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# USES OF THE PAST IN INTERNATIONAL ECONOMIC RELATIONS

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## **INTERNATIONAL MONEY MARKETS, LIQUIDITY RISK AND FINANCIAL COOPERATION IN THE WAKE OF THE LATIN AMERICAN DEBT CRISIS OF 1982**

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## Abstract

Failures in the international money markets and their systemic implications have attracted a great deal of attention in the wake of the recent global financial crisis. Liquidity problems in the interbank funding markets are not a new phenomenon, and they have indeed played a crucial role during past episodes of international financial distress and banking crises. This article explores the situation of the Eurocurrency wholesale market at the time of the Latin American debt crisis of 1982. Despite its massive size and central role within the Euromarkets, the international interbank market has eluded serious scholarly attention in the literature on international finance in the 1970s and 1980s. This article shows that major liquidity strains emerged after the outbreak of the crisis and damaged the financial and solvency positions of some interbank market participants, notably Latin American banks. As a result, potential market disruption and systemic risk for the international banking system became a major concern for G10 countries' financial authorities. The stabilization of the market involved an international cooperative effort from central bankers along with creditor banks that built on the experience and discussions that followed the problems confronted during the banking failures of the mid-1970s.

## Introduction

The management of money market liquidity in times of financial distress has recently attracted a great deal of attention from both policymakers and scholars. Their interest has been prompted largely by the inability of a great number of financial institutions to roll over or obtain new short-term funding during the recent global financial crisis. The freezing of the interbank, foreign currency swap, and money markets required massive lender of last resort assistance, cross-border coordination, and adjustment to central bank liquidity operations to stabilize the financial system and restore normal market operations.<sup>1</sup>

Funding liquidity problems and central bank intervention were, indeed, salient features of the international financial crisis that began in 2007. The heavy use of international wholesale funding by banks, which was one of the defining characteristics of the crisis, was an important source of vulnerability and a main factor behind the systemic liquidity crunch that followed the failure of Lehman Brothers in late 2008. Moreover, the scope and extent of cross-border interbank activity created financial linkages through which problems in one country spilled over to other countries' banking systems. Money markets and international spillover effects were at the base of the Northern Rock bank situation in the aftermath of the U.S. subprime mortgage crisis, as well as of the problems confronted by major Irish and Icelandic banks in the wake of their domestic banking crisis.<sup>2</sup> The systemic and international nature of the banks' problems necessitated coordinated action among central bankers and finance ministries to ensure liquidity and secure both their national and global financial systems.<sup>3</sup>

The current problems in funding markets are, however, not unlike those observed in past episodes of international financial distress as economic and financial historians have shown. Bignon, Flandreau, and Ugolini (2009), for instance, explain that in nineteenth-century Britain crises in money markets that threatened the British economy with financial collapse and dislocation were recurrent, and, in many cases, forced the intervention of the Bank of England to secure market liquidity.<sup>4</sup> Furthermore, at times of major global financial distress as in the panics of 1890 and 1907, cooperation and coordinated policy actions between central banks from major industrial countries was required in order to prevent the spread of the problems across borders and stabilize the international banking system.<sup>5</sup> During the wake of the sterling crisis of 1931, as Accominotti (2012) demonstrates, the freeze of Central European assets created a liquidity crisis for London merchant banks and was transmitted to Britain through the mutual interbank claims that London banks had with their German counterparts. This article extends the economic and financial history literature on international money market transactions and liquidity strains during financial crises into the postwar period.

The article focuses on the problems of the international interbank market in connection with the Latin American debt crisis of 1982, the largest global financial crisis since the Great Depression. Between 1973 and 1982, as the Euromarkets and international lending grew, interbank market operations came to play a much larger and central role in international financial intermediation. During this period the market

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<sup>1</sup> IMF (2010), Chapter 2, pp. 57-83.

<sup>2</sup> See Goldsmith-Pinkham and Yorulmazer (2010) for an analysis of the Northern Rock case, and Honohan, Donovan, Gorecki, and Mottiar (2010) and Special Investigation Commission (2010) for the Irish and Icelandic banking crises respectively.

<sup>3</sup> Bayoumi, Pickford, and Subacchi (2016) and Drezner (2014), pp. 43-47.

<sup>4</sup> Bignon, Flandreau, and Ugolini (2009), p. 580.

<sup>5</sup> See Bordo and Schenk (2016).

passed from encompassing some hundred banks from developed countries to over one thousand financial institutions from fifty different countries all over the world.<sup>6</sup> By 1982, the interbank market had grown to an extremely large size with commercial banks from the Group of Ten (G10) reporting to the Bank of International Settlement (BIS) foreign claims on other banks of about U\$S 1.2 trillion. These foreign interbank positions represented up to three-quarters of the international claims of the BIS reporting banks and as much as 60 percent of the market size.<sup>7</sup> The interbank market was a truly international one, and involved not only a substantial volume of cross-border operations, but also large transactions among banks within the same marketplace, mainly in London and New York, the two major international financial centers at the time.

Despite its central function in the international banking system and the significance of its scale and scope, the interbank market has eluded serious attention in the literature on the Euromarkets and international finance in the 1970s and 1980s. Reference to problems in the interbank market can be found, however, in the research dealing with the banking crisis of the mid-1970s, and in particular the Herstatt bank failure in June 1974.<sup>8</sup> The collapse of the Herstatt bank, a relatively small German institution heavily involved in foreign exchange operations with U.S. and European counterparts, prompted a sharp increase in the Eurodollar market interest rate, a reduction in interbank placement to all but the largest banks and a broader contraction in international banking activity.<sup>9</sup> The crisis showed how the international interbank market could transform the problems of a minor bank into a threat to the stability of the entire system, forcing central banks to intervene in order to avoid a liquidity crisis and prevent more banks from failing.<sup>10</sup>

In a similar fashion, the Latin American debt crisis in 1982 represented a major shock to the international interbank markets and required the intervention of financial authorities.<sup>11</sup> With the moratorium declaration of the Mexican government in August 1982, the overseas offices of Mexican banks in London and New York, as well of other Latin American defaulting countries such as Brazil and Argentina, experienced increasing difficulties rolling over foreign deposits and faced progressive drains on interbank funding. Keen to reduce their exposure, both large and small international creditor banks cut down deposit lines with banking institutions from troubled countries, which put growing pressure on their liquidity position. In this article I show the extent to which the inability of Mexican and Latin American banks to fund interbank liabilities in the market was a serious threat and a source of major concern for financial authorities. I explain how, although with systemic implications of much greater potential magