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The Poor Performance of Foreign Bank Subsidiaries: Were the Problems Acquired or Created?

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Abstract

We examine foreign acquisitions of United States banks around the time of the ownership change to determine whether the observed poor performance of foreign subsidiaries is the result of changes in business strategy or the preexisting characteristics of the target bank. We find that many of the problems were already present at the time of acquisition. However, changes in business strategy by the foreign owners were generally not successful in raising the bank's performance level to that of its domestic peers.

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1. Introduction

Increasingly, banks are expanding their operations beyond their own national borders. However, numerous studies have found that foreign banks are neither particularly profitable nor particularly efficient relative to their domestically owned peers. Nonetheless, foreign bank entry into the United States has continued. A question of interest concerns the contribution of foreign bank management to the observed underperformance of foreign-owned banks in the United States compared to their peers. In particular, is it management's decisions about which banks to acquire or their operating decisions after the acquisitions that account for the disparity in performance?

One possibility is that foreign banks acquire domestic banks that already perform poorly, as shown by a low return on assets, low capital ratios, and poor loan quality. The motivation for such a strategy would be that poor performers provide a relatively low-cost entry vehicle. New management would then attempt to improve the long-run performance of the bank with better underwriting standards and risk management or through other changes in business strategies. Alternatively, the target bank may provide a mechanism to exploit expertise and/or cost advantages of the new foreign owner, whether or not the target bank has been a poor performer. In that case, changes in business strategy would occur only to the extent that the target does not already have the characteristics desired by foreign management. To the extent that the new management changes the business strategy of the target and is not fully successful, the performance problems documented in previous studies would be created by management operating decisions rather than acquired with the target.

To address the question of the extent to which the problems of foreign-owned banks have been acquired or created, one should focus on the transition period surrounding the change in ownership, a period that most recent studies have intentionally omitted.[1] In particular, we examine whether banks targeted by foreign acquirers are less healthy than targets of domestic bank holding companies or than banks in general. We also examine whether the business strategies of the target banks changed after their acquisition by foreign owners.

Although we employ a very different research methodology than previous studies, our results reinforce the findings of earlier studies that foreign-owned banks in the United States perform less well than their domestically owned peers. Overall, the results suggest that foreign banks do tend to acquire less healthy banks. U.S. banks acquired by foreign banking organizations tend to be less well-capitalized than their peers, and their problem loans tend to increase immediately following the acquisition. Second, foreign owners do little to permanently solve their problems. Foreign acquirers do change the business strategies of their targets, improve loan quality, and initially improve capital ratios, but despite these changes banks acquired by foreigners continue to have lower returns than their domestically owned peers, whether acquisition targets of domestic bank holding companies or U.S. banks in general. Thus, we find that choice of target and choice of business strategies each play a role in the poor performance of foreign-owned banks in the United States.

The next section of the paper provides some background on the presence of foreign banks in the United States. The third section describes the data and methodology for examining both the condition of target banks at the time of acquisition and the resulting changes in asset and

liability management. The fourth section reports the results from the empirical tests. The final section provides the conclusions.

2. Background

This study investigates the behavior of commercial and savings banks in the United States that have been acquired by foreign entities and allowed to continue to operate as a separate entity.[2] Thus, the term "acquisition" will refer to an ownership change that does not involve a merger of bank balance sheets. We focus on the periods immediately before and after the acquisition, comparing target bank behavior across these periods, as well as with the behavior of targets of domestic bank holding companies and with domestically owned commercial and savings banks not experiencing a change in ownership. Focusing only on changes in ownership in which the acquired bank retains its charter, rather than on mergers, allows a direct comparison of the behavior before the acquisition with that of the same entity after the acquisition, where the primary difference is in the identity of management.

Several recent studies have documented that foreign-owned banks are not as profitable as their domestic peers. Seth (1992) and Nolle (1995) found that foreign-owned banks were not as profitable as domestically owned banks, based on aggregate profits. DeYoung and Nolle (1996) use a profit-efficiency model and conclude that foreign-owned banks were less profit-efficient because of their reliance on purchased funds. Molyneux, Remolona, and Seth (1997) use a simultaneous equations framework to describe the profitability of foreign-owned banks and conclude that their profitability was related to capital ratios, commercial and industrial (C&I) loan growth, and asset portfolio composition. This more recent literature is broadly consistent with an

earlier literature from the 1970s that also found foreign-owned banks to be less profitable (Hodgkins and Goldberg 1981; Houpt 1983).

The lower level of profitability is somewhat surprising, since several studies have argued that foreign-owned banks may have cost advantages over their domestic peers. Zimmer and McCauley (1991) conclude that foreign banks have cost-of-capital advantages, while McCauley and Seth (1992) and Terrell (1993) have argued that foreign-owned banks may have advantages emanating from a lower cost of funds.

These results are not necessarily inconsistent if foreign banks, despite cost advantages, do not use their inputs efficiently. Recent studies (for example, Nolle 1995; Elyasiani and Mehdian 1993) have concluded that foreign-owned banks tend to be less cost-efficient than domestic banks. DeYoung and Nolle (1996) show that input inefficiency, rather than output inefficiency, likely explains the lower profitability of foreign-owned bank subsidiaries.

2.1 Patterns of Foreign Acquisitions

Foreign-owned bank subsidiaries, defined to include both commercial and savings banks but not branches and agencies of foreign banking organizations, were present in 23 states and the District of Columbia at some time during the 1984:I to 1997:II period. (See below for details of selection and classification criteria.) However, most foreign-owned banks (approximately 85 percent) have been located in four states: California, New York, Illinois, and Florida. Twenty-seven states had no foreign-owned banks at any time during this 13 and one-half year period, and by mid-1997 an additional nine had no foreign-owned banks. Thus, any comparison of the profitability and asset and liability management of foreign-owned banks with that of domestically owned banks must consider whether the results are idiosyncratic to foreign ownership or merely

reflect differences in local or regional conditions where foreign banking organizations have chosen to have a presence.

Between 1984:I and 1997:II, the largest increases in the number of foreign-owned banks occurred in Illinois and New York. Much of the growth in New York occurred in the 1980s, more through de novo entry than by acquisitions of existing banks. In contrast, much of the growth in Illinois occurred in the 1990s through acquisitions rather than through de novo entry. In 1984, California had the largest number of foreign-owned banks of any state. However, the number of foreign-owned banks there declined in the late 1980s and the beginning of the 1990s, and it has remained relatively constant since that time.[3]

On the other hand, both sales of foreign-owned banks to domestic banking organizations and mergers of banks within the same foreign-owned holding company can account for reductions in the number of foreign-owned bank charters. In many states, much of the reduction in the number of foreign-owned banks has been the result of the consolidation of affiliate banks rather than the exit of foreign banking organizations. For example, Bank of Ireland purchased 11 commercial and savings banks in New Hampshire in 1988 and then gradually consolidated them; the surviving entity was eventually sold as a single bank to Citizens Bank (owned by Royal Bank of Scotland).

