



Banking and the Financial Sector in Transition and Emerging Market Economies

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THE IMPACT OF BANK PRIVATIZATION AND FOREIGN ENTRY ON ACCESS TO CREDIT IN ARGENTINA'S PROVINCES

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Abstract

As in many developing countries, the 1990s were a decade of remarkable structural change in Argentina's banking sector, including substantial privatization and increased ownership by foreigners. While both privatization and foreign entry were likely to improve sector efficiency, they also might have reduced access to credit for some sectors and in some geographic areas. For example, public banks, many of them located in geographically remote provinces, were ostensibly set up to resolve credit market failures that prevented small, often agricultural businesses from accessing loans. Similarly, the relatively large foreign banks that entered Argentina might have found it difficult to lend to informationally opaque small borrowers, and may have preferred to concentrate on larger industrial clients, many from their country of origin. However, we find that those provinces that privatized their banks suffered only a temporary reduction in credit associated with cleaning the portfolio of the soon-to-be privatized bank. Typically, growth in lending by the privatized entity and by other banks restored credit to pre-privatization levels within a few years. In addition, increased ownership by foreign banks coincided with more, not less, lending to provinces outside Buenos Aires, perhaps due to foreign banks' increased reliance on computerized credit scoring technologies.

¹ The authors are in the World Bank's Development Research Group. We thank.....The findings, interpretations, and conclusions expressed in this paper are entirely those of the authors. They do not necessarily represent the views of the World Bank, its Executive Directors, or the countries they represent. We alone bear responsibility for any mistakes and inaccuracies.

INTRODUCTION

With the implementation of a currency board in 1991, Argentina attempted to reverse a decade of stagnation and hyperinflation. Under the Convertibility law, which fixed the value of the Argentine peso to the US dollar, the existing monetary base was fully backed by dollar reserves thus providing a basis for macroeconomic stability and growth. More generally, during the first half of the 1990's, the government embarked upon economic reform and liberalization in many areas including privatization of public enterprises, a reduction in the barriers to international trade and the privatization of its pension system. Additionally, in 1992 Argentina signed the Brady Plan allowing the country to return to the international financial markets a decade after having been cut off.

This was also a time of substantial restructuring in the financial sector. During the 1980's a large number of financial institutions survived mainly through the trade of foreign exchange and by financing the government. With a fixed exchange regime, potential profits from exchange rate operations dried up, thus prompting the closure of many banks and financial institutions. In the 1980's there were almost 500 banks and other financial institutions in operation. By 1993, only 170 banks and 32 other financial institutions were in operation.

The reform program coincided with substantial GDP growth which averaged 10.4% from 1991 to 1994. At the same time, the financial system enjoyed high growth rates with private sector deposits growing at an average rate of 33.9% in 1991-1994, and the ratio of credit to the private sector GDP reaching 19.3%. That ratio had been below 5% in the 1980s. With the onset of the Tequila Crisis in December 1994 came a second wave of financial sector restructuring. Banks that closed their operations in the wake of the Tequila Crisis were generally weaker ones that had suffered rapid loss of deposits. This suggests that depositors fled some banks in search of quality (Calomiris and Powell, 2001). As can be seen in Table 1 these post-Tequila closures coincided with the continued consolidation of the Argentinean banking system. Indeed, many of the weaker banks that were intervened were forced to merge with stronger banks.

During this period, two additional developments were unfolding regarding bank ownership, namely the privatization of provincial banks and a substantial increase in foreign

presence. At the beginning of the 1990's, each province in Argentina owned at least one bank which in many provinces had a leading role in the local financial system. Starting with the Tequila Crisis, provincial governments accelerated their efforts to privatize their banks (Table 1). In addition, after 1994 the Argentinean financial system became increasingly owned by foreign banks, a phenomenon observed contemporaneously in many other developing countries. As can be seen in Table 1, foreign bank participation rose more or less steadily beginning in 1994, with a major jump in 1997 when two major domestic banks (Banco Frances and Banco Rio) were bought by Spanish banks (Banco Bilbao Vizcaya Argentaria and Banco Santander Central Hispano).

This paper is concerned with the effects of bank privatization and foreign ownership of banks on the availability of credit in the Argentinean provinces from 1993 to 1999. The raw lending data suggest some cause for concern (**Table 2**). During the last half of the 1990's the share of credit to Buenos Aires grew at the same time that foreign entry and bank privatization took hold. While most of the economic activity in Argentina is concentrated in and around Buenos Aires – in 1995, 60.9% percent of Argentina's GDP was produced in that area – the concentration of credit and its growth are striking.

There are a number of well known reasons why foreign ownership of banks could have implications for access to credit. Foreign banks' strategy could be focused on following their clients abroad thus serving a very limited and profitable market.² Additionally, the information problems associated with lending to some sectors of the economy may preclude foreign banks

² Several studies have found a positive and significant link between foreign bank entry and non-financial foreign direct investment. For German banks operating abroad, see Buch and Lapp (1998) and Buch (2000). For Japanese banks, see Yamori (1998). For U.S. banks, see Goldberg and Johnson (1990), Miller and Parkhe (1998), and Sagari (1992). Other studies have found positive links between foreign direct investment in banking and economic integration between home and host countries, measured by geographic distance, volume of bilateral trade flows, bilateral foreign direct investment, or a combination of these. See Ball and Tschoegl (1982), Brealey and Kaplanis (1996), Goldberg and Saunders (1980, 1981a, 1981b), Goldberg and Johnson (1990), Grosse and Goldberg (1991), and Miller and Parkhe (1998).

from certain activities.³ Lastly, even if foreign banks serve local customers, they might concentrate in specific markets leaving other sectors unattended.⁴ For all these reasons, increased foreign ownership might mean reduced access to credit for many sectors.

Bank privatization also has potential implications for access to credit. In theory, a primary purpose of public banks is to serve market segments neglected by the private sector, those where private returns are insufficient to make lending viable, but where social returns justify it.⁵ Although the public banks in Argentina were far from being paragons of efficiency, the new private owners, though potentially more efficient providers of financial services, were unlikely to resolve such market failures.⁶ In many provinces in Argentina, provincial banks were the dominant institutions providing credit and other financial services to small cities that subsisted mainly on agriculture. Thus, the privatization of provincial banks could have an adverse impact on the availability of credit in the Argentinean provinces. For example, it could be that privatized banks funded themselves in the provinces and then lent to Buenos Aires.

In short, privatization and foreign entry can affect the availability of credit in local provincial markets in multiple ways. In the following two sections we survey the existing literature on both foreign bank entry and public bank privatization in Argentina in greater detail.

³ U.S.-based studies show that large and organizationally complex banks lend less to informationally opaque small businesses than other banks. See Berger *et al.* (1995), Keeton (1995), Berger and Udell (1996), Peek and Rosengren (1996), and Strahan and Weston (1996). This literature is potentially relevant to the study of the effects of foreign bank ownership on lending to small businesses since, as shown in Focarelli and Pozzolo (2000), foreign banks that enter developing countries tend to be large.

