FOREIGN BANKING IN MEXICO: ARE THERE MOTIVES TO WORRY?

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I. Introduction

None of the car brands sold in Mexico is national. All of them come from other countries. Despite this fact, we do not listen to industry analysts and commentators say that by being foreign companies, they do not maximize profits. Regardless of the country where their corporate offices are, car companies seek to generate the highest profits possible by selling their products. The same happens with stores such as Home Depot and Walmart, and with service providers as diverse as Google and McKinsey. There is no suspicion that by being foreign companies they would refuse to sell their products in Mexico. With banks that have their parent companies abroad it seems that there is such a suspicion.

It is common to hear or read comments in the media criticizing the degree of “foreignization” of banking in Mexico.1 Some of these comments suggest that, despite it being profitable, foreign banks do not lend sufficient to Mexican businesses, especially to small businesses.2 The purpose of this chapter is to analyze whether there are reasons to

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1 An example are the statements by Juan Guichard Michel, President and CEO of Banco Invex, who said that the Mexican banking system is “highly foreignized and concentrated” (October 18, 2011, El Universal). Another example is the comment by Alejandro Valenzuela, Director General of Grupo Financiero Banorte, who stated that commercial banking has been “foreignized more than it should have” (January 27, 2011, El Sol de México). Yet another example is the comment made by Jesús Silva-Herzog Flores, former Secretary of Finance, who said that “around 85% of banking resources are in the hands of foreigners which, in [his] opinion, constitutes one of the most severe historical errors of economic policy in our country” (see the Nexos report of the Nexos magazine, April 1, 2011).

2 According to Aldo Musacchio, professor at the Harvard Business School, “almost 15 years after the large-scale entry of foreign banks [...] The system has become more stable because these banks do not tolerate much risk [...] This has lead to a robust banking system [...] but one that [...] keeps the Mexican economy at a stop, leaving small and medium businesses thirsty for credit” (see the Nexos Report in the Nexos magazine, April 1, 2011).
worry about a different behavior of foreign banks with respect to
domestic banks in terms of the granting of credits to businesses.\textsuperscript{3}

The chapter is divided into two parts, one theoretical and the other,
empirical. In the theoretical part, we make a distinction between the
entry of foreign banks in the country and the conversion of domestic
banks into foreign banks. We also discuss different definitions of foreign
banks and analyze the reasons why a foreign bank could behave
differently from a domestic bank, even in terms of the repatriation of
profits. Our conclusion is that there is no definition of “foreign” that
would be valid from an economic point of view—i.e. that generates
falsifiable hypotheses that may be proven empirically with the amounts
and prices observed on the market—. Despite this fact, we adopted a
work definition, according to which there are five banks with retail
operations in Mexico that may be called foreign.

In the empirical part, we review the evolution of the business
portfolio of banks defined as foreign vs. domestic banks. We study
whether foreign banks are less prone to service small businesses. We
compare the interest rate collected from businesses by foreign and
domestic banks, and the performance indices of both segments. Our
conclusion is that there is no evidence that would support the concern
for the so-called “foreignization” of banking.

II. Theoretical analysis

Before proceeding with the conceptual discussion, we must clarify that
all banks authorized to operate in Mexico are Mexican legal entities. All
of them are subject to Mexican laws and provisions. The definitions of
“foreign bank” and “domestic bank” that we analyze below do not have a
legal character. Our objective is to explore whether there are definitions
of “foreign” with an economic content.

\textit{Entry versus conversion}

The discussion of the effects of foreign banks on the banking industry
and on the economic performance of the host country is not limited to
Mexico. There have been many empirical studies attempting to measure

\textsuperscript{3} We have not noticed any criticism towards foreign banks for not taking
deposits from the public or for not wanting to grant mortgage or consumer credit.
these effects in other countries. Studies typically define foreign banks as banks whose parent company is located abroad. Their discussion mainly focuses on the reasons for which foreign banks enter a country and on the consequences of such entry. In the case of Mexico, rather than the entry of foreign banks, we observe a conversion of domestic banks into foreign. Maybe the best way to illustrate the difference between entry and conversion is by using the company Walmart as an example.

Diverse economic studies have attempted to measure the entry of Walmart into places where there are no similar stores. For instance, they have asked how the opening of a Walmart store affects the small stores of Xaltepec, an imaginary town without supermarkets. We also consider Yautitlán, another imaginary town very similar to Xaltepec but that does have a supermarket called Aurrerá. Let us suppose that this store Aurrerá is acquired by Walmart. The entry of Walmart is different in the two places. In Yautitlán there was already a supermarket and it was only converted. The products offered, price policies and customer service may have changed, but the store already existed and had some kind of an impact on local businesses. On the other hand, there was no supermarket in Xaltepec and therefore the impact could be more dramatic. The “foreignization” of the banking system in Mexico is more similar to the case of Yautitlán than to Xaltepec: it was rather a conversion of domestic banks into a foreign bank than an entry of foreign banks into the country.

