
	BNP Paribas	Commercial Bank	France	1,792.0	(2005)
	Dresdner Bank Lateinamerika AG	Commercial Bank	Germany	16.1	(2005)
	Lloyds TSB Bank Plc	Commercial Bank	United Kingdom	241.3	(2003)
	Popular Bank Ltd Inc	Commercial Bank	Dominican Republic	392.7	(2005)
PERU  (6)	Banco de Credito del Peru	Commercial Bank	Bermuda	8,915.9	(2006)
	Banco del Trabajo	Commercial Bank	Panama	418.7	(2006)
	Banco Financiero del Peru	Commercial Bank	Ecuador	710.8	(2006)
	Banco Interamericano de Finanzas SA -	Commercial Bank	Uruguay	795.9	(2006)
	Banco Standard Chartered	Commercial Bank	United Kingdom	53.7	(2004)
	Scotiabank Peru SAA	Commercial Bank	Canada	4,150.7	(2006)
PHILIPPINES  (2)	Chinatrust (Philippines) Commercial	Commercial Bank	Taiwan	433.2	(2005)
	United Overseas Bank Philippines	Commercial Bank	Singapore	274.6	(2004)
POLAND  (13)	ABN Amro Bank (Polska) SA	Commercial Bank	Netherlands	1,270.5	(2006)
	BNP Paribas Bank (Polska) SA	Commercial Bank	France	1,042.3	(2004)
	BRE Bank SA	Commercial Bank	Germany	10,046.2	(2004)
	Calyon Bank Polska SA.	Commercial Bank	France	552.9	(2005)
	Deutsche Bank PBC SA	Commercial Bank	Germany	1,437.8	(2005)
	Deutsche Bank Polska S.A.	Commercial Bank	Germany	1,898.9	(2005)
	DZ Bank Polska SA	Commercial Bank	Germany	595.4	(2005)
	Fortis Bank Polska SA	Commercial Bank	Belgium	3,592.1	(2006)
	ING Bank Slaski S.A.	Commercial Bank	Netherlands	11,718.8	(2004)
	Kredyt Bank SA	Commercial Bank	Belgium	6,288.3	(2003)
	Nordea Bank Polska SA	Commercial Bank	Sweden	1,709.7	(2004)
	Raiffeisen Bank Polska SA	Commercial Bank	Austria	3,759.8	(2004)
	WestLB Bank Polska SA	Commercial Bank	Germany	742.1	(2005)
PORTUGAL  (7)	Banco Bilbao Vizcaya Argentaria	Commercial Bank	Spain	5,287.7	(2004)
	Banco Borges & Irmao, SA	Commercial Bank	Brazil	5,304.2	(2003)
	Banco Popular Portugal SA	Savings Bank	Spain	6,129.2	(2003)
	Barclays Bank Plc	Commercial Bank	United Kingdom	2,029.0	(2001)
	BNP Paribas	Commercial Bank	France	877.6	(2001)
	San Paolo IMI Bank (International) SA	Commercial Bank	Luxembourg	1,697.9	(2005)
Santander Totta SGPS	Bank Holding Company	Spain	39,849.6	(2004)	

### Appendix 1 (Continued)

Country (# of Bank)	Bank Name	Specialization	Home Country	Total Assets (US Dollars in millions)	(Year)
PARAGUAY (4)	Banco do Brasil SA	Commercial Bank	Brazil	109.2	(2006)
	Interbanco SA	Commercial Bank	Brazil	508.0	(2006)
	Lloyds TSB Bank Plc	Commercial Bank	United Kingdom	198.8	(2006)
	Sudameris Bank SAEC	Commercial Bank	Ireland	203.4	(2006)
RUSSIAN FEDERATION(1)	International Moscow Bank - IMB	Commercial Bank	Austria	9,376.7	(2006)
SINGAPORE (2)	CIBC Asia Limited	Commercial Bank	Canada	187.2	(2005)
	ING Asia Private Bank Ltd	Commercial Bank	Netherlands	2,656.5	(2004)
SLOVENIA (4)	Bank Austria Creditanstalt d.d. Ljubljana	Commercial Bank	Austria	2,228.4	(2005)
	Factor Banka d.d.	Commercial Bank	Netherlands	692.3	(2006)
	Raiffeisen Krekova Banka dd	Commercial Bank	Austria	910.5	(2004)
	Volksbank-Ljudska Banka - d.d	Commercial Bank	Austria	488.6	(2005)
SLOVAKIA (9)	Citibank (Slovakia) a.s.	Commercial Bank	USA	911.2	(2005)
	Dexia banka Slovensko a.s.	Commercial Bank	Belgium	2,090.0	(2006)
	Komercni Banka Bratislava a.s.	Commercial Bank	France	216.3	(2006)
	Ludova Banka, as	Commercial Bank	Austria	1,003.3	(2005)
	OTP Banka Slovensko, as	Commercial Bank	Hungary	1,718.5	(2006)
	Slovak Savings Bank-Slovenska	Commercial Bank	Austria	11,350.6	(2006)
	Tatra Banka a.s.	Commercial Bank	Austria	4,154.1	(2003)
	UniCredit Bank Slovakia a.s.	Commercial Bank	Italy	1,909.5	(2006)
Vseobecna Uverova Banka a.s.	Commercial Bank	Luxembourg	9,181.5	(2006)	
THAILAND (2)	Standard Chartered Bank (Thai) Public	Commercial Bank	United Kingdom	5,154.4	(2006)
	United Overseas Bank (Thai) PCL	Commercial Bank	Singapore	5,219.3	(2006)
TUNISIA (5)	Arab Tunisian Bank	Commercial Bank	Jordan	1,666.8	(2006)
	Attijari Bank	Commercial Bank	Spain	1,702.0	(2005)
	North Africa International Bank - NAIB	Commercial Bank	Libya Arab	176.7	(2005)
	Union Bancaire pour le Commerce et	Commercial Bank	France	1,055.4	(2006)
	Union Internationale de Banques	Commercial Bank	France	1,402.0	(2004)
TAIWAN (1)	Hsinchu International Bank	Commercial Bank	United Kingdom	13,154.9	(2006)
UKRAINE (2)	Calyon Bank Ukraine	Commercial Bank	France	187.8	(2005)
	Raiffeisen Bank Aval	Commercial Bank	Austria	3,706.0	(2005)
UGANDA (6)	Bank of Africa (Uganda) Ltd	Commercial Bank	Belgium	48.4	(2006)
	Bank of Baroda (Uganda) Limited	Commercial Bank	India	111.6	(2006)
	Barclays Bank of Uganda Limited	Commercial Bank	United Kingdom	278.5	(2006)
	Stanbic Bank Uganda Ltd	Commercial Bank	South America	534.9	(2005)
	Standard Chartered Bank Uganda	Commercial Bank	Netherlands	383.7	(2005)