⁴ For example, Berajas *et al.* (2000) find that foreign banks in Colombia did not compete against domestic banks in all market segments.

⁵ See, for example, Stiglitz (1994).

⁶ Recent empirical research indicates that private firms tend to be more efficient than comparable public enterprises. See, for example, López-de-Silanes (1997), Mueller (1989), and Vining and Boardman (1992). Other studies find that enterprises tend to become more efficient after privatization including Galal *et al.* (1994), Kikeri *et al.* (1992), La Porta and López-de-Silanes (1997), and Megginson *et al.* (1994). Results are more mixed for bank privatization. Bonin and Wachtel (2000) contrast the generally positive bank privatization experiences in Hungary with the disappointing early outcomes in the Czech Republic. Brock (2000) describes Chile's protracted efforts to assist privatized banks, after having sold them without first sufficiently cleaning their balance sheets. Performance improvements seem likely to occur only after banks' connections to the government, and the associated soft budget constraints described in Kornai (1986), have been severed.

I. FOREIGN ENTRY

As the 1990s progressed, foreign bank entry became increasingly common in developing economies including Argentina, where foreign-owned banks held more than half of total banking assets as of 1999. Similar to results for other countries, Clarke *et al.* (2000) find that foreign banks in Argentina tend to have better quality portfolios, higher net worth and higher ratios of operating income to cost than domestic banks, all of which should be beneficial to a country hosting such banks.⁷ However, in this section we focus on the consequences of foreign bank entry for access to credit in the host country.⁸

Clarke *et al.* (2000) also find evidence suggesting that foreign banks in Argentina exerted competitive pressure on domestic banks, but only in selected market segments. Specifically, they find that during the 1995-1997 period, foreign banks lent significantly higher shares of their portfolios to the manufacturing, electricity, gas and water sectors than domestic banks, who had relatively higher proportions in retail trade and consumer lending. Those domestic banks with portfolios concentrated in the same sectors that foreign banks had emphasized had lower profitability ratios than other domestic banks, suggesting that competition from foreign banks had reduced their profits. In particular, domestic banks that lent heavily to the manufacturing sector had lower profits than the typical domestic bank, while those that emphasized consumer lending had higher profits.

Foreign banks' focus on the manufacturing sector is one reason to be concerned that certain market segments might have been neglected as they increasingly came to dominate Argentine banking. In addition, foreign bank lending was highly concentrated in Buenos Aires (by far Argentina's largest province in terms of population and GDP) reaching on average over 90% of their portfolios. This high concentration of credit in Buenos Aires raises concerns about

⁷ In a sample of 80 countries, Demirgüç-Kunt and Huizinga (2000) and Classens *et al.* (2000) find that profitability was higher for foreign banks operating in developing economies than for their domestic counterparts. Additionally, Denizer (2000) finds that foreign banks in Turkey attained higher profitability ratios than domestic banks and Barajas *et al.* (2000) find that foreign banks in Colombia performed better in terms of non performing loans, administrative costs and productivity during the 1995-1998 period. For Argentina, see also Raffin (1999).

⁸ For a broad view of the issues and findings regarding foreign entry in developing economies, see Clarke *et al.* (2003).

the willingness and ability of foreign banks to lend to Argentina's other provinces. More generally, these results likely reflect the information problems that make it difficult for large foreign banks to lend to small businesses.

Bleger and Rozenwurcel (2000) show that during the 1996-1998 period increasing foreign bank participation in Argentina was associated with a reduction in lending to small businesses from 20% to 16% of total lending. Similarly, Berger, Klapper and Udell (2001), using a large database of Argentina's business debtors as of 1998, find that large banks and foreign owned banks are less likely than other banks to lend to small businesses. However, Escudé *et al.* show that from 1998 to 2000, although foreign banks continued to lend less than domestic banks to small businesses overall, they increased both their propensity to lend and their market share to that sector.

Clarke *et al.* (forthcoming) analyze the lending of foreign banks to small businesses in Argentina, Chile, Colombia and Peru in the mid-1990's. They find that while on average foreign banks tended to lend less to small businesses, differences were much smaller and often statistically insignificant between large foreign banks and large domestic banks. In Argentina, foreign banks of all sizes lent smaller shares of their portfolios to SMEs than domestic banks of comparable size. However, the growth rate of lending to SMEs by large foreign banks exceeded that of large domestic banks, which suggests a gradual re-orientation toward small business lending. The authors speculate that large foreign banks used computerized credit scoring technologies to reach this market segment. There are other signs that foreign banks were devoting greater attention to non-traditional clients as the 1990s closed. As noted, from 1995 to 1997 foreign banks devoted a high share of their portfolios to Buenos Aires. However, Table 3 indicates that since 1997 foreign banks have devoted an increasing share of their portfolios to provinces other than Buenos Aires.

II. PROVINCIAL BANKS

At the beginning of 1993, 25 provincial banks controlled 22% of the total assets of the banking system. Among those banks, Banco de la Provincia de Buenos Aires accounted for 10.6% of sector assets, being the second largest bank in Argentina. Although the typical provincial bank held a small share of the total assets of the consolidated financial system, most

did a large share of the lending in their respective provinces, with many providing the majority as of 1995 (**Table 4**). Like other public banks in Argentina, their average performance was substantially worse than typical private banks (Burdisso *et al.*, 1998).

Heavy concentration on their local provinces did not necessarily imply that all borrowers were being served by public provincial banks. Table 5 shows that both provincial and public banks held on average more loans to the public sector than their private counterparts, and Clarke *et al.* (forthcoming) show that public banks in Argentina lent a significantly lower share of their portfolio to small businesses than domestic banks. These results suggest that public banks were not resolving the sort of credit market failures described above.

Traditionally, these bank were used to finance provincial governments. Provincial banks acted as tax collectors in each province receiving in return deposits of the taxes in unremunerated accounts. Most importantly, prior to 1991, provincial banks played a significant role in financing the fiscal imbalances of most Argentinean provinces. Although regulations precluded excessive borrowing from provincial banks, these limits where often ignored or sidestepped. In 1990, more than 60 percent of provincial government deficit was financed through loans from provincial banks and 20 percent from other public banks. The provincial banks in turn, discounted these loans to the central bank which was the lender of last resort, providing liquidity support in times of trouble. With the passage of the convertibility law, the central bank lost its ability to print money and be a lender of last resort. In fact, the central bank was explicitly precluded from holding the assets of other banks. This proved detrimental to the provincial banks which now had to rely on their own portfolio performance rather than discounting and bail-outs to maintain their business (Dillinger and Webb, 1999, pp.6-16).

