EUROPEAN BANK PENETRATION DURING THE FIRST WAVE OF GLOBALIZATION: LESSONS FROM BRAZIL AND CHILE, 1878/1913 *

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Introduction

The period from the 1870s to 1914 involved the major Latin American economies in the great wave of globalization that swept the world. During this period, Latin America was a destination for labor, capital and manufactured goods, while exporting raw materials and foodstuffs to industrialized economies. Although the macroeconomics of this experience has been largely documented, key microeconomic aspects remain insufficiently studied. This is the case for the process of foreign bank penetration driven by British and German banks.[1] Although foreign bank presence varied from country to country, it was quite significant in all major countries of the region. *Circa* 1913, the combined number of branches of the major foreign banks in Latin America approached 100, with overseas banks after 1900 attaining a market share of nearly 50% in places like Brazil.

The analysis of this episode could shed light on the current process of banking penetration in Latin America and other emerging economies. We argue that the modern literature dealing with the current trends could gain substantially by incorporating lessons from the past. The first wave of foreign bank penetration provides us with a natural experiment that is more extended than current evidence of research on modern experiences. Besides, it deals with a period in which banking regulation was very light (not only in Europe but even more so in Latin America), thus potentially allowing to control for regulation effects that could be affecting some modern lessons.

This paper analyzes the experiences of Brazil and Chile with foreign banks between 1878 and 1913. Using a new individual bank balance sheet database we built for each country, we attempt to answer similar questions to the ones the modern literature has dealt with. Did foreign banks increase competition in the domestic banking industry? Were there marked differences in the financial behavior of local versus foreign banks? Did they behave differently toward risk? Did bank display different patterns of credit expansion during periods of financial distress? Were foreign banks better capitalized than their domestic counterparts? And, finally, if foreign and local banks behaved differently, is there any evidence of convergence?

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[1] Notable exceptions are Triner (2000; 2002) for the case of Brazil.

The remainder of the paper is organized as follows. Section 1 briefly discusses the main results of modern research. Section 2 presents an historical overview of foreign bank penetration in both countries. Section 3 tests for differences in the financial behavior of foreign banks as well as for their impact on the native banking industry.[2] The final section concludes and draws possible policy implications from the historical experiences and indicates paths for future research.

1. Lessons from the Present

Goldberg *et al*. (2000) summarize the main pros and cons of foreign bank entry into developing countries found in the recent literature. On the pros side they argue that foreign banks can: i) increase funding available to domestic projects by facilitating capital inflows; ii) increase the stability of lending; iii) improve the quality, pricing and viability of financial services directly or through competition with local banks and iv) improve financial system infrastructure by means of the introduction of "best practice". Among the cons, they list: i) the charge that foreign banks constitute a potential avenue for capital flight in times of crisis; ii) that these banks "cherry-pick" the most lucrative domestic customers; and iii) concerns over the challenges to local supervision posed by the entry of highly complex financial institutions.

A large number of recent empirical studies have tried to evaluate these arguments. A first set explores the contribution of foreign banks to financial stability and the occurrence of financial crises. The evidence is mixed, particularly in cross-country studies. Morgan and Strahan (2003) find no evidence of foreign contribution to either financial stability or *in*stability, while Demirgüc-Kunt *et al.* (1998) show that foreign banks appear to be associated with a lower probability of crisis. Country-specific studies show that foreign banks do not appear to cut and run during times of financial distress (Peek and Rosengren, 2000). Besides, they appear to reduce insolvency risk within the native banking industry (Levy-Yeyati and Micco, 2003).

Another group of studies has tested for differences between foreign and domestic banks focusing on relevant financial indicators. Mian (2003) finds that foreign banks in developing countries maintain higher shares of liquid assets than native banks. Crystal *et al.* (2001) report similar findings for Latin America during the 1990s. These authors also argue that foreign banks had higher risk-based capital ratios, relied less on deposits as source of funds, had better screening and were more concerned with asset quality deterioration. Moreover, foreign banks displayed higher loan growth and lower volatility of credit than local banks in Latin America (Crystal *et al.*, 2001; Dages *et al*., 2000). Some very recent results for Latin American countries go in the opposite direction. Foreign banks appear to have higher leverage ratios and insolvency risk (Levy-Yeyati and Micco, 2003), while in Brazil they often lag behind local banks in such indicators as net income/employee, return on equity and return on assets (Paula, 2002).

Finally, a third family of studies has investigated the competition and efficiency-enhancing effects of foreign banks. Once again, the approach adopted is to test for differences between local and foreign banks for a few key competition variables. The results are mixed in some regards. Claessens *et al*. (2001) conclude that foreign banks earn more than domestic banks in developing countries. The authors also find that foreign banks increase competition, lower domestic bank

[2] Unless indicated otherwise in the present paper "banks" will be taken to refer to retail banks.

profitability and reduce interest rate margins. Clarke *et al*. (1999) reached a similar conclusion for the case of Argentina during the 1990s. Foreign banks also appeared to reduce overhead costs, increase the efficiency of domestic banks (Demirgüc-Kunt *et al*., 1998), improve management and introduce new technologies into local markets (Levine, 2003; Calomiris and Powell, 2001). By contrast, Mian (2003) finds no significant difference between the earnings profile of foreign and domestic banks, and Levy-Yeyati and Micco (2003) argue that foreign banks in Latin America *decrease* competition through market differentiation.

Table 1 summarizes the main conclusions reached by the modern literature. All in all it appears that foreign banks tend to have some positive effects on the banking sector of the host countries by promoting risk aversion, bringing greater stability, and through increasing competition.

[Insert Table 1]

2. The Historical Experience

Our understanding of the impact of foreign bank entry into developing countries could gain substantially as "modern" lessons are complemented with past lessons. The analysis of natural experiments such as the ones of Brazil and Chile during the first wave of globalization we undertake in this paper points in this direction. The case is relevant because of: i) the importance foreign banks achieved in these emerging economies; ii) the good quality and relative long time coverage of the banking data[3] we were able to collect and iii) the existence of light banking regulation allowing us to control for regulation effects that could affect some of the modern findings. In studying these cases we adopt the approach followed by the bulk of the current literature and test for differences in the financial behavior between foreign and domestic banks. A brief account of foreign bank entry in both countries will provide the necessary historical background to the discussion and further analysis.

2.1- Foreign Bank Entry into Brazil and Chile

The history of foreign banks in Latin America before WWI is mainly the history of British and German banks. In Chile they were the sole foreign actors. Brazil was also a destination for banks from other countries, such as France, Belgium, Portugal and Argentina, but British and German banks were unquestionably the major foreign players.[4]

The British were the first to establish foreign banks in Latin America and throughout the pre-WWI period they remained the major foreign player in the region. Beyond Britain's desire to finance the growing trade between Latin America and Europe (Joslin, 1963), the timing of their arrival during the 1860s owed more to conditions in Britain. The first wave came during the stock

[3] Nevertheless, it should be noted that contemporary balance sheets are intrinsically limited compared to modern-day financial statements. This is due, among other things, to the very aggregate nature of the accounts that were published, the lack of common standards to be followed and, most of all, the absence of independent auditors attesting to the veracity of the information being disclosed to the public.

[4] Throughout the period under study here British and German banks accounted for at least 80% of deposits held by foreign banks in Brazil.

company boom leading up to the Overend Gurney crisis of 1866 and was made possible by the Companies Acts of 1858-62, which extended the privilege of incorporation with limited liability to banks (Cottrell 1991, p. 26; Jones 1993, p. 23).[5]

[Insert Table 2]

The London and River Plate Bank (Argentina and Uruguay, 1862) led the way, soon followed by the London and Brazilian Bank (1862), the British Bank of South America and the English Bank of Rio de Janeiro (1863). These banks were later joined by the Anglo-South American Bank (1907), itself the result of the amalgamation of (British) institutions founded earlier in Argentina. From 1870 to 1910 the combined assets of these banks had grown from just under £ 9 million to more than £ 66 million.[6] By 1913 they had established a wide network in Brazil, Chile, Argentina and, to a lesser extent, in Uruguay, counting 54 city-branches (Table 3).