Table 1 presents average balance sheet and performance measures for domestically owned banks that were acquired by foreign banking organizations, measured relative to those of their peer banks. While such measures will not control fully for the many changes occurring over time and across geographic regions, the table is suggestive of the most apparent trends that do not require multivariate regression analysis to uncover. The target banks include all domestically

owned banks purchased by a foreign banking organization at any time during the 1984:I to 1997:II period for which we have at least four years of data prior to the acquisition.[4]

The table shows data for five one-year windows.[5] The observations cover the period from 8 quarters before the acquisition to 12 quarters after the acquisition, with only the quarter of the acquisition omitted. The target banks are also stratified by their size at the time of acquisition: banks with assets of less than $100 million, from $100 million to $300 million, from $300 million to $1 billion, and greater than $1 billion. This helps control for any differences in bank behavior or in banking markets that are related to bank size. To be included in a window, the target bank must file a call report at the beginning of the window and at the end of the window, and it must not have been involved in a merger during the one-year period encompassed by the window. For a given asset-size class, the number of target (and peer) banks will vary over time, since a bank is omitted from a window if it engages in a merger acquisition during the one-year window. Because a bank will disappear from the sample if it fails or is merged into another bank and no longer retains a separate bank charter, and because some acquisitions occur late in our sample period so that data are unavailable for part of the post-acquisition period, the number of target banks will tend to decline as the window becomes further removed from the acquisition quarter.

The data in the table are constructed as the difference between the values for the target banks and those for their peer groups in order to partially control for differences in macroeconomic and market conditions across geographic locations and across time. To identify a similarly situated set of peer banks for each target bank, we chose banks located in the same metropolitan statistical area (MSA) that were in the same size class as the target bank at the time of the acquisition. To be included in a window, peer banks were required to be operating at the

beginning and at the end of the one-year window, but did not have to be in operation for the entire five-year period under consideration. As with target banks, banks in their first two years of operation (de novos) and banks engaging in a merger acquisition during the window were not included.

For variables computed as ratios, the numerator and denominator for peer bank values were each formed separately by summing across all peer banks for a given target bank before the ratio was calculated.[6] Peer bank growth rates for each target bank were calculated from the sum of the end-of-period values for that target bank's peer group compared to the sum of their beginning-of-period values. The growth rate for the aggregated peer group was then subtracted from that for the associated target bank. The data in the table are calculated as a simple average of the target-peer bank differences across the set of target banks in each asset-size class. Positive values indicate that target bank values were larger than those of their peers, while negative values indicate that the target bank values were smaller than those of their peers.

Among the banks with less than $100 million in assets, the net income and fee income variables are much smaller than for peer banks prior to the acquisition. However, within three years after the acquisition, these small banks are more profitable and have fee income that accounts for a larger share of their net income compared to their peers. Target banks are less well-capitalized than their peers both before and after the acquisition, with their capital ratio closest to that of their peers immediately following the acquisition, perhaps associated with a capital infusion by the new owners. Target banks also have a higher ratio of nonperforming loans than their peers, and the difference increases substantially immediately following the acquisition, possibly reflecting an understatement of the nonperforming loan problems of target banks prior to

the acquisition. However, three years after the acquisition, their past-due loan ratio is above that of their peers, although the difference is smaller than in the year before and the year after the acquisition.

The acquired banks tend to substantially decrease their reliance on core deposits and increase their reliance on purchased funds following the acquisition. Furthermore, they eventually decrease their portfolio share of securities and increase their portfolio share of loans, compared to their peers. Within their loan portfolio, they tend to decrease their emphasis on C&I loans and on consumer loans and increase their emphasis on real estate loans subsequent to the acquisition. These target banks generally grow much faster than their peers following the ownership change.

For target banks with assets between $100 million and $300 million, the ratio of net income to assets is lower than for their peers until the third year after the acquisition, and they tend to rely increasingly on fee income after the acquisition, measured relative to their peers. The target banks are less well capitalized than their peers prior to the acquisition, but are much better capitalized by the third year after the acquisition. Their ratio of nonperforming loans increases in the second and third year after the acquisition relative to previous periods, as do past-due loans.

After the acquisition, these targets rely less on core deposits and eventually less on purchased funds compared to their peers. The targets tend to place greater emphasis on securities and less emphasis on loans than their peers. As in the smallest asset-size class, the targets' relative emphasis on C&I loans and on consumer loans tends to decline after the acquisition, while the emphasis on real estate loans increases. They tend to grow more rapidly than their peers, both before and after the acquisition.

Target banks of foreign acquirers in the third size class ($300 million to $1 billion in assets) experience a transitory rise in profitability during the year after the acquisition, but then fall well below the return on assets of their peers by the third year after the acquisition. Following the acquisition, fee income is a much less important source of income for target banks relative to their peers. Target banks are less well capitalized prior to the acquisition, appear to get a capital infusion at the time of the acquisition, and then see their capital position deteriorate relative to their peers. Both the nonperforming loan and past-due loan ratios jump during the third year after the acquisition.

During the second and third years after the acquisition, these banks rely much less on core deposits. They rely much more on purchased funds relative to their peers before as well as after the acquisition. Target banks have a smaller portfolio share of securities compared to their peers, other than during the year prior to the acquisition. On the other hand, the portfolio share of loans drops during the first year after the acquisition before rising substantially above that of their peers. As was the case with the smaller target banks, the relative emphasis on C&I loans eventually declines and that on real estate loans rises following the acquisition. However, in contrast with the pattern for smaller targets, the relative emphasis on consumer loans rises. Asset growth is fastest, relative to peer banks, during the year before the acquisition. Loan growth drops sharply during the second and third years following the acquisition.

For the largest target banks, net income improves following the acquisition and is actually larger than that of their peers. Fee income is typically a less important source of income for these target banks relative to their peers. Again, it appears that these target banks receive a capital infusion immediately after the acquisition, although they soon again have capital ratios below

those of their peers. Target banks in the largest size class improve their nonperforming loan and past-due loan ratios after the acquisition, pushing each below those of their peers. They also show the typical pattern of a reduced reliance on core deposits and increased reliance on purchased funds following the acquisition, although again, they rely more on purchased funds than their peers even before the acquisition. Unlike banks in the other size classes, the largest target banks increase their emphasis on securities and decrease their emphasis on loans, relative to their peers. They also sharply decrease their emphasis on real estate lending, unlike the smaller targets, and eventually decrease their emphasis on C&I loans. While loan growth continues to lag that of their peers after the acquisition, asset growth jumps during the second and third years following the acquisition.