Provincial governments could not rely any longer on their banks to finance their deficits and the operating losses imposed by those banks eventually contributed to their fiscal deficit. These factors created strong incentives for privatization of publicly owned provincial banks. The first province to privatize its bank was Corrientes in November 1991. Others were slow to follow as the economic boom of the early 1990's brought about substantial inflow of deposits, which helped mask the poor portfolio quality and operating efficiency of these banks. However, with the start of the Tequila Crisis in December 1994 most provincial banks suffered substantial

deposit outflow as depositors fled to higher quality banks. On this issue, Clarke and Cull (2002) find that poor bank performance made privatization much more likely. Additionally, the evidence suggests that political factors also played a role as, for example, greater bargaining power of labor decreased the likelihood of privatization.

The privatization of provincial banks in Argentina was accomplished with the help of the World Bank and the Inter-American Development Bank who lent funds to set up a Fondo Fiduciario (Fiduciary Fund). In order to attract buyers, provincial governments were permitted to split their bank in two, creating a potentially viable bank and a residual entity. In turn, loans from the Fondo Fiduciario provided the provinces with a way to meet the short-term obligations residing in the residual entity, many of them owed to other banks that had provided liquidity support during the Tequila Crisis (Clarke and Cull, 1999, pp 8-10).

Table 6 shows the roster of privatized provincial banks together with the size of their respective residual entities. The low percentage of assets transferred to the new owner reflects the poor performance of the public provincial banks. Except from Entre Rios, San Luis, San Juan and Santa Cruz all the provinces transferred less than half of their banks' assets to the new bank.⁹ The method of privatization likely had implications for access to credit. First, the privatized banks started their operations with far fewer assets than their public predecessors. It was likely that they would grow, but unclear how rapidly. For example, the relative inexperience of the new owners might have impeded new lending. Many of the purchasers were wholesale banks with below average performance (as measured by profitability and portfolio quality). Their owners saw this as an opportunity to re-orient their operations toward retail markets as foreign entry was eroding their profits.

Second, the privatization contracts contained many clauses that could affect the future behavior of privatized banks. Many contained clauses restricting lay-offs and obligations to maintain the branch network. In return, the new owners received contracts for the provision of financial services to the provinces, which comprised a substantial share of the privatized banks'

⁹ We note that Entre Rios and Chaco had finalized their privatizations before the Fondo Fiduciario began, although they were allowed to receive some ex-post support from the Fondo.

revenues. In addition, in many cases the provinces guaranteed a certain amount of the assets transferred to the privatized bank. On the one hand, the financial services contracts provided banks with a good source of income at the outset, thus relaxing the pressure to build a profitable lending institution. Similarly, asset guarantees likely reduced pressures to grow through increased lending. On the other hand, contract provisions regarding the maintenance of branches and employees might have forced the new owners to find new sources of revenue to cover the associated costs. While pinpointing why privatized banks behaved as they did is difficult with the data available, we assess what the net effects of the privatizations were on credit to the respective provinces.

III. THE EFFECT OF PRIVATIZATION ON PROVINCIAL CREDIT MARKETS

I.1 Methodology

To look at how privatization affected lending in provincial credit markets, we estimate different variants of equation (1) below:

$$\text{Log}(\text{Per Capita Loans}_{ijt}) = \beta_1 \text{Control}_{jt} + \beta_2 \text{Years Since Control}_{jt} + \gamma X_{jt} + \alpha_j + \lambda_t + \varepsilon_{ijt} \quad (1)$$

The dependent variable is the natural log of *Per Capita Loans*_{ijt} by bank type *i* in province *j* at time *t*. The bank types that we consider are the provincial bank, foreign-owned private banks, domestically owned private banks and other public banks (i.e., municipally and nationally-owned public banks). In addition, we look at total lending by private banks (i.e., combined lending by foreign-owned and domestically-owned private banks) and total lending in the province (i.e., lending by all banks including the provincial banks).

The main variables of interest are *Control*, a dummy variable indicating that the provincial bank in that province had been privatized (i.e., that a private owner had control of the provincial bank), and *years since control*, a time trend indicating the number of years since the private owners took control of the provincial bank. Since, as discussed previously, large parts of the provincial bank's portfolio were transferred to a residual entity at the time of privatization rather than to the privatized provincial bank, the peso value of the provincial bank's lending portfolio often fell at the time of privatization. Furthermore, since the provincial banks

accounted for a significant portion of lending in most of the provinces this also could cause a one-time reduction in total lending in the province. *Control*, therefore, represents the immediate impact of privatization on each of the variables. In general, the immediate impact of privatization should affect lending by the provincial bank most significantly – it should take some time for other banks to adjust their portfolios following the privatization and, therefore, the coefficient on *Control* is less likely to be significant in the other regressions (e.g., in the regression with loans by private banks as the dependent variable).

In contrast to the *Control* dummy, *years since control* is intended to capture the dynamic effect of privatization. Following the privatization, other banks in the province might adjust their portfolio to take advantage of the change in the business environment that resulted from the privatization. For example, since many of the privatization contracts included restrictions that made it difficult for the new owners to lay off workers or close branches, the new owners might have felt that they would have to increase lending after the initial privatization. This, in turn, might have affected other private and public banks, encouraging them to rebalance their portfolios in response to the privatization.

In general, for banks other than the privatized banks (and for total lending which includes lending to the privatized bank), we would expect the coefficients on the time trends to capture the evolution of lending in the post-privatization period. Since banks other than the privatized bank will probably take some time to adjust their lending following the privatization, we would generally expect coefficients on the dummy variable (representing the immediate impact of privatization or other events) to be small and statistically insignificant in regressions for banks other than the privatized bank. However, if they do adjust lending in response to privatization (or the other events), coefficients on the trend variables (representing the evolution of lending over time) should reflect this. Although this seems reasonable, it is important to note that if the evolution of lending is non-linear, and banks manage to adjust their portfolios relatively quickly, the dummy variable might also partially capture the long-term effect of privatization on credit.

In addition to these variables, the analysis includes a series of control variables. First, the regressions include fixed province (α_j) and time effects (γ_t). The provincial fixed effects are meant to control for provincial characteristics that might affect lending in the province but that

did not vary significantly in the province over the period being studied (e.g., the size of the province, the relative importance of agriculture and industry in provincial production, or per capita wealth in the province). In contrast, the time dummies are meant to control for factors that affected lending in the country as a whole (e.g., the *Tequila Crisis*). Second, the regression includes per capita GDP. Since the specification also includes provincial (and time) fixed effects, this variable should mainly capture the provincial business cycle (relative to the national business cycle).