The first attempts at setting up German banks in Latin America date from the early 1870s[7] but the real consolidation of this process began in the mid 1880s, with the establishment of the Deutsche Überseeische Bank, in Argentina (1886), and the Brasilianische Bank für Deutschland (1887), in Brazil. Later on they largely expanded to Chile and, to a lesser extent, to Uruguay and Peru. In all, by 1913 the combined network of German banks in the region comprised 41 city branches (Table 3)[8].

The expansion abroad of German banks is generally explained by their desire to take over the financing of Germany's overseas commerce with the region and to promote German exports at the expense of British trade (Hurley 1914, p. 18, Young 1991, p. 89). German banks were by far the second most relevant actors in the region. Although representing half the size of the British banks in terms of indicators such as total deposits, paid-in capital or profits,[9] they were far bigger than their continental competitors, such as the French, which were established later.

Although foreign bank entry into Brazil preceded Chile by a quarter of a century (1862, against 1888), in both cases the "golden period" of foreign banks arose at the turn of the century (Figure 1). Given the size of its economy, the earlier movement to Brazil has probably to do with the greater potential gains to be made in financing trade with the Brazilian Empire. Nevertheless, in

[5] Throughout banks will be referred to as British on the grounds that they were registered in London, although often shareholders of such companies were not themselves British. For example, in 1865 Portuguese and Brazilian citizens held more than 40% of the share capital of the English Bank of Rio de Janeiro (Jones 1977, p. 22).

[6] Jones (1977), Tables I.1 and I.3, based on data in Lough (1915).

[7] The first German banks, the Deutsche-Belgische La Plata Bank and the Deutsche-Brasilianische Bank, both established in 1873, had to close in 1875 because of imprudent loans advanced in Uruguay and Brazil, respectively.

[8] The corresponding local names of German banks in Brazil / Chile were: Deutsche Überseeische Bank (Banco Alemão Transatlântico / Banco Alemán Transatlántico); Deutsch-Südamerikanische Bank (Banco Germánico de América del Sur); Brasilianische Bank für Deutschland (Banco Brasileiro Alemão); Bank für Chile und Deutschland (Banco de Chile y Alemania).

[9] In 1913, the amount of deposits, paid-in capital and profits of the German banks in Latin America was equivalent to 38%, 49% and 46% of the British figures, respectively (Young 1991, Table D, p. 81).

both Chile and Brazil, British and German presence is associated with their home countries' role as crucial trading partners.[10]

[Insert Table 3 and Figure 1]

2.2- The Brazilian and Chilean Banking Markets in Perspective

In understanding the process of foreign banking penetration into Brazil and Chile, it is useful to put these two markets in perspective in terms of their relative level of banking development, their regulatory framework and the macroeconomic and financial environment.

Banking Development in Brazil and Chile

As Table 4 indicates[11], in the period under consideration, the banking industry appears to have been significantly more developed in Chile than in Brazil. As a share of GDP, deposits were systematically higher in Chile. In per capita terms, they amounted to £3.5 in 1880 and £6.0 in 1910 in Chile as compared to £1 and £1.5 for Brazil. The latter appears to have much to do with Brazil's relative economic backwardness (as measured by per capita GDP) and Chile's catching-up trend. Needless to say, banking development figures for the UK were far higher than for the remaining countries. Interestingly, towards the end of the XIXth century, the Chilean banking system appears to be relatively more developed than Germany's. This pattern was reversed at the turn of the century, offering a possible explanation for the (late) arrival of German banks in Chile.

[Insert Table 4]

Regulatory Framework

As in other Latin American countries, foreign banks operating in Chile and Brazil were stand-alone companies. Instead of demanding authorization to the local government to create an overseas branch they set up entirely new companies with their own specific capital. This meant that even if relying in the prestige of their parent banks and reporting to them, in case of local bankruptcy their failure would not compromise the capital of their parent institutions (Young 1992, p. 33; Hurley 1914, p. 54; Subercaseaux 1922, p. 130).

[10] There is a positive correlation between the importance of British and German banks and the share of Chile's international trade held by Britain (40%, on average, between 1890 and 1910) and Germany (20%). In the case of Brazil, the combined share of foreign trade carried out with Britain and Germany ranged from 60% in 1872 to 45% in 1913. According to Hurley (1914, p. 46) practically all of Brazil's export and import trade was financed through foreign banks.

[11] At least until 1900, deposit figures for Germany should be interpreted with some care. Due to the particularities of German joint-stock universal banks (see Fohlin, 1998), the proportion of their deposits to total assets was half of the one exhibited by British joint-stock banks.

Besides, banking regulation was light. Neither minimal capital/cash provisions existed, nor restrictions on the kind of operations banks could undertake.[12] These conditions were also extensive to foreign banks. While Chile had a specific banking law (the Free Banking Law of 1860), the minor restrictions existing were almost strictly conceived for note issuance activities.[13] Brazil did not have a specific banking law at this time. Instead, joint-stock foreign banks operating in Brazil – just like their domestic counterparts – were expected to comply with the provisions set forth in corporate legislation (that is, the Commercial Code of 1850 and the 1891 corporate law). These proved to be very broad in nature and did not involve government supervision of any sort over these companies, apart from the requirement that they publish in the press a summarized balance sheet showing all business done by them.[14]

Banking Crises and the Economic Environment in Brazil and Chile

Barring two commercial and financial crises in 1864 and 1875 the first three decades of foreign bank participation in the Brazilian market saw expanding business for most players. Yet, foreign banks stayed clearly away from advancing credit to planters and concentrated, instead, in foreign trade, as well as engaging in deposit and discount operations. The demand for monetary expansion in the wake of the abolition of slavery and the massive inflow of European immigrants led the government to extend note-issuing rights to several private institutions in 1888, and to relax the requirements for the formation of limited-liability joint-stock companies. The result was inflation, exchange rate depreciation and a speculative bubble known as the *Encilhamento*, which saw the number of banks in Rio de Janeiro alone jump to 68 in the early 1890s.[15] Widespread bank failure followed, with the volume of demand deposits dropping by more than 50% in real terms between their peak in the third quarter of 1891 and 1893.[16] Stagnation ensued although successful stabilization would only be achieved at the turn of the century, following further fiscal and monetary contraction.

Deflation triggered a second wave of bank failures, which left Rio with only 10 commercial banks remaining in 1905. After 1906, three inter-related events combined to reorient both domestic and international finance and usher in a new era of banking development: coffee price support schemes, the implementation of the gold standard, and the reorganization of the failed Banco da República into the (fourth) government-controlled Banco do Brasil (Triner 2000, p. 48). At the macroeconomic level, several factors contributed to the economic success of a "tropical Belle Époque": the fixed rate of exchange based on the Gold Standard, favorable terms

[12] Neither British nor German banks were subject to minimal reserve requirements at home in the pre-WWI period (Fohlin 1998, p. 41).

[13] Chilean Banks started to issue notes circa 1860 but were forbidden from doing so in 1898. This period has been called the Chilean Free Banking Era (see Briones and Rockoff 2005, for a summary). Although foreign banks were not ruled by the Law of 1860 (Subercaseaux 1922, p. 129), this did not give them an advantage over native banks. Indeed, for all practical purposes, the Law of 1860 was a non-binding constraint.

[14] In this respect, the legal framework in Brazil was more akin to Germany's, where universal banks went largely unregulated by the government except for laws applying to joint-stock companies in general. In England, on the other hand, as of 1858 joint-stock banks were allowed to obtain limited-liability charters, but on the condition that they would publish periodic statements of their balance sheets and submit to government inspection.

[15] The volume of bank deposits in the country, in turn, increased 77% and 44% during 1890 and 1891, respectively, and came to account for three-quarters of the money supply, compared to about one-half two years before (Triner 2000, p. 44).

[16] Calculated from monetary data in Peláez and Suzigan (1976, Table A.3), deflated by the wholesale price index in Catão (1992).

of trade, increasing surpluses in Brazil's balance of payments and monetary expansion. As a result, bank activity expanded greatly[17] and favored a second wave of foreign bank penetration, which involved Argentinean, French and Belgian banks, the London and River Plate Bank in 1907 and the two new German banks installed in 1911 and 1912.

