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# The Mexican Debt Crisis Redux: International Interbank Markets and Financial Crisis, 1977-1982<sup>†</sup>

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## Abstract

The international banking crisis that began in 2007 has brought the relationship between international banking activities and financial crises to the forefront. The growing reliance on foreign interbank funding by domestic banks has been recognized as a crucial factor in explaining the banking and sovereign debt crisis currently affecting several peripheral European countries. This paper shows that the link between financial crisis and international interbank lending is not a new phenomenon; a similar trend can be observed in the Mexican banking sector during the run-up to its 1982 debt crisis. I explore the international activities of Mexican commercial banks in the years preceding the country's default and demonstrate that they became involved in international lending which was funded largely through heavy short-term interbank foreign borrowing. I provide new archival evidence which shows that in intermediating foreign finance with local public and private borrowers, Mexican banks incurred maturity, interest rate and currency mismatches and dangerously increased their risk position. This paper provides insights for understanding the Mexican debt crisis as closely intertwined with problems in the domestic banking sector, which were, in turn, linked to its involvement in the international financial system.

**JEL Classification:** H63, N26, N86.

**Keywords:** Sovereign debt, financial crisis, Euromarkets, Latin America.

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The global banking meltdown that began in August 2007 has led to a growing body of research on the relationship between banks' international activities and financial crises. While some of these studies have focused on the role of foreign off-balance sheet exposures in the banking sector, scholars have also highlighted the vulnerability to crisis created by banks' wholesale external borrowing in the international interbank market. Specifically, researchers have argued that a growing reliance by banks in certain countries on short-term cross-border funding (Fender and McGuire 2010; Merk Martel, Van Rixtel, and Gonzalez Mota 2012), along with currency and maturity imbalances between their assets and liabilities (CGFS 2010), made their national banking sectors dangerously vulnerable to shifts in U.S. money markets and international interbank lending.

Indeed, discussions concerning international interbank markets have moved into the spotlight during the current European crises. Since the intensification of the financial crisis in the second half of 2008, Euro area banks have been confronted with major dislocations in international wholesale markets and have consequentially experienced severe funding strains (Caruana and Van Rixtel, 2013; Van Rixtel and Gasperini, 2013). The heightened dependence of domestic banks on foreign interbank funding has been recognized as a primary factor in explaining the vulnerability of certain banking sectors, such as Ireland and Iceland, to the crisis (Honohan et al. 2010; SIC 2010). As for other troubled peripheral countries, such as Spain and Greece, problems in the banking sector have become increasingly intertwined with sovereign debt crises, which have put further pressures on banks, both in terms of access to funding and its cost (Shambaugh 2012; CGFS 2011).

Most of this research assumes, at least implicitly, that the growth in international interbank funding is a recent phenomenon.<sup>1</sup> Symptomatic of this lack of historical perspective is the fact that the Bank for International Settlements (BIS), the institution responsible for much of the recent research, was centrally involved in a similar episode during the run-up to the 1980s international debt crisis. In 1982, the BIS established a study group on the international interbank market, which reported that up to three-quarters of the international lending boom that had taken place in previous years consisted of interbank positions.<sup>2</sup> There is reason to think, therefore, that there was an important link between bank's wholesale foreign activities and the financial crisis of the 1980s, in what had threatened to be the largest international banking meltdown since the Great Depression.

This Chapter focuses on the link between foreign interbank market operations and financial crisis in Mexico, beginning in 1977 up to the outbreak of the debt crisis in 1982. Mexico is a valuable case study to address these issues. First, Mexico was not only one of the biggest international debtors, but also the country whose moratorium in August 1982 triggered the international debt crisis and put the whole global banking and financial system on the brink of collapse.<sup>3</sup> Second, the country's leading banking institutions were actively involved in foreign finance, becoming both major borrowers and lenders in the international capital markets. Finally, there are good reasons to assume that the experience of Mexico can be also found in other Latin American countries, such as

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<sup>1</sup> See, for instance, graphs 4 and 5 in Caruana and Van Rixtel (2013), pp. 7-8.

<sup>2</sup> BIS Archives, Box 1/3A(3)M Vol. 1., Study Group on the International Interbank Market. See also BIS (1983) pp. 17-9.

<sup>3</sup> Boughton (2001), in particular, pp. 281-317.

Brazil and Argentina, whose governments and financial institutions followed similar footsteps and also suffered from serious financial crises.<sup>4</sup>

During the lead-up to the debt crisis, when considerable amounts of foreign finance flowed into Mexico, leading domestic commercial banks became highly involved in intermediating foreign finance with domestic final borrowers (Quijano 1987, pp. 241-58). However, despite the importance of their international borrowing and lending activities, neither the literature on Mexico's external debt nor the research on the sovereign debt crisis and its debt renegotiation process have given much attention to the role of the domestic banking sector.<sup>5</sup> This study shows how Mexican commercial banks were crucially entangled in the country's external indebtedness process through the channelling of international wholesale liquidity back home, and that in doing so, they dangerously increased their risk position.

Until now, international interbank markets and developing countries' commercial banks have been largely absent in the extensive literature on the debt crisis of the 1980s.<sup>6</sup> In this Chapter, I reconstruct the essential elements of the international business model of Mexican banks by drawing on a variety of archival sources that have recently become available. I show how, through their branches and associated banks overseas, Mexican commercial banks raised large amounts of foreign capital in the U.S. and British international interbank markets, which they used to relend either directly, or through off-shore centres, to public and private borrowers at home. I provide new evidence which shows that in running their international activities, they accumulated serious maturity, interest rate and (indirect) currency mismatches on their balance sheets. My account is largely based on Federal Reserve Bank of New York archives and from forms that Mexican banks in the U.S. were required to file with the Federal Financial Institutions Examinations Council (FFIEC), known as FFIEC 002 Report Forms.<sup>7</sup> I also draw on reports and historical statistics from the Banco de Mexico as well as documents and records from archives of the IMF and the BIS.

In the run-up to the crisis, a number of events contributed to a worsening of banks' financial mismatches and led to a deterioration of their financial position. The sharp increase in international interest rates during the late 1970s and early 1980s exacerbated the interest rate mismatch between the banks' liabilities that had been contracted at floating rates and their foreign loans, which had been largely arranged at predetermined interest rates. At the international level, moreover, beginning in mid-1981, a general retrenchment in the U.S. interbank market endangered Mexican banks' single most important source of foreign funding. The February-March 1982 devaluation made it more difficult for large private Mexican companies to reimburse their dollar debt to domestic banks and for Mexican banks, in turn, to service their foreign creditors. Finally, the Mexican government's moratorium declaration in August 1982 gave the *coup de grace* to Mexican banks' wholesale foreign borrowing.

Although overlooked in the literature, Mexican banks' interbank foreign liabilities played a key role during the renegotiations and in the stabilization programs. Mexico's negotiators, along with its

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<sup>4</sup> See Altimir and Devlin (1994), Devlin and French-Davis (1995), Diaz-Alejandro (1984), and Sachs and Williamson (1985).

<sup>5</sup> Main references on the subject are Dornbusch (1990), Green (1988, 1998), Kraft (1984), Marichal (2011), Negrete Cárdenas (forthcoming), Solís and Zedillo (1985), and Zedillo (1985).

<sup>6</sup> See, for instance, Cline (1984, 1995) and Devlin (1989), three of the most influential works on the accounts of the international debt crisis of the 1980s.

<sup>7</sup> Federal Financial Institutions Examinations Council (FFIEC) Report of Assets and Liabilities of U.S. Branches and Agencies of Foreign Banks (FFIEC 002).

official international creditors, sought to have creditor banks maintain access to interbank credit lines to Mexican banks. After the nationalization of the Mexican banking sector, and as part of the first rescheduling program for Mexican debt, an agreement was reached to freeze interbank deposits with the foreign branches and agencies of Mexican banks at the August 1982 pre-moratorium levels. This agreement would be extended in subsequent rescheduling programs. The outstanding interbank loans would remain frozen for almost ten years, until a definitive market-oriented solution was finally proposed in 1991, as part of the banks re-privatization program.

The rest of the Chapter is organized as follows. Section 4.2 presents evidence showing the extent that Mexican commercial banks relied on foreign interbank borrowing to fund their international loans prior to 1982. Section 4.3 describes the business model and the economic rationale behind their foreign activities. In Section 4.4, I analyse the rising fragility of the Mexican banking system, including the exposures and imbalances incurred by large international banks. Section 4.5 explores the financial difficulties banks faced in the run-up to the crisis, and the solution finally adopted to secure their interbank funding needs in Section 4.6. Based on the analysis of the experience in Mexico, in the last section, I draw overarching conclusions linking international activities of banks to financial crisis during the 1980s. Avenues for future research on the topic are highlighted.