Citigroup, BBVA, Santander, HSBC, and Scotiabank did not open branch offices massively to compete with domestic banks. Instead, they bought the largest local banks. The industry did not change radically because no new competitors entered. Only the strategies of existing competitors changed. Chart 1 presents the recent history of the six largest banks in Mexico in terms of mergers and acquisitions. Except for Banorte, the banks shown are generally considered foreign. The “foreignization” of banks occurred through five large-scale acquisitions. Citigroup acquired Banamex in 2001. BBVA acquired Bancomer in parts in 2000 (59.4%) and in 2004 (40.6%). Santander acquired Serfin in 2000. HSBC acquired Bital in 2002. Scotiabank acquired Inverlat in

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4 Cull and Martínez Peria (2010) provide an extensive review of the literature on this topic.
5 Citigroup, BBVA and Santander already had a presence in Mexico prior to the acquisitions of the large local banks. It was nonetheless very modest.
2000. Foreign banks did not enter the country to compete with the largest domestic banks. They simply acquired them.

Considering that in Mexico “foreignization” was the result of conversion, in this chapter we will analyze the coexistence of domestic and foreign banks. More than what happened at the beginning as a consequence of the conversion, we are interested in studying what happened in the medium term, as foreign banks have been operating for some time on the market. First, we will discuss some definitions of a foreign bank.
What makes a foreign bank foreign

We have identified four criteria to divide banks into domestic and foreign: (1) the location of its parent company, (2) the location of its owners, (3) the location of those who control the bank (directors), and (4) its business model. To illustrate the merit of these four criteria we might think in terms of counterfactuals (i.e. alternative hypothetical situations to the factual).

Let us commence with the location of the bank’s parent company. When someone says that BBVA Bancomer is a foreign bank, it might be easily argued that that it is because the office from where it receives its orders is outside of Mexico, in Spain. However, taken literally, this criterion implies that it would be sufficient for a domestic bank to move its corporate office outside Mexico to cease being a domestic bank. Let us imagine that due to public safety reasons, a bank decides to move its corporate offices from Tijuana to San Diego, California, but that everything else regarding the bank remains without changes: branch offices, employees, credit policies, products offered, share structure, governing board, etc. are all the same. It would be difficult to argue that the location of the corporate offices only will result in a difference in economic terms: the bank would keep on maximizing its profits subject to the same restrictions.

The application of the criterion of the parent company’s location at domestic level also illustrates the weakness of this criterion. Banregio, Afirme and Banco Ahorro Famsa have their corporate offices in Monterrey, Nuevo León. Banbajío in León, Guanajuato and Bansí in Guadalajara, Jalisco. Should the inhabitants of Mexico City worry because the headquarters of these banks are not located in the Federal District? And equally, should we suspect that these banks will pass on profitable opportunities just because these opportunities are in Tabasco or in Sonora? We don’t think so. We also believe that, internationally, the location of the parent company doesn’t really matter because at the end of the day, the orders that come from wherever they are, are aimed at maximizing profits.

The second criterion we may analyze is the location of the owners or their nationality. A bank in the hands of people living in another country or who are not Mexican could be considered foreign. Nonetheless, the five banks that are popularly called foreign belong to public parent companies, i.e. companies listed on the stock exchange. By being listed on the exchange, it is difficult to know the geographic
location of the owners. In other words, we ignore where the owners are or what their nationality is. It is possible that some of the owners are Mexican.\textsuperscript{6} We also know that there are relevant Mexican shareholders of Citigroup.\textsuperscript{7} This means that, under the criterion of nationality or location of owners, Citigroup is in part domestic. Furthermore, Citigroup, BBVA and Santander are listed on the Mexican Stock Exchange. This means that Mexican investors have direct access to the stock of these banks. Although the fraction in the hands of Mexicans through the stock exchange is rather modest (less than 1%), it implies that these banks are in part domestic.\textsuperscript{8}

We can also analyze the other side of the same coin. Several of the banks that have their parent company in Mexico are part of financial groups listed on the Mexican Stock Exchange—i.e. they are public companies—. This means that, despite having their parent companies in Mexico, their shares can be in foreign hands. This is not only a theoretical possibility. 64.5\% of the shares of Grupo Financiero Banorte is the hands of foreigners, while for Grupo Financiero Inbursa this figure is 29.2\%, and for Compartamos, 32.0\%.\textsuperscript{9} Under the owner nationality criterion, Banorte could be considered a foreign bank by majority, since more than half of its shareholders are foreigners. Inbursa and Compartamos would be foreign banks by minority. We do not want to imply that this is the definition to be adopted. Our intent is to show that the nationality of shareholders does not necessarily imply an economic difference. At the end, these owners seek dividends or capital gain, regardless of where they are located and of where these dividends or capital gains are generated.