During the 1890s, when the first foreign banks set up operations in Chile, the country was in a process of adhering to the Gold Standard and resuming the convertibility of bank notes interrupted in 1878.[18] This process resulted in a deep monetary contraction, which led to financial difficulties and a major banking run in 1898.

What followed was the start of a long-lasting period of State paper money, increasing inflation and the depreciation of the local currency.[19] It was also a period of rapid economic growth and credit expansion.[20] These combined factors resulted in a stock market bubble[21] with many Chilean banks (but no foreign) holding large positions (both as creditors and as stockholders) in companies that proved to be unsuccessful. In 1907 a severe financial crisis arose with domestic stock prices collapsing[22] and local banks facing liquidity problems.

A significant expansion of banking credit arose once this crisis was over. Loans grew from $410million in 1908 to $780 million in 1910. Towards the end of 1911, the first signs of a new banking crisis appeared. In 1912, the State injected liquidity into the system by giving new notes to banks that were able to deposit its equivalent in gold in London or Santiago. As during earlier episodes, foreign banks were not heavily touched by this crisis, probably in an indication that they were better managed or that, as argued by Subercaseaux (1922, p. 140), they benefited from better access to European credit markets.[23]

3. Did Foreign and Native Banks Behave Differently in Chile and Brazil? The Historical Record

A wide range of qualitative narrative has pointed in the direction of foreign banks in Latin America having sounder managerial and monitoring practices than their local counterparts. In Chile, several contemporary observers who were critics of foreign banks in many respects (Ross,

[17] Overall, deposits grew more than three-fold between 1906 and 1913 and short-term credit multiplied by a factor of four (Triner 2000, Table A.2).

[18] That year a severe crisis hit banks, which had been allowed by the Free Banking Law of 1860 to issue notes.

[19] The value of the Chilean Peso fell from 17 pence in 1900 to 10 pence in 1913.

[20] Between 1900 and 1907, banking loans augmented by a factor of almost four.

[21] A growing number of new companies were created (mainly in the mining and agricultural sectors), passing from 81 entities quoted in the Santiago Stock Exchange in 1897 to 140 in 1904. According to Braun *et al*. (2000) stock market capitalization grew by more than 100% (in real terms) between 1897 and 1904.

[22] The latter was reinforced by the collapse of the New York Stock Exchange in March 1907.

[23] According to Conoboy (1976, pp. 253-254), by the end of 1913, some $34 million in currency notes were issued against deposits of gold by banks, of which $33 million were deposited in London and only $1.3 million in Santiago. Moreover, $12 million were accounted for by Chile's largest bank (Banco de Chile) and less than $1 million by other native banks. The remainder was issued through foreign banks, especially the three German banks operating in Chile at the time.

1910; Espinoza, 1909; Subercaseaux, 1922) nevertheless highlighted their contribution in terms of their managerial strengths.[24] For instance, foreign banks regularly supplied their parent institutions with credit ratings and detailed characteristics of local firms and individuals (Hurley, 1914).[25] From their home offices in Europe, they were frequently required to stay away from holding liabilities of native banks with dubious reputation, a practice that often made them unpopular among the local banking industry (Joslin 1963, p. 25). Besides, foreign banks were explicitly committed to privilege short-term credit and avoid long-term (for example, land securitized) loans (Joslin 1963, pp. 25-26; Young 1992, pp. 86-87). Finally, under no circumstance should they lend against stocks, a situation which proved to be beneficial during stock market downturns like the one that occurred in Chile in 1907.[26]

Understanding whether foreign banks really behaved differently from local banks requires complementing these qualitative accounts with quantitative evidence. This section seeks to do precisely this and is based on historical balance sheet data for Chile and Brazil. To the best of our knowledge, this is the first time that such a series of balance sheets has been used in analyzing the banking histories of Chile and Brazil in the pre-WW I period.[27]

The kind of questions we try to "ask" the data set are as follows: Did foreign and domestic banks have similar balance sheet structures in terms of deposits and loans? Were foreign banks more or less capitalized than their native counterparts? What was the attitude towards risk in terms of the proportion of liquid assets they held as compared to local banks? Which was the response of foreign banks during times of crisis as compared to domestic banks? Did foreign banks exert an influence in improving the basic financial indicators of the native banks? What about the effects of foreign entry in terms of competition and profits in the local banking industry?

Data and Findings

For Chile, the analysis focuses primarily on the period 1896-1913, when foreign banks entered the local market.[28] However, in order to check for the possible impact of foreign entry on the previously established banking industry, we also survey the native banking sector from 1880.[29]

[24] For Subercaseaux (1922, p. 131) "foreign banks (had) placed at the head of their administration thoroughly very competent men, who have seen to it that their functions are well performed; and in this way they have not only given the country the benefit of a good banking service, but at the same time have set a good example for the national banks, the administration of which has not always been equally commendable".

[25] According to Hurley (1914, p. 11), Latin American business men calling upon banks at Hamburg have been astonished at the familiarity of bank officials with the character of their business.

[26] For example, Joslin (1963, p. 196) states that: The Anglo South American bank was fairly free from major trouble in the stock exchange boom, as Head Office had forbidden its managers to get entangled with the risky business of lending with shares as collateral without exacting a very wide margin of safety.

[27] Once again, a notable exception is Triner (2002), whose study of the Brazilian experience draws on bank balance sheets from 1906 onwards.

[28] Setting 1896 as a starting point obeys two main reasons: i. while the first foreign bank in Chile was established in 1888, its first available balance sheet is from June 1895; and ii. as of 1896 we can count on balance sheets of the two German banks created in 1895 and 1896.

[29] Setting 1880 as a starting point obeys four reasons. First, the native banking system was already sufficiently developed at this time. Second, 1880 appears to be placed far enough to "filter" the natural drawbacks resulting from the major banking crisis that occurred in 1878. Third, 1880-1895 and 1896-1913 are relatively similar in length. Finally, until 1878 banks operated under a

The data comes from the balance sheets of all banks operating between1880 and 1913. This information was obtained from the Chilean official gazette, the *Diario Oficial,* in which banks were required to publish their financial statements.

In the case of Brazil, balance sheet information is far less complete and a comprehensive series is extremely difficult to obtain.[30] In the end, we base our analysis on balance sheet information drawn from a sample covering an average of 80% of total assets in the years 1878, 1888, 1895, 1900, 1901, 1904, 1906, 1908, 1910, 1911 and 1913. The figures thus obtained are, nevertheless, representative enough to allow us to draw a reliable picture of the period. The data comes from the contemporary local press[31] and was complemented with balance sheet information for some points during the early XXth provided by other researchers.[32]

We compare foreign and native banks in Chile and Brazil in terms of five categories of financial and market indicators: i) balance sheet structure, ii) capital adequacy, iii) liquidity, iv) credit expansion and v) competition and profitability (see Appendix for the detailed definition and data coverage). Because of its more comprehensive data, some figures are analyzed with relatively more detail in the case of Chile.[33] The basic indicators are complemented with data for banks in Germany and the UK, which serve as a benchmark. Although the different nature of the business of foreign banks operating in Europe and abroad should caution us against attempts at direct comparison of their financial indicators, this benchmark provides us with a proximate picture of the relative backwardness of the Chilean and Brazilian banking systems.

Balance Sheet Structure

In Chile, the share of deposits and loans to total assets appears not to have been affected by the presence of foreign banks (Figures 2 and 3). Average values for total deposits (loans) to total assets during the period 1880-1895 were 62.3% (76.3%) as compared to 61% (72.8%) for the 1896-1913 period. Deposit ratios were relatively similar to the German benchmark (50%), but far below the UK standard (80%). Loans, in turn, stood above the UK (50%) and were relatively similar to the German benchmark (61%), especially by the end of the period.

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convertible regime while, between 1880-1895 and 1898-1913, Chile had a paper money system (thus making comparisons more accurate).

[30] This is because of the existence of major commercial centers – with an important banking presence – outside Rio de Janeiro and São Paulo, such as Recife, Salvador, Juiz de Fora, Rio Grande and Belém. Access to contemporary newspapers (and, hence, bank balance sheets) published in those cities is limited.