Table 1 shows that significant heterogeneity exists in the characteristics and behavior of banks subsequent to a change from domestic to foreign ownership. The variability in the data here permit only a few stylized hypotheses that can be applied to a change from domestic to foreign ownership. Generally, banks that are targets of foreign acquirers are less well capitalized prior to the acquisition and then appear to receive a capital infusion. They also frequently have nonperforming loan ratios above those of their peers. These findings provide some support for the hypothesis that the poor overall performance of foreign bank acquisitions may be due, in part, to a choice of poorly performing targets rather than solely to management decisions after acquisition that impair the efficiency and profitability of the subsidiary. Furthermore, the variations in portfolio allocations and performance measures indicate that foreign owners do not necessarily follow similar strategies after the acquisition. While Table 1 is illustrative, the data do not indicate any striking similarities across asset-size classes. Furthermore, because the

composition of the set of targets in a specific size class from one window to the next often changes, the observed patterns reflect both changes in behavior and differences across windows in the set of target banks included. Thus, controlling for other variables in a panel data set is likely to provide better tests of whether the seemingly poor performance of foreign-owned banks is acquired or created.

3. Data and Methodology

A major component of this study was the clear identification of the foreign ownership of banks in the United States. This is not as straightforward as one might expect and it required significant research. Previous studies have used Call Report identifiers such as the percentage of stock that is foreign-owned or the foreign-ownership code identifier. Unfortunately, examination of those data showed that the series often are inconsistent over time and inconsistent with each other, and they did not always correctly identify foreign-owned banks. As a result, a series of queries was designed for the National Information Center (NIC) data base.[7] To verify the accuracy of the set of banks identified by the queries as foreign-owned, the set of First District banks identified as foreign-owned was double-checked with supervisory personnel at the Federal Reserve.

Once all foreign-owned commercial and savings banks had been identified for the 1984:I to 1997:II period, including the dates on which they were converted to foreign ownership (if they were not already foreign-owned in 1984), changed ownership from one foreign owner to another, or converted from foreign to domestic ownership, we identified the metropolitan statistical area (MSA) in which they were headquartered. (Cities were used for the few banks not located in an

MSA.) We then included in the data base a control group of banks consisting of all banks headquartered in any MSA that had at least one foreign-owned bank at some time over the period 1984:I to 1997:II. Thus, regions of the country with no foreign-owned banks (approximately one-half of the states) were not included in the data set.

The panel is unbalanced because de novo banks enter the sample and existing banks leave as a result of mergers and/or failures. Because a merger results in a one-time jump in the balance sheet data of the surviving entity, we delete observations in which a bank merger is consummated. We also omit the first eight quarters of operations of de novo banks. In addition, we omit observations that contain obviously incorrect information, such as asset portfolio shares that are negative or exceed 100 percent. Finally, we omit observations with extreme values for the capital ratio (outside the range of -50 to 50 percent) or asset or loan growth rates (outside the range of -25 to 25 percent in a single quarter).[8] The resulting panel data set spans 53 quarters (1984:I is omitted from the regression sample because of the need for lagged values of variables) and includes 2565 individual banks for a total of 61,531 observations.

The regressions are intended to determine whether banks targeted for acquisition by owners of foreign banking organizations were in unusually poor condition at the time of acquisition, whether foreign management significantly altered portfolio allocations, and whether those decisions influenced the subsequent poor performance of these banks, as documented in earlier studies. Thus, the dependent variables include measures of performance and bank health, as well as measures of the composition of assets and liabilities. The basic regression is as follows:

$$X_{i,t} = \alpha_0 + \alpha_1 DACQ_{i,t} + \alpha_2 DMSA + \alpha_3 DTIME + \alpha_4 BANK_{i,t-1} + \epsilon_{i,t}. \quad \textbf{(1)}$$

$X_{i,t}$ represents the value of the dependent variable for bank i at time t. The set of alternative dependent variables includes the capital ratio; nonperforming loans (loans past due 90 days or more plus nonaccrual loans) as a share of total loans; loans past due 30 through 89 days as a share of loans and of assets; the return on assets; the growth rate of loans; and C&I loans, real estate loans, consumer loans, core deposits, and purchased funds, each measured as a share of assets.[9]

The first vector of explanatory variables contains a set of (0,1) dummy variables for ownership changes. Four subsets of ownership changes are examined: a domestically owned bank being acquired by another domestic bank holding company, a domestically owned bank being acquired by a foreign entity, a foreign-owned bank being acquired by another foreign banking organization, and a foreign-owned bank being acquired by a domestic bank holding company. In addition to identifying the quarter of the ownership change, the set of dummy variables allows us to identify differences in bank characteristics and performance measures during the quarters immediately prior to the ownership change and subsequent to the change in ownership compared to those at the time of the acquisition.

The period surrounding the acquisition is split into six dummy variables: five to eight quarters prior to the acquisition, one to four quarters prior to the acquisition, the quarter in which the acquisition occurs, one to four quarters after the acquisition, five to eight quarters after the acquisition, and nine or more quarters after the acquisition. This permits an investigation of the adjustments by the seller just prior to the transaction, as well as separate short-run and longer-run adjustments by the new owner. The regression analysis includes the four sets of the six time-specific dummy variables (a total of 24).

The first set of six acquisition dummy variables is specified to include all acquisitions, rather than just the set of domestic-domestic acquisitions. The estimated coefficients on these acquisition dummy variables reflect any differences between the characteristics and behavior of domestically owned banks acquired by domestic bank holding companies and those of the set of banks not being acquired during the period. The estimated coefficients on the other three sets of acquisition dummy variables then measure the differences in characteristics and behavior of each of the three other types of acquisitions relative to this base case of domestic to domestic transactions. This provides two levels of control groups for acquired banks with at least one of the transactors a foreign entity. This allows one to see, for example, how a domestically owned bank acquired by a foreign banking organization differs both from banks in general and from other domestically owned banks acquired by a domestically owned holding company.

The second vector of variables is a set of MSA dummy variables to control for the geographic location of the bank's headquarters. Foreign subsidiaries are heavily concentrated in relatively few locations. It is important to control for geographic location, given the substantial regional differences in economic performance experienced as a result of a series of regional downturns. The third vector of variables contains a set of quarterly dummy variables. Because the ownership changes occurred over a period of more than 13 years under varying economic conditions, it is important to control for the time at which the acquisition occurred, as well as the geographic location of the bank.

The final vector contains bank-specific variables. As could be seen in Table 1, bank size and the nature of the activities emphasized by management may affect the performance of a bank both before and after an acquisition. Thus, we include a vector of bank-specific variables such as

size, performance, and portfolio shares of lines of business, in order to control for differences across particular banking markets.[10]

If the relatively poor performance of foreign-owned banks is the result of problems at the bank prior to its acquisition, we would expect that targets of foreign banking organizations would have lower capital ratios and higher ratios of nonperforming loans compared to their peers or to domestically owned banks being acquired by other domestic bank holding companies. To the extent that troubled banks targeted by foreign banking organizations had not fully disclosed the extent of their problems, nonperforming loans might increase at the time of acquisition and subsequently decline as the new owner charged off bad loans. As the new owner made loan loss provisions for the inherited problems, loan loss reserves would rise, net income would decline, and capital would decline.