The third criterion is the nationality of directors. If the location of the parent company is an administrative aspect, and the location and

\textsuperscript{6} When Citigroup acquired Banamex for 12,500 million dollars, 6,500 million were covered with shares of Citigroup. The capitalization value of Citigroup by the end of 2001 was 79,700 million dollars. This means that approximately 8.2\% of the shares of Citigroup remained in the hands of the former owners of Banamex. See the 10-K Report by Citigroup from 2001, p. 74.

\textsuperscript{7} According to the resolutions of the shareholders’ meeting of Citigroup in 2003, only two Mexicans (Alfredo Harp and Roberto Hernández) controlled jointly 37 million shares. Although this is a modest portion from the total of shares (0.7\%), it was more than what was held at the time by the president of Citigroup.

\textsuperscript{8} The tickers of the shares are C (Citigroup), BBVA (BBVA) and SAN (Santander).

\textsuperscript{9} The source is Indeval with data from August 29, 2012. The tickers considered are GFNORTEO (Banorte), GFINBURO (Inbursa) and COMPARC (Compartamos).
nationality of the owners are difficult to determine, then maybe the location of directors is a criterion with merit. Directors who go from one country to another may not know each country very well and could be more precautious, lending less than what a local director would. The evidence is that banks with foreign parent companies or owners outside the country are directed by Mexicans. In fact, in many cases, these directors were already with the bank before they were acquired. And to make things even more complicated, some of these directors went from having a position in the Mexican subsidiary to having more important regional or global positions. In other banks, the history has been different. In the case of Bital and Inverlat, acquired by HSBC and Scotiabank, respectively, the upper management came from the banks’ headquarters.

The fourth criterion to distinguish between domestic and foreign banks is their business model. However, a casual inspection at a Banamex branch office and at a Citigroup branch office in the US is sufficient to realize that Banamex is more similar to what it was like before the acquisition by Citigroup than to a Citigroup in the US. The same can be said about the types of products offered, the management of human resources, the physical network, etc. This does not mean that the conversion does not imply differences. Foreign banks enter the Mexican market because they recognize an opportunity to transform the business and get more out of it. Changes are expected in the business models whenever acquisitions take place. The model change from Bital to HSBC was probably the most evident of all. In the last years, this bank has gone through a restructuring that includes the reduction of service hours, the closing of branch offices, and the conversion of others to make them

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10 In the case of Banamex, Roberto Hernández remained Director General after the sale to Citigroup.

11 Such is the case of Manuel Medina Mora, who went from being Director General of Grupo Financiero Banamex to president of Global Consumer Banking of Citigroup (see “Medina Mora, from the top of Citigroup” in CNNexpansion.com, April 13, 2010). In addition, Roberto Hernández and Alfredo Harp were members of the board of directors of Citigroup for several years after the acquisition of Banamex. More recently, Ignacio Deschamps went from being the chair of the board at BBVA Bancomer to director of retail banking at BBVA, becoming “the number three” of the bank at a global scale (see “Ignacio Deschamps, new director of Retail Banking” in El Universal, July 17, 2012).

12 Sandy Flockhart was Director General after HSBC acquired Bital, and Anatol von Hahn was Director General of Scotiabank after the acquisition of Inverlat.

13 For instance, the turn slips to be taken to be attended at the teller window and the chairs for clients to sit down while waiting at Banamex branch offices are not seen at US Citigroup branch offices.
“more agile”. The bank also requested its employees at the branch offices to find the “most absurd proceeding”—and received 2,600 proposals—. The business model is idiosyncratic and therefore not an appropriate economic criterion to divide banks into foreign and domestic.

Despite the fact that there seems not to be a good definition, we will use the work definition of foreign banks as retail banks with parent companies abroad, them being: BBVA Bancomer, Banamex, Santander, HSBC and Scotiabank.

**Reasons for a different behavior**

To analyze whether the “foreignization” of the banking system should be a concern, first there must be a theory behind it. We can come up with several theoretical reasons for which foreign banks might behave differently. The literature on the topic is poor and focuses on the entry of foreign banks. Typically, a difference is assumed a priori and then the effects of the entry of banks that differ in that regard are analyzed. In other words, the question is what happens with the shock implied by the entry of new competitors with characteristics that differ from those already present on the market. As we said before, in Mexico it is more appropriate to focus on coexistence instead of entry. If there are different characteristics among domestic and foreign banks, what can we expect in terms of balance?