[31] For Rio de Janeiro (which accounted for more than half of total deposits), data was collected from the *Jornal do Commercio* and *Gazeta da Tarde* (Rio's two main newspapers) and from the Report of the Ministry of Finance (*Relatório do Ministério da Fazenda*). We complemented this information with material obtained, for a few years, in the provincial press (*O Estado de São Paulo*, *Diário de Pernambuco*, and *Gazeta da Bahia*).

[32] We are greatly indebted to Gail Triner for providing us with complete balance sheet data for 1901, 1906 and 1913 and to Anne Hanley for copies of balance sheets for São Paulo banks for several years in the 1900s.

[33] In the case of Chile, available data allowed us to run an OLS panel regression (with year fixed effects, controlling for bank size and assuming that observations for each single bank were not independent from each other). We test for differences during the period 1896-1913 between foreign and native banks. For each of the selected financial indicators we test the null hypothesis of foreign banks being "similar" to local banks. Statistically significant results are presented and discussed in the text.

Moreover, between 1896 and 1913, neither the share of deposits nor that of loans to total assets differed significantly between native and foreign banks. Average values for deposits (loans) were 61% (73%) and 57% (76%), respectively. Nonetheless, until 1905 foreign banks appear to be more biased in favor of loans, in an indication that they felt confident in their ability to redeem their deposits without assuming the opportunity cost of holding more cash.

[Insert Figure 2 and Figure 3]

In Brazil, a first important point is worth noting: the share of both deposits and loans to total assets was far below the Chilean figures, in an indication of its relative financial underdevelopment. Besides, foreign and Brazilian banks did not behave significantly differently on both counts. Foreign banks tended to rely more on deposits and were less biased towards loans than native banks during the XIXth century but both groups exhibited similar ratios during the 1900s. An interesting feature related to foreign banks is that short-term credit always accounted for the integrality of their loans, thus confirming qualitative evidence that foreign banks did not engage in long-term loans. By the end of the period, domestic banks appear to converge to the same, "safer", criteria (Figure 4).

[Insert Figure 4]

Capital Adequacy

In Chile, until the 1907 banking crisis, foreign and native banks behaved quite similarly in terms of their capital standards, with figures for capital to assets close to the German benchmark during the early 1900s (28%). The picture is quite different afterwards (although similar to the UK standard). *Circa* 1910, foreign bank figures represented only 1/3 of the ones exhibited by local banks, with capital attaining just 10% of their total assets and covering 20% of their deposits.

Interestingly, when one looks at the whole period from 1880 (when no foreign banks existed in Chile), it appears that native banks held more capital after the entry of foreign banks. When measured either as a fraction of total assets or as percentage of their total deposits, the paid-in capital of native banks increased substantially during the 1896-1913 period as compared to 1880-1895 (Figures 5 and 6). This suggests that foreign competition could have forced native banks to be better capitalized. If, indeed, foreign banks induced higher capitalization within the local banking industry, why did their own standards become lower by the end of the period? Reputation could offer a possible explanation for this observed pattern. Everything happens as if foreign banks secured the market at the beginning by means of holding more capital. Having been aware of the effects of the banking crisis of 1898-99 and, especially the 1907 panic, they gained in reputation and thus could lower their capital afterwards.

[Insert Figure 5 and Figure 6]

For Brazil (Figure 7), when looking at the amount of capital covering deposits, two observations are in order.[34] First, domestic banks consistently held more capital than foreign banks, with figures for the former double foreign bank standards until 1906. Nevertheless, there are signs of convergence afterwards, the gap between both groups of banks almost disappearing by the end of the period. Second, capital adequacy thus measured is quite higher than the Chilean standard or the European benchmark (but exhibits signs of convergence towards those figures *circa* 1910). Once again, the latter appears to be consistent with Brazil's lower level of banking depth. On the other hand, the figures for foreign banks in Brazil are more in line with the way foreign banks behaved in Chile. Interestingly, as a share of total assets, capitalization in Brazil was not dramatically different from the figures existing in Chile. The latter, combined with the aforementioned observation that both deposits and loans figures were lower in Brazil, suggests that the banking business was somewhat different in these two countries.

[Insert Figure 7]

Liquidity

To some extent, liquidity can measure the risk profile each bank decides to take. One expects that during times of financial disturbance, banks should decide to hold more liquid assets in proportion to their callable liabilities in order to avoid possible trouble. In comparing the ratio of cash to deposits for Chile, Brazil and the European benchmark, several interesting results emerge.

First of all, as depicted in Figure 8, in the case of Chile the average value for this indicator (15%) is relatively similar to the German standard and above the British figure as reported in the classic work by Capie and Weber (1985). This is not the case for Brazil, with figures being two or three times higher than Chile (Figure 9). The latter can be interpreted as an indication of the more volatile environment banks faced in Brazil at this time, thus forcing them to hold higher cushions of liquidity.

[Insert Figures 8 and 9]

In Chile, the amount of cash backing native banks' deposits was not affected by foreign bank entry. Indeed, the cash to deposits ratio exhibits a relatively stable tendency from 1880 onwards.[35] The same observation holds if one considers the total amount of liquid assets. Nevertheless, regression analysis reveals that native banks tended to hold less liquid assets than

[34] In the case of Brazil figures for social capital correspond to the nominal capital presented in the balance sheets and, as such, they are probably biasing upwards the true figures for paid-in capital.

[35] It should be noted that the huge increase that occurred during the late 1890s is due to the fact that note-issuing banks (all native) were forced by Law to accumulate gold in order to redeem their notes.

their foreign counterparts.[36] This situation is particularly clear in the years around the 1907 crisis, with foreign banks holding cash equivalent to nearly 25% of their deposits as compared to 15% for native banks. True, foreign banks tended to diminish their reserve ratio until 1905 (although keeping similar levels as native banks). Nevertheless, in an indication of their greater ability to recover loans (given a less risky portfolio), during the crisis they secured the market by a huge increase in their liquidity position. By the end of the period, foreign and native banks exhibit roughly similar reserve ratios. The same picture arises when looking at the ratio of cash to short-term deposits (Figure 10), with foreign banks covering significantly larger amounts of their short-term deposits after the 1907 crisis.[37]

[Insert Figure 10]

For Brazil, the initial fall in the reserve ratio between 1878 and 1888 is consistent with the upbeat business climate leading up to the *Encilhamento*. Beyond that, the increase in the cash/deposits ratio is a possible indicator of the retrenchment in lending operations (and, consequently, the decision to hold a greater proportion of banks' assets as cash), which lasted until the first half of the 1900s. Up until the early 1900s, foreign banks maintained a higher cash cushion than their domestic rivals, in line with what the literature suggests. Afterwards, as the banking sector entered a phase of "normalcy", cash/deposits ratios would decline steadily, with foreign and domestic banks exhibiting roughly similar ratios.

Credit and Deposit Expansion

A further question concerns the pattern of credit and deposit expansion for both groups of banks. In the case of Chile, our data shows that the rate of expansion for loans and deposits was relatively similar among domestic and foreign banks. In real terms, between 1900 and 1913, the average annual rate of growth for loans (deposits) of native and foreign banks was 6.1% (6.3%) and 6.0% (4.2%), respectively. In this respect, a pertinent issue is to check for credit growth in the years surrounding episodes of financial distress (1898-99 and 1907-08).

During the years preceding 1898, while credit from domestic banks was declining, foreign banks were expanding their activities.[38] Moreover, foreign banks' deposits were growing as well, in an indication that they were probably perceived as a "safe haven". However, this possible stabilizing role played by foreign banks was not enough to fully counteract the downturn of domestic banks. Between 1897 and 1899, foreign banks were able to absorb only 40% and 60% of the domestic banks' loan and deposit loss, respectively. As shown in Figure 11, the pattern of credit (and deposit) expansion for native and foreign banks is strikingly similar after that crisis. Both groups of banks expanded their credit at similar rates during the "boom" years ending in the

[36] Significant at 1%.