### Appendix 1 (Continued)

Country (# of Bank)	Bank Name	Specialization	Home Country	Total Assets (US Dollars in millions)	(Year)
USA (35)	Banco Bilbao Vizcaya Argentaria Puerto	Commercial Bank	Spain	7,043.3	(2005)
	BancWest Corporation	Bank Holding Company	France	67,313.4	(2006)
	Bank Leumi Le-Israel Corporation	Bank Holding Company	Israel Federation	5,772.7	(2006)
	Bank Leumi USA	Commercial Bank	Israel Federation	5,761.0	(2006)
	Bank of the West	Commercial Bank	France	55,642.9	(2006)
	Bank of Tokyo - Mitsubishi UFJ Trust	Commercial Bank	Japan	4,048.6	(2006)
	BNP Paribas Securities Corp	Bank Holding &	France	135,115.3	(2006)
	Chinese American Bank	Commercial Bank	Taiwan	333.0	(2006)
	Citizens Bank of Rhode Island	Commercial Bank	United Kingdom	13,877.6	(2006)
	Citizens Financial Group Inc.	Bank Holding Company	United Kingdom	160,900.9	(2006)
	Commercebank NA	Commercial Bank	Venezuela	4,898.7	(2006)
	Deutsche Bank Trust Company Americas	Commercial Bank	Germany	39,737.0	(2006)
	Deutsche Bank Trust Corporation	Commercial Bank	Germany	57,358.0	(2005)
	Far East National Bank	Commercial Bank	Taiwan	1,847.8	(2006)
	First Hawaiian Bank	Commercial Bank	France	12,002.6	(2006)
	HSBC Finance Corporation	Bank Holding Company	United Kingdom	179,459.0	(2006)
	HSBC USA Inc.	Bank Holding Company	United Kingdom	168,957.0	(2006)
	Interaudi Bank	Commercial Bank	Switzerland	1,215.9	(2006)
	Israel Discount Bank of New York	Commercial Bank	Israel Federation	8,823.0	(2006)
	Laredo National Bancshares, Inc.	Commercial Bank	Spain	4,478.9	(2006)
	Laredo National Bank	Commercial Bank	Spain	4,467.9	(2006)
	Manufacturers Bank	Commercial Bank	Japan	1,782.8	(2006)
	Mitsubishi UFJ Trust & Banking	Bank Holding Company	Japan	222.7	(2006)
	Mizuho Corporate Bank (USA)	Commercial Bank	Japan	3,678.5	(2006)
	Mizuho Corporate Bank of California	Commercial Bank	Japan	772.3	(2006)
	RBC Centura Bank	Commercial Bank	Canada	23,135.6	(2006)
	Santander BanCorp	Bank Holding Company	Spain	8,271.9	(2005)
	Scotiabank de Puerto Rico	Commercial Bank	Canada	1,550.9	(2006)
	TD Bank USA NA	Commercial Bank	Canada	15,429.6	(2006)
	TD Banknorth Inc	Bank Holding Company	Canada	40,019.9	(2006)
	TD BankNorth National Association	Commercial Bank	Canada	39,581.7	(2006)
	Texas Regional Bancshares, Inc	Commercial Bank	Spain	8,574.1	(2006)
	Union Bank of California NA	Commercial Bank	Japan	51,969.1	(2006)
	Union National Financial Corporation	Bank Holding Company	Japan	462.2	(2005)
	UnionBanCal Corporation	Commercial Bank	Japan	52619.6	(2006)