Finally, the regressions include a series of variables to capture other events that might affect lending in the province. First, the regression includes two variables to control for mergers involving the provincial banks – a dummy variable indicating that a merger took place and a trend variable indicating the number of periods since the merger. Provincial banks in eight provinces were involved mergers during the period under study. Most of these (four) were mergers between the privatized provincial bank and the new private owner that purchased it. In addition, in two provinces with multiple provincial banks (Cordoba and Mendoza) the separate provincial banks were merged to form single provincial banks during the period being studied. The remaining mergers involved the privatized provincial banks and small private banks. Second, two of the privatized provincial banks (Banco de Corrientes and Nuevo Banco de La Rioja), both of which were privatized prior to the beginning of our sample, were re-nationalized.¹⁰ To control for this, the regression also includes a dummy variable equal to one in the period of re-nationalization and a trend (years since re-nationalization) to control for the effect of re-nationalization. Finally, after being privatized, the parent bank (i.e., the new owner) of the provincial banks in Mendoza developed serious problems of its own.¹¹ These problems spilled over into the provincial bank and, eventually, resulted in the Central Bank closing the privatized provincial bank in this province. Since the closure of the provincial bank could affect

¹⁰ The experience of these two banks is somewhat different from the experience in the other provinces. In particular, these banks were privatized prior to the start of our sample and prior to the *Tequila Crisis* and the founding of the *Fondo Fiduciario*.

¹¹ The purchaser was closed by the Central Bank of the Republic of Argentina in the beginning of 2000. Prior to this, the merged provincial bank in Mendoza was closed in the first quarter of 1999.

provincial credit markets, we include a dummy variable and a trend variable (years since closure) to control for this.

Although the coefficients on these additional dummy variables and time trends are of interest in their own right, it is important to note that they are mostly based upon a relatively small number of events. Consequently, these variables might be best thought of as controlling for the temporary disequilibria following these events and their coefficients should probably be interpreted with caution.

We exclude the province of Buenos Aires from the analysis for several reasons. First, we are primarily interested in the effect of privatization on smaller provincial markets. Since sector concentration was considerably lower in Buenos Aires than it was in other provinces and the sector was considerably larger – in 1995, the Province of Buenos Aires and the Federal Capital District accounted for about two-thirds of total lending and about four-fifths of public lending – privatization and foreign entry might have had a very different impact in the more developed Buenos Aires market. Second, the *Banco de la Provincia de Buenos Aires* was considerably smaller relative to the Buenos Aires market than the typical provincial bank was to the provincial market (see Table 4). Consequently, the provincial bank in Buenos Aires was presumably relatively less important than the provincial banks in other smaller credit markets. Finally, the *Banco de la Provincia de Buenos Aires* appears different from other provincial banks in other ways – in particular, it appeared to out-perform most other public provincial banks throughout most of the 1990s (see Clarke and Cull, 1999, p. 867)¹² Although including the province of Buenos Aires in the analysis does not appear to have a significant effect on the main results – not surprisingly since it is only a single province and it did not privatize its provincial bank – it seems plausible that privatization would have had less of an impact in Buenos Aires.

One final problem is dealing with provinces with more than one provincial bank. Although 20 of the 23 provinces in Argentina owned a single provincial bank, three provinces,

¹² In addition, the *Banco de la Provincia de Buenos Aires*, which is the oldest commercial bank in Argentina, is unique for other reasons. In particular, the *1853 Pacto San Jose de Flores*, an agreement between the Federal Government and the Province of Buenos Aires, gave the bank a special status. Experts at the Central Bank of Argentina said that this made privatization far less likely for this bank than for the other provincial banks.

Cordoba, Mendoza and Santa Fe, owned two banks. Although this could potentially be a problem – for example if the provinces privatized the banks at different times or only privatized one of the two banks – in practice this does not seem to be a major concern. In two of the three provinces with multiple banks, Cordoba and Mendoza, the provincial government treated the two separate banks identically. Neither bank was privatized in Cordoba, while both banks were privatized at the same time to the same private owner in Mendoza.¹³ Although in the third province, Santa Fe, only one of two public provincial banks was privatized, this does not appear to be a major problem. The bank that was privatized (*Banco de Santa Fe*) was considerably larger than the second bank (*Banco Santafesino de Inversion y Desarrollo*), accounting for over 97 percent of provincial bank assets. The second bank, which remained very small throughout the period, was closed in 2000 (i.e., the province did not expand lending in the second bank to make up for the privatization of the first banks). Consequently, we treat the 1998 privatization of the *Banco de Santa Fe* as if it was the same as the privatizations in the other provinces. Since it accounted for almost all provincial assets, this seems to be a reasonable approach. Furthermore, the main results are similar when this province is dropped.

I.2 Empirical Results

Provincial Bank Privatization. The effect of privatization on lending by the provincial bank is shown in Column 1 of Table 7. The dependent variable in this regression, ‘loans by the provincial bank’, is loans by the public provincial bank prior to privatization and loans by the privatized provincial bank after privatization. As noted previously, only a portion of the public provincial bank’s assets was transferred to the privatized bank at the time of privatization in almost all cases, with the remainder being transferred to the residual entity. Since the loans transferred to the residual entity are no longer included in the bank’s portfolio, the size of the provincial bank’s lending portfolio usually fell significantly at the time of privatization. The negative and statistically significant coefficient on the provincial bank privatization dummy reflect this transfer (see column 1). However, the provincial banks quickly increased their lending following privatization. Since this specification includes provincial fixed effects, the

¹³ The private owner merged the two banks following the privatization. Following problems at the parent bank, the merged bank was closed in 1999, with its assets taken over by a group of nine public and private banks.

positive and statistically significant coefficient on the variable ‘periods since privatization’ suggests that provincial bank’s lending portfolios grew more quickly following privatization than they had been prior to privatization (after controlling for other factors that might affect lending). Based upon the point estimates of the coefficients of the dummy variable and the time trend, it would take the provincial banks about 7 years (i.e., about 27 quarters) to regain their former size.

Since loans transferred to the residual entity are also not included in total loans, those transfers meant that privatization also resulted in a drop in total loans in the province. This is reflected in the negative and statistically significant coefficient on the dummy variable representing privatization in the regression for total loans (see column 2 of Table 7). However, the coefficient on trend variable representing quarters since privatization is positive suggesting that total loans in the province also tended to grow in the post-privatization period. This suggests that new lending by the privatized bank did not simply displace lending by other banks in the province in the post-privatization period.

Also consistent with the notion that new lending by the privatized bank did not simply displace lending by other private banks, the coefficients on the dummy and trend variables are statistically insignificant in the regression when loans by private banks excluding the privatized bank is the dependent variable (see column 3 of Table 7). This suggests that on aggregate privatization did not have an immediate or delayed impact on lending by other private banks.

However, the result for private banks as a group obscures the differential responses of foreign and domestic private banks. The positive coefficient on the trend variable in the regression with lending by foreign-owned private banks as the dependent variable (see column 4 of Table 7) suggests that foreign-owned banks increased their lending in provinces that privatized following privatization (relative to their lending in provinces that didn’t privatize). Results in the next section of the paper, which uses bank-level data on lending, appear consistent with this finding.

In contrast, other domestically owned private banks appear to have reduced their lending in the provinces that privatized (see column 5 of Table 7). The negative coefficient on lending by domestically owned private banks could reflect either greater competition from the provincial bank following privatization or greater competition from the foreign-owned banks that appear to

have expanded their lending following privatization. Results in the next section of the paper appear to favor the first explanation over the second, suggesting that privatization resulted in greater competition between the provincial banks and other private domestic banks operating in the province.