[37] Significant at 10%. In order to give a measure of the "typical" Chilean bank, in Figure 10, we split the native bank sample into the Banco de Chile (which represented nearly 35% of the market in 1908) and the rest (35% of the market). Notice that until 1912, foreign banks appear to hold more cash than a "typical" Chilean bank.

[38] This is the reason why foreign banks reached their maximum historical market share (as measured by deposits, see next section) during these years.

crisis of 1907-08 and both groups of banks contracted during the crisis. This pro-cyclical pattern would also hold when new difficulties began to appear by 1910. In short, while foreign banks do not appear to have exacerbated business cycles, there is no clear evidence pointing in the direction of them having performed a counter-cyclical role.

[Insert Figure 11]

In Brazil (Table 5), during the late imperial period (1878-1888), real deposits increased by a small fraction among domestic banks (1.4% p.a.) and at a higher rate for foreign banks. This is consistent with contemporary demands for the expansion of the money supply before the *Encilhamento* bubble. During the subsequent boom period of the early 1890s, total deposits at banks operating in Brazil grew by almost 10% p.a. in inflation-adjusted terms, indicating that both local and foreign banks benefited from the euphoria. Yet, from 1895 to 1901 real deposits held by domestic banks dropped by almost two-thirds, while foreign banks experienced (cumulative) deposit growth of over 25%.[39] This difference suggests that foreign banks may have been perceived as more solid than their domestic counterparts, which, in many cases, failed in the aftermath of the severe monetary contraction of the early 1900s.

In the same fashion, loans from domestic banks declined by a staggering 75% in real terms between 1895 and 1901,[40] while foreign banks expanded their credit by 10%. Although the latter was far from enough to outweigh the massive credit contraction from local banks, it points in the direction of foreign banks as having performed a counter-cyclical role during this crisis. From then on – and as the economy gradually recovered from the recession of the early 1900s –, both groups of banks moved in the same expanding direction. Moreover – and as the result of a second wave of foreign entry after 1906 (the number or foreign banks jumped from 7 to 12 between 1906 and 1912) –, deposit and credit expansion proved to be higher in the case of foreign banks.

[Insert Table 5]

Competition Effects and Profitability

In searching for possible competition effects arising from foreign bank entry, ideally one would like to have some measure of the evolution of interest rate margins. Unfortunately, data constraints preclude us from using this information, although we may infer competition effects from alternative indicators. A first approximation is to look at the level of concentration within the banking industries. In Chile, the period of foreign bank penetration is associated with an important decline in the Hirschman-Herfindahl index (of deposits), thus suggesting that foreign

[39] This explains the peak in foreign banks' share of total deposits in 1904, at nearly 45%.

[40] This period includes a second spat of bank failures, at the turn of the century. For details, see Triner (2000).

banks could have increased competition in the industry.[41] Interestingly, this pattern of diminishing concentration is neither associated with an increase in the number of native banks (as shown in Figure 12, the contrary actually happened between 1896 and 1904), nor with foreign banks augmenting their numbers or continuously expanding their market share (Figure 1).[42] What actually happened after 1900 is that the Banco de Chile, which, historically, held a dominant position (nearly 50% of total deposits before 1900) and maintained close relations with the State, began to lose its market share and privileges.

All happened as if foreign banks were effective in breaking this dominant position. There are several possible explanations for this. First, the size of the foreign banks used to be well above that of a typical Chilean bank, making them more capable of competing side by side with Chile's biggest bank.[43] Second, after the banking run of 1898, foreign banks were in a very solid financial position, allowing them to expand their former operations at the expense of Banco de Chile, which was in a weak situation. Finally, foreign banks rapidly negotiated loans and performed a series of international financial operations for the Chilean Government, something that historically had been the exclusive monopoly of the Banco de Chile.

[Insert Figure 12]

In the case of Brazil, since the Hirschman-Herfindahl index (of deposits) exhibited a very volatile pattern it is difficult to assess whether foreign banks were associated with a decline in concentration. From a maximum of .243 in 1878, the index dropped to a low 0.068 in 1900 (just before a string of bank failures cleared the market of the less solid institutions), after which it increased again, to an average of .16 in the years leading up to WWI. The latter trend can be attributed to the growing importance of the new, government-backed, Banco do Brasil, established in 1906.

A second way to analyze potential competition effects introduced by foreign banks is to compare the financial indicators of the native banking industry before and after the arrival of foreign banks. Because of panel data constraints, this experiment is only possible in the case of Chile.

We find that foreign bank entry did not significantly modify any of our selected financial indicators, except for capitalization, which increased (as previously noted). As shown in Figure 13, the latter, in turn, resulted in a significant decline in the profit to capital ratio of domestic banks, including Chile's biggest bank (Banco de Chile). During the 1880-1895 period, Chilean

[41] Needless to say, the Herfindahl-Hirschman index offers, at best, an indication of the level of competition in a given industry, and it hinges, crucially, on the definition of the relevant market under examination.

[42] As previously mentioned, the market share held by foreign banks remained relatively stable from 1900 onwards. Besides, from three foreign banks operating in Chile in 1900, only two entrants started their operations afterwards: the London and River Plate Bank, in 1907, and the Deutsch-Südamerikanische Bank, in 1911.

[43] On average, deposits held by a "typical" foreign bank were 70% bigger than those of their Chilean counterpart (excluding the Banco de Chile). Measured by total deposits, in 1913 the Anglo-South American Bank was the third largest bank in the country (out of 29), lagging just behind the native Banco Español de Chile. The Deutsche Überseeische Bank, the Bank für Chile und Deutschland and the Bank of London and Río de la Plata were the 4th, 5th and 6th largest banks respectively, while the Deutsch-Südamerikanische Bank lagged behind as the 13th largest bank in Chile.

banks obtained an average annual return on their capital of around 15.1%, as compared to 10.3% received between 1896 and 1913. This figure was well below the return displayed by foreign banks in Latin America (Table 6), including Chile.[44] The latter points in the direction of foreign banks being more efficient than their native rivals.

However, foreign bank entry does not appear to have affected the profitability profile of Chilean banks in relation to their total deposits[45] (Figure 14). Although this figure was similar to the one obtained by British and German banks in Latin America (around 5% p.a., see Table 6), it indicates that the presence of new foreign competitors was not enough to cut into local interest rate margins. In this respect, at least, the potential competition effect introduced by foreign banks is not clear.

[Insert Figure 13 and Figure 14]

[Insert Table 6]

Table 7 summarizes the main results of our country analysis. Overall, we find that foreign banks appear to have played some positive role in the host countries. Nevertheless, the financial differences favoring foreign over native banks appear to be less marked in Chile than in Brazil. Interestingly, a pattern of convergence between both groups of banks is observable in Brazil at the eve of WWI. We also note that in many regards Chile's general level of banking development was close to the European benchmark while Brazil's laid far behind.

[Insert Table 7]

4. Concluding Remarks

Despite mixed results, in general the modern literature has found that foreign banks tend to have some positive effects on the banking sector of developing countries in terms of inducing risk aversion, stability, and competition. The evidence we obtain dealing with foreign bank penetration into Brazil and Chile during the first wave of globalization is mixed as well. Nevertheless, and this is a crucial point, we do not find any indication of negative effects.

Comparison of foreign and domestic bank behavior in pre-WW I Chile and Brazil in terms of several financial indicators revealed a very interesting general result: the differences between both groups of banks were less pronounced in the case Chile. We believe that Chile's relatively

[44] Unfortunately foreign banks did not present their profits in the balance sheets of the countries where they operated but only at a consolidated regional level. Nevertheless, for the Bank für Chile und Deutschland, which had operations in Chile alone (and where, therefore, these figures coincide), rates of profit were not very different from the average values obtained by the remaining German banks in the region.

[45] At the standard confidence levels we cannot reject the hypothesis that this profitability ratio was the same between the 1880-1895 and the 1896-1913 periods.

more developed banking sector – as shown by higher deposits per capita and deposits/GDP ratios –, together with a more stable political and economic environment, help explain why.