## II

In the decade-long run-up to the 1982 crisis, Mexico experienced the most notable growth of its external debt in the history of the country (Marichal, 2000; Solís & Zedillo, 1985). Mexicans' ability to borrow in foreign capital markets reflected a broader enthusiasm among international creditors in providing financing to developing economies during the 1970s. Following the oil shock of 1973, the petrodollar recycling process flourishing in the Euromarkets eventually led to an international lending boom to the developing world, where Mexico, along with other Latin American economies, attracted the lion's share (Devlin, 1989). At that time, Latin American economies were undertaking final stages of the import-substituting industrialization (ISI) process and foreign capital was a major piece of the funding strategy (Bértola & Ocampo, 2012b). In Mexico, as in other Latin American countries suffering from credit booms followed by financial crises and busts in the early 1980s, foreign borrowing was partly intermediated by the domestic banking system.<sup>8</sup>

Between 1977 and 1982, when substantial amounts of capital flowed into Mexico, the commercial banking sector significantly increased its foreign liabilities. While external debt of the Mexican public sectors increased by one and a half time during that period, commercial banks' foreign indebtedness more than tripled.<sup>9</sup> Indeed, the rise of banks' external debt is even more striking when considered in terms of their balance sheets. According to Banco de Mexico's annual reports, obligations to the external sector passed from representing only 3.1 per cent of the total liabilities of the commercial banking sector in 1977 to 20.2 per cent in 1982: a bit less than a sevenfold increase in five years. These foreign liabilities essentially consisted of loans from international banks - in particular interbank facilities - operating in main international financial centres.<sup>10</sup> Such figures give a clear

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<sup>8</sup> See Sundararajan and Baliño (1991) and Mendoza and Terrones (2008) for a review on credit booms and financial crises during the 1970s and the 1980s in Latin America.

<sup>9</sup> Based on data from Negrete Cárdenas (1999) and Solís and Zedillo (1985).

<sup>10</sup> Banco de Mexico's annual report of 1978 details the composition of commercial banks' obligation with the external sector, which reached US\$ 620 million in 1977 and US\$ 823 million in 1978 and consisted entirely of all loans from foreign banks (pp. 109-10).

sense of the extent and the intensity that commercial banks were borrowing in the international capital markets during the years preceding the crisis.<sup>11</sup>

The rise on banks foreign liabilities came along with an improvement of their lending capacities. Total financing provided by the commercial banking sector rose from US\$ 12.6 billion in 1977 to US\$ 46 billion at the beginning of 1982, expanding at the rate of 38 per cent per on average. Interestingly, dollar financing was the more dynamic component, with the dollar loan portfolio increasing by 5.5 times compared to loans in pesos, which more than tripled during the same time period. Banks' higher dollar lending capacities relied, to a large extent, on the foreign currencies that they were able to borrow on international capital markets. Intermediation of foreign capital with Mexican borrowers was mainly made through syndicated Eurocredits, but also by direct lending from London and other main international financial centres.

Syndicated deals were brought to London and promoted by a large international commercial bank, usually from the U.S. or another developed country, under a mandate granted by the borrower. Once there, the leading bank formed a lending syndicate with other banks and worked together to provide funds. Although largely dominated by banks from industrialized countries, Mexican commercial banks actively took part in these operations. According to Quijano (1987, pp. 244-7), of the US\$ 16 billion raised by the 322 Eurocredits granted to Mexico between 1970 and 1979, US\$ 5.1 billion, or 32 per cent included participation by Mexican commercial banks, both as leaders or as associated syndicate members. Banamex and Bancomer, the two largest Mexican commercial banks, along with their London-based consortium banks, the International Mexican Bank (Intermex) and the Libra Bank, accounted for the vast majority of these operations. Indeed, as shown in Negrete Cárdenas (1999), in terms of the number of Eurocredits granted to the Mexican public sector between 1973 and 1982, these banks ranked among major foreign lenders such as Bank of America, Chase Manhattan and Citibank.<sup>12</sup>

Mexican commercial banks gained a foothold in the major international financial centres during the 1970s. They first arrived in London through the creation of consortium banks in joint ventures with other international banks from developed and developing countries. The Libra Bank, founded in 1972, along with Intermex and the Euro-Latinamerican Bank (Eulabank), both established in 1974, were the three consortium banks with Mexican ownership.<sup>13</sup> The 1974 Mexican banking reforms empowered domestic banks to participate in the capital stock of foreign financial institutions and to open agencies and branches abroad.<sup>14</sup> In effect, in addition to their involvement in London-based consortium banks, late in the decade, leading Mexican commercial banks would eventually establish their own international offices. By 1982, the six largest commercial banks Bancomer, Banamex, Banca Serfin, Multibanco Comermex, Banco Mexicano-Somex and Banca Internacional, which represented up to three-quarters of the commercial banking market share in Mexico, were running

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<sup>11</sup> At that time, the Mexican banking system was made up by commercial banks, state-owned development banks and Banco de Mexico. For a description of the Mexican banking system and its place within the financial system as well as the interaction and network relationship with the rest of the financial actors see del Angel (2002), in particular, Chapters 4 and 5 as well as appendix 1 and 2. A broader characterization of the Mexican financial system during those years can be found in Solís (1997).

<sup>12</sup> Intermex was the largest Mexican lender. It participated in 24 Eurocredits and ranked 5th among the leaders in bank syndicated loans to Mexico between 1973 and 1982 (Negrete Cárdenas 1999, Table B.17, p. 400).

<sup>13</sup> They were owned by Bancomer, Banamex and Banca Serfin with 8, 38 and 6 % of the shares respectively.

<sup>14</sup> See Borja Martínez (1978), pp. 431-2.

their own branches and agencies in the main international financial centres, with London and New York as their primary destinations.<sup>15</sup>

The internationalization of Mexican banking took place in a context of financial and banking deregulation. During the mid-1970s, Mexico, along with other Latin American countries with highly repressed financial systems, introduced a number of that attempted to liberate the financial sector. Kaminsky and Schmukler (2003) found that between 1973 and 1974, both capital account controls and regulations on the domestic financial system were relaxed in Mexico. As far as commercial banks were concerned, financial private institutions were now allowed to engage in offshore borrowing and to issue certificate of deposits at market-determined interest rates. Deregulation continued in the following years, through reductions and unification of the reserve requirement, softening interest rate controls, and increases on dollar borrowing and lending limits. The introduction of multi-purpose banking of 1975, which replaced the former restricted regime of specialized banking with a universal banking system, was a step forward. The reform lifted regulations that had previously pushed specialized financial institutions to operate in a single financial market and provided banks with greater flexibility in their intermediation activities.<sup>16</sup> As a result of these reforms, between 1977 and 1982, the Mexican banking sector increased its participation in the Mexican economy and recovered from a seven year trend toward financial disintermediation.<sup>17</sup>

### III

During the 1970s, Mexican banks created consortium banks and set up overseas offices, in large part, to involve themselves in Euromarkets and engage in Eurocurrency businesses. Their presence in London and New York allowed the banks to access the two biggest international interbank markets and open a dollar-based funding channel. The fact that the vast majority of commercial banks' foreign offices were branches or agencies, as opposed to subsidiaries, reveals that their parent banks were not interested in developing regular retail banking businesses in the host country, which would have required bank subsidiary status.<sup>18</sup> As agencies or branches, these banks were forbidden from taking conventional direct deposits. The focus was thus on wholesale banking instruments, like federal funds and interbank credit lines, which were available in the marketplace.

Most of the funding to meet the demand for international loans by Mexican banks came from the international interbank market. As Paul Mentre emphasized in a report for the Institute of International Finance, it was by accessing the interbank market that 'LDC commercial banks typically borrowed on the U.S. domestic market or on the London dollar market to relend directly, or through

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<sup>15</sup> There were in total 21 foreign branches and agencies of Mexican commercial banks in six foreign cities: Bancomer, Banamex and Serfin with four offices each, Comermex with five and Somex and Banca Internacional with two each (CIEN-A13/E-68/Agosto de 1982).

<sup>16</sup> For an explanation of the multi-bank reform and the implications for the Mexican banking and financial system see del Angel (2002) and Seijas Román (1991).

<sup>17</sup> The Total Assets/GDP ratio for private banks in 1971, 1977 and 1982 was 35, 26 and 42 % respectively (del Angel 2006, p. 637).