Finally, the positive and statistically significant coefficient on the trend variable in the regression with loans by other public banks (i.e., nationally and municipally owned public banks) as the dependent variable suggests that other public banks increased their lending in response to provincial bank privatization (see Column 6). One plausible explanation for this might be that other public banks had functions that broadly overlapped with the functions of the public provincial banks. If the privatized provincial banks behaved more like other private domestic banks following privatization – something that is consistent with the observation that lending by other private domestic banks tended to fall following privatization – this might have created an opportunity for other public banks to expand their lending in provinces that privatized. Although the increased lending by other public banks might reduce the benefits associated with privatization, it is important to note that the magnitude of this effect is quite small – loans by other public banks grew only about 0.6 percentage points faster per quarter following privatization than they grew prior to privatization.

Per Capita GDP. As discussed previously, since the regressions include province fixed effects, which should control for differences between provinces with respect to provincial wealth, per capita GDP should capture business cycle effects.¹⁴ The negative coefficient on per capita GDP in the regression for total lending (see column 2) suggests that lending was counter-cyclical over the period being studied. Although this might seem counterintuitive, this appears to primarily be due to the behavior of the provincial banks and the national public banks – in contrast, lending by private banks appears to have been pro-cyclical (see column 3).

Another interesting result is that the negative coefficient on per capita GDP in the regression for domestic private banks suggests that lending by private domestic banks is also

¹⁴ Note that since the regressions also include time fixed effects, this variable might better be seen as a measure of the business cycle in the province relative to the national business cycle.

counter-cyclical. Although this might seem counter-intuitive, it is plausible that this is due to the behavior of foreign-owned banks. If foreign banks are more likely to purchase domestically owned banks during cyclical upturns – which would result in domestic lending falling during these periods – we would see a pattern of pro-cyclical lending by foreign banks and counter-cyclical lending by domestic banks. The positive coefficient on total private lending (and the statistically insignificant positive coefficient for foreign banks) combined with the negative coefficient for private domestic banks appear consistent with this interpretation.

Other Control Variables. As discussed previously, due to the small number of observations for the other control variables, it is difficult to draw strong conclusions based upon these coefficients. However, some tentative conclusions seem plausible. First, mergers involving provincial banks and re-nationalizations appear to be associated with a reduction in lending by the provincial banks. This could be because the owners take advantage of these events to move some (non-performing) assets off the balance sheet or to dispose of some part of their lending portfolio. Second, private lending appears to expand following the re-nationalization of previously privatized provincial banks. However, this mainly seems to be due to the behavior of foreign-owned banks – lending by private domestic banks (other than the privatized bank) seems to contract. Finally, both mergers and re-nationalization appear to be correlated with increased lending by other public banks. One concern with respect to these variables is that in sharp contrast to the results for provincial bank privatizations, lending does not seem to follow linear trends following the events – the intercept rather than the trend term is often statistically significant in regressions for other private and public banks. When combined with the previous observation that these are often based on only a few events, this reinforces the need to interpret these results cautiously.

IV. THE EFFECT OF FOREIGN ENTRY ON PROVINCIAL CREDIT MARKETS

I.3 Methodology

In many ways it is more difficult to assess the impact of foreign entry on provincial credit markets than it is to assess the impact of provincial bank privatization. The most significant problem is that, in contrast to provincial bank privatization, which was a single discrete event, foreign entry occurred slowly over the entire period. Consequently, it is impossible to define a

single point in time when foreign entry occurred, meaning that it is impossible to use the same approach (i.e., including a dummy variable to assess the immediate impact and a time trend to assess the dynamic effects) to assess how other banks responded to foreign entry.

To look at the effect of foreign entry on provincial credit markets, we, therefore, adopt a slightly different approach to the one used in the previous section. First, we use bank-level data to assess how foreign mergers and acquisition affected provincial lending at the bank level. In particular, for each bank, we look at the share of the bank's loan portfolio in several groups of provinces to assess how lending to these provinces was affected by foreign mergers and acquisitions – as noted previously, this was the primary way foreign banks expanded their operations in Argentina. The equation that we estimate is:

$$\log\left(\frac{P_{it}^j}{1 - P_{it}^j}\right) = \alpha_i + \gamma_t + \beta_1 \textit{Foreign} + \beta_2 \textit{Privatization} + \beta_3 \textit{Domestic} + \beta_4 \textit{State Restructuring} + \delta X_{it} + \varepsilon_{it}$$

P_{it}^j is the share of bank i 's lending in period t to some group of provinces j . We divide the provinces into three size groupings (in terms of both population and GDP) (i) Buenos Aires (including Federal Capital District); (ii) mid-sized provinces (Cordoba, Mendoza, and Santa Fe); (iii) smaller provinces (all other provinces). In addition, we compute shares for three other groups of provinces: (i) privatizers; (ii) non-privatizers (excluding Buenos Aires); and agricultural provinces (the ten provinces for which agriculture contributes the greatest share of GDP). Following earlier work on portfolio shares, the model is estimated in log-odds Logit format.¹⁵

It is difficult to take mergers and acquisitions into account in these regressions. For example, suppose that a foreign bank that only lent in Buenos Aires bought a domestic bank with operations in other provinces and then merged that bank into its existing operations. Following

¹⁵ Focusing on the log-odds ratio rather than the share gets around the problem that the shares are bounded between 0 and 1. The log-odds ratio is used in many recent papers looking at portfolio distribution (see, e.g., Berger *et al.*, 1998). Clarke *et al.* (forthcoming) use a similar approach in a paper looking at small business lending in four Latin American countries including Argentina.

the merger, the foreign bank's share of lending to provinces outside of Buenos Aires would increase (from 0 percent to some positive number) even if it sharply curtailed lending in the provinces (in the branches that it took over from the domestic bank). To control for this possibility, we construct a series of 'virtual' banks based upon the ownership patterns in the fourth quarter of 1999. That is, we combine the balance sheets of banks that were merged between 1995 and 1999 into single entities for the entire period.¹⁶ This allows us to compare the balance sheet of the merged bank in the post-merger period with the combined balance sheets of all banks that formed the merged bank for the pre-merger period, rather than comparing the balance sheet of only the purchasing bank in the pre-privatization period with the balance sheet of the merged bank in the post-privatization period.

The main variable of interest is a dummy that takes the value "1" for the bank group after a majority foreign-owned bank entered Argentina or increased the size of its existing operations in Argentina by merging with or acquiring an existing bank.¹⁷ If the coefficient on this variable is positive, this suggests that lending was higher by that group of banks following the merger. In some model specifications, we included a trend variable indicating the number of years since the merger. Since the coefficients on the trend were never statistically significant and did not affect the other results, we do not present these results.¹⁸

In addition to these variables, the analysis also includes a series of additional control variables: (i) γ_t , a series of year dummies and seasonal controls; (ii) α_i , a series of bank level fixed effects; (iii) *privatization*, a dummy that takes the value "1" following a privatization; (iv) *domestic*, a dummy that takes the value "1" following a merger or acquisition that does not involve any foreign banks; (v) *state restructuring*, a dummy variable that takes the value "1"

¹⁶ For example, suppose that bank i purchases bank j and merges their operation in the third quarter of 1997. To compare the group's lending before the third quarter of 1997 with the group's lending after the third quarter of 1997, we combine the balance sheets of the two institutions for the pre-merger period (following the merger the balance sheets are already combined).