### Appendix 1 (Continued)

Country (# of Bank)	Bank Name	Specialization	Home Country	Total Assets (US Dollars in millions)	(Year)
VENEZUELA (3)	Banco de Venezuela, S.A.C.A.	Commercial Bank	Spain	8,968.2	(2006)
	Corp Banca CA Banco Universal	Commercial Bank	Netherlands	1,119.5	(2006)
	Venezolano de Credito SA, Banco	Commercial Bank	Germany	1,385.7	(2006)
SOUTH AFRICA (8)	Absa Bank Ltd	Commercial Bank	United Kingdom	49,605.3	(2005)
	ABSA Group Limited	Bank Holding Company	United Kingdom	55,737.4	(2005)
	Albaraka Bank Limited	Commercial Bank	BAHRAIN	179.7	(2004)
	Habib Overseas Bank Limited	Commercial Bank	Luxembourg	60.8	(2004)
	HBZ Bank Limited	Commercial Bank	Switzerland	172.4	(2006)
	Mercantile Bank Holdings Limited	Commercial Bank	Portugal	483.3	(2004)
	Nedbank Group Limited	Commercial Bank	United Kingdom	57,856.0	(2004)
	South African Bank of Athens Limited	Commercial Bank	Greece	108.5	(2004)
ZIMBABWE (3)	Barclays Bank of Zimbabwe Ltd.	Commercial Bank	United Kingdom	685.3	(2003)
	Stanbic Bank Zimbabwe Limited	Commercial Bank	United Kingdom	134.4	(2005)
	Standard Chartered Bank Zimbabwe Ltd	Commercial Bank	Netherlands	189.5	(2005)

## Appendix 2

### Bank Performance, Banking Concentration, Governance, Country Risk and Bank Regulation and Supervision by Country

Country	Bank Performance			Banking Concentration Measures									Observations	
	NIM	ROA	ROE	P-R H-Statistics	Lerner Index	CR4 Assets	CR4 Loans	CR4 Deposits	HHI Assets	HHI Loans	HHI Deposits	Foreign Banks	Domestic Banks	
ARGENTINA	5.624329	-0.83333	-4.16561	0.783637	—	0.000001	0.000001	0.000001	0.070433	0.069542	0.07918	203	560	
AUSTRALIA	2.210584	0.848103	13.35053	0.352994	—	0.000002	0.000001	0.000001	0.1325	0.130895	0.154228	70	250	
AUSTRIA	2.132625	0.576936	8.314127	0.508395	-0.20625	0	0.000001	0.000001	0.082822	0.076109	0.093609	80	799	
BANGLADESH	2.019625	0.725337	15.39171	0.638416	—	0.000139	0.000227	0.000302	0.10739	0.109971	0.113618	2	271	
BELGIUM	2.387179	0.800487	8.925406	0.302812	0.034584	0	0.000011	0.00158	0.106453	0.111124	0.111025	229	451	
BOLIVIA	5.665364	-0.10305	0.431589	0.062641	-6.11213	0.001452	0.001569	0.001447	0.114709	0.113806	0.118894	56	95	
BRAZIL	10.85307	1.965505	12.84484	0.473572	0.481635	0.000001	0.000001	0.000006	0.069705	0.092864	0.087594	183	680	
BULGARIA	4.74314	2.643488	23.08415	0.06387	-1.54364	0.014684	0.012588	0.014887	0.182834	0.205636	0.185675	107	69	
CANADA	2.131942	0.489236	5.263244	0.420063	—	0.000006	0.000006	0.000008	0.127639	0.120685	0.133764	172	316	
CHILE	5.633582	1.100946	10.58648	0.853303	—	0.000011	0.000011	0.000008	0.096229	0.098037	0.097105	85	264	
COLOMBIA	7.652532	1.279198	6.176076	0.569019	—	0.00007	0.000068	0.00005	0.063867	0.062487	0.065899	45	192	
COSTA RICA	6.655725	1.983511	16.44588	0.630206	-1.53773	0.000057	0.00018	0.000007	0.152742	0.097691	0.188379	40	92	
CROATIA	6.552135	1.119609	9.395786	0.391391	-1.475	0.000029	0.000022	0.000024	0.149191	0.169123	0.15212	99	183	
CYPRUS	4.633514	1.021984	20.53659	0.223748	—	0.007152	0.008888	0.054847	0.228137	0.250245	0.236477	28	103	
CZECH REPUBLIC	2.825139	0.086759	7.070326	0.061761	-0.9578	0.000041	0.00006	0.000032	0.152764	0.154622	0.159048	120	97	
DENMARK	4.864987	1.248976	9.989731	0.199354	0.274619	0	0.000001	0.000001	0.116842	0.124349	0.164712	42	1,152	
DOMINICAN REPUB.	9.305447	2.273659	20.94195	0.227638	—	0.008206	0.008149	0.00891	0.144219	0.143424	0.159778	42	89	
EGYPT	1.763602	1.081489	12.04888	—	—	0.000035	0.00002	0.000021	0.118638	0.110782	0.123921	141	240	
FRANCE	2.727892	0.56049	5.595174	0.558671	0.138418	0.000001	0.000001	0.000001	0.043456	0.038426	0.046462	604	3,269	
GERMANY	2.936835	0.317058	6.001221	0.503908	0.080411	0.000001	0.000001	0.000001	0.030012	0.028911	0.027721	575	15,684	
GREECE	3.394312	0.724	9.016	0.576924	—	0.000033	0.000031	0.000029	0.196008	0.171577	0.208812	97	65	
GUATEMALA	7.465556	-0.80695	12.26501	0.017952	—	0.00071	0.000641	0.00063	0.071517	0.066512	0.075299	22	325	
HONDURAS	8.290714	1.575429	13.81421	0.684555	—	0.002971	0.002744	0.002599	0.100885	0.102193	0.104358	29	150	
HONG KONG	2.705625	1.65284	12.86208	0.394513	—	0.000001	0.000001	0.000004	0.264178	0.226598	0.245815	131	281	
HUNGARY	4.720488	0.686138	10.24257	128	—	0.000062	0.000056	0.000071	0.124397	0.110946	0.141364	170	78	
INDIA	3.619195	0.562661	10.45055	0.419815	—	0.000001	0.000001	0.000001	0.049161	0.060812	0.073379	28	780	
INDONESIA	4.57017	-0.54637	20.84744	0.35523	0.708792	0.000003	0.000005	0.000001	0.112909	0.085278	0.109185	183	318	
IRELAND	1.656755	0.64514	11.83687	0.524203	-4.55493	0.000043	0.000024	0.000164	0.174179	0.180707	0.165795	107	77	
ITALY	3.775403	0.716816	6.612096	0.460063	0.023182	0.000001	0.000001	0.000001	0.038576	0.038203	0.040955	123	3,359	
KENYA	7.737958	1.921392	15.03114	0.378155	—	0.000166	0.000107	0.000112	0.11007	0.11854	0.116572	58	217	
KOREA REP. OF	2.722175	-0.05408	-6.4805	-0.03523	—	0.000071	0.00006	0.000062	0.089358	0.073205	0.073455	30	194	
LATVIA	5.485126	0.950151	15.48793	0.692959	-0.19333	0.002982	0.003251	0.003566	0.110732	0.14991	0.110402	110	90	