If, instead, problems at foreign-owned banks were created by the decisions of the new management team, we would expect to observe little difference prior to the acquisition in the capital ratios, nonperforming loan ratios, or net income at targets of foreign-owned banking organizations compared to their peer banks or to targets of domestically owned banking organizations. Instead, we should see portfolio shifts at the targets of foreign-owned banking organizations after the acquisition that result in poorer performance once the new policies had been fully implemented.

The equations are estimated with ordinary least squares. A fixed-effects specification was not deemed appropriate for the particular hypothesis tests under consideration here. The basic assumption underlying incorporating a set of bank-specific intercepts is that, conditional on the observed explanatory variables, these intercepts will incorporate the effects of all excluded

variables that are the same for a given bank through time but vary across banks. This would include such hard-to-quantify factors as the quality, style, or goals of bank management. However, the point of our analysis is that a change in ownership is quite likely to change a bank's characteristics, violating the assumption that the factors specific to an individual bank stay constant over time. Still, the included explanatory variables should do a good job of controlling for idiosyncratic bank characteristics, since they capture location-specific, time-specific, and bank-specific effects.

4. Results

Table 2 presents regression results analyzing the financial health of target banks before and after their acquisition. We focus on the capital ratio, the ratio of nonperforming loans to total loans, loans 30 through 89 days past due relative to both total loans and assets, and the return on assets. In each case, the acquisition dummy variables cover a five-year time span around the time of ownership changes. The capital ratio and nonperforming loan ratio reflect the health of the banks. The ratios of nonperforming loans and past-due loans to total loans reflect the quality of the target's loan portfolio, while the ratio of past-due loans relative to assets provides a measure of how serious emerging problems in the loan portfolio are, relative to the size of the bank. The return on assets provides a measure of overall performance.[11] We report the results controlling for time, place, and bank characteristics. To conserve space, these control variables are not shown in the tables.

The first six rows describe the financial characteristics of domestically owned banks acquired by domestic bank holding companies. The dummy variables for domestic-domestic

acquisitions use the set of commercial and savings banks in the selected MSAs not involved in acquisitions (neither ownership changes nor mergers) as the control group. Thus, the estimated coefficients reflect differences around ownership changes relative to currently operating banks not experiencing a change in ownership, controlling for differences in time, location, and bank characteristics. The coefficients on the dummy variables for the three other types of acquisitions — domestic-foreign, foreign-foreign, and foreign-domestic — reflect values relative to ownership changes involving an acquirer and target that are each domestically owned and address the question of whether ownership changes involving foreign acquirers or targets are different from purely domestic ownership changes. To ask how ownership changes involving foreign acquirers differ from banks not experiencing an ownership change, one sums the coefficients from the ownership change involving the foreign bank and the coefficient for the same quarter for the domestic-domestic ownership change.

The dummy variables are ordered chronologically. We include dummy variables for two years before the ownership change, one year before the ownership change, the quarter of the ownership change (the 0 quarter), one year after the ownership change, two years after the ownership change, and nine or more quarters after the ownership change. The regression sample includes information on 1,310 domestic to domestic acquisitions, 123 domestic to foreign acquisitions, 37 foreign to foreign acquisitions, and 34 foreign to domestic acquisitions.[12]

In the case of ownership changes involving a domestically owned target and a domestic acquirer, prior to the acquisition the target banks tend to be capitalized no differently than other banks and have the same return on assets as banks in general. However, these target banks tend to have fewer nonperforming loans and loans past due. After the acquisition, the new owners

recapitalize the banks, although the target banks tend to be less well capitalized than banks in general in the longer run. They also show nonperforming loan ratios that are significantly below those of their peers. During the transition period, target banks have a lower return on assets, relative to all banks, that likely reflects the transition costs associated with the recapitalization and reduction in nonperforming loans, as well as costs associated with changing management information and operating systems. In fact, in the longer run, these target banks are no less profitable than banks not experiencing an ownership change.

For domestic banks acquired by foreign owners, the patterns differ somewhat. Prior to the acquisition, these target banks have lower capital ratios and lower reported returns on assets, compared to domestically owned targets of domestic bank holding companies. They also have more loans 30 through 89 days past due. After the acquisition, their capital ratios improve, but their nonperforming loans and past-due loans rise sharply and their return on assets deteriorates compared to targets in domestic-domestic acquisitions. After nine quarters, these banks have significantly fewer nonperforming loans and much higher capital, although they remain less profitable than domestic-domestic acquisition targets. The lower return on assets is not due to credit problems; these banks have even fewer nonperforming loans than targets of domestic-domestic acquisitions, which have lower levels of nonperforming loans than banks not experiencing an ownership change.

When the target and the acquirer are both foreign-owned, the targets are less well capitalized and have a lower return on assets prior to the acquisition, compared to targets in domestic-domestic acquisitions. After the acquisition, they remain less well capitalized, but nonetheless have fewer past-due loans than the domestic-domestic targets. After nine quarters,

such banks remain less well capitalized, but have fewer nonperforming loans and past-due loans, and are no less profitable than banks not experiencing an ownership change or domestically owned banks acquired by domestic bank holding companies.

Foreign-owned banks that are acquired by domestically owned banks clearly are more troubled than most banks prior to the ownership change. Prior to the acquisition, these banks have substantially higher levels of nonperforming loans and past-due loans, compared to targets in domestic-domestic acquisitions. After the acquisition, these banks have higher capital ratios, but maintain their substantially higher levels of nonperforming loans, compared to targets in domestic-domestic acquisitions. Thus, it appears that foreign banks acquired by domestic bank holding companies are troubled banks that are recapitalized by the new owners, which have difficulty eliminating their preexisting credit problems. However, these targets do not have a return on assets below that of targets in domestic-domestic acquisitions.

Overall, some support can be seen for the proposition that at least some of the problems of foreign-owned banks are acquired. Foreign acquisitions of domestic banks usually involve a less well-capitalized bank, whose past-due loan experience increases immediately after the acquisition. However, in the longer run, these target banks reduce nonperforming loan problems relative to other banks. Similarly, when foreign-owned banks are sold to other foreigners, they are less well capitalized prior to the acquisition, and remain so, although the nonperforming loan ratios eventually are reduced below the levels at other banks.