¹⁷ Although in principle an acquisition can occur in the absence of a merger or a merger can occur in the absence of an acquisition, this does not appear to have occurred for any of the foreign banks in our sample. After consulting with the bank superintendency in Argentina, it seems that our sample only includes cases where a foreign bank: (i) entered Argentina by acquiring an existing bank; or (ii) expanded its operations by acquiring an existing bank and then merged its operations with those of the acquired bank.

following any restructuring of state-owned banks (excluding, of course, privatizations); and (vi) X_{it} , two additional bank-level control variables, size and market share.

Although the bank level analysis provides information on bank behavior after domestic banks were acquired by or merged with foreign-owned banks, this analysis fails to capture any indirect effects of foreign ownership. When a foreign bank increases or decreases its lending in a given province either by expanding its lending or purchasing a previously domestically owned bank, other banks in the province might adjust their portfolios in that province in response to the newly changed market conditions. For example, the net effect of increased foreign lending in a province could be zero, or even negative, if domestic banks reduce their lending in that province in response to a perceived increase in competition.

To try to assess whether this is the case, we also re-estimate the provincial level regressions, adding a variable that represents the level of foreign lending in the province. Although there are some concerns regarding the endogeneity of foreign lending in the province and the direction of causation (e.g., foreign banks might increase their lending in response to decreased lending by other private banks), this provides some information on the correlation between foreign lending and other types of lending. To try to reduce the potential for endogeneity, we lag foreign lending by a single period.

I.4 Empirical Results (Bank-Level Data)

Foreign M&As. Table 8 presents results from bank group-level regressions of portfolio shares to different groups of provinces on a series of variable indicating whether the bank was involved in various forms of restructuring. In addition to the variables in the table, the regression includes year and bank-group fixed effects.

The coefficients on the variable indicating that the bank group was involved in a foreign M&A are negative and statistically significant for the regression with the group's share of lending to Buenos Aires as the dependent variable and positive and statistically significant for regressions for all other groups of provinces. This suggests that, on average, lending to

¹⁸ Results available upon request.

provinces other than Buenos Aires increased following the M&A activity for bank groups involved in foreign M&As, while lending in Buenos Aires decreased. The share of the portfolio devoted to the smallest provinces increased by about 3 percentage points (see Table 9). This is a significant increase since, on average, lending in these provinces accounted for only about 6 percent of lending for these bank groups. Lending in the mid-sized provinces (Santa Fe, Cordoba and Mendoza) increased more modestly, by only about 2 percentage points. However, the increase was more modest for the provinces where agriculture was most important (an increase of 0.5 percentage points). Finally, the increase appears greater in provinces that privatized (4.5 percentage points) than in provinces that did not privatize (1.2 percentage points). This is broadly consistent with the previous results from the provincial level regressions that suggested that privatization was associated with increased foreign lending in provinces that privatized.

Domestic M&As. In contrast to foreign M&As, domestic M&As (i.e., M&As that did not involve foreign-owned banks) were not associated with increased lending outside of Buenos Aires. In fact, the positive and statistically significant coefficient on the variable indicating domestic M&A activity suggests that on average lending in Buenos Aires increased for bank groups involved in domestic M&As. It is also interesting to note that bank groups involved in domestic M&As did not increase their lending in provinces that privatized. In fact, the coefficient estimates suggest that domestic M&A activity is correlated with reduced lending in provinces that privatized.

I.5 Empirical Results (Provincial-Level Data)

Although the previous results suggest that foreign M&As resulted in those groups increasing their lending outside of Buenos Aires, it is not possible to assess the overall impact of foreign entry on provincial credit from these results. For example, if increased lending by foreign banks resulted in domestic banks reducing their lending in those provinces, the net impact could be zero. As noted above, since foreign entry was not a discrete event (in contrast to provincial bank privatization), it is harder to assess the net impact of foreign entry than it is to assess the net impact of privatization. However, to attempt to address this question, we add a

variable representing foreign lending in the province to the regressions in Table 7.¹⁹ If reduced domestic lending offset increased lending by foreign banks, we would expect the coefficient on foreign loans to be zero in the estimation. As noted, to reduce the likelihood of reverse causation, we use lagged foreign lending as the independent variable.

Results from these regressions are presented in Table 10. The coefficient on foreign lending is positive and statistically significant in the regression for lending by private banks, suggesting that reduced domestic lending does not completely offset increased foreign lending. However the coefficient on foreign lending is statistically insignificant in the regression for total lending, as well as in the regressions for lending by public banks and provincial banks.

For the most part, the results with respect to privatization are not affected by the inclusion of the variable representing lagged foreign lending. One exception is that the coefficient on the provincial bank privatization dummy variable become negative and statistically significant in the regression for loans for private banks. This suggests that, on average, lending by private banks tended to fall following privatization in provinces that privatized (although the drop did not appear to follow a simple linear trend) after controlling for changes in lending by foreign-owned banks. This is consistent with previous results that suggested that lending by private domestic banks fell following provincial bank privatization.

V. CONCLUSIONS

Although both bank privatization and foreign bank entry were likely to improve banking sector efficiency in Argentina in the 1990s, there were legitimate concerns that they might also have meant reduced access to credit to sectors such as agriculture and to geographically remote provinces. Our analysis suggests that there were some temporary disruptions in credit provision to these groups, but overall credit levels soon approached pre-privatization levels. In particular, the transfer of assets to the residual entity meant that provincial bank privatization was associated with a drop in loans by the provincial banks, but the privatized banks appear grew quickly following privatization. Provincial bank privatization did not appear to affect total loans

¹⁹ Because significant foreign entry was the result of purchases of domestic banks, we omit the column for loans by

by private banks. However, this disguises the fact that foreign-owned banks appeared to enter provinces that privatized more aggressively than they entered provinces that did not privatize. In contrast, lending by other private domestic banks appeared to drop following privatization. This suggests that the privatized banks might have competed in niche markets where private domestic (but not private foreign) banks focused their lending activities. One concern is that other public (i.e., national and municipal) banks appeared to increase their lending following privatization, potentially offsetting some of its benefits. However, the increase was relatively modest.

Foreign mergers and acquisitions (i.e., cases in which a foreign bank acquired another bank) were associated with increased lending by those groups outside of Buenos Aires. The increase appears to be greater in smaller provinces (compared to mid-sized provinces) and in provinces that privatized (compared to provinces that did not privatize). The increased lending by foreign banks in the provincial markets over this period did not appear to be fully offset by reduced lending by domestic banks. In that sense, foreign entry coincided with more, not less, lending to Argentina's less urbanized provinces. More research is needed to determine how foreign banks delivered financial services to the provinces, and if those delivery methods meant that those services were different from those provided in the past.

private domestic banks. We also omit the regression for loans by foreign bank for obvious reasons.