In this document we will discuss three reasons that, in principle, could modify the balance of the industry: (1) the “preferences” of banks, (2) diverse technologies, and (3) different funding and opportunity costs of the resources. We will first attend to the topic of “preferences”. The idea that companies can have their “preferences” or a target function other than profits dates back to Becker (1957). The economic theory generally assumes that companies maximize the present value of their future profit flow: the differences between income and expenditure throughout time, adjusted by an intertemporal discount rate. Economists commonly denote this present value with the Greek letter Π. According to Becker, it is possible for companies to consider other factors within their target function. It is possible that one of the arguments of this function is the present value of future profits. But at

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14 See the note “HSBC increases infrastructure investments” from January 21, 2010, in El Economista.
15 Cull and Martínez Peria (2010) conceptually discuss some of the differences mentioned in the literature.
the same time it may also have other arguments. For instance, a company may “prefer” a larger market share, even if this does not contribute to generating higher profits. A company would then maximize a function $F$ of profits $\Pi$ and its market share, which we may call $X$. By definition, by maximizing function $F(\Pi,X)$ instead of profits $\Pi$, the company would not obtain maximum profits. The preference of market share $X$ would imply sacrificing profits with respect to the maximum possible. Variable $X$ may be anything. In fact, Becker uses racism as an example: $X$ may be the share of company employees of a specific race.

In the case of banks, it is theoretically possible that foreign banks have other “preferences” than domestic banks. If this is the case, then two phenomena would be observed. First, these “preferences” would be costly. They would be giving up profitable opportunities to satisfy their “preferences”. In second place, a bank without this preference could get hold of that business. This is the argument made by Becker about racism. As long as there is competition and competitors do not share the same preferences, satisfying these preferences will be costly and companies that will do it will end up reducing their operations, or disappearing. Thus, if foreign banks have “preferences” for which they give up profitable opportunities, domestic banks will end up taking those opportunities. Domestic banks would fill the gap left by foreign banks.

The second difference that might induce a different behavior, when in equilibrium, is technology. Foreign banks and domestic banks may differ in their processes, their models to measure risk, information, software, personnel training, etc. These differences could translate into different behaviors on the market. For instance, if a foreign bank has access to a technology for payment via mobile phone, it may introduce it into Mexico at a lower cost than a domestic bank that would have to develop this technology. As foreign banks have access to a larger number of markets, they may take the best practices of their experience in other parts and reduce their costs in Mexico. This would imply that they would become more efficient than domestic banks. However, technology differences are a double-edged sword. We could also argue that domestic banks have a technology that is superior to that of foreign banks because they have a better knowledge of the domestic market. It might be because they understand the behavior of clients better, or because they know how to navigate the legal system better. This better knowledge would make them more efficient than foreign banks. The differences in technology—understood in general terms—could induce diverse behaviors, but it is unclear what we should be expecting.
The third reason for foreign banks to behave differently when in balance is their access to a larger pool of resources and projects. Foreign banks have a larger and more disperse investor base. In principle, this means that they could obtain cheaper resources to lend them in Mexico. However, they also have access to more projects. This means that their cost of opportunity to lend in Mexico may be higher than for a domestic bank. When funding costs change among countries, we may also expect differences. Foreign banks will find it more profitable to lend in Mexico when the returns in other markets decrease, but will find it less profitable when the returns in those other countries increase. In other words, foreign banks are more sensitive to returns in other countries than domestic banks. But at the same time, domestic banks are more sensitive to funding costs in Mexico than foreign banks. Therefore, the differences in credit volatility are ambiguous. Furthermore, access to a larger pool of resources and projects would also be applicable to domestic banks that operate in other parts of the world. In other words, this is a characteristic of multinational banks, not only of banks with parent companies abroad. For instance, Banco Azteca and Compartamos have operations outside México.\(^\text{16}\) This allows them to have a larger pool of projects and resources.

Two of the foreign banks (BBVA Bancomer and Santander) are Spanish, and their parent companies recently had to increase their capital. In principle, this could lead them to redirect resources. Profits that would have been reinvested in Mexico could be transferred to Spain to prop the parent companies. In this case, we might think that having a troubled parent company abroad would result in a behavior in detriment of banking services in Mexico. Despite having some merit, the argument is incomplete.

Let us think of a foreign bank that has an optimum business plan in Mexico: an investment plan that maximizes the present value of future profits. If the parent company changes this plan in order to obtain some cash, it would be destroying value. Its alternative is to leave the business plan as it is (which we suppose is optimum) and sell part of the business to obtain cash. Put simply, instead of blowing the business to obtain cash, it may leave it intact and sell part of it. This is not only a theoretical possibility. This is what happened with Santander in Chile and

\(^{16}\) Banco Azteca has operations in Panama, Honduras, Guatemala, Brazil, Peru and El Salvador. Compartamos Banco operates in Guatemala and Peru.
Colombia, and what recently occurred in Mexico. Santander does not obtain its resources by sacrificing the business. It rather leaves the business with its profit maximization plan and obtains cash by selling it in part or in whole.

In summary, there are theoretical reasons to expect different behaviors from domestic and foreign banks. It is however unclear what differences we should expect. In some cases, the presence of foreign banks may imply gains in terms of efficiency. In others, it may imply loss of efficiency that, sooner or later, will be corrected by domestic banks. At end of the day, we do not see a theoretical reason to worry for the “foreignization” of the banking system in Mexico.