## Appendix 2 (Continued)

Country	Bank Performance			Banking Concentration Measures									Observations	
	NIM	ROA	ROE	P-R H-Statistics	Lerner Index	CR4 Assets	CR4 Loans	CR4 Deposits	HHI Assets	HHI Loans	HHI Deposits	Foreign Banks	Domestic Banks	
LUXEMBOURG	0.940107	0.590985	11.63575	0.726354	0.569125	0.000002	0	0.000004	0.038193	0.057217	0.038874	866	367	
MACAU	2.774583	1.154747	15.38657	—	—	0.044607	0.039483	0.038027	0.240795	0.197537	0.207193	74	25	
MALAYSIA	2.692985	0.705597	7.081716	0.362239	0.853	0.001443	0.001305	0.001457	0.081046	0.067486	0.069624	28	39	
MEXICO	5.633369	1.277234	6.806099	0.390582	0.555349	0.000032	0.000021	0.00002	0.092228	0.093216	0.096118	83	206	
MONACO	1.025923	0.359154	8.119385	0.029588	—	0.027028	0.026225	0.077548	0.184721	0.219256	0.184718	78	53	
NETHERLANDS	1.620751	1.293473	10.53815	0.495359	-0.14781	0.000001	0.000001	0.000001	0.176941	0.163532	0.190113	110	347	
NICARAGUA	8.968416	-0.01475	19.5598	—	—	0.037774	0.039353	0.03824	0.156372	0.146306	0.155629	10	93	
NORWAY	3.068977	1.380767	12.98716	0.368646	-1.13411	0.000003	0.000004	0.000005	0.114592	0.113905	0.140399	37	355	
PANAMA	3.041326	1.449211	19.34308	0.446339	—	0.000037	0.000013	0.000039	0.064104	0.088216	0.053775	120	239	
PARAGUAY	10.68934	1.857725	13.19455	0.660349	—	0.003772	0.003156	0.003861	0.099584	0.108998	0.101656	58	116	
PERU	10.63096	1.072994	11.12952	1.039053	0.093832	0.000067	0.000075	0.000067	0.164207	0.166035	0.170755	86	81	
POLAND	5.367619	0.897789	8.051071	0.905439	—	0.000005	0.000004	0.000004	0.096469	0.091343	0.101818	155	142	
PORTUGAL	3.0472	0.750367	10.74873	0.703054	-0.01975	0.000008	0.000007	0.000006	0.088307	0.088629	0.090618	72	230	
RUSSIAN FEDERATI	8.41727	2.900747	31.24792	0.075985	—	0.000006	0.000001	0.000005	0.162644	0.170858	0.186691	14	157	
SINGAPORE	2.439141	1.155	5.029161	0.378063	—	0.006927	0.009044	0.008578	0.234158	0.172726	0.177742	26	118	
SLOVAKIA	3.271515	0.548182	22.94856	-0.10214	—	0.00776	0.004371	0.007409	0.186334	0.177455	0.193812	120	12	
SLOVENIA	4.772393	1.454479	9.427546	0.106301	—	0.000929	0.001171	0.00109	0.1946	0.194508	0.190216	46	122	
SOUTH AFRICA	5.323366	1.520776	13.68225	0.489478	—	0.000001	0.000001	0.000001	0.089756	0.095675	0.098111	96	229	
SPAIN	3.622809	0.977717	9.451293	0.358291	-0.2787	0.000001	0.000001	0.000001	0.081353	0.074114	0.078529	137	1,481	
SWITZERLAND	1.904291	1.478519	8.910556	0.248846	—	0.000001	0.000001	0.000001	0.19423	0.116876	0.185887	534	2,183	
TAIWAN	2.551807	0.661779	4.334643	0.232126	6.299258	0.000003	0.000007	0.000014	0.061289	0.050402	0.057811	15	492	
THAILAND	2.709167	-0.39808	-16.3	0.553735	—	0.000038	0.000205	0.000132	0.131691	0.098371	0.103768	30	228	
TUNISIA	3.347651	1.11253	11.26355	0.392481	0.30829	0.000302	0.000272	0.000101	0.100405	0.102007	0.112121	69	97	
UGANDA	12.00718	2.5192	16.8004	—	—	0.019502	0.019406	0.021194	0.165688	0.177002	0.181716	64	66	
UKRAINE	11.79809	2.969407	13.46119	0.579916	—	0.01	0.014233	0.008501	0.114469	0.137632	0.117368	22	102	
UNITED KINGDOM	3.005866	1.103014	10.91965	0.490683	0.120421	0.000001	0.000001	0.000001	0.05875	0.060011	0.061667	506	1,402	
USA	4.097727	1.247883	13.28842	0.294152	0.292426	0.000001	0.000001	0.000001	0.014297	0.013322	0.014281	483	11,006	
VENEZUELA	17.02663	4.364146	36.30722	0.460677	0.369775	0.000143	0.000074	0.000108	0.105362	0.119722	0.108508	45	165	
ZIMBABWE	17.77345	6.371354	68.6851	—	—	0.003208	0.004287	0.003694	0.117967	0.123161	0.126514	40	59	
Average/Total	3.644114	0.799211	9.088284	0.921196	0.13511	0.000492	0.000632	0.001153	0.063623	0.05904	0.064868	8,033	54,089	