As well as this more general result, four main specific points emerged from our country studies. First, in the case of Brazil, there are indications of convergence on the part of domestic banks toward foreign (best) practice. While best practice is consistent with the findings of the modern literature, convergence is a novel result that deserves more attention in further research. Second, in Chile foreign bank entry is associated with some signs of increased competition within the local banking industry. This is true in terms of a decline in both concentration and profitability to capital ratios, though not in terms of reducing interest rate margins. Besides, foreign banks appear to obtain higher profitability than local banks, in an indication of their greater efficiency or their ability to segment the market. Third, an area where local and foreign bank behavior clearly differed (both in Chile and Brazil) was as regards their (higher) liquidity – again, as the literature would predict. Fourth, – and this was more evident in the Brazilian case – foreign banks appear to have performed some stabilizing role in times of crisis (such as during the early 1900s), when both their deposits and loans expanded, partly compensating a massive contraction of both activities on the part of domestic banks. Overall, then, it would be fair to say that foreign banks tended to have a positive role in both countries, and especially so in Brazil, whose market was relatively less developed.

Taken together, these results open an interesting line for future research, which would attempt to deal with the following hypothesis: the less financially developed and more volatile the host country market, the greater the differences in behavior between domestic and foreign banks – and, hence, a greater "modernizing"/stabilizing role for the latter. The intuition lying behind this proposition is simple: foreign banks have more to gain in behaving differently (more prudently) in countries where these attributes are more valued. This paper seems to lend support to this view. Yet, the robustness of our results would definitely benefit from the inclusion of more yearly observations for Brazil and additional country studies.

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Appendix

Description of selected financial indicators

1) Balance sheet structure: We measure the share of deposits and loans to total assets. In our estimates of the amount of total assets, we exclude from both sides of the balance sheets assets that were received for safekeeping purposes only. For Brazil we present disaggregation for short-term credit, whereas in the case of Chile, unfortunately, balance sheets did not provide such a division.
2) Capital adequacy: For each bank, we measure the ratio of total capital to deposits and to total assets. For Chile, our capital measure includes the effective capital of the banks (paid-in capital plus other capital accounts). In the case of Brazil, balance sheets present nominal (authorized) capital only, thus overstating the true paid-in amounts.
3) Liquidity: We calculate the ratio of cash to total assets and to deposits. We define cash as the sum of reserves in specie and notes. In the case of Chile, it is also possible to compute the amount of liquid liabilities (cash plus checks and short-term deposits held in other banks). Besides, from 1909 bank balance sheets in Chile presented the breakdown between time deposits, short-term deposits and current accounts (although they did not provide detail on overdrafts, short and long term loans), thus allowing us to compute the ratio of cash to short-term liabilities.
4) Credit expansion: We calculate the real growth rate of both loans and deposits for native and foreign banks. The latter is particularly important in detecting whether foreign banks could have had a stabilizing role during periods of financial distress.
5) Competition and profitability: We calculate the degree of concentration within the local banking industry in terms of the Hirschman-Herfindahl index (of deposits). In the case of Chile, competition effects can also be captured by means of comparing native banks' financial indicators before (1880-1895) and after the arrival of foreign banks (1896-1913). The latter exercise allows us to see whether the financial behavior of local banks could have been modified by the presence of foreign competitors. Finally, also in the case of Chile, it is possible to look at the evolution of banks' profitability. Unfortunately, foreign banks did not present such figures in their country balance sheets. Nevertheless, we use data on profits for foreign banks at a consolidated level, which is then compared with figures for native banks in Chile.

Tables and Figures

Table1

The Modern Literature on the Impacts of Foreign Bank Penetration

Proposition tested	Study (Sample)	Main Results	Overall impact in the host country
Financial crises	Demirgüç-Kunt et. al. 1998 (80 countries 1988-1995)	More financial stability and lower probability of financial crisis.	Positive
	Peek and Rosengren 2000 (Argentina, Brazil, Mexico, 1994-1999)	Foreign banks do not pull back in response to economic problems in the host country.	
	Levy-Yeyati and Micco 2003 (8 Latin American countries, 1994-2002)	Foreign banks induce lower levels of insolvency risk whithin the local banking industry.	
	Morgan and Strahan 2003 (100 countries during the 1990´s)	No conclusive evidence on more financial stability.	Neutral
Differences in finacial behavior and managerial practices	Dages et.al. 2000 (Mexico and Argentina, 1994-1998)	Higher loan growth for foreign banks and lower volatility of credit.	Positive
	Crystal et.al. 2001 (7 Latin American countries 1995-2000)	Higher loan growth for foreign banks even during periods of local economic difficulty. Foreign banks rely less on deposits, have higher shares of liquid assets, higher risk-based capital ratios. They have sounder managerial practices through better screaning and take more agressive action to deal with asset quality deterioration.	
	Mian 2003 (100 countries, 1992-1999)	Foreign banks hold less assets in the form of loans and have more liquid assets.	
	Levy-Yeyati and Micco 2003	Higher leverage ratios and higher insolvency risk for foreign banks but they induce lower levels of insolvency risk whithin the local banking industry.	Neutral to positive
Competition Effects	Claessens et.al. 2001 (80 countries 1988-95)	Foreign banks earn more (less) than domestic banks in developing (developed) countries. They Increse competition upon entry, lower domestic banks profitability and reduce interest rate margins.	Positive
	Clarke et.al.,1999 (Argentina during the 1990's)	Foreign bank competition reduces domestic bank profitability and interest rate margins.	
	Levine 2003 (47 countries, 1995-1999)	Impediments to foreign bank entry exert a positive impact on bank net interest margins.	
	Calomiris and Powell 2001 (Argentina,1992-1999)	Foreign banks heighten competition, improve management and allow the introduction of new technology.	
	Demirgüç-Kunt et. al. 1998	Foreign banks increase the efficiency of domestic banks and lower their overhead costs and profits.	
	Mian 2003 (100 countries, 1992-1999)	No diference on average profits. Foreign banks earn more through service fees and domestic banks through higher lending rates.	neutral
	Levy-Yeyati and Micco 2003	Foreign banks reduce competition through market differentiation.	negative

Source: See text.

Table 2

Timing of British and German Bank Entry into Brazil and Chile, 1862/1913

Year	Bank	Country of Origin	Host Country
1862	London and Brazilian Bank	Great Britain	Brazil
1863	English Bank of Rio de Janeiro	Great Britain	Brazil
1887	Brasilianische Bank für Deutschland	Germany	Brazil
1888	Anglo-South American Bank	Great Britain	Chile
1891	London and River Plate Bank	Great Britain	Brazil
1895	Bank für Chile und Deutschland	Germany	Chile
1896	Deutsche Überseeische Bank	Germany	Chile
1906	London and River Plate Bank	Great Britain	Chile
1910	Deutsch-Südamerikanische Bank	Germany	Chile
1911	Deutsch-Südamerikanische Bank	Germany	Brazil
1912	Deutsche Überseeische Bank	Germany	Brazil

Source: Hurley (1914); Joslin (1963); Sheppard (1971); and Young (1988, 1991).

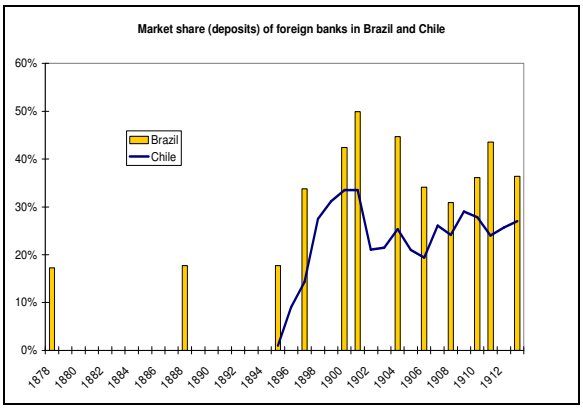
Table 3

City Branches of the Major British and German Banks in Latin America, 1913

	Brazil	Chile	Argentina	Peru	Uruguay	Other	**TOTAL**
Major British Banks	**23**	**12**	**16**	**-**	**3**	**-**	**54**
London and River Plate Bank	9	1	8	-	-	-	18
London and Brazilian Bank	11	-	2	-	1	-	14
Anglo-South American Bank	-	11	4	-	1	-	16
British Bank of South America	3	-	2	-	1	-	6
Major German Banks	**9**	**18**	**7**	**4**	**2**	**1**	**41**
Deutsche Überseeische Bank	3	9	6	4	1	1	24
Deutsch-Südamerikanische Bank	1	2	1	-	1	-	5
Brasilianische Bank für Deutschland	5	-	-	-	-	-	5
Bank für Chile und Deutschland	-	7	-	-	-	-	7
TOTAL	***32***	***30***	***23***	***4***	***5***	***1***	***95***

Source: Adapted from Hurley (1914, pp. 12-16); Joslin (1963, p. 98); and Young (1991, p. 81).