The repatriation of profits

A topic that deserves to be considered separately is the repatriation of profits. Some comments imply that it is undesirable for foreign banks to send the profits generated by their Mexican affiliates to the countries where their parent companies are located, instead of reinvesting them in Mexico. The notion is that the repatriation of profits by the banks is harmful to the economy has no solid bases.

In the first place, the decision to repatriate profits instead of reinvesting them obeys the principle of maximization of investors’ profits. If they or the parent company have better investment opportunities, or if they simply need these resources to strengthen their situation in other places, nothing should impede it. To punish or prohibit the repatriation of the profits of foreign investors is equal to confiscating their investment. A policy of this type would be a hindrance to foreign investment in Mexico.

In the second place, the repatriation of profits is in essence similar to the payment of dividends to foreigners who have shares of national companies. Let us take the case of Banorte. As we said before, 64.5% of its shares are in the hands of foreigners. This means that for every peso of profits distributed as dividends, 64 cents go into the pockets of foreign investors. We believe that this is not a reason to justify the punishment

17 See the note “Santander sells 7,8% of its Chilean affiliate for 710 million euros” from December 8, 2011 in El País.
18 For instance, according to Alejandro Valenzuela, Director General of Grupo Financiero Banorte, “[there] are many entities [foreign banks] that are generating good profits mainly due to positive business in Mexico. Good for them, but it is a pity that they take these resources abroad instead of granting them as credits in the country” (April 27, 2012, Milenio).
or prohibition of the distribution of the profits of Banorte. Companies and their shareholders should be able to use their profits as they deem it best, regardless of where they are or for what purpose they use them. The same principle of protecting property rights should apply to companies with parent companies abroad.

In the third place, there are Mexican companies that invest their profits abroad. From an economic perspective, this behavior is comparable to the repatriation of profits by foreign companies. Cemex, Gruma and América Móvil are three Mexican companies that help to illustrate this point. In the 2009-2011 period, each of these companies invested more abroad than in Mexico. Investment abroad as a percentage of domestic investment was 543% for Cemex, 369% for Gruma and 360% for América Móvil. The amounts invested abroad could have been invested in Mexico. However, these companies considered more convenient for their shareholders to invest in other markets. To punish or prohibit the repatriation of the profits of foreign banks would be inconsistent with allowing national investors to pursue profitable opportunities in other countries. Both behaviors should be respected in an economy that attempts to protect property rights.

In the fourth place, if the repatriation of profits would open up a space in the granting of corporate credit, domestic banks could cover it—at least partially. As we will further on, domestic banks have the capability to do it. If foreign banks give up good business opportunities and do not lend because they have to repatriate their profits, then domestic banks can “make a killing” providing that credit.

III. Empirical analysis

For the purposes of the analysis, we define a retail bank as a foreign bank if its parent company is located outside the country. Under this definition, there are five foreign banks: BBVA Bancomer, Banamex, Santander, HSBC and Scotiabank. Although we do not see theoretical reasons to worry about the “foreignization” of the banking system, in this section we will make an empirical comparison between foreign and domestic banks. Our analysis is focusing on the corporate credit they

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20 Other banks that operate in Mexico and have parent companies abroad (such as Bank of America, Deutsche Bank, or Bank of Tokyo) are not included as they do not have retail transactions.
grant, on whether they are more prone to attend to small businesses, on the interest they charge and on their financial performance.

Aggregate corporate credit

Should there be a substantial difference in the willingness of domestic and foreign banks to lend to companies, this could be noticed in the speed at which their corporate portfolio increases.\(^{21}\) If foreign banks are reluctant to lend—as has been suggested in some cases—their corporate portfolio should be growing more slowly than that of domestic banks. We must clarify beforehand that from a statistical point of view it is not possible to carry out a robust analysis to see whether there are aggregate differences between banks. There are simply too few observations to carry out formal statistical tests—only five foreign retail banks. In view of this restriction, we will analyze aggregate evidence on the corporate portfolio in a qualitative manner.

Graph 1 presents the trajectories followed by corporate credit granted by banks in the last eight years. The data come from the Statistical Bulletins of Commercial Banks of the National Banking and Securities Commission (CNBV).\(^{22}\) The upper margin of the shaded area represents the corporate credit balance of the foreign bank with the largest portfolio (BBVA Bancomer). The lower margin represents the balance of the foreign bank with the smallest portfolio (Scotiabank). In other words, the shaded area is the range of the trajectories of the five foreign banks with retail transactions. White lines in the shaded area denote the other three foreign banks (Banamex, Santander and HSBC). Finally, the three black lines indicate two domestic banks (Banorte and Inbursa) and the sum of the rest of domestic banks. As the scale is logarithmic, the slopes of the lines describe growth rates. Domestic banks other than Inbursa and Banorte were grouped because their portfolio is relatively small and, since some of them have started off with very small portfolios, their growth has been high in terms of percentage but modest in amount.\(^{23}\) By adding these banks up, we obtain a third synthetic domestic bank of a size comparable to that of the other seven banks.