## Appendix 2 (Continued)

Country	Macroeconomic Condition			Country Risk		Governance		
	GDP Growth	Inflation Rate	Real Interest Rate	Legal Risk	Economic Risk	Control of Corruption	Government Effectiveness	Regulatory Quality
ARGENTINA	3.011796	10.07244	5.798165	2.363158	3.245263	-0.318	0.036746	0.025153
AUSTRALIA	3.803125	6.9875	2.371875	1	1.458599	1.946	1.762207	1.430329
AUSTRIA	2.136519	5.503876	2.043231	1	1.432212	1.986	1.878239	1.446279
BANGLADESH	5.206642	10.39114	5.332103	3	4	-0.92	-0.66726	-0.69028
BELGIUM	2.042647	6.229412	1.970588	1.440217	1.5	1.48	1.833485	1.175567
BOLIVIA	3.622517	25.56954	5.543046	2.321429	2.882653	-0.682	-0.27917	0.072333
BRAZIL	2.631518	53.85868	1.89E+02	2.083765	2.976684	-0.057	-0.08631	0.245864
BULGARIA	2.136364	4.130682	1.16E+02	2.967213	2.510246	-0.262	-0.12324	0.347635
CANADA	3.360656	4.036885	1.97541	1	1.5	2.057	1.98527	1.398135
CHILE	5.323782	7.318052	5.853868	1.5	1.976601	1.344	1.188672	1.379258
COLOMBIA	2.957806	11.48101	13.84388	3	3.354167	-0.496	-0.16966	0.14264
COSTA RICA	5.022727	12.20455	13.17424	2.018987	2.471519	0.746	0.393939	0.640101
CROATIA	3.085106	8.042553	1.22E+02	2.48538	2.527778	-0.208	0.183692	0.107944
CYPRUS	4.015267	4.175573	3.40458	1.113333	1.583333	0.988	1.229895	1.192842
CZECH REPUBLIC	2.414747	2.383495	5.623711	2	2.377907	0.418	0.80184	0.939386
DENMARK	2.340871	6.995604	1.940536	1	1.5	2.259	2.096305	1.619051
DOMINICAN REPubl	5.549618	14.53435	11.0687	3	3.268519	-0.453	-0.39535	-0.11822
EGYPT	4.35958	7.107612	6.952756	3.5	2.966063	-0.29	-0.30913	-0.25978
FRANCE	1.882778	5.7	1.691454	1	1.552774	1.463	1.566	0.970947
GERMANY	1.392644	8.767878	1.810812	1.43827	1.56173	2.015	1.796251	1.385067
GREECE	2.623457	10.68628	7.314815	1.97	2	0.574	0.830762	0.823429
GUATEMALA	3.501441	9.501441	7.939481	3	2.980682	-0.707	-0.50412	-0.06339
HONDURAS	3.541899	10.27933	16.30168	—	—	-0.776	-0.62948	-0.32836
HONG KONG	4.041262	6.815534	2.669903	1.982301	2.045354	1.384	1.195034	1.668938
HUNGARY	3.145161	4.697581	13.95161	1.928082	2.023973	0.645	0.835189	0.971784
INDIA	6.483911	6.788366	6.658416	2.974702	2.895337	-0.338	-0.13698	-0.22194
INDONESIA	4.091816	5.053892	13.17964	3.196078	3.77451	-0.885	-0.43095	-0.27484
IRELAND	7.309783	1.394444	2.858696	1	1.5	1.687	1.696831	1.588099
ITALY	1.379667	5.938541	3.014934	1.949754	1.550246	0.694	0.883509	0.863513
JAPAN	1.181287	3.190733	0.25686	1.5	2.424886	1.235	1.168594	0.80327
KAZAKHSTAN	6.757576	—	15.78788	3	2.888889	-0.977	-0.72613	-0.55774
KENYA	2.898182	11.42909	11.32727	3.423077	3.173077	-1.004	-0.62871	-0.30036
KOREA REP. OF	5.303571	4.8125	4.066964	1.5	2.603704	0.264	0.810848	0.582061
LATVIA	6.18	5.452261	11.92	2.223776	2.38986	0.041	0.456864	0.901361
LUXEMBOURG	4.201946	4.28725	2.051906	1	1.010309	1.997	2.093459	1.671787
MACAU	6.030303	6.616162	1.515152	2	2.46875	0.45	0.663625	0.651