Figure 1



Source: Authors' database.

Table 4

Banking Development in the UK, Germany, Chile and Brazil, 1880/1910

		1880		1890		1900		1910	
Deposits [£ per capita ; (%GDP)]	UK	15.3	(38%)	17.5	(45%)	21.9	(47%)	22.8	(47%)
	Germany	1.4	(4%)	2.2	(5%)	4.8	(10%)	12.2	(20%)
	Chile	3.5	(14%)	3.3	(12%)	3.3	(11%)	6.0	(14%)
	Brazil	1.0	(8%)	1.2	(10%)	0.7	(7%)	1.5	(9%)
GDP per capita* (UK=100)	UK	100		100		100		100	
	Germany	58		62		68		75	
	Chile	44		42		42		52	
	Brazil	22		19		15		17	

Source: Deutsche Bundesbank 1976, pp. 56-7 (deposits Germany); Capie and Webber 1985, p. 40 (deposits UK); Flandreau and Zumer 2004 (GDP for the UK and Germany); Braun, Braun, Briones, Díaz, Lüders & Wagner 2000 (deposits, GDP and population for Chile); Goldsmith 1986 (deposits, population and GDP for Brazil); and Maddison 1995 (population for UK and Germany). (*) 1990 Geary-Khamis Dollars obtained from Maddison 1995.

Figure 2

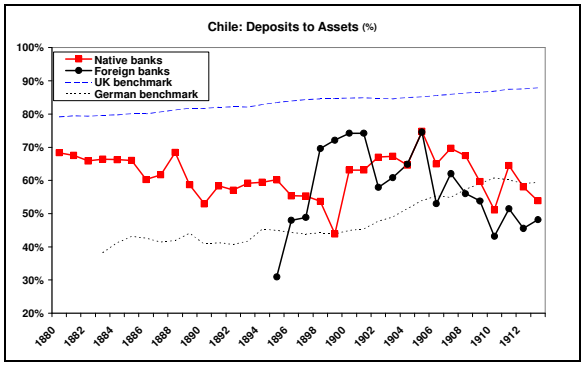
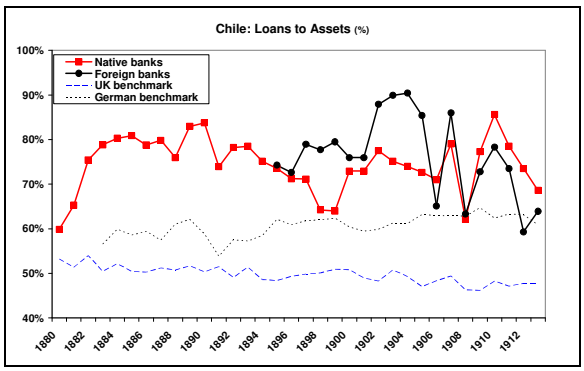
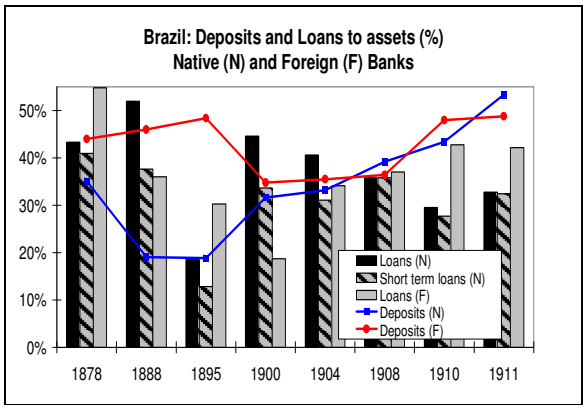


Figure 3



Source: For Chile, authors' database. Figures for the UK and Germany (joint-stock banks), used as benchmarks, are calculated from Sheppard (1971, p. 116) and Deutsche Bundesbank (1976, pp. 56-7), respectively.

Figure 4



Source: Authors' database.

Figure 5

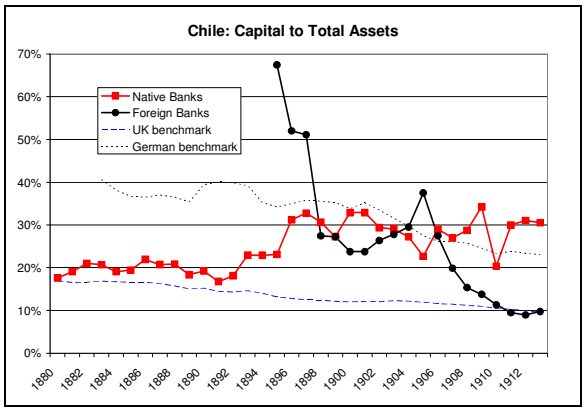
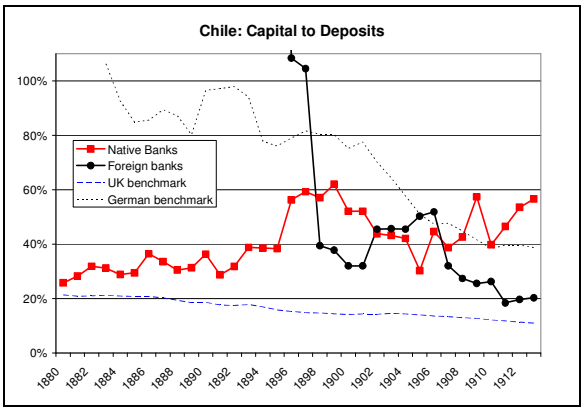
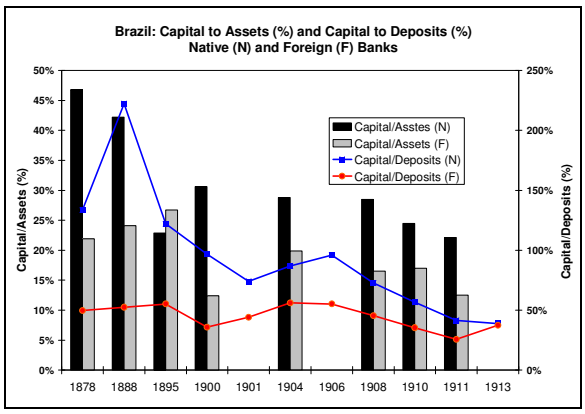


Figure 6



Source: For Chile, authors' database. Figures for the UK and Germany (joint-stock banks), used as benchmarks, are calculated from Sheppard (1971, p. 116) and Deutsche Bundesbank (1976, pp. 56-7), respectively.

Figure 7



Source: Authors' database.

Figure 8

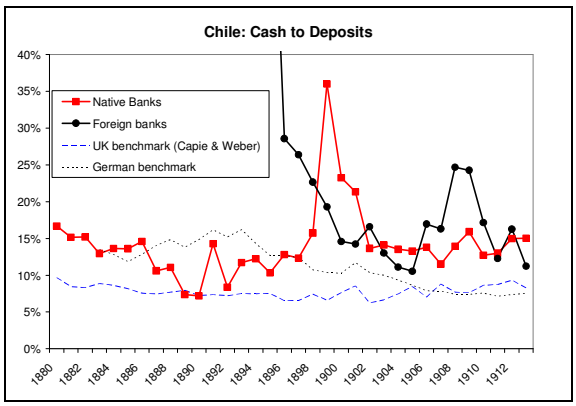
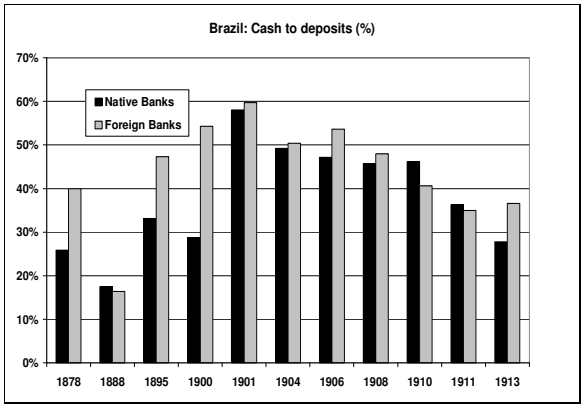


Figure 9



Source: For Chile and Brazil, authors database. Figures for the UK are obtained from the classical work from Capie and Weber (1985 Table 5.3, p.40 and Table II, pp.165-175). Figures for Germany (joint-stock banks) came from Deutsche Bundesbank (1976, pp. 56-7), respectively.