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\(^{21}\) Includes individuals and individuals with business activities.  
\(^{22}\) Bulletins are available at the Internet portal of CNBV.  
\(^{23}\) For this analysis, Ixe and Banorte are considered separately.
If we only consider the trajectories of the corporate portfolio of banks in graph 1, it is difficult to distinguish domestic banks from foreign banks. The three black lines are similar to the three white ones. Slopes are not suggestive of systematic differences. The upper and lower edges of the shaded area also move similarly to the rest of the lines. Put simply, by only seeing the aggregate trajectories of the portfolio balance it is unclear whether there is a different behavior among domestic and foreign banks. If the trajectories of graph 1 would be shown omitting the units, it would be hard to tell apart domestic banks from foreign banks.

**Credit to small businesses**

Although the trajectories of the banks’ portfolios do not suggest different behaviors, it is theoretically possible for foreign banks to have biases that do not favor small businesses—though this would not be a concern if domestic banks could take that niche—. To analyze this question we used the information of the regulatory reports submitted by banks to CNBV. The information is a detailed report of the terms under which credits are granted: terms, amounts, interest rate, guarantees, etc. With
For the analysis, we used the information on credits granted by banks to businesses (individuals and legal entities) in March 2012. Banks report the size of the company in terms of its number of employees and its gross annual income. An additional indirect indicator of size is the authorized amount of the line of credit. The hypothesis is that if foreign banks are biased against lending to small businesses, then we would expect the larger size of the business to be associated with a higher probability of being the client of a foreign bank. In other words, if there is a bias by foreign banks against small businesses, the smaller size of the business makes it less probable that their credit comes from a foreign bank.

Chart 2 presents the results of five regressions in a reduced form. The dependent variable is a dichotomous variable that takes the value of 1 if the credit was granted by a foreign bank, and 0 if it was granted by a domestic bank. Explanatory variables are characteristics of the credit and the borrower. All specifications may be interpreted as linear probability models. In specification A the only explanatory variable is the logarithm of the number of company employees. The coefficient is positive and significant. The probability of a credit being granted by a foreign bank is higher if the company has a higher number of employees. In specification B the only explanatory variable is the logarithm of the company’s gross income. The coefficient is also positive and significant. In specification C the only explanatory variable is the logarithm of the authorized credit amount. The coefficient is negative. Specifications A and B indicate that foreign banks seem to attend more to large businesses and less to small businesses when compared to national banks. Specification C points in the opposite direction. Specification D includes at the same time the three variables indicating the size of the borrower. Signs are preserved and magnitudes are minor. Finally, specification E includes controls for credit rating (as per CNBV methodology) and for the credit percentage that is guaranteed. Coefficients indicate that a higher number of employees is associated with a lower probability that the credit has been granted by a foreign bank. In other words, smaller-size borrowers have a higher probability of being with a foreign bank. The same happens with the amount of the credit: the smaller the amount, the higher the probability that the credit was granted by a foreign bank. The contrary happens with the size of the company measured by income.
Two lessons are learned from chart 2. The first is the importance of proper control in comparisons of credits and borrowers of different banks. Borrowers are self-selected and banks decide whom to lend. This is why the coefficients shown vary among specifications D and E. The second lesson is that the evidence on the willingness of foreign banks to lend to small businesses is ambiguous. Under certain definitions they are more willing to lend to smaller businesses; under others, they are less willing.

**Segmented markets**

Under the arguments that foreign banks refuse to properly attend to their clients in Mexico, domestic banks should be gaining land and generating higher profits. This theoretical argument would suffice to conclude that “foreignization” should not be a concern. However, theoretically it is possible that domestic and foreign banks are segmenting the market, and that their clients are not the same, so that domestic banks cannot gain land over foreign banks. The key question then is whether the borrowers of banks are segmented into those attended to by domestic banks and those attended to by foreign banks.

Chart 3 shows the distribution of corporate credit in March 2012 according to three business categories. The first category comprises businesses that only have credits with domestic banks. The second category comprises those that have at least one credit with a domestic
bank and at least one credit with a foreign bank. The third category comprises businesses that only have credits with foreign banks. The chart presents the number of businesses in each category and the distribution of the total portfolio. Although most of the businesses are with foreign banks only (220 thousand out of a total of almost 300 thousand), these businesses have only 35.3% of the portfolio. The rest of the portfolio (64.7%) corresponds to businesses that are already clients of the domestic banking system. We might say that domestic and national banking are fighting face to face for 41.8% of the portfolio, as this is the percentage of businesses that are with at least one domestic and one foreign bank. If foreign banks failed to do their work correctly, they would lose 26.3% of the total portfolio to domestic banks that attend to the same clients as foreign banks.