<sup>18</sup> Branches were not technically defined as banks, which raises an important difference in terms of regulation. Since they were not legally separate from their parent banks, they were not separately capitalized and were primarily supervised by their home authorities. As such, they were not subject to the host country's reserve requirements.

offshore centres, to final borrowers'.<sup>19</sup> In practice, interbank markets acted as channels from banks with a domestic dollar base or an excess of deposits towards banks where direct lending exceeded deposits. Such was the situation of Mexican and LDC's banks overseas, since as Phillip Wellons observed '[their] function [was] to act as a go-between for domestic borrowers, including their home office, and to raise money (...) in world markets for their home countries'.<sup>20</sup>

The business model of consortium banks relied, to a large extent, on interbank market deposits as a source of funds. While interbank loans normally accounted for one-fifth of the banks' assets, on the liabilities side, interbank placements ranged from 40 per cent of the banks' total liabilities, up to 100 per cent in a certain number of cases.<sup>21</sup> Thus, by borrowing more than they lent to other banks, these banks were usually net takers of funds within the international interbank market. Mexican commercial banks also conformed to the same net borrowing pattern, and, as explained by Banamex Director José Manuel Rivero, the *modus operandi* consisted in 'making placements with [creditor banks], for example, placing \$10 million with an institution that is providing \$20 million to Banamex'.<sup>22</sup> In the same vein, Serge Bellanger, vice-president of the Institute of Foreign Bankers and Crédit Industriel et Commercial's New York branch manager, pointed out that when examining the liabilities side of foreign banks in general, the 'interbank borrowings from the domestic and Eurodollar markets still remain a major component of the funding strategy'.<sup>23</sup>

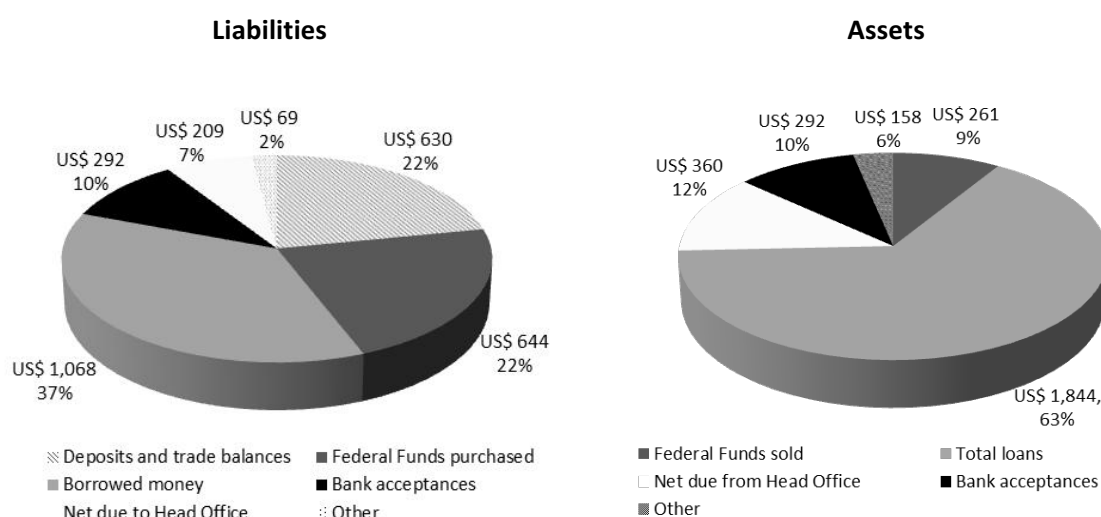


Figure 1. Total combined assets and liabilities of U.S. agencies and branches of Mexican banks by instruments, June 1982 (million dollars)

Source: FFIEC 002 Reports.

This business pattern can be illustrated by examining the case of the agencies and branches of Mexican banks in the U.S. As of June 1982, total combined assets and liabilities of the six bank agencies in New York and four in Los Angeles reached US\$ 2.91 billion. Figure 1 provides the composition of the agencies' assets and liabilities at a consolidated level. On the liability side, the breakdown shows that borrowed money was their main fundraising instrument, followed by federal

<sup>19</sup> Mentre P. (1985), "The International Interbank Market and International Bank Lending," FRBNY Archives, Box 108403.

<sup>20</sup> Wellons (1977, p. 77).

<sup>21</sup> See Davis (1980) and Dufey and Giddy (1994).

<sup>22</sup> FRBNY Archives, Central Records, BAC 1983: Office Memorandum, November 22, 1983.

<sup>23</sup> "The foreign challenge to US banks," The Banker, October 1978, p. 40.



funds and deposits and credit balances. Taken together, they accounted for US\$ 2.35 billion or 80.7 per cent of total liabilities. The fact that only US\$ 10.9 million or 0.5 percent of this amount was due to creditors other than banks highlights the prominent role of financial institutions as virtually the only suppliers of funds for Mexican agencies. The remaining 562 million (or 19 per cent) of agencies' total liabilities, basically consisted of transfers from their head offices in Mexico and banker's acceptances. These figures give a clear sense of the large extent that their funding relied on the interbank market.

On the assets side, loans were agencies' most important claims, accounting for US\$ 1.9 billion or 65.4 per cent of the total. They consisted of direct or purchase loans that were mainly granted to commercial and industrial (public or private) enterprises (73.9 per cent), and, to a lesser extent, to other financial institutions (15.4 per cent) and to foreign governments (9.6 per cent). Agencies' second largest asset was net transfers to their head offices, followed by banker's acceptances and Federal Funds sold to U.S. banks. Overall, an estimated 80-90 per cent of the U.S. agencies total assets represented claims on Mexican borrowers, and about 60 per cent represented loans to the Mexican Government or the public sector.<sup>24</sup> This asset and liability composition makes the business model clear: borrow from commercial banks in the U.S. interbank money market and lend to final users in Mexico. As extensions of their parent banks, foreign agencies channelled U.S. money to Mexico and managed the liquid dollar assets of their international networks.

The significance of the foreign agencies of Mexican banks lay not only in their international business, but in the fact that they became the main door to international wholesale liquidity. As stressed by the BIS Study Group on interbank markets, although creditor banks seemed to have regularly lent to other banks in London or to banks of similar standing in other major financial centres or offshore centres, cross-border transactions with banks operating in remote financial centres raised more concerns.<sup>25</sup> Data from Banco de Mexico Annual Reports show that by end-1981, borrowing from foreign banks had provided commercial banks with US\$ 6.5 billion, of which as much as 70 per cent had been raised by foreign agencies while the remaining 30 per cent were loans directly granted to the head offices in Mexico.<sup>26</sup>

Through their foreign agencies, commercial banks found the international interbank markets to be new, low-cost funding opportunities. Figure 2 shows the evolution of the average domestic cost of funding compared to interbank interest rates in the U.S. and London, as well as the monthly depreciation of the peso-dollar nominal exchange rate during the 1977-1982 period. International interest rates were significantly below domestic levels throughout the entire period. This means that, given a virtually fixed exchange rate, it was cheaper for commercial banks to borrow dollars abroad than to raise pesos in Mexico. In fact, between 1977 and 1980, the cost of funding in London and New York was, on average, between 40 and 60 per cent lower than in Mexico; a difference that would eventually become even greater as the spread between domestic and international interest rates increased in subsequent years. Additionally, the fact that foreign branches or agencies were

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<sup>24</sup> FRBNY Archives, Central Records, C261 - Mexican Government 1917-1984: Office Memorandum, August 30, 1982.

<sup>25</sup> See BIS (1983), p. 35.

<sup>26</sup> It is worth mentioning that as foreign banks were not allowed to open branches or agencies in Mexico (Citibank being the only exception), these cross-border interbank transactions represented foreign liabilities of Mexican banks and not inter-offices business of foreign banks. For an account of the presence of foreign banks in Mexico, see del Angel (2002), pp. 139-48, and Sánchez Aguilar (1973) for the particular case of U.S. banks.

not subject to reserve requirements either in Mexico or in host countries further reduced the relative cost of foreign borrowing.<sup>27</sup>

At a microeconomic level, the rationale behind international activities by the commercial banks relied on interest rate arbitrage operations in domestic and foreign markets yield. As financial historian Carlos Marichal explains, the banks' 'purpose consisted in obtaining cheap funds overseas to lend domestically at higher rates, ergo recycling them locally'.<sup>28</sup> With inflation and interest rates at double-digit levels whilst the peso-dollar nominal exchange rate held practically fixed from 1977 until early 1982, the potential for financial gains were significant. As Diaz-Alejandro (1985) observed in the case of Chile, the slow convergence (even divergence) of inflation and interest rates toward international levels, plus the fixed permanent nominal exchange rate, also yielded great incentives for private capital inflows into Mexico and its leading domestic banks were important intermediaries.