Figure 10

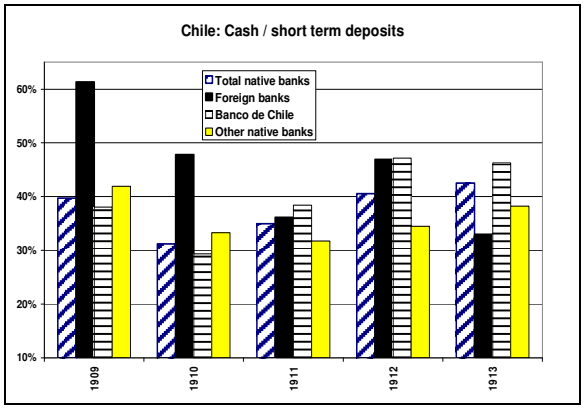
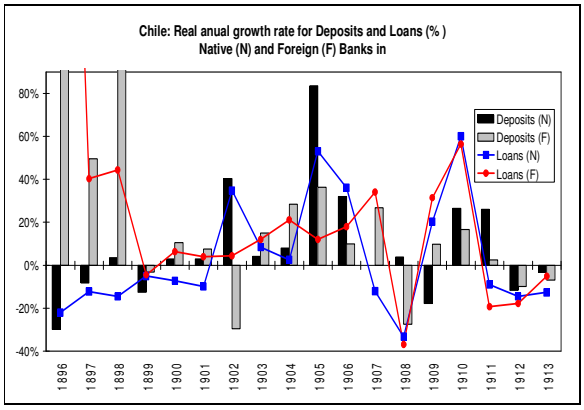


Figure 11



Source: Authors' database. Price index figures in Braun, Braun, Briones, Díaz, Lüders & Wagner (2000).

Table 5

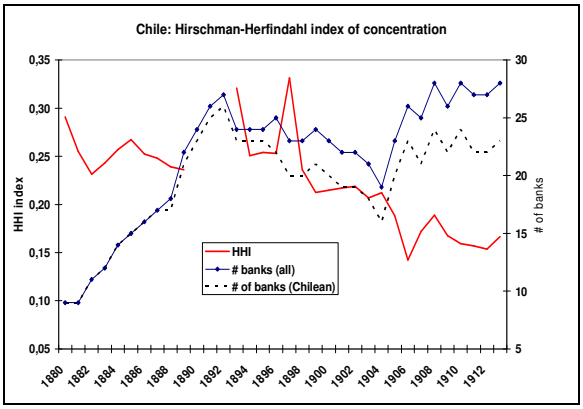
Brazil: Real Deposit and Loan Growth, by Type of Bank (1878/1913)

(in average p.a. growth rates (%) in relation to previous point in the series)

	DEPOSITS		LOANS	
Year/type of bank	Domestic	Foreign	Domestic	Foreign
1878				
1888	1.4	4.7	9.8	-0.1
1895	11.0	6.6	-4.1	3.3
1898	-9.9	7.8	2.6	13.9
1900	-17.8	16.4	-19.0	-0.6
1901	-44.8	-25.4	-65.7	-24.3
1904	3.0	-7.0	15.1	12.2
1906	36.9	15.0	25.3	-0.1
1908	7.5	0.0	1.5	18.4
1910	25.4	40.9	8.2	32.0
1911	31.2	79.3	18.2	73.8
1913	2.3	-11.9	40.2	1.0

Source: Authors' database.

Figure 12



Source: Authors' database.

Figure 13

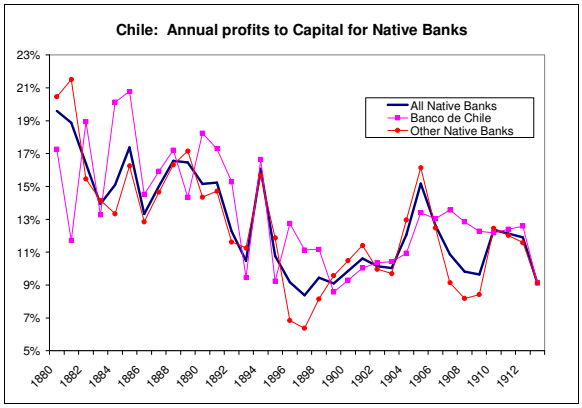
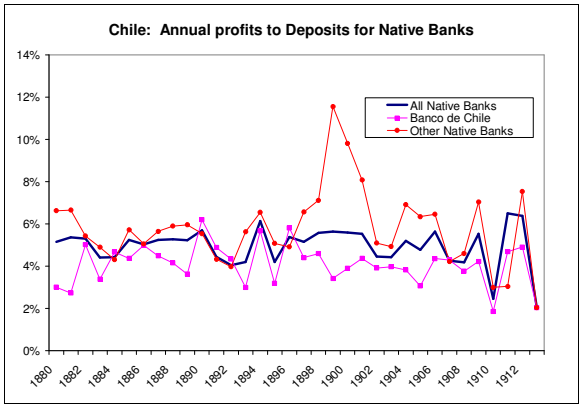


Figure 14



Source: Authors' database

Table 6

Profits of British and German Banks in Latin America

	Profits to Capital		Profits to Deposits	
	British	**German**	**British**	**German**
1890		3.5%		3.4%
1900		12.9%		4.2%
1910	23.5%	20.9%	4.2%	4.0%
1911	24.9%	22.8%	4.3%	3.6%
1912	23.2%	24.9%	4.7%	4.1%
1913	20.5%	24.8%	5.0%	4.6%

Source: Calculated from Young (1991, Table B and C, pp. 80-81). British banks include the London and River Plate Bank, the London and Brazilian Bank, the British Bank of South America and the Anglo-South American Bank. German banks include the Deutsche Überseeische Bank, the Brasilianische Bank für Deutschland, the Bank für Chile und Deutschland and the Deutsch-Südamerikanische Bank.

Table 7

Foreign and Native Banks in Chile and Brazil Compared

	Chile (1896-1913)	**Brazil (1878/1913)**
Deposits and loans to total assets	• No differences between foreign (FB) and local banks (LB). • Well above the Brazilian standard and relatively similar to the German one.	• Higher deposit and lower loan ratios for FB during the XIXth century but convergence pattern afterwards.
Capital adequacy	• No difference on average but FB had higher capitalization than LB at the beginning and lower capitalization later. • LB capitalization increased with the entry of FB. • Chilean figures lied between the British and German standard.	• LB held more capital than FB but appear to converge at the eve of WWI. • Brazilian figures were higher than Chilean ones but converged at the end of the period. • Capitalization for FB in Brazil and Chile was relatively similar.
Liquidity	• FB held more cash than LB, especially during years of banking crises. • Chilean figures were similar to the European standard.	• FB held more cash during the XIXth century but declined and converged to LB standard afterwards. • Brazilian figures were higher than the Chilean standard.
Credit expansion	• Although FB did not exacerbate the business cycles, there is not clear evidence they have played a counter-cyclical role.	• FB mildly counter-cyclical during times of crisis.
Competition and profitability	• FB presence is associated with a decline in concentration. • FB appear to earn more than native banks. • FB entry did not decrease interest rates margins but lowered the ratio of profits to capital of LB.	Not enough data to test this dimension.

Source: See text.