Two facts stand out in chart 3. First, that 38.3% of the corporate portfolio is in the hands of domestic banks. In other words, domestic banking is not a marginal player, but a heavy-weight player. Second, that 41.8% of the total portfolio is placed with borrowers who are at the same time with both domestic and foreign banks. A large segment of the market is open to direct competition because businesses have credit from both domestic and foreign banks at the same time.

**Interest rates**

At a theoretical level it is possible to create models in which the prediction is that foreign banks charge higher rates—e.g. because they do not know the market—. Likewise, it is possible to create models in which they charge less—e.g. because they have access to cheaper funds or because they have better technology—. In this section, we chose an
agnostically approach. We are not trying to prove a specific theory. We simply make comparisons between the rates charged by domestic and foreign banks through a regression in a reduced form.

To compare interest rates, it is crucial to notice that credit is not a homogeneous product (a commodity). Borrowers are heterogeneous. Ones are riskier than others. Therefore, different clients face different interest rates. Even the same client may face different rates depending on the term, type of rate (fixed or variable), the guarantees offered, etc. Any comparison of interest rates must consider the attributes of the clients and the terms of the credit. To make a comparison of rates, we used information reported by the banks to CNBV.

Chart 4 presents the results of four regressions in which the dependent variable is the interest rate collected in March 2012 in bank credits to businesses. One of the explanatory variables is a dichotomous variable that takes the value of 0 for domestic banks and 1 for foreign banks. The sample only includes active credits in March 2012 granted since 2010. Specification A includes all credits that fulfill these characteristics. The only explanatory variable is whether the bank is domestic or foreign. The coefficient is positive and significant. Foreign banks charge, on average, one percentage point more than domestic banks. A potential issue of specification A is that domestic and foreign banks may be attending to different clients. For this reason, the coefficient of the variable whether the bank is foreign might be biased.

Specification B attempts to correct the differences in clients by including only businesses that have credit with at least one domestic and one foreign bank. The number of credits in the sample is thereby reduced to less than one third. The coefficient of the variable that indicates whether the bank is foreign is negative and significant. This means that considering only businesses attended to simultaneously by domestic and foreign banks, foreign banks charge rates that are, on average, one percentage point lower. It is possible that, even for the same clients, credits are not the same between banks. Specification C presents a regression that includes controls for credit characteristics such as term, type of rate (fixed, variable, etc.), percentage guaranteed, etc. The coefficient is negative, significant, and above one percentage point. It is still possible that there is self-selection in non-observable characteristics of borrowers. Specification D includes fixed effects in the

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regression for each business. The sample comprises around 15 thousand businesses. In this case, which we believe to be the most appropriate one for comparison purposes, the coefficient is negative but not significant. In other words, considering the observable characteristics of the credit and the non-observable characteristics of the borrower, there is no statistical difference between the interest rates charged by foreign and national banks.

The conclusions drawn from chart 4 is that there is no evidence that foreign banks charge higher interests than domestic banks, when analyzing businesses that have credit with both. There is no evidence either that they lend cheaper. This might be the consequence of a competitive market, in which businesses compare options and there are no great arbitration opportunities.

The regressions in chart 4 are implicitly weighted by the number of credits (each credit is an observation). It is possible to use other weighting factors. For instance, we may weight by the balance of the credit, by a monotonic transformation of the balance (such as natural logarithm), or by business (so that if a business has \( n \) credits, each credit counts for \( 1/n \)). Conclusions depend on the weighting factor used. Using

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24 Fixed effects mean including a dichotomous variable in the regression for each business.
a specification such as in D, if we weight by balance, foreign banks charge 19 base points less than domestic, and the difference is statistically significant. If we weight by the natural logarithm of the balance, the difference is not significant. Finally, if we weight by business, the difference is positive and significant: foreign banks charge rates that are 55 base points higher than those of domestic banks.

**Financial performance**

If foreign banks behave different from domestic banks, their financial performance indices should reflect it. Due to the size of the sample, it is not possible to make an appropriate statistical inference. Despite this fact, in this section we will analyze the evidence for four financial performance variables: return on assets (ROA), return on equity (ROE), capital ratio (ICAP) and delinquency ratio (IMOR), all of them published by CNBV. We also considered an operations efficiency index defined as general and administrative expenses by interest income, commissions and other concepts. The strategy we use are several panel regressions in which dependent variables are performance indicators, and the only explanatory variable is whether the bank is foreign or not. Fixed effects are also included for each period to capture shocks common to all banks. The dependent variables we used were standardized so that coefficients may be interpreted in terms of standard deviation units.

Chart 5 presents the results of five regressions, one for each performance indicator. The data are monthly. The period covered varies due to data availability. For all variables, except the capital ratio, the period covered ranges from January 2003 through March 2012. For capital ratio, it is January 2006 through March 2012. Foreign banks have, in average, higher returns on assets. However, their return on equity does not seem to be different from that of domestic banks. Foreign banks have, in average, a lower capital ratio. They also have a lower delinquency ratio and lower operational efficiency. Several domestic banks started operations in the period of study. If we exclude them for their first 12 or 24 months of existence, the coefficients estimated are quite alike.