## Appendix 2 (Continued)

Country	Macroeconomic Condition			Country Risk		Governance Index		
	GDP Growth	Inflation Rate	Real Interest Rate	Legal Risk	Economic Risk	Control of Corruption	Government Effectiveness	Regulatory Quality
MALAYSIA	5.402985	4.059701	2.791045	2	2.684783	0.386	0.803621	0.530172
MEXICO	3.00346	5.580645	14.10727	2.5	2.661202	-0.377	0.187124	0.438628
MONACO	—	—	—	—	—	0	0.039691	0
NETHERLANDS	2.579869	3.733042	2.413567	1	1.106557	2.153	2.103981	1.727649
NICARAGUA	3.893204	6.407767	5.964286	—	—	-0.579	-0.67111	-0.1884
NIGERIA	3.9375	1.388393	21.61161	—	—	-1.22	-1.05033	-0.99858
NORWAY	3.252551	4.291777	1.890306	1	1.435381	2.175	2.05415	1.26051
PAKISTAN	4.508197	1.230769	6.967213	3.871951	3.865854	-0.884	-0.5849	-0.61571
PANAMA	4.167131	7.779944	0.855153	2.5	2.947072	-0.326	0.041809	0.593014
PARAGUAY	2.068966	19.87931	10.97126	—	—	-1.124	-0.93453	-0.41688
PERU	4.556886	24.26946	12.27545	2.5	2.977723	-0.293	-0.25544	0.35208
POLAND	4.444444	7.814815	13.14141	1.976064	2.033245	0.421	0.629244	0.677311
PORTUGAL	2.274834	6.52	3.903974	1.963576	2	1.355	1.176	1.11322
RUSSIAN FEDERATI	1.631579	10.85526	94.11243	3.393805	3.243363	-0.863	-0.45269	-0.48724
SINGAPORE	7.0625	5.013889	1.409722	1	1.653226	2.247	2.211573	1.848539
SLOVAKIA	3.712121	6.244094	7.661157	2.297619	2.383929	0.259	0.580481	0.696346
SLOVENIA	3.589286	6.517857	9.10559	2.303738	2.439252	0.902	0.926015	0.858722
SOUTH AFRICA	2.824615	7.48	7.113846	2	2.450798	0.537	0.66751	0.349544
SPAIN	2.915946	3.701642	3.627318	1.5	1.531928	1.332	1.656639	1.189909
SRI LANKA	4.836066	5.6	9.778689	—	—	-0.289	-0.34438	0.112083
SWEDEN	2.495146	5.469388	1.368932	1	1.5	2.22	2.056753	1.407403
SWITZERLAND	1.327199	3.726169	1.37799	1	1.304224	2.16	2.180333	1.509157
TAIWAN	4.621951	1.87931	7.304878	1.5	1.939189	0.69	1.053872	0.991698
THAILAND	4.286822	6.263566	3.903101	2.426667	2.713333	-0.209	0.234053	0.316368
TUNISIA	4.692771	—	3.722892	2.5	2.40625	0.141	0.529167	0.153
TURKEY	3.859649	—	79.92983	2	2.1	-0.088	-0.16105	0.486316
UGANDA	6.276923	15.08333	5.746154	3	2.602151	-0.808	-0.49644	0.037043
UKRAINE	2.016129	7.330645	1.32E+02	—	—	-0.922	-0.64222	-0.5925
UNITED KINGDOM	2.736373	2.998952	2.629979	1	1.5	2.099	1.927507	1.700973
USA	3.362956	4.850466	2.625294	1	1.5	1.72	1.827495	1.492488
VENEZUELA	2.342857	-0.95238	34.70952	3.078358	3.5	-0.89	-0.76894	-0.59155
VIETNAM	7.632184	6.308271	4.326087	3.106195	3.371681	-0.691	-0.40891	-0.55652
ZIMBABWE	-1.34343	-6.27273	1.09E+02	—	—	-0.77	-0.78787	-1.41013
Average	2.534352	6.83906	7.4978	1.481255	1.774769	1.384	1.403869	1.118665

## Appendix 2 (Continued)

Country	Bank Regulation and Supervision								
	Bank Capital	Ownership Restrictiveness	Basel Risk Weights	Securities Activities	Licensed/Certified Auditor	Auditor's Report	Consolidated Accounts	Solvency Intervention	Onsite Inspections
ARGENTINA	1	0.634	1	1	1	1	0.634	0	1
AUSTRALIA	1	1.637	1	1	1	1	1	0.166	1.834
AUSTRIA	1	0.629	1	1	1	1	1	1	1.388
BANGLADESH	1	1	1	1	1	1	1	0	1
BELGIUM	1	0.761	1	1	1	1	0.601	0	1
BOLIVIA	1	1.347	1	1	1	0.327	1	0.663	1
BRAZIL	1	0.271	1	1	0.358	1	0.642	0.371	2
BULGARIA	1	1	1	1	1	1	1	0.27	2
CANADA	1	2	1	1	1	1	0.717	0	1
CHILE	1	1.379	1	1	1	1	1	1	1
COLOMBIA	1	1.569	1	1	1	1	1	1	1
COSTA RICA	1	2	0.266	1	1	1	0.734	1	1
CYPRUS	1	1.453	1	1	1	1	0.627	0.373	1
CZECH REPUBLIC	1	2.76	1	1	1	1	1	1	2.24
DENMARK	1	1	1	1	1	1	0	1	1.734
DOMINICAN REPUBL	1	3	1	1	1	1	1	1	1
EGYPT	1	1	1	1	1	1	1	1	2
FRANCE	1	0.211	1	1	1	1	1	0	1.375
GERMANY	1	0.618	1	1	1	0.629	1	0.247	1.247
GREECE	1	0.6	1	1	1	1	1	0	2
GUATEMALA	1	1.718	1	1	1	0.632	0.641	1	1
HONDURAS	0.667	2.333	1	1	1	0	1	1	1
HONG KONG	1	2	1	1	1	1	1	0	1
HUNGARY	1	1.404	1	1	1	1	1	1	2
INDIA	1	2	1	1	1	0.317	1	0	1
INDONESIA	1	0.627	1	1	1	1	1	1	1
IRELAND	1	0.616	1	1	1	1	1	0	1
ITALY	1	2	1	1	0.586	1	0	0	2.655
JAPAN	1	1.357	1	1	0.643	1	1	1	1.69
KAZAKHSTAN	1	2.333	1	1	1	1	1	1	1.333
KENYA	1	1.654	1	1	1	0.654	1	1	1.346
KOREA REP. OF	1	1.659	1	1	1	1	1	1	1.304
LATVIA	0.664	2.329	1	1	1	1	1	0.495	1.336
LUXEMBOURG	1	1.649	1	1	1	1	0.769	0	1
MACAU	1	3	1	1	1	1	1	0	1.625
MALAYSIA	1	2	1	1	1	1	1	0.674	1