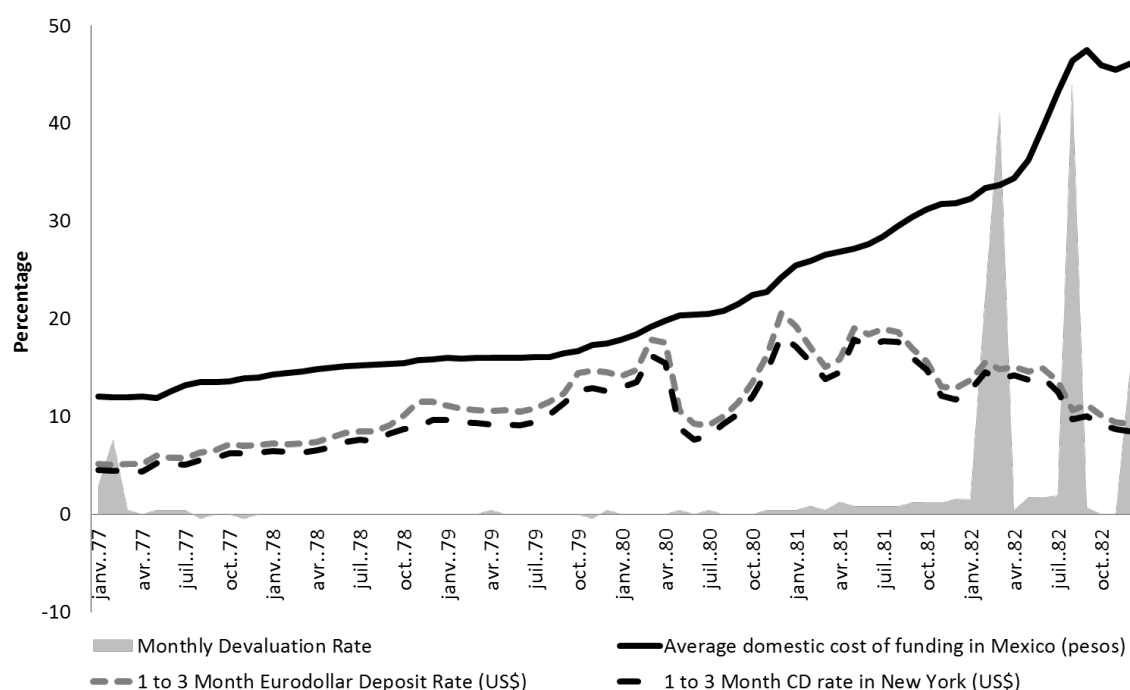


Figure 2. Domestic and international cost of borrowing for Mexican banks, 1977-82

Source: Banco de Mexico's Historical Statistics.

#### IV

Mexican banks' foreign agencies, which made up the working base of their international businesses, operated under asset-liability imbalances that would prove to be very serious in the run-up to the crisis. Although no complete and systematic information exists about the banks' overseas branches or agencies in Mexican banking and financial statistics, the FFIEC 002 Report of Assets and Liabilities

<sup>27</sup> Since 1 April 1977, the reserve requirement for multipurpose banks was set at the uniform rate of 37.5 % for liabilities in the national currency. In the case of dollar denominated liabilities held in Mexico, reserve requirements ranged from 70 up to 100 % during some years.

<sup>28</sup> Marichal (2011), p. 119.

of U.S. Branches and Agencies of Foreign Banks provides balance sheets for those operating in the United States. U.S. agencies accounted for 10 of the 21 foreign branches and agencies of Mexican commercial banks, or an estimated of 40 per cent of their total combined assets and liabilities. Given that agencies in London and elsewhere followed a similar business model; the financial position of the U.S. agencies gives a representative sense of the general trend.

Table 1 shows the cross-border, maturity and interest rate balance sheet composition for Mexican agencies in the U.S. as of June 1982. A first worrisome complication could be found in cross-border currency mismatches. The international business model of commercial banks, as previously developed, led to a concentration of their foreign agencies' liabilities within the financial centre where they operated and of their assets abroad. Columns 2 to 4 show the general pattern. While average obligations to creditors domiciled in the U.S. accounted for 67.6 per cent of U.S. agencies' total liabilities, 73.3 per cent of their claims were due to clients domiciled outside of the United States, mostly in Mexico. Loans were made in dollars, but to borrowers operating mainly in pesos and not necessarily to exporting firms. Therefore, despite the fact that banks were not currency mismatched in their cross-border operations, their borrowers were. They were consequentially exposed to currency risk and to the balance sheet effects associated with an eventual devaluation of the Mexican peso as described by Krugman (1999).

A second mismatch involved the maturity composition of the agencies' assets and liabilities. Their heavy reliance on interbank funding came with a liability structure that was almost necessarily biased toward very short-term debts, normally between overnight and six month. As of June 1982, up to 27.6 per cent of agencies' total combined liabilities consisted of borrowings (federal and borrowed funds) dues within a day and 19.1 were deposits and credit balances for 30 days ending with call date (See Table 1). Internal computations by the FRBNY staff estimated that around US\$ 1.8 billion would mature between late August and the end of 1982, an amount representing almost two-thirds of their total liabilities.<sup>29</sup> Conversely, the loans that these short-term instruments funded had been extended at much longer maturities. According to information from the FFIEC 002 reports, 73 per cent of the commercial and industrial loans, which were the major component of U.S. agencies assets, were due within the following year and the remaining 27 per cent had a maturity of over one year (See Table 1). As will be developed in further detail, the agencies' maturity imbalances would become even worse with the breakup of the crisis.

Agencies also incurred interest rate mismanagement on their borrowing and lending activities. At that time, interbank placements or credit lines were typically arranged at LIBOR plus a modest premium, which would depend on the risk associated with the borrowing bank, meaning that virtually all agencies' debts were contracted at a variable interest rate. In contrast, an important part of the agencies' loan portfolio consisted of claims arranged at predetermined or fixed interest rates. Table 1 shows that only US\$ 416 million or 30 per cent of the commercial and industrial loans granted by U.S. agencies had a floating interest rate, while the remaining US\$ 992 million or 70 per cent had been arranged at fixed rates. In this context, the sharp increase in international interest rates of the late seventies and early eighties would seriously damage the financial positions of these agencies. While their obligations and debt repayments increased along with the rise in interest rates,

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<sup>29</sup> Mexican agencies outside the U.S. seem to fit into the same pattern. In addition to the US\$ 1.8 billion in the U.S., Mexican agencies outside the U.S. had dollar liabilities of US\$ 4 billion maturing between August and the end of December 1982, representing together an approximate of 75 % of overseas agencies' total liabilities. FRBNY Archives, Central Records, C261 - Mexican Government 1917-1984: Office Memorandum, August 30, 1982.

only a minor portion of the loan portfolio (which was their main source of revenue) could adjust upward and benefit from the higher rates.

By the time of Mexico's default, foreign agencies had become important extensions of their parent banks and their financial fragility was a latent threat for them as well as the banking system as a whole. A Centro de Información y Estudios Nacionales (CIEN) report estimates that total liabilities of the foreign agencies and branches of the six Mexican international banks reached approximately US\$ 7.64 billion in August 1982, an amount accounting for as much as one-fourth of their parent banks total liabilities and 20 per cent of the banking sector's total liabilities. On the assets side, foreign agencies' credits represented over 50 per cent of the total loan portfolio of commercial banks in Mexico. The exposure of parent banks to their foreign agencies and the large share of these banks in the commercial banking sector made the domestic banking system vulnerable to the risks behind these international operations.<sup>30</sup>

Even more striking is the extent that Mexican banks' foreign agencies impacted the risks faced by the domestic banking system. In a context of economic and financial liberalization, banks are usually confronted with novel forms of risk that can enhance market failures and risk mismanagement already present in the banking sector. Large inflows of foreign capital into a newly liberalized domestic banking sector might further aggravate these problems. In the absence of an appropriate supervisory and regulatory framework, an increase in the availability of loanable funds for domestic financial institutions is likely to raise credit, liquidity and settlement risks; eventually leading to greater systemic risk in the banking sector (McKinnon and Pill 1998).

Between 1977 and 1982, as Mexican banks expanded their international footprint, their funding possibilities and lending capacities significantly increased. During this period, dollar denominated loans were the most active component of commercial banks' lending, as previously mentioned, and the private sector was the largest recipient of these funds, accounting for 50 per cent of banks' dollar claims as of early 1982.<sup>31</sup> In fact, the increment of Mexico's private sector external debt during the late 1970s relied, to a large extent, on the foreign activities of the commercial banking sector. Given that Mexican international banks belonged to conglomerates which also held the companies that were borrowing the most from abroad, it is likely that these firms were the main beneficiaries of the dollar loans provided by those banks. According to Gutierrez (1992, p. 853), between 1979 and 1981, up to two-thirds of private sector foreign indebtedness came from Mexican commercial banks.