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Chart 5. Performance comparison

<table>
<thead>
<tr>
<th>Explanatory variable</th>
<th>Dependent variable</th>
<th>Return on assets (ROA)</th>
<th>Return on equity (ROE)</th>
<th>Capital ratio (ICAP)</th>
<th>Delinquency ratio (IMOR)</th>
<th>Operational efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreign</td>
<td></td>
<td>0.14</td>
<td>-0.03</td>
<td>-0.15</td>
<td>-0.14</td>
<td>-0.33</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(3.53)</td>
<td>(5.42)</td>
<td>(-4.99)</td>
<td>(-3.03)</td>
<td>(-7.99)</td>
</tr>
<tr>
<td>Constant</td>
<td></td>
<td>0.03</td>
<td>0.02</td>
<td>-0.12</td>
<td>0.02</td>
<td>0.02</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.59)</td>
<td>(8.12)</td>
<td>(-8.66)</td>
<td>(0.71)</td>
<td>(0.99)</td>
</tr>
<tr>
<td>R squared</td>
<td></td>
<td>0.04</td>
<td>0.07</td>
<td>0.06</td>
<td>0.06</td>
<td>0.08</td>
</tr>
<tr>
<td>Obs.</td>
<td>2364</td>
<td>2364</td>
<td>1701</td>
<td>2417</td>
<td>2364</td>
<td></td>
</tr>
<tr>
<td>Banks</td>
<td>28</td>
<td>28</td>
<td>28</td>
<td>28</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td>Months</td>
<td>85</td>
<td>85</td>
<td>74</td>
<td>85</td>
<td>85</td>
<td></td>
</tr>
</tbody>
</table>

The sample includes all domestic banks and five foreign banks (BBVA Bancomer, Banamex, Santander, HSBC and Scotiabank). Operational efficiency is defined as general and administrative expenses by total income (interest, commissions and others). Periodicity is monthly: ROA and ROE, from January 2003 through March 2012; ICAP, from January 2006 through March 2010; IMOR, from January 2003 through December 2011; operational efficiency, from January 2003 through May 2012. Source: CNBV.

Chart 5 illustrates estimates that suggest differences in the performance of foreign banks versus domestic banks. However, these differences are difficult to interpret. Being foreign is highly correlated with the size of banks: foreign banks are in average larger than domestic banks. It is also correlated with age: foreign banks acquired banks that, in average, were founded before domestic banks. The coefficient of the “foreign” dichotomous variable may be capturing these characteristics more than the fact of having a parent company abroad. These constraints are inevitable in any study that attempts to use the “foreign” variable as an explanatory variable, although other controls such as age and size have explicitly been included. The issue is not functional; it is rather a question of endogeneity. The operation scale of foreign banks and the age of domestic banks acquired by them are not the result of chance. Banks of other countries that started retail transactions in Mexico entered as they did: on purpose. This behavior with a purpose probably biases any estimate that lacks a source of exogenous variation in the status foreign versus domestic, and there is no such thing.

IV. Learnings and discussion

Although the analysis presented is modest, it offers three valuable lessons learned. The first is that it is not trivial to have a definition of foreign banking with an economic merit. The second is that, in theory, it is unclear why a domestic bank is preferred over a foreign bank. The behavior of foreign banks may be different from that of domestic banks,
but this is not necessarily undesirable. The difference may generate temporary profit or loss in efficiency. The third lesson learned is that, empirically, there seems to be no reasons to worry about the “foreignization” of banking. The corporate portfolio of foreign banks has grown in a way similar to that of domestic banks. There is no evidence that foreign banks are less willing to finance small businesses, or that they charge higher interest rate for corporate credits. Finally, foreign banks have a financial performance different from that of domestic banks, but this may be the result of other characteristics and not only of having a parent company outside Mexico.

We hope that this chapter raises a debate about whether it is desirable or not for the banking system to have such an important foreign presence. If someone proposes the hypothesis that foreign banks do not lend sufficient or at competitive rates, it should provide evidence to be taken seriously. And that evidence must go beyond simple correlations. We know that it is not easy to find causal relationships. Nonetheless, the responsibility of showing evidence of causality is up to those who propose the hypothesis.

Finally, we believe that it would be unfortunate to impose measures limiting the operation of banks with parent companies abroad without first discussing the topic. The intention of some lawmakers to force these banks to “reinvest at least 50% of their profits in the granting of credits” is an example of the type of measures that require a rigorous theoretical and empirical justification.26 Without an appropriate analysis, authorities may end up implementing policies that, far from increasing social wellbeing, will reduce it.

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26 See “Plantean que banca reinvierta beneficios”, October 10, 2012, El Universal.
References