## Appendix 2 (Continued)

Country	Bank Regulation and Supervision								
	Bank Capital	Ownership Restrictiveness	Basel Risk Weights	Securities Activities	Licensed/Certified Auditor	Auditor's Report	Consolidated Accounts	Solvency Intervention	Onsite Inspections
MEXICO	1	1.164	1	1	1	1	0.59	1	1.41
MONACO	1	0.39	1	1	1	1	1	0.571	1.857
NETHERLANDS	1	0.594	1	1	1	1	0	0	1
NICARAGUA	1	0.844	1	1	1	1	1	1	1
NORWAY	1	2	1	1	1	1	0	1	1
PAKISTAN	1	1.317	1	1	1	1	1	0.683	1
PANAMA	1	2.595	1	1	1	1	1	0.595	1.797
PARAGUAY	1	1	1	1	1	1	1	1	1
PERU	1	1	1	0.703	1	1	1	1	1
POLAND	1	0.601	1	1	1	1	1	0.383	2.782
PORTUGAL	1	0.536	1	1	1	1	1	0	2
RUSSIAN FEDERATI	1	0.628	1	1	1	1	0.628	1	2
SINGAPORE	1	1	1	1	1	1	0.548	0	2.806
SLOVAKIA	1	1	1	0.714	1	1	1	0.643	1.286
SLOVENIA	1	1	1	1	1	1	1	1	1
SOUTH AFRICA	1	1	1	1	1	1	0.388	0.197	1
SPAIN	1	1	1	1	1	1	1	1	1.918
SRI LANKA	1	1	1	1	1	0.692	1	0.308	2
SWEDEN	1	0.613	1	1	1	0.645	0.613	0	1
SWITZERLAND	0.717	0	1	1	1	1	1	0.283	1
TAIWAN	1	2	1	0.635	1	0.635	1	1	1.291
THAILAND	1	2	1	1	1	0.64	1	0	1
TUNISIA	1	3	1	1	1	0	1	1	2
TURKEY	1	0.067	1	1	1	1	0.067	0.067	1
UGANDA	1	1	1	1	1	0	1	1	1
UKRAINE	1	1	1	1	1	1	1	1	1
UNITED KINGDOM	1	0.266	1	1	1	1	0.734	0	1.266
USA	1	1.71	1	1	0.71	1	1	1	1
VENEZUELA	1	1.358	0.687	1	1	1	1	1	1
VIETNAM	1	1	1	1	1	0	1	.	1
ZIMBABWE	1	1	1	1	1	0.2	1	1	1
Average	0.986	1.078	0.997	0.996	0.898	0.867	0.872	0.49	1.332

### Appendix 3

#### Bank Performance, Market Concentration, Governance Index, Country Risk and Bank Regulation and Supervision among years