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<sup>30</sup> In studying the Thailand financial crisis of 1997 and the maturity and currency mismatches of the banking sector with regards to the foreign sector, Allen et al. (2002, pp. 50-9) found that up to one-fourth of the commercial banks' total liabilities were foreign currency denominated, of which 60 % fell due in the short term, which they state is *enormous*. The mismatches of the Mexican foreign agencies and their share on the domestic banking sector's total liabilities look similar, if not worse, to these figures.

<sup>31</sup> As for the remaining, 26.4 % corresponded to the Mexican public sector and 23.6 to foreign borrowers.

Table 1. *Asset and liability structure of U.S. agencies and branches of Mexican banks, June 1982*

<i>millions of dollars</i>		Cross-Border Currency				Maturity				Interest Rate	
	Total Asset & Liability	U.S. Addressees		Non-U.S. Addresses		Loans due		Borrowings due in a day*	TD &CB for 30 days**	Com. & Ind. Loans	
		Asset	Liability	Asset	Liability	Within 1 year	Over a year			Fixed Rate	Floating Rate
Bancomer	1,385	366	975	1,019	410	554	134	361	350	393	295
Banamex	741	170	362	572	380	198	64	136	17	261	0
Multibanco Comermex	421	129	341	292	80	154	97	199	71	130	121
Banca Serfin	261	88	206	174	56	98	57	58	69	155	0
Banco Internacional	106	26	89	80	17	22	31	50	52	53	0
Banco Somex	1	1	0	0	1	0	0	0	0	0	0
Total U.S. Agencies	2,915	779	1,972	2,136	943	1,026	382	804	558	992	416

Notes:

\*Federal Funds and borrowed funds of immediately available funds with one day maturity.

\*\* Total deposits and credit balances for 30 days (month) ending with call date.

Source: FFIEC 002 Reports.

The rise of commercial banks' international financial intermediation came at the expense of higher risks to the banking sector. Table 2 shows the evolution of capital and reserves, cash and non-performing (troubled) assets relative to total assets for the commercial banking sector between 1978 and June 1982, directly prior to Mexico's default. In finance theory, the first two values, the leverage ratio and the ratio of (riskless) cash to assets, are considered determinants of the default risk of a bank and are commonly used in the literature as measures of bank risk-taking.<sup>32</sup> They displayed a deterioration in the health of the banking systems: both leverage and cash to total asset ratios were strongly reduced throughout the period. As for troubled assets, it seems only to start to rise as a proportion of total bank assets after the February-March 1982 devaluation. This ratio provides an *ex post* measure of the riskiness of the assets of a banking sector that have significantly increased the share of dollar loans in their lending portfolio (relative to those denominated in local currency), as discussed above.

Table 2. *Riskiness indicators for commercial banks, percentages*

	Leverage Ratio*			Cash / Total Assets			Troubled Assets / Total Assets		
	Dec-78	Dec-81	Jun-82	Dec-78	Dec-81	Jun-82	Dec-78	Dec-81	Jun-82
International Banks	2.6	1.8	1.5	6.3	4.2	3.5	1.8	1.6	2.1
Bancomer	2.5	2.0	2.0	7.3	4.3	2.9	1.9	1.5	2.1
Banamex	3.0	2.1	1.6	5.1	4.9	4.6	1.5	1.6	1.9
Banca Serfin	2.0	1.5	1.6	10.6	3.0	2.9	2.1	1.3	1.8
Multibanco Comermex	1.9	1.4	0.8	4.9	3.7	3.3	2.2	1.8	2.8
Banca Somex	2.9	1.4	0.9	1.5	2.5	1.7	1.8	1.9	2.9
Banco Internacional	2.6	2.0	1.2	5.0	7.7	5.3	1.3	1.9	1.4
Local Banks	3.0	2.2	2.0	4.8	3.8	3.8	1.6	1.8	3.0
Total	2.7	1.9	1.6	5.9	4.1	3.5	1.8	1.7	2.3

\* Computed as the ratio of equity and reserves to total assets

Source: *Comisión Nacional Bancaria y de Seguros*.

Indeed, risk taking seems to have been higher in the case of banks involved in international ventures. As of the early 1980s, the group of international banks showed greater levels of leverage and lower cash ratios than the banks operating solely on a domestic level. Moreover, the percentage reduction in the ratios is larger in international banks than in local banks, which would suggest that the former were much more aggressive in terms of risk taking than the latter. By participating in international capital markets, these banks received more funds and increased their liabilities without necessarily adding more capital. Figure 3 makes clear the extent to which banks leveraged on foreign funding and increased dollar lending without proportional increments in their capital base. In fact, while lending in pesos relative to capital stands at about 16, the dollar loan portfolio doubled in terms of banks' total capital between 1977 and 1982 before the devaluation of the peso.

An abundant amount of literature has analysed the factors accounting for international creditor banks' high risk-taking during the 1970s Euromarket lending boom to developing countries. While excess liquidity and poor regulation have been highlighted as major problems, scholars have also argued that creditor governments and IMF financial support to countries in payment difficulties

<sup>32</sup> See, for instance, Calomiris and Carlson (2014).

might have deterred banks from properly assessing the risks behind these loans (Edwards, 1986; Folkerts-Landau, 1985). No conclusive evidence has been found, however, that points to moral hazard or banks' poor lending decisions, in terms of the quantity or the pricing of the bonds and syndicated loans. At a national level, although there are no records on the direct cross-border loans that Mexican domestic commercial banks granted to local borrowers, a number of elements may suggest the presence of moral hazard likely encouraged too much dollar lending.

In the first place, the long-standing pegged exchange rate prior to the 1982 crisis could have actually introduced a source of moral hazard among private banks. As argued by Eichengreen and Hausmann (1999), low volatility in exchange rates may have led private investors to believe that authorities implicitly insured them against exchange risk, which in addition to a financial safety net, can cause a large amount of foreign capital inflows to be intermediated through the banking system. In fact, as previously discussed, the Mexican commercial banking system strongly increased their international network, foreign borrowing and lending activities starting in 1977 up until the outbreak of the crisis in 1982.

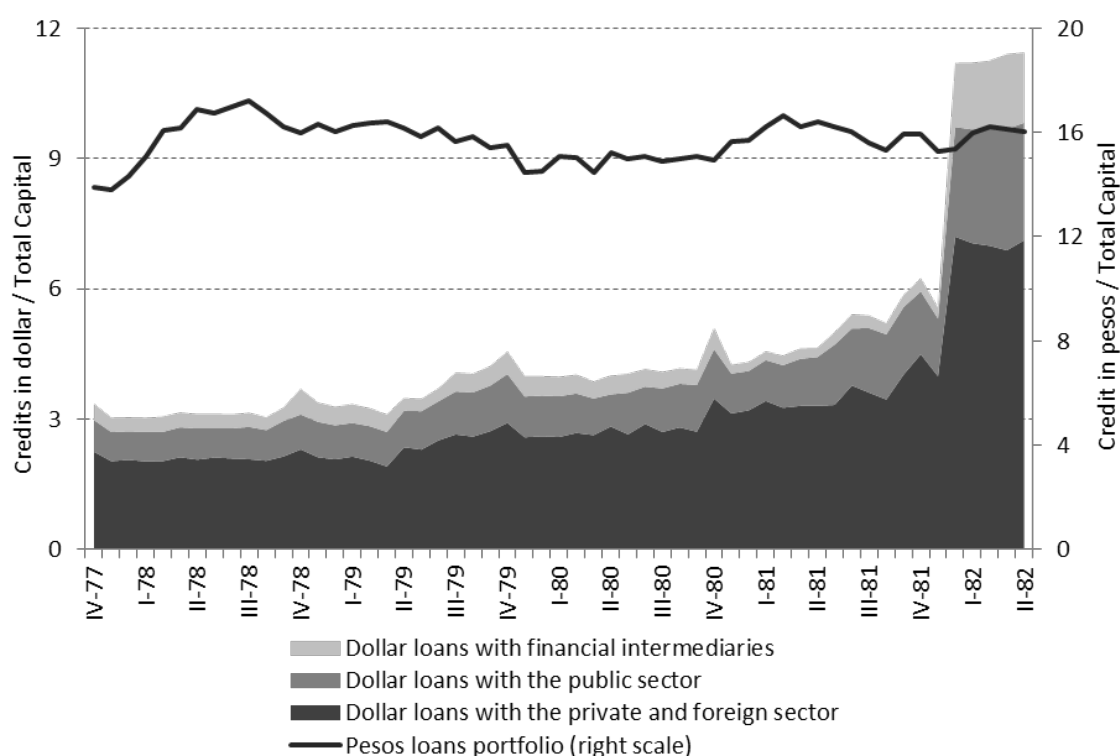


Figure 3. *Evolution of the loan portfolio of commercial banks relative to capital, 1977-82*