One might think that these results could be sensitive to failed bank transactions, given the large number of banks that failed during our sample period. However, most failed bank transactions were mergers rather than ownership changes in which the acquired bank retained its

separate bank charter. When we reestimated the equations omitting all failed banks from our sample, our results were little affected. Similarly, one might be concerned that the results would be sensitive to the inclusion of both commercial banks and savings banks, since the two types of institutions tend to differ in their activities. However, when the equations were estimated with a sample that included only the commercial banks, the results were quite similar.

Table 3 provides evidence that foreign acquirers alter the target banks to differ substantially from other banks generally and from other domestically owned banks acquired by domestic bank holding companies. Domestic acquirers of domestically owned banks buy banks that have slower loan growth and hold smaller portfolio concentrations of C&I loans and larger portfolio concentrations of consumer loans than banks generally. After the ownership change, they increase the portfolio share of real estate loans at the expense of their concentrations in consumer loans and C&I loans. These banks rely more on core deposits and less on purchased funds than banks in general, both before and after the acquisition. In fact, in the longer run (more than nine quarters after the acquisition), their reliance on core deposits is greater and their reliance on purchased funds is less than in any of the earlier periods shown, measured relative to banks generally.

In contrast, foreign acquirers of domestic banks tend to purchase banks that are expanding loans relative to domestic-domestic acquisitions, and they continue that relatively rapid expansion after the transition period. Relative to the targets in domestic-domestic acquisitions, these targets have smaller concentrations in real estate loans and consumer loans and a greater concentration in C&I loans prior to the acquisition. Eventually, these targets of foreign banking organizations have larger real estate loan and smaller C&I loan concentrations than targets involved in

domestic-domestic acquisitions, as well as banks in general. Interestingly, foreign acquirers choose banks that have fewer core deposits and more purchased funds prior to the acquisition. These patterns persist in the longer run.

Foreign acquisitions of banks already owned by other foreign banks also exhibit characteristics that differ from the targets in domestic-domestic acquisitions. The portfolio allocations of these banks differ from those of banks in general and other acquisition targets. They have a substantially greater C&I loan concentration and a substantially smaller real estate loan concentration compared to other banks, both before and after the acquisition. They also rely less on core deposits and more on purchased funds than banks in general or targets in domestic-domestic acquisitions, both before and after the acquisition, although the divergence is by far the greatest more than nine quarters after the acquisition.

Foreign-owned target banks that are acquired by domestic bank holding companies have smaller consumer loan and larger real estate loan concentrations, rely less on core deposits and more on purchased funds, and are generally shrinking their loans prior to the acquisition. In the long run, these banks grow loans faster, have a smaller C&I loan concentration, and rely less on core deposits than targets in domestic-domestic acquisitions.

Overall, many of the problems and characteristics of foreign-owned banks are present prior to the acquisition. They have lower capital ratios and higher past-due loan ratios, although the past-due loan problem is transitional, not permanent. Furthermore, these targets eventually become better capitalized than their peers.

Many of the portfolio differences that have been identified as causes of poor performance, such as greater reliance on purchased funds and less reliance on core deposits, were present in the

target bank prior to the acquisition. In the longer run, levels of nonperforming loans at domestic-foreign and foreign-foreign acquisition targets are below those at targets in domestic-domestic acquisitions and at banks in general. Thus, the poor performance is not associated with an inability to control credit risk in a new market. Furthermore, the asset and liability mixes of the targets of foreign acquirers already differ from those of targets in domestic-domestic acquisitions and banks in general, prior to the acquisition. However, the inability to draw core deposits is not unique to foreign-owned acquisitions; domestic acquirers of foreign-owned banks also rely less on core deposits. In addition, domestic acquirers of foreign-owned banks maintain higher nonperforming loan ratios than targets in domestic-domestic acquisitions, while the ratios at both domestic and foreign-owned targets of foreign banking organizations are lower than at banks in general or at targets in domestic-domestic acquisitions.

5. Conclusion

Earlier research has shown that foreign-owned banks tend to be less profitable and less input-efficient than their domestically owned peers. We also find that foreign acquisitions are less profitable than their domestic peers. However, we find that the target banks of foreign acquirers have less capital and lower returns than other banks prior to the acquisition. In addition, past-due loans at these targets increase in the period immediately after the ownership change. Thus, the targets of foreign acquirers tend to be in poorer financial condition than banks in general or banks targeted by domestic acquirers, even before the acquisition.

DeYoung and Nolle (1996) have noted that the asset and liability management of foreign banks may account for their lower profitability. These targets do increase their portfolio

concentration in real estate loans and reduce their concentration in C&I loans. These banks already tend to have a smaller concentration in consumer loans prior to the acquisition. However, with respect to previous evidence of input inefficiencies at foreign-owned banks, these targets rely less on core deposits and more on purchased funds than targets in domestic-domestic acquisitions even before the acquisition, although the reliance on purchased funds is magnified after the acquisition. This may in part reflect the fact that targets of foreign acquirers increase their lending, while the targets in domestic-domestic acquisitions are often decreasing their lending relative to banks generally. The growth funded by purchased funds and the lower ratio of nonperforming loans nine quarters after the acquisition are consistent with foreign banks seeking rapid growth by favorably pricing loans to high-quality borrowers. This strategy is reflected in both their choice of target and the actions of management after the acquisition.

While this study has addressed the issue of what accounts for the relatively poor performance of foreign-owned banks in the United States, it does not address an equally interesting question: Why have foreign banking organizations continued to enter U.S. banking markets? There are a number of possible explanations. First, foreign banking organizations may be maximizing a broader concept of profit. They may follow their customers abroad to better service their needs and to retain these customers (for example, Grosse and Goldberg 1991; Yamori 1998). Even if the U.S. loans to those customers are not particularly profitable, the retention of the lending relationship may still be in the best interest of the bank. It is the overall profitability of the relationship with that customer that is relevant, not only the marginal contribution to profits made by the bank's U.S. lending to that customer. A second, related reason is that having foreign operations, especially in the United States, may provide a

competitive advantage to the bank for its domestic operations. In addition to being able to service the operations of its customers abroad, such operations may be considered a type of R&D investment intended to upgrade techniques and technology that can be exported back to the home country operations. And, such operations may be used to gain prestige or to signal quality to domestic customers. Third, reported profits in a country may be affected by tax considerations, with the bank using transfer pricing to book profits to the banking operation in the lowest tax region. Fourth, the foreign banking organization may expand its overseas operations to avoid restrictions on lending or funding at home (for example, Poulsen 1986). By booking the loans abroad, the bank could avoid some of its home country regulations. Finally, foreign banking organizations may enter the U.S. and other overseas banking markets to obtain benefits from international diversification.

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Footnotes

1. For example, DeYoung and Nolle (1996) focus on banks in existence for at least five years and Molyneux, Remolona and Seth (1997) examine foreign banks in existence for more than one year. Hodgkins and Goldberg (1981) did focus on the transition period, but their sample included only 25 banks.