Year	Bank Performance			Banking Concentration Measures									Macroeconomic Condition			Country Risk		Governance			Observations	
	NIM	ROA	ROA	P-R H-Statistics	Lerner Index	CR4 Assets	CR4 Loans	CR4 Deposits	HHI Assets	HHI Loans	HHI Deposits	GDP Growth	Inflation Rate	Real Interest Rate	Legal Risk	Economic Risk	Control of Corruption	Government Effectiveness	Regulatory Quality	Foreign Banks	Domestic Banks	
1992	3.736128	0.613447	7.364236	0.469801	-0.65879	0.005651	0.005706	0.017703	0.093992	0.092701	0.097849	1.915519	8.074738	14.95987	3.25	3	.	.	.	337	1845	
1993	3.834946	0.794541	9.463075	8.365861	-0.41692	0.001144	0.001268	0.002857	0.062442	0.06146	0.064701	0.99123	6.762382	24.09514	.	.	1.34	1.67	1.54	464	3424	
1994	3.895923	0.764012	9.297826	0.523515	-0.20767	0.000441	0.000552	0.001082	0.057608	0.056537	0.05946	3.310345	6.427023	31.74446	.	.	-0.83	-0.93	-0.1	527	3834	
1995	4.010235	0.823455	9.633758	0.482761	-0.09011	0.000299	0.000434	0.000796	0.055375	0.054044	0.057365	2.697016	7.458842	6.520313	1	1.5	-0.096	0.4	0.394	569	4066	
1996	3.921344	0.884052	9.678466	0.486582	0.105127	0.000138	0.000206	0.000387	0.055204	0.053735	0.057434	2.532235	7.142951	4.519649	2.25	2.5	1.402489	1.586298	0.92361	594	4210	
1997	3.801832	0.893087	9.359293	0.427702	0.049746	6.73E-05	0.000129	0.00018	0.055929	0.052837	0.057712	3.34876	8.014884	6.709998	1	1.5	1.403548	1.58821	0.924353	613	4239	
1998	3.699571	0.586855	9.187236	0.381874	0.095709	3.67E-05	3.89E-05	0.000125	0.058625	0.053006	0.058915	2.597541	8.066569	3.387137	1.497563	1.762717	1.416524	1.343989	1.122042	611	4199	
1999	3.581173	0.761592	8.573602	0.4462	0.151351	4.33E-05	5.98E-05	0.000253	0.058919	0.052798	0.05918	2.812921	7.638979	2.636939	1.497432	1.771618	1.419457	1.345754	1.123498	609	4155	
2000	3.556616	0.864602	9.014115	0.406679	0.209767	3.89E-05	5.61E-05	8.81E-05	0.059879	0.052955	0.059961	3.880673	7.686039	2.85269	1.49664	1.763169	1.414672	1.455711	1.228298	607	4098	
2001	3.469554	0.788273	8.532757	0.274042	0.2585	2.36E-05	3.43E-05	5.69E-05	0.060656	0.053246	0.060739	1.612603	7.20601	3.079844	1.498127	1.736448	1.414544	1.456202	1.228216	599	4031	
2002	3.512839	0.635234	7.529091	0.400423	0.298734	0.000034	4.48E-05	4.65E-05	0.072386	0.064076	0.073373	1.190381	6.206704	2.75953	1.495151	1.744136	1.403151	1.408762	1.169372	593	3930	
2003	3.373413	0.68397	8.062389	0.379346	0.347493	0.000098	0.000186	7.36E-05	0.07428	0.069796	0.076071	1.78356	4.60726	3.489293	1.501465	1.740626	1.384631	1.318534	1.178805	587	3766	
2004	3.286326	0.884043	9.511014	0.407716	0.444265	0.000121	0.000187	8.51E-05	0.078525	0.071698	0.079645	3.05029	3.578028	3.422872	1.43278	1.842989	1.35111	1.28464	1.174624	565	3579	
2005	3.330067	0.981417	10.24297	0.43741	0.579676	0.000321	0.000845	0.000969	0.077339	0.068457	0.07872	2.621099	4.211787	3.463132	1.422147	1.84837	1.314466	1.244001	1.147656	486	3142	
2006	3.589085	1.216262	11.88166	0.444078	1.16559	0.002819	0.005287	0.007293	0.087655	0.076023	0.086523	3.870179	5.218257	3.527431	1.457584	1.797191	1.114372	1.271905	1.106731	272	1571	
Average	3.644114	0.799211	9.088284	0.921196	0.13511	0.000492	0.000632	0.001153	0.063623	0.05904	0.064868	2.534352	6.83906	7.4978	1.481255	1.774769	1.383706	1.403869	1.118665	8,033	54,089	

### Appendix-3 (Continued)

#### The Performance, Market Concentration, Governance Index, Country Risk and Bank Regulation and Supervision among years (Continued)

Year	Governance			Banking Regulation and Supervision									Observations	
	Control of Corruption	Government Effectiveness	Regulatory Quality	Bank Capital	Ownership Restrictiveness	Basel Risk Weights	Securities Activities	Licensed/Certified Auditor	Auditor's Report	Consolidated Accounts	Solvency Intervention	Onsite Inspections	Foreign Banks	Domestic Banks
1992	—	—	—	—	—	—	—	—	—	—	—	—	337	1845
1993	1.34	1.67	1.54	—	—	—	—	—	—	—	—	—	464	3424
1994	-0.83	-0.93	-0.1	—	—	—	—	—	—	—	—	—	527	3834
1995	-0.096	0.4	0.394	—	—	—	—	—	—	—	—	—	569	4066
1996	1.402489	1.586298	0.92361	—	—	—	—	—	—	—	—	—	594	4210
1997	1.403548	1.58821	0.924353	—	—	—	—	—	—	—	—	—	613	4239
1998	1.416524	1.343989	1.122042	0.996646	0.924319	0.997904	0.992453	0.891614	0.951838	0.86499	0.3919	1.455119	611	4199
1999	1.419457	1.345754	1.123498	0.996613	0.925275	0.997883	0.992379	0.892041	0.951365	0.866638	0.393397	1.45086	609	4155
2000	1.414672	1.455711	1.228298	0.99657	0.926903	0.997856	0.992283	0.892605	0.950745	0.868382	0.395815	1.44583	607	4098
2001	1.414544	1.456202	1.228216	0.997168	1.205011	0.997821	1	1	0.697593	0.885839	0.401355	1.171678	599	4031
2002	1.403151	1.408762	1.169372	0.997324	1.211864	0.997993	1	1	0.69422	0.887154	0.403713	1.168599	593	3930
2003	1.384631	1.318534	1.178805	0.997451	1.209917	0.997915	1	1	0.693669	0.886006	0.401813	1.183272	587	3766
2004	1.35111	1.28464	1.174624	0.959611	1.134063	0.996594	0.995134	0.80219	0.986618	0.844769	0.731755	1.39854	565	3579
2005	1.314466	1.244001	1.147656	0.955241	1.11315	0.996108	0.994718	0.785377	0.985544	0.860439	0.752022	1.42035	486	3142
2006	1.114372	1.271905	1.106731	0.933041	1.097146	0.992316	0.991767	0.623491	0.979693	0.889682	0.818533	1.237651	272	1571
Average/Total	1.383706	1.403869	1.118665	0.985625	1.077593	0.997303	0.995631	0.89754	0.867489	0.871865	0.489978	1.331569	8,033	54,089