Source: Banco de Mexico's Historical Statistics

Secondly, commercial bank lending to public development banks also points to the existence of moral hazard stemming from implicit guarantees. Between 1970 and 1979, as much as 44.6 per cent of syndicated loans to Mexico, with the participation of Mexican banks, went to public financial institutions (Quijano 1987, pp. 246-7). Intermex and the Libra Bank, followed by Bancomer, were the main creditors, providing up to 84.3 per cent of the financing. In terms of their Euroloan portfolio, development banks accounted for 47, 87 and 30 per cent of the banks' claims in Mexico respectively. Indeed, the fact that Intermex was jointly owned by Banamex, along with state-owned Nacional Financiera (Nafinsa), Mexico's biggest development bank, and Banco Nacional de Comercio Exterior underscores the close ties in international lending between Mexican private banking and

the public sector.<sup>33</sup> Furthermore, board members and counsellors at commercial banks usually held managerial positions in public development banks, as well as in the Mexican government, the Banco de Mexico and other official agencies.<sup>34</sup>

## V

On 20 August 1982, the Mexican government announced a temporary debt moratorium on principal payments that brought the country into default and launched the international debt crisis of the 1980s. Although frequently overlooked, the Mexican private sector was also confronting serious debt payment difficulties at the same time. The Alfa Industrial Group, Mexico's main economic conglomerate and the largest private international debtor suspended principal payments of its foreign debt even before the sovereign debt crisis broke.<sup>35</sup> Similar to other major economic groups and private companies borrowing abroad, such as the Visa Group, the rise in worldwide interest rates from the previous years, paired with the peso devaluations of early 1982, increased the burden of their dollar debt and forced them to eventually go into default and debt restructuring.<sup>36</sup>

The increase in private and public sector external debt repayment problems would have serious repercussions on the domestic banking system. As previously noted, with half of their dollar loan portfolio in the hands of Mexican private companies and an additional quarter owed by the government and public agencies, Mexico's leading international banks and the commercial banking system were highly exposed to financial difficulties. Figure 3 shows the significant extent to which the banking sector was exposed to the risk of debt-servicing difficulties from both the private and public sector when the prospects of devaluation loomed. As a matter of fact, dollar claims passed from representing 6 times the capital base of the banking sector in the early 1982, to more than 11 times after the February devaluation. The situation could only get worse during the second half of 1982, with the government moratorium, new defaults in the private sector and further devaluations of the peso.

As evident in Figure 4, the market perceived troubles in major international banks well before the Mexican government and private sector defaulted. After a period of dizzying rates of expansion, the rise of Mexican Stock Exchange stopped in 1979 and stagnated for the next two years, before finally busting in 1981.<sup>37</sup> During the late 1970s and early 1980s, Bancomer's, Banamex's and Banca Serfin's share prices coincided with the general trend observed in the stock market. However, in the spring

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<sup>33</sup> Nafinsa and Banco Nacional de Comercio Exterior bought into Intermex in 1978 buying 13 % of the shares each. For a description of development banking in Mexico and of the international activities of Nafinsa at that time, see Ramírez (1986).

<sup>34</sup> For instance, Manuel Espinosa Yglesias, President of Bancomer, had also been a Board Member at Banco de Mexico since 1977; Prudencio López Martínez, Alternate Member at Bancomer, was also an Alternate Member at Banco de Mexico and Nafinsa as well as General Director of Consejo Nacional de Fomento Educativo (Conafe); Finally, Bernardo Quintaja Arriola, President of the ICA Group, was also a Regional Counselor of Banamex and had served as a member of the management board of Banco de Mexico since 1977 (CIEN-A13/E-68/Agosto de 1982, pp. 22-3).

<sup>35</sup> In trouble since late 1981, when 2,000 highly ranked executives were laid off and some of the company's assets were put up for sale, on 21 April 1982, the group would inform its international creditors that it could no longer pay the principal on its US\$ 2.3 billion foreign debt. See "Mexico's Alfa Tightens Belt," *The New York Times*, 21 October 1981 and "The Debt Burden on Alfa of Mexico," *The New York Times*, 10 May 1982.

<sup>36</sup> See Gutierrez (1986).

<sup>37</sup> For the role of the Mexican stock exchange in the national economy and its relation with the commercial banking system during those years see Quijano (1987), pp. 182-99.



of 1980 - one year before the bust of the stock market - the share prices of these large international banks collapsed. By June 1980, in just six months, banks' stock prices had plummeted to almost half their January value. From there on, banks' share prices continued a downward trend until August 1982. The State took the stocks out of the market after the 1 September 1982 nationalization.<sup>38</sup>

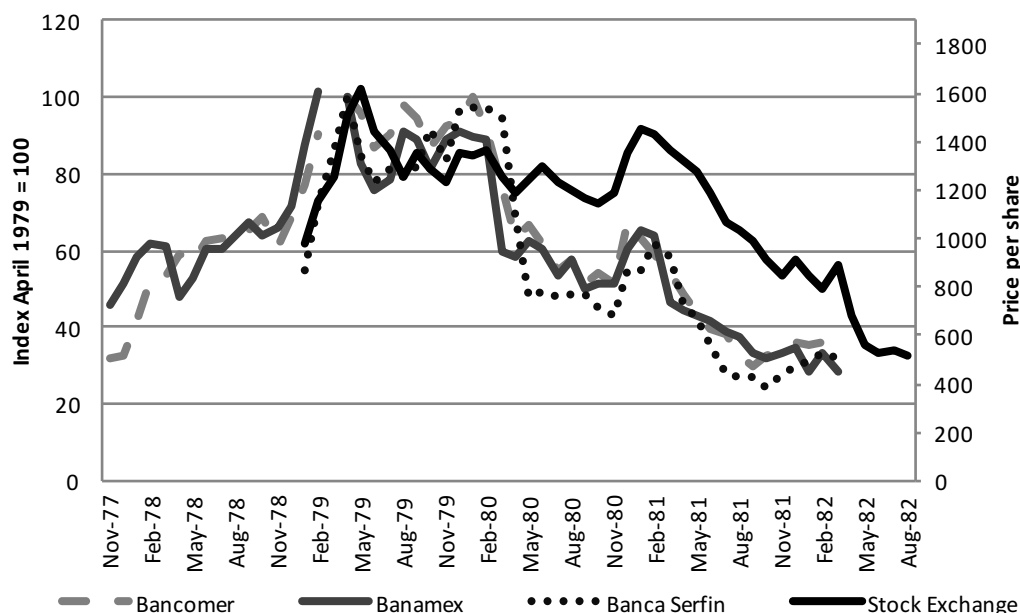


Figure 4. Monthly share prices for international banks and Mexican stock exchange, 1977-82

Source: *Anuario Financiero y Bursátil* (several issues).

At the international level, there were also early signs of Mexican banking fragility. Previous research has shown that the use of borrowed fund from other banks - in the form of interbank certificate of deposits, due bills, and rediscounts - is a forecast of bank distress and can thus be considered a forward-looking risk measurement (Calomiris and Carlson 2014, Calomiris and Mason 1997, White 1984).<sup>39</sup> Since these borrowed funds are not low-cost interbank lines, but short-term higher-interest funding or 'hot debt', bank recourse to this source of funds suggests greater level of risk. Figure 1 shows how much the U.S. agencies of Mexican funding relied on borrowed money as of mid-1982, a funding pattern that is confirmed by the past FFIEC 002 reports that those same agencies filed. Overall, from June 1980 to June 1982, borrowed funds had an average share of 48 and 50.8 per cent on Bancomer's and Banamex's total liabilities and as much as 57.4 and 60.3 per cent in Multibanco Comermex and Banca Serfin respectively, with peaks ranging from 70 to 84 per cent in some periods. It was, indeed, their most important source of funding during the period.

Mexican banks' agencies in the U.S. would encounter fundraising difficulties as the overall perception of country risk increased. More generally, as observed in Figure 5, September 1981 marked a turning point for the operations of foreign banks in the U.S. interbank market. After years of solid, rapid growth, foreign banking interbank liabilities due to U.S. banks fell in the fourth quarter of 1981, again in early 1982, and then stagnated. This meant that U.S. commercial banks, which

<sup>38</sup> Curiously, in late 1981 and the beginning of 1982, when Bancomer stock prices were at 35 % of their January 1980 value, under the mandate of Bancomer President Manuel Espinosa Yglesias, an offer was made to Citibank and to Bank of America to buy a majority of the shares and take control of the bank. The offer was finally declined (Carral 2010, pp. 128-30).