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VII. TABLES

Table 1: Market Share by Bank Type

Bank Type	1993	1994	1995	1996	1997	1998	1999
<i>Domestic Banks</i>							
Market Share	39%	43%	40%	41%	26%	21%	22%
Number	105	107	70	70	54	49	40
<i>Foreign Banks</i>							
Market Share	15.6%	15.4%	19.9%	24.4%	43.6%	47.8%	50.3%
Number	31	31	30	31	38	39	37
<i>Provincial Banks</i>							
Market Share	21.6%	20.6%	18.5%	14.4%	13.2%	13.1%	13.0%
Number	25	24	22	13	12	10	10
<i>National and Municipal Banks</i>							
Market Share	23.3%	21.4%	21.8%	20.3%	17.5%	18.2%	14.8%
Number	9	8	7	7	7	6	5
Assets Top Ten Banks	50.4%	51.0%	54.1%	55.4%	58.3%	64.6%	68.3%

Source: Central Bank of Argentina

Table 2: Share of Lending by Region - All Banks

	1995	1996	1997	1998	1999
Buenos Aires	69.4%	74.2%	75.4%	77.0%	77.8%
Rest of the Country	30.6%	25.8%	24.6%	23.0%	22.2%
Mid - Sized Provinces	15.5%	13.4%	12.5%	11.4%	11.0%
Small Provinces	15.1%	12.4%	12.1%	11.6%	11.2%

Source: Central Bank of Argentina

Table 3: Share of Lending – Foreign Banks (Weighted)

	1995	1996	1997	1998	1999
Buenos Aires	94.2%	92.5%	88.5%	88.1%	84.3%
Rest of the Country	5.8%	7.5%	11.5%	11.9%	15.7%
Mid - Sized Provinces	3.9%	4.5%	5.6%	5.8%	8.8%
Small Provinces	1.9%	3.1%	5.9%	6.1%	6.9%

Source: Central Bank of Argentina

*Mid –Sized provinces comprise Mendoza, Santa Fe and Cordoba.

Table 4: Provincial Banks, Dominance of Local Banking Sector

Province	% Loans in Province (1995 – 1 st Quarter)	
Buenos Aires	14.8%	
Catamarca	44.4%	
Córdoba	46.2%	
Corrientes	23.6%	*
Chaco	5.3%	*
Chubut	23.4%	
Entre Rios	33.2%	*
Formosa	69.6%	**
Jujuy	45.7%	**
La Pampa	66.7%	
La Rioja	8.1%	*
Mendoza	50.4%	**
Misiones	52.6%	**
Neuquen	28.0%	
Río Negro	44.1%	**
Salta	51.0%	**
San Juan	52.3%	**
San Luis	31.3%	**
Santa Cruz	56.0%	**
Santa Fe	16.3%	**
Santiago del Estero	65.1%	**
Tucumán	18.9%	**
Tierra del Fuego	55.2%	

*Already Private

** Privatized after 1995

Table 5: Loans to the Public Sector, by Bank Type

Year	Foreign Banks	Domestic Banks	Public National and Municipal Banks	Provincial Banks
1993	0.1%	0.9%	9.9%	14.7%
1994	0.1%	0.6%	11.6%	13.6%
1995	0.2%	1.2%	13.9%	12.7%
1996	0.5%	3.9%	16.5%	17.6%
1997	1.1%	4.4%	17.1%	19.3%
1998	5.1%	4.2%	14.3%	11.5%
1999	7.1%	6.7%	13.1%	15.5%

Source: Central Bank of Argentina

*Simple Average

Table 6: Sizes of Privatized and Residual Entities

Bank	Privatized Entity		Residual Entity		% Transferred to Private Owner	
	Assets (Million Pesos)	Liabilities (Million Pesos)	Assets (Million Pesos)	Liabilities (Million Pesos)	Assets (Million Pesos)	Liabilities (Million Pesos)
Chaco	42.9	34.5	245.3	233.1	15%	13%
Entre Ríos	425.5	414.5	0.0	0.0	100%	100%
Formosa	26.5	11.5	135.7	244.9	16%	4%
Misiones	67.2	57.8	133.9	340.8	33%	14%
Riío Negro	59.4	47.4	379.2	402.6	14%	11%
Salta	42.9	41.0	70.0	68.4	38%	37%
Tucumán	66.9	56.9	261.7	262.9	20%	18%
San Luis	38.6	38.6	29.7	81.8	56%	32%
Santiago del Estero	43.8	43.5	199.6	227.3	18%	16%
San Juan	173.9	158.9	78.6	175.3	69%	48%
Mendoza*	335.1	326.9	666.6	666.6	33%	33%
Previsión Social	62.9	41.0	292.1	292.1	18%	12%
Jujuy	35.7	33.7	206.9	218.7	15%	13%
Santa Fe	--	--	--	--	--	--
Santa Cruz	157.9	142.9	37.7	126.9	81%	53%

Data Source: FFDP

*Province also refinanced some (less than ten percent) of residual assets. Refinancing is not included in the recovery figures presented here.

Table 7: Effect of privatization of provincial banks on lending in the province (natural log of per capita loans, provincial level regressions).

<i>(All dependent variables are natural logs of per capita measures)</i>	Fixed Effects Regressions					
	Loans by Provincial Banks	Total Loans	Loans by private banks (Excludes privatized banks)	Loans by foreign banks (Excludes privatized banks)	Loans by private domestic banks (Excludes privatized banks)	Loans by public banks (excludes provincial banks)
<i>Observations</i>	433	440	440	405	430	440
<i>Provincial Dummies</i>	YES	YES	YES	YES	YES	YES
<i>Period Dummies</i>	YES	YES	YES	YES	YES	YES
<i>Provincial bank privatized (Dummy)</i>	-1.2521*** (-14.15)	-0.3694*** (-13.23)	-0.0060 (-0.16)	0.0167 (0.26)	0.1419 (1.61)	0.0178 (0.92)
<i>Periods since privatization</i>	0.0449*** (4.80)	0.0085*** (2.89)	0.0046 (1.18)	0.0355*** (5.13)	-0.0185** (-1.99)	0.0060*** (2.91)
<i>GDP per Capita (Natural Log)</i>	-1.0295** (-2.33)	-0.3658*** (-2.63)	0.3355* (1.84)	0.1536 (0.49)	-1.3316*** (-2.75)	-0.1451 (-1.49)
<i>Multiple provincial banks merged (Dummy)</i>	-0.3271*** (-2.90)	-0.0485 (-1.42)	0.0350 (0.78)	0.3188*** (4.34)	-0.0263 (-0.25)	0.0080 (0.33)
<i>Periods Since Merger</i>	-0.0080 (-0.55)	0.0013 (0.28)	0.0050 (0.84)	-0.0064 (-0.65)	0.0311** (2.18)	0.0087*** (2.72)
<i>Provincial bank re-nationalized (Dummy)</i>	-0.5564* (-1.72)	-0.1749* (-1.73)	0.2123 (1.60)	1.1777*** (5.28)	-0.0623 (-0.20)	0.1583** (2.24)
<i>Periods since re-nationalization</i>	-0.0389 (-1.09)	-0.0030 (-0.27)	0.0274* (1.86)	0.0149 (0.62)	-0.0639* (-1.83)	-0.0005 (-0.06)
<i>Provincial bank closed (Dummy)</i>		-0.2163 (-0.97)	-0.0834 (-0.29)	-0.1159 (-0.24)	-0.0441 (-0.06)	0.0349 (0.22)
<i>Periods since closing</i>		0.0195 (0.19)	0.0088 (0.07)	0.0331 (0.15)	-0.0425 (-0.13)	0.0176 (0.25)
<i>Number of province</i>						
<i>R-squared</i>	0.45	0.45	0.26	0.55	0.39	0.19