2. We restrict our analysis of foreign-owned banks to subsidiaries of foreign banking organizations. Although branches and agencies of foreign banking organizations account for a larger share of banking activities in the United States than do foreign bank subsidiaries, the subsidiaries are more comparable to U.S.-owned banks. Subsidiaries, unlike branches and agencies, have U.S. bank charters, are separately capitalized, and are more likely to emphasize lines of business (on both the asset and the liability sides of the balance sheet) most similar to those of domestically owned commercial and savings banks of comparable size.

3. It is important to note that the distribution of new acquisitions by foreign banking organizations across states may be quite different than the distribution of foreign-owned banks across these states. For example, while California and New York accounted for over half of the foreign-owned banks in the United States for most of the sample period, they account for only 17 of the 82 domestic to foreign acquisitions included in Table 1.

4. We require four years of history prior to the acquisition to ensure that the data that we use for the two years prior to the acquisition do not include data for the first two years of operations of a de novo bank. The initial quarters of operation of de novo banks tend to be characterized by high capital ratios, low nonperforming loan ratios, and rapid growth associated with a start-up, rather than reflecting the ongoing operations of an established entity. Of the 111 foreign acquisitions of domestically owned banks between 1984:I and 1997:II, 21 did not have the required four years of history prior to the acquisition. Another eight of the targets were omitted from the sample because they did not have a set of peer banks from the same location and in the same asset size class. This left a total of 82 target banks for which information was available for the Table 1 calculations.

5. The first window includes the period two years prior to the acquisition (from eight quarters through five quarters prior to the acquisition). The second window spans the year immediately preceding the acquisition (fourth through first quarters prior to the acquisition). The third window spans the year immediately following the acquisition (the first through the fourth quarters after the acquisition). The fourth window spans the second year after the acquisition (the fifth through the eighth quarters after the acquisition). The fifth window spans the third year after the acquisition (the ninth through the twelfth quarters after the acquisition).

6. Essentially, we are using the ratio of the averages rather than the average of the ratios for the set of peer banks. We do so for several reasons. The most important reason is that we are using the set of peer bank information to control for aggregate bank activity in the foreign bank's location. Thus, it is the aggregate market rather than the distribution of activity across banks in the market that is relevant. Effectively, we are merging the relevant set of peer banks and using that aggregate entity as the peer bank for the foreign-owned bank. In addition, this method reduces the effect on the peer group data of extreme values from a few individual banks.

7. The queries consisted of, first, examining the top holder screen to identify foreign banking organizations and verify that the country code was not equal to the United States. The second screen identified U.S. banks owned by foreign individuals or groups of individuals. The third screen identified intermediate parents of a U.S. subsidiary to capture the true percentage of the subsidiary owned by the top holder. Finally, we selected the subsidiaries of foreign bank holding companies operating in the United States, in order to verify that no foreign subsidiary was missed from the first three screens. We used ownership of a controlling interest (greater than 50 percent ownership) of a bank by foreign entities as the criterion for designating that bank as foreign owned.

8. While this substantially reduces the size of our sample, the results are not very sensitive to the omission of extreme values for the capital ratio and asset and loan growth rates. In fact, some of the results are even stronger when extreme values are included.

9. Core deposits are the sum of total transactions accounts, MMDAs, and other savings deposits. Purchased funds are the sum of time deposits of $100,000 or more, federal funds purchased and securities sold under agreement to repurchase, and demand notes issued by the U.S. Treasury.

10. In each specification, we include the logarithm of beginning-of-period bank assets and a (0,1) savings bank dummy variable (to distinguish between savings banks and commercial banks). In addition, the capital ratio, nonperforming loans, and past-due loans equations contain the beginning-of-period values of total loans, total securities, C&I loans, real estate loans, consumer loans, federal funds purchased, core deposits, and purchased funds, each scaled by beginning-of-period assets. The beginning-of-period capital ratio and nonperforming loan ratio are added to this list for the loan growth equation. From this set of explanatory variables, we omit the five lagged asset portfolio share variables from the asset portfolio share equations and omit the lagged core deposits and purchased funds variables from the core deposits and purchased funds equations.

11. While it is well known that quarterly earnings measures can be quite volatile, we choose not to smooth the earnings series, for example, by using earnings over the prior year. The reason for this choice is that using a horizon longer than one quarter would blur the distinction between the new and previous owners that we are trying to capture. For example, earnings over the prior four quarters for the quarter in which ownership changed, as well as for the subsequent three quarters, would reflect, at least in part, decisions made by the previous owner. We include a set of quarterly time dummy variables in our regressions that will capture seasonal effects.

12. However, the number of observations associated with each of the six dummy variables associated with a given type of acquisition will tend to be less than the number of such acquisitions in the sample, since individual observations are omitted because of a bank being involved in a merger, being in the first two years of de novo operations, or having extreme values for one or more relevant variables (as described earlier). The larger number of observations for domestic to foreign observations here compared to Table 1 can be attributed to several causes. First, we did not require four years of operations prior to the acquisition, as was required for inclusion in the Table 1 sample. Second, we included target banks even if they had no peers of the same size in their MSA, since we included control variables for bank size and location in the regression equations. Finally, the 1984:I to 1997:II sample included banks that had been acquired at some time during 1982 and 1983, using the appropriate acquisition dummy variables to indicate the elapsed time since the acquisition.

Table 1
Characteristics of Domestically Owned Banks Acquired by Foreign Banking Organizations, Measured Relative to Peer Banks[a]

Bank Asset Size Class	< $100 Million					$100 to $300 Million				
Time Period Relative to Acquisition	Two Years Before	One Year Before	One Year After	Two Years After	Three Years After	Two Years Before	One Year Before	One Year After	Two Years After	Three Years After
Number of Target Banks[b]	28	28	23	20	10	22	22	17	19	9
Number of Peer Banks[c]	369	346	271	241	172	246	257	232	231	167
Net Income/Assets	-.33	-.18	-.04	-.02	.12	-.02	-.00	-.04	-.13	.01
Fee Income/Income	-1.66	-1.35	3.75	-2.21	3.24	-2.20	-1.70	-1.79	1.21	3.96
Capital/Assets	-.70	-1.11	-.55	-1.46	-.82	-.59	-1.04	-1.22	-.40	1.53
Nonperforming Loans/Loans	1.19	.70	1.52	.74	1.46	-.39	-.38	-.51	.27	-.17
Past Due Loans/Loans	-.04	.40	.33	-.20	.28	-.20	-.44	-.43	.11	.10
Core Deposits/Assets	-.69	.13	-2.47	.45	-11.13	2.66	4.04	3.92	1.26	-2.42
Purchased Funds/Assets	.30	-.26	.27	.73	4.68	1.95	1.30	1.32	1.36	-3.68
Securities/Assets	3.09	1.28	3.49	.75	-3.23	4.25	.85	2.01	1.19	-.13
Loans/Assets	-3.37	-4.42	-6.27	-1.84	3.83	-4.63	-2.76	-1.43	-.37	-4.18
C&I Loans/Assets	8.79	9.22	6.22	.99	3.94	4.36	3.71	.16	.53	-1.12
Real Estate Loans/Assets	-4.81	-6.14	-4.33	-.66	-2.30	-5.72	-3.43	.47	-.06	2.02
Consumer Loans/Assets	.15	.47	-.87	-1.16	-2.24	-1.85	-2.70	-2.68	-2.14	-4.79
Asset Growth	2.02	-.40	20.73	17.19	5.87	6.49	1.37	3.18	2.73	4.81
Loan Growth	-3.42	-.38	15.86	31.94	9.70	7.47	6.77	6.71	8.36	7.71