<sup>39</sup> Calomiris and Mason (1997, p. 874) observed that during the 1920s and 1930s, examiners of the Comptroller of the Currency used reliance on borrowed money as a clear indicator of banks having troubles.

were net providers of funding in the interbank market, not only failed to place any new interbank funds with foreign banks as a group, but also stopped renewing past credit lines and even withdrew deposits from them. However, whether the U.S. interbank credit crunch distressed the funding position of Mexican agencies, the final blow to their money market funding activities came with the onset of the debt crisis in August 1982. Figure 5 shows that during 1982, borrowed money liabilities fell progressively, until September, when they dropped to half the value they had held as late as the previous December. Federal Funds and banks acceptances, which were the agencies' second major source of funding, would virtually disappear among agencies' liabilities by the end of 1982.

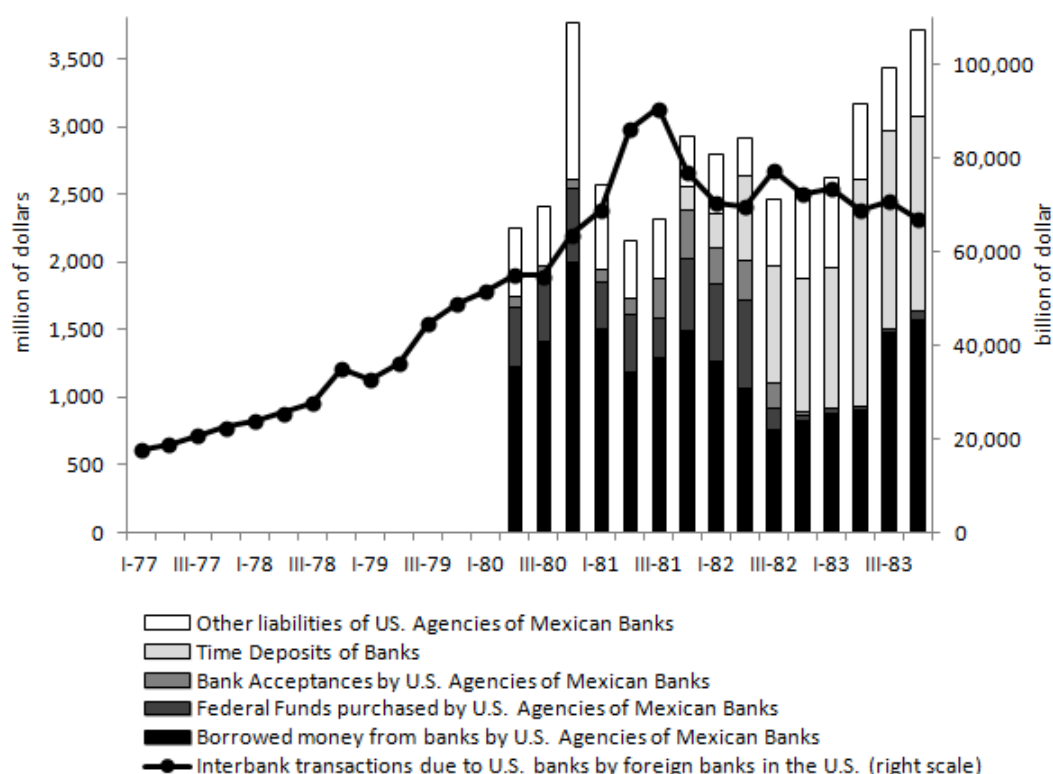


Figure 5. *Interbank transactions of foreign banking offices in the U.S.*

Source: U.S. Financial Account and FFIIC 002 Reports.

In this context, it did not take long for Mexican agencies, engaged in term transformation in their international businesses, to face grave liquidity problems when the debt crisis broke out. Deprived of their single most important source of immediate liquidity, interbank liabilities fell due more rapidly than mature assets became available. Lacking alternative funding sources, the agencies' financial position was seriously compromised. These agencies were not FDIC insured and unable to access the Federal Reserve's discount window facilities. Financial assistance from Mexico would also prove to be limited. At a time, Banco de Mexico was running out of foreign reserves and parent banks were experiencing difficulties in the reimbursement of dollar claims, home country financial institutions could thus not offer a definitive solution to U.S. agencies' dollar liquidity needs. After all, Mexican foreign agencies had been working as instruments of their head offices to raise dollars abroad and this arrangement could not work the other way around.

Agencies made up the shortfall in conventional funding by increasing recourse to time deposits from correspondent banks. In this respect, FFIIC 002 reports exhibit a change in the fundraising structure of Mexican agencies from 1982 (see Figure 5). While in 1980 and 1981, total deposits and credit

balances accounted for, on average 10 per cent of agencies' liabilities, by the end of 1982, they reached US\$ 1.008 billion. In 1983, total deposits and credit balances reached US\$ 1.46 billion, an amount that was up to 40 per cent of their total liabilities. Virtually all of these funds (over 98 per cent) consisted of timed deposits with six day terms - mainly in the form of open-account - with developed countries' banks in the U.S. or in foreign countries. FRBNY's internal documents and memorandums stress that Mexican agencies' representatives had been struggling to arrange credit lines with corresponding banks in the U.S. and Europe to ensure the availability of needed funds and avoid liquidity strains.<sup>40</sup>

The interbank market upheaval occurred both in the U.S. and also on a broader international level. As demonstrated by BIS (1983), the international interbank market was truly integrated, with substantial volumes of transactions between banks in the same centre, as well as cross-border transactions. Banks from developing countries also participated, whether located in major financial centres or in their home country. The policy of major banks from industrial countries placing and lending in the international interbank market was based on the creditworthiness of the borrower, which relied on a country risk analysis that looked at the nationality and location of the bank. Under this policy in such an integrated, international market, the BIS reported 'it might be, for example, that the market comes to regard all banks of a certain nationality (e.g. Mexican) with some suspicion, perceiving the interbank operations with them more risky and therefore want to reduce their involvement with them'.<sup>41</sup>

Indeed, an interbank run on Mexican banks would finally break out on Tuesday, 7 September 1982. Boughton (2001, p. 301) reports during that Black Tuesday, a panic began in the international wholesale markets and international banks refused to roll over lines of credits to Mexican banks on a massive scale. During that same day, officials of the Fed, the FRBNY and the Bank of England worked the telephones to persuade banks to maintain the level of interbank credits with them. He notes that a substantial part of a recently approved BIS bridge loan was used to repay some portion of outstanding claims and that the banks agreed to preserve the rest, thereby succeeding to stabilize the market without a default. From that point on, as addressed below, Mexican banks could only access the international interbank market and meet liquidity needs because of maintenance commitments that were part of Mexico's debt rescheduling and stand-by agreements.<sup>42</sup>

## VI

From the outbreak of the debt crisis in 1982 to the launching of the Brady plan in 1989, Mexico went through multiple reschedulings of its external debt. In total, there were four renegotiation rounds: each round led to a corresponding restructuring agreement between Mexico and its international creditors. The principles and the strategy underlying these agreements essentially consisted in rescheduling the existing debt and extending new lending facilities which were conditioned on the

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<sup>40</sup> See FRBNY Archives, Central Records, C261 - Mexican Government 1917-1984. Although there is no evidence on how the banks attracted these monies, it is likely possible that they offered depositors higher interest rates. Banamex New York agency's officials declared that by September 1984 'Mexican banks continue[d] to pay roughly 3/4 of 1 % over LIBOR on their interbank deposits'. FRBNY Archives, Box 142529, Mexico: Office Memorandum, September 18, 1984.

<sup>41</sup> BIS Archives, Box 1/3A(3)M Vol. 1., Study Group on the International Interbank Market: Policy Issues Paper, Draft of 25.11.82.

<sup>42</sup> Kraft (1984, pp. 25-27) provides second-hand evidence on the serious difficulties foreign agencies of Mexican banks were going through in the interbank markets after the moratorium declaration.

agreement to an IMF adjustment program.<sup>43</sup> A device associating new bank finance, IMF finance, and other government or multilateral finance was established by creditors to cover Mexico's financial needs. The arrangements reached between Mexico and its creditors aimed to conserve the country's much needed foreign exchange and allow Mexican banks to preserve their dollar funding base.