* significant at 10%; ** significant at 5%; *** significant at 1% t-statistics in parentheses

All regressions are two-way fixed effect models (with province and period dummies) using quarterly data on bank lending at the provincial level for banks of the type between 1995 and 1999.

Table 8: Effect of foreign M&As on regional portfolio distribution (bank-level regressions)

	Fixed Effects Regressions					
	1315	1315	1315	1315	1315	1315
<i>Observations</i>	1315	1315	1315	1315	1315	1315
<i>Fixed Bank Effects</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Fixed Year Effects</i>	Yes	Yes	Yes	Yes	Yes	Yes
	Portfolio share for Buenos Aires	Portfolio share for Small Provinces	Portfolio share for Cordoba, Santa Fe, Mendoza	Portfolio share for Privatizers ^a	Portfolio share for Non-Privatizers ^a	Portfolio share for Agricultural Provinces
<i>Foreign M&A</i>	-0.6830*** (-4.84)	0.4837*** (4.20)	0.4872*** (5.47)	0.6048*** (4.02)	0.4017*** (4.91)	0.2211*** (3.39)
<i>Domestic M&A</i>	0.7947*** (3.39)	-0.2918 (-1.52)	-0.5670*** (-3.83)	-0.7657*** (-3.06)	-0.1235 (-0.91)	0.0392 (0.36)
<i>Privatized</i>	0.0845 (0.54)	-0.1740 (-1.37)	0.1047 (1.06)	-0.5732*** (-3.45)	0.0307 (0.34)	-0.6005*** (-8.33)
<i>State Restructuring</i>	0.0381 (0.16)	-0.8372*** (-4.24)	0.8564*** (5.61)	-0.1822 (-0.71)	0.2874** (2.05)	0.0884 (0.79)
<i>Lagged Market Share</i>	-4.9978 (-0.57)	4.8057 (0.68)	4.5293 (0.82)	0.9511 (0.10)	3.9055 (0.77)	6.3913 (1.59)
<i>Lagged Assets (log)</i>	0.1744*** (2.72)	-0.1965*** (-3.76)	-0.0280 (-0.69)	-0.1325* (-1.94)	-0.0667* (-1.80)	-0.0457 (-1.54)
<i>R-squared</i>	0.03	0.04	0.07	0.03	0.04	0.08

* significant at 10%; ** significant at 5%; *** significant at 1% t-statistics in parentheses

All regressions are two-way fixed effect models (with bank group and year dummies) using quarterly data between 1995 and 1999. ^a "Privatizers" are provinces that privatized their provincial banks, while 'non-privatizers' are provinces (other than Buenos Aires) that did not privatize their provincial banks.

Table 9: Change in share of portfolio lending for bank groups following foreign and domestic M&As

	Buenos Aires	Small Provinces	Cordoba etc.	Privatizers	Non-Privatizers	Agricultural Provinces
<i>Bank groups involved in foreign M&As</i>	-7.1%***	3.1%***	1.9%***	4.5%***	1.2%***	0.5%***
<i>Bank groups involved in domestic M&As</i>	18.7%***	-4.1%	-10.5%***	-11.8%***	-2.1%	0.6%

* significant at 10%; ** significant at 5%; *** significant at 1% t-statistics in parentheses

Note: Coefficient estimates are from Table 9. The change is evaluated at the mean portfolio shares for bank groups of that type.

Table 10: Effect of privatization of provincial banks on lending in the province (natural log of per capita loans, provincial level regressions).

<i>(All dependent variables are natural logs of per capita measures)</i>	Fixed Effects Regression			
	Loans by Provincial Banks	Total Loans	Loans by private banks (Excludes privatized banks)	Loans by public banks (excludes provincial banks)
<i>Observations</i>	376	383	383	383
<i>Provincial Dummies</i>	YES	YES	YES	YES
<i>Period Dummies</i>	YES	YES	YES	YES
<i>Loans by foreign banks (Natural log, per capita, lagged)</i>	0.0927 (1.13)	0.0030 (0.13)	0.1426*** (5.33)	0.0190 (1.04)
<i>Provincial bank privatized (Dummy)</i>	-1.0847*** (-11.76)	-0.3345*** (-12.31)	-0.1144*** (-3.63)	0.0309 (1.44)
<i>Periods since privatization</i>	0.0234** (2.25)	0.0062** (2.03)	0.0054 (1.53)	0.0063** (2.60)
<i>GDP per Capita (Natural Log)</i>	-0.9412* (-1.94)	-0.3671** (-2.57)	0.2646 (1.60)	-0.1554 (-1.38)
<i>Multiple provincial banks merged (Dummy)</i>	-0.4130*** (-3.55)	-0.0604* (-1.81)	-0.0061 (-0.16)	0.0074 (0.28)
<i>Periods Since Merger</i>	-0.0067 (-0.48)	0.0003 (0.08)	-0.0010 (-0.20)	0.0100*** (3.07)
<i>Provincial bank re-nationalized (Dummy)</i>	-0.9845*** (-2.91)	-0.2463** (-2.47)	0.0494 (0.43)	0.1373* (1.74)
<i>Periods since re-nationalization</i>	-0.0376 (-1.11)	-0.0013 (-0.13)	0.0166 (1.43)	0.0042 (0.53)
<i>Provincial bank closed (Dummy)</i>		-0.2137 (-1.09)	-0.0831 (-0.37)	0.0273 (0.18)
<i>Periods since closing</i>		0.0191 (0.21)	0.0032 (0.03)	0.0151 (0.21)
<i>R-squared</i>	0.41	0.38	0.30	0.20

* significant at 10%; ** significant at 5%; *** significant at 1% t-statistics in parentheses

All regressions are two-way fixed effect models (with province and period dummies) using quarterly data on bank lending at the provincial level for banks of the type between 1995 and 1999