Table 1 (continued)
Characteristics of Domestically Owned Banks Acquired by Foreign Banking Organizations, Measured Relative to Peer Banks[a]

Bank Asset Size Class	$300 Million to $1 Billion					> $1 Billion				
Time Period Relative to Acquisition	Two Years Before	One Year Before	One Year After	Two Years After	Three Years After	Two Years Before	One Year Before	One Year After	Two Years After	Three Years After
Number of Target Banks[b]	11	14	7	7	4	9	13	7	6	3
Number of Peer Banks[c]	83	97	67	75	52	39	44	37	39	26
Net Income/Assets	-.02	.07	.22	.07	-.13	.01	-.19	.05	.06	.13
Fee Income/Income	-.98	.89	-2.38	-6.07	-5.70	-2.38	1.98	-2.42	-2.42	-9.27
Capital/Assets	-.67	-.86	-.13	.04	-.72	-.31	-.36	1.43	-.04	-.44
Nonperforming Loans/Loans	.13	.04	.22	-.03	.64	.20	1.11	.52	-1.24	-2.45
Past Due Loans/Loans	-.06	-.18	-.35	-.08	1.10	.51	1.40	.79	.28	-1.03
Core Deposits/Assets	-13.77	.27	-.44	-8.82	-12.46	4.16	6.47	1.27	-2.90	-2.58
Purchased Funds/Assets	4.16	5.43	2.88	6.66	3.70	5.59	3.14	3.62	9.85	6.07
Securities/Assets	-3.57	.66	-5.30	-5.13	-2.68	-1.73	-3.16	-5.62	2.16	4.68
Loans/Assets	.74	-.47	-1.86	4.22	8.53	-1.41	-3.29	-3.46	-11.04	-19.19
C&I Loans/Assets	6.55	5.46	5.80	6.03	3.64	11.00	6.07	3.11	10.16	3.27
Real Estate Loans/Assets	-4.73	-5.93	-8.34	-1.26	2.61	-12.45	-9.78	-4.62	-17.98	-20.84
Consumer Loans/Assets	-1.10	-.66	.23	1.67	8.47	2.68	.77	-.58	.54	2.40
Asset Growth	-.32	2.37	.22	-2.92	-.15	8.28	-5.22	-3.12	6.70	8.92
Loan Growth	4.48	1.87	1.55	-5.27	-10.78	3.97	-4.43	-12.92	-4.40	-5.33

[a] All data are constructed as the difference between the value for the target bank and that for the set of peer banks for that target bank.

[b] The number of target banks changes over time because we omit the first two years of operations of a de novo bank and observations in which a bank is involved in a merger acquisition. Banks also leave the sample if they are merged into another bank or fail. In addition, data for all or part of the period after the acquisition will not be available if the acquisition occurred near the end of our sample.

[c] This is the total number of peer banks used for the set of target banks in the asset size class. However, each target bank is compared only to that subset of these peer banks that are headquartered in the same location as the target bank.

Table 2
Financial Health of Banks with Ownership Changes
Ordinary Least Squares, Unbalanced Panel, 1984:II-1997:II

	Relative Regression				
	Capital Assets	NPL Loans	PD 30-89 Loans	PD 30-89 Assets	Return on Assets
Domestic - Domestic					
Quarters Before: 5-8	.053	-.131*	-.129**	-.064*	.008
	(.84)	(2.18)	(3.03)	(2.42)	(.74)
1-4	-.017	-.121*	-.090**	-.044	.001
	(.29)	(2.22)	(2.32)	(1.80)	(.10)
0	-.115	-.055	-.109	-.052	-.048**
	(1.08)	(.55)	(1.54)	(1.17)	(2.85)
Quarters After: 1-4	.284**	-.212**	-.021	-.001	-.039**
	(4.96)	(3.92)	(.55)	(.04)	(4.26)
5-8	.008	-.141**	-.045	-.007	-.021*
	(.14)	(2.59)	(1.18)	(.31)	(2.30)
9 or more	-.363**	-.140**	-.022	-.002	.006
	(13.19)	(5.39)	(1.21)	(.14)	(1.42)
Domestic - Foreign					
Quarters Before: 5-8	-.563**	-.001	.086	.035	-.008
	(3.05)	(.01)	(.70)	(.46)	(.27)
1-4	-.595**	-.089	.227	.154*	-.066*
	(3.26)	(.52)	(1.86)	(2.02)	(2.25)
0	-.424	-.141	.633**	.359**	.031
	(1.27)	(.45)	(2.82)	(2.57)	(.58)
Quarters After: 1-4	-.126	.277	.357**	.245**	-.011
	(.73)	(1.69)	(3.07)	(3.38)	(.40)
5-8	.259	.385*	.296*	.191*	-.099**
	(1.35)	(2.13)	(2.31)	(2.39)	(3.23)
9 or more	.371**	-.154*	.094	.030	-.039**
	(4.48)	(1.98)	(1.71)	(.88)	(2.93)
Foreign - Foreign					
Quarters Before: 5-8	-.712*	.054	-.094	-.136	-.004
	(2.48)	(.20)	(.49)	(1.13)	(.08)
1-4	-.986**	.144	.090	.009	-.129**
	(3.48)	(.54)	(.47)	(.08)	(2.83)
0	-.516	.120	-.203	-.175	.172*
	(.97)	(.24)	(.57)	(.79)	(2.01)
Quarters After: 1-4	-.994**	.064	-.488*	-.288*	.063
	(3.44)	(.23)	(2.53)	(2.38)	(1.35)
5-8	-.668*	.242	-.190	-.119	.073
	(2.28)	(.88)	(.97)	(.97)	(1.56)
9 or more	-.821**	-.663**	-.362**	-.159*	.047
	(4.37)	(3.75)	(2.89)	(2.03)	(1.56)

Table 2
Financial Health of Banks with Ownership Changes
Ordinary Least Squares, Unbalanced Panel, 1984:II-1997:II