During debt renegotiations, Mexican banks' interbank funding was an issue of major concern. With their medium and long-term assets being restructured along with the country's other external debts, the banks' solvency position was under serious threat. Banks were forced to confront increasing difficulties in the renewal of short-term interbank credit lines that had been used to fund these loans. In fact, after the moratorium declaration, the Mexican government and the central bank stepped in to support banks in financial difficulties. Mexico's Public Credit Director and leading negotiator Angel Gurría expressed his serious concerns in a conversation with FRBNY officials about the critical financial position of the U.S. and London branches of Mexican banks. Gurría recounted that he had met with 140 bankers in Mexico City that day. He stated that he 'would point out as emphatically as he could that no bank had ever been allowed to fail in Mexico,<sup>44</sup> and that the Government and the Banco de México stood strongly behind the banks'.<sup>45</sup>

Despite their willingness, Mexican authorities lacked the financing required to assist the dollar funding needs of its banking sector.<sup>46</sup> In such a context, as pointed out by Gurría himself, the understanding and cooperation of creditor banks was crucial. He therefore urged 'not to create a problem by drawing down credit lines'.<sup>47</sup> Mexico's position was targeted for having international commercial banks keeping open funding lines and prevents interbank credit retrenchment and deposits withdrawals with Mexican banks' foreign agencies. In fact, unlike the bulk of the country's public external obligations, the Mexican government remained current on interbank foreign debt payments even after the moratorium declaration.<sup>48</sup> By not defaulting or rescheduling this debt, they expected that the interbank market would stay open and creditor banks would renew outstanding placement and provide new credit facilities to the banks.

The interbank issue was also important for Mexico's official creditors. In the U.S., several interviews were arranged by FRBNY officials with Mexican bankers and government authorities to discuss the situation of the US offices of the Mexican banks. The goal was to assess the real financial position of

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<sup>43</sup> In total, there were four renegotiation rounds: 1982-83, 1983-84, 1984-85 and 1986-87. See Negrete Cárdenas (forthcoming) for a description of the debt renegotiation process during this period.

<sup>44</sup> Up to that point, there had not been a bank failure since 1937.

<sup>45</sup> FRBNY Archives, Central Records, C261 - Mexican Government 1917-1984: Office Memorandum, August 30, 1982. A few days after this talk, on 1 Sep. 1982, the Mexican government nationalized the commercial banks, in what scholars have suggested could have been a mechanism to rescue a banking system on the brink of collapse (del Angel 2002, p. 229; Marichal 2011, p. 122). In this vein, Gurría stated that, although perhaps done for the wrong political reasons, the takeover was a way to solve the financial difficulties of banks that would otherwise have had to declare themselves insolvent. Source: Interview held on 9 July 2013.

<sup>46</sup> During the previously mentioned conversation, Gurría made clear to FRBNY officials that neither the Mexican government nor the Banco de México could deal with the banks' dollar needs on its own because, as he expressed, '[they were] a little short of cash'. FRBNY Archives, Central Records, C261 - Mexican Government 1917-1984: Office Memorandum, August 30, 1982.

<sup>47</sup> Ibid.

<sup>48</sup> With the 1 September 1982 nationalization, private commercial banks' foreign liabilities (as well as their assets) became the responsibility of the Mexican government. Other facilities that were excluded from the restructuring scheme and serviced when due were international organization's credits, bonds, private placements, leases, banker's acceptances and trade credits. See Gurría (1988), p. 77.

these agencies and discuss about how to deal with their dollar liquidity needs.<sup>49</sup> As for the IMF, the interbank element was not only necessary to secure the domestic banking system but also, more generally, to implement Mexico's stabilization program. In fact, Fund officials underlined that international commercial banks' roll-over operations could not be limited to medium and long-term debt but also needed to integrate 'the inter-bank element related to the euro-market operations of agency banks, which attract short-term euro-market deposits to re-lend to banks in their own countries at longer maturities'.<sup>50</sup> In Jacques de Larosière's words, 'it could undermine the rest of the rescheduling operation if the base of the iceberg (the large interbank element) were to dissolve'.<sup>51</sup>

A compromise was eventually reached as part of the first rescheduling agreement. To insure that the country's foreign bank agencies did not experience a large scale leakage of funding, outstanding interbank loans were frozen at the August 1982 pre-moratorium level. On one hand, with the implementation of the Mexican stabilization program providing the basis for an IMF money facility for Mexico, creditor banks responded to Mexico's request and agreed to 'maintain current exposure to foreign branches and agencies of Mexican banks, concurring in de Larosière's assessment that it was critical that all banks continue to do so'.<sup>52</sup> On the other hand, Mexico committed to make sufficient funds available to such agencies and branches to process market interest payments on their interbank account. In the end, with the restructuring loan documentation, creditor banks committed to not letting deposits fall below US\$ 5.2 billion until the end of 1986. In practice, interbank commitment agreements to keep deposits rolling over 90 days were renewed and then renewed again, whenever they were about to expire.

The US\$ 5.2 billion threshold commitment on interbank outstanding debt to Mexican banks' foreign agencies was to be maintained for ten years. Arguing that Mexican banks needed the interbank placements as a long term source of funding for their loans to Mexico governed by the restructure agreements, Mexican government officials asked for an extension of the covenant on two occasions. With the 1986-87 Financing Packages, the expiration date was extended to June 1989 and then again as part of the 1982-89 Financing Package of the Brady Plan, which set the final expiration date on 31 December 1992. The final market-oriented solution came in 1991 and consisted in exchanging the interbank deposits for a new instrument, the Floating Rate Privatization Note, which was a direct obligation of the United Mexican States and could be used to purchase shares of Mexican commercial banks under re-privatization.

## VII

Based on this analysis, a number of conclusions can be drawn that both shed new light on the 1982 Mexican crisis and also have wider implications for the Latin American and international debt crisis of the 1980s. It is revealing that in the years preceding the country's default, leading domestic banks became heavily involved in the international financial system and relied, to a large extent, on foreign interbank borrowing to fund their dollar loans.

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<sup>49</sup> Several documents and internal reports were prepared by the staff of the FRBNY regarding how to proceed in the case of default by an agency. See, in particular, FRBNY Archives, Central Records, C261 - Mexican Government 1917-1984: Office Memorandum Attachment D, August 30, 1982

<sup>50</sup> IMF Archives, OMDF Jacques de Larosière's chronological files, Box 3, File 4: Office Correspondance, December 20, 1983.

<sup>51</sup> Ibid.

<sup>52</sup> FBRNY Archive, Central Records, BAC 1982: Office Memorandum, November 18, 1982.

A major finding of this study is that in running their international businesses, Mexican bank's foreign agencies accumulated significant maturity and interest rate imbalances. By the time of the crisis, although many of their foreign liabilities consisted of very short-term interbank deposits, the bulk of their dollar denominated assets had much longer maturities. Furthermore, while these interbank credit lines had been set at floating rates, a significant part of the loans were arranged at predetermined fixed rates. Additionally, while balance sheets did not register currency mismatches - their dollar liabilities were from foreigner debtors and their dollar claims were mainly with Mexican debtors running their businesses largely in pesos - they were still indirectly exposed to the risk of an eventual currency crisis.

Important questions remain: How could Mexican banks have possibly increased their risk position to such dangerous levels? Who was responsible? Although beyond the scope of this study, it is difficult to believe that such evident and clumsy mismanagement would have gone unnoticed to financial regulators and to the country's most seasoned bankers. The reasons why banks engaged in foreign lending and took such risky position in such a tenuous environment must go well beyond their individual initiative and, perhaps, be part of broader scheme that included the government, as well as the public and non-banking private sectors, in a time of great need for financing. The crucial question of the interplay between domestic banks and policymakers in the international banking setting and external indebtedness during the 1970s has not yet been addressed in the literature and deserves further investigation.

A final issue that this study raises is with respect to our understanding of the international debt crisis of the 1980s. The existing literature, in overlooking the involvement of domestic banks in the petrodollar recycling process of the 1970s, has implicitly assumed that debtor countries' banking sector did not play an important part in the making of the crisis. However, there is no reason to think that my story about Mexican banks represents a pattern that is exclusive to this example. To the contrary, banking institutions from other large Latin American borrowers, such as Brazil and Argentina, were also considerably engaged with foreign finance through a similar business model. Therefore, in considering the participation of commercial banks from borrowing countries in international capital markets, a main implication is that the origins of the debt crisis should be revised and reconsidered.

The fact that interbank deposits from foreign banks with the overseas agencies and branches of Mexican commercial banks had to be frozen at pre-moratorium levels for almost ten years is a clear sign of their financial weakness and critical dependence on foreign finance. Similar interbank arrangements were also undertaken during debt renegotiations and rescheduling agreements in Brazil and Argentina. This finding suggests that further work still needs to be done to understand the link between sovereign and domestic banks during the Latin American debt crisis of the 1980s. As can be currently observed in many peripheral European countries, banks' heavy reliance on foreign interbank funding has not only played a crucial role in explaining the vulnerability of their banking sectors, but in the sovereign debt crisis as well. In turn, difficulties faced by governments have put further pressure on banks' foreign interbank funding possibilities, exacerbating banking and sovereign debt problems.

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