	Relative Regression				
	Capital / Assets	NPL / Loans	PD 30-89 / Loans	PD 30-89 / Assets	Return on Assets
Foreign - Domestic					
Quarters Before: 5-8	-.148	1.677**	.684**	.365**	.001
	(.46)	(5.50)	(3.16)	(2.70)	(.02)
1-4	.233	3.646**	1.111**	.642**	.043
	(.78)	(12.85)	(5.52)	(5.11)	(.90)
0	1.788**	2.573**	1.063*	.664*	.046
	(2.83)	(4.33)	(2.52)	(2.52)	(.45)
Quarters After: 1-4	.867**	3.033**	.741**	.292*	.099
	(2.60)	(9.63)	(3.32)	(2.10)	(1.84)
5-8	.335	2.219**	.241	.052	.056
	(.95)	(6.66)	(1.02)	(.35)	(.98)
9 or more	.760**	1.987**	.036	.026	.005
	(4.24)	(11.76)	(.30)	(.35)	(.16)
Number of Observation	61,532	61,532	61,532	61,532	61,532
R^2	.232	.167	.117	.202	.218
Root Mean Squared Error	2.689	2.534	1.797	1.123	.432

Note: Included in the regression but not shown in the table are 67 MSA location dummy variables, 52 quarterly time dummy variables, and a set of bank characteristic variables discussed in the text.

The t-statistics are in parentheses below the estimated coefficients.
* Significant at the 5 percent level.
**Significant at the 1 percent level.

Table 3
Asset and Liability Characteristics of Banks with Ownership Changes
Ordinary Least Squares, Unbalanced Sample, 1984:II-1997:II

	Loan Growth	C&I Assets	RE Assets	Consumer Assets	Core Deposits Assets	Purchased Funds Assets
Domestic -Domestic						
Quarters Before: 5-8	-.528*	-.119	.193	.349	.788**	-.546**
	(2.39)	(.57)	(.67)	(1.77)	(3.02)	(2.91)
1-4	-.064	-.432*	.076	.711**	.942**	-.622**
	(.32)	(2.27)	(.29)	(3.96)	(3.96)	(3.64)
0	-1.144**	-.053	.233	.617	1.410**	-.762*
	(3.11)	(.15)	(.49)	(1.88)	(3.25)	(2.44)
Quarters After: 1-4	-.310	-.104	.552*	.326	1.279**	-.906**
	(1.56)	(.55)	(2.13)	(1.83)	(5.44)	(5.36)
5-8	.363	-.170	.965**	.566**	.926**	-.529**
	(1.81)	(.90)	(3.71)	(3.17)	(3.92)	(3.11)
9 or more	-.564**	-.779**	1.196**	.330**	2.986**	-1.224**
	(5.90)	(8.63)	(9.62)	(3.87)	(26.56)	(15.15)
Domestic - Foreign						
Quarters Before: 5-8	1.106	1.746**	-3.450**	-1.760**	-1.304	1.268*
	(1.73)	(2.89)	(4.14)	(3.08)	(1.72)	(2.33)
1-4	1.313*	1.869**	-2.126**	-1.938**	-1.751*	1.572**
	(2.07)	(3.12)	(2.58)	(3.43)	(2.34)	(2.93)
0	1.448	1.550	-2.107	-1.641	.129	.889
	(1.24)	(1.41)	(1.39)	(1.58)	(.09)	(.90)
Quarters After: 1-4	1.075	1.175*	-2.136**	-1.600**	-1.113	1.966**
	(1.78)	(2.06)	(2.72)	(2.97)	(1.56)	(3.83)
5-8	.663	.991	-.357	-1.373*	-1.086	2.717**
	(1.00)	(1.58)	(.41)	(2.32)	(1.38)	(4.81)
9 or more	1.490**	-.698**	1.231**	-.409	-.789*	2.018**
	(5.19)	(2.57)	(3.29)	(1.60)	(2.33)	(8.28)
Foreign - Foreign						
Quarters Before: 5-8	-1.305	5.734**	-6.297**	-1.309	-4.485**	1.787*
	(1.31)	(6.08)	(4.85)	(1.47)	(3.80)	(2.11)
1-4	-1.152	6.079**	-7.588**	-1.144	-4.573**	2.370**
	(1.17)	(6.55)	(5.93)	(1.30)	(3.94)	(2.84)
0	1.761	7.283**	-9.025**	.263	-5.182**	2.745
	(.95)	(4.17)	(3.75)	(.16)	(2.37)	(1.75)
Quarters After: 1-4	-1.860	4.538**	-8.341**	1.210	-4.462**	2.083*
	(1.85)	(4.79)	(6.38)	(1.35)	(3.76)	(2.44)
5-8	-3.620**	3.599**	-9.476**	1.160	-3.732**	1.185
	(3.56)	(3.75)	(7.16)	(1.28)	(3.11)	(1.37)
9 or more	2.862**	5.595**	-9.349**	-.562	-13.239**	5.434**
	(4.39)	(9.10)	(11.03)	(.97)	(17.22)	(9.84)

Table 3
Asset and Liability Characteristics of Banks with Ownership Changes
Ordinary Least Squares, Unbalanced Sample, 1984:II-1997:II

	Loan Growth	C&I Assets	RE Assets	Consumer Assets	Core Deposits Assets	Purchased Funds Assets
Foreign - Domestic						
Quarters Before: 5-8	-3.074**	-2.044	4.380**	-3.639**	-6.383**	4.496**
	(2.73)	(1.93)	(2.99)	(3.63)	(4.81)	(4.71)
1-4	-1.029	-.976	5.150**	-4.209**	-2.966*	1.279
	(.98)	(.99)	(3.78)	(4.51)	(2.40)	(1.44)
0	-.869	-2.471	9.679**	-3.935*	0.994	.248
	(.40)	(1.19)	(3.39)	(2.01)	(.38)	(.13)
Quarters After: 1-4	-3.462**	-2.189*	3.888**	-2.394*	-2.359	.781
	(2.98)	(2.00)	(2.57)	(2.31)	(1.72)	(.79)
5-8	-.517	-3.214**	.760	-1.609	-3.057*	.815
	(.42)	(2.77)	(.48)	(1.47)	(2.11)	(.78)
9 or more	2.364**	-2.653**	-.710	-.919	-6.190**	.428
	(3.79)	(4.51)	(.88)	(1.65)	(8.41)	(.81)
Number of Observations	61,532	61,532	61,532	61,532	61,532	61,532
R^2	.251	.323	.494	.272	.357	.392
Root Mean Squared Error	9.340	8.824	12.161	8.333	11.032	7.928

Note: Included in the regression but not shown in the table are 67 MSA location dummy variables, 52 quarterly time dummy variables, and a set of bank characteristic variables discussed in the text.

The t-statistics are in parentheses below the estimated coefficients.
* Significant at the 5 percent level.
**Significant at the 1 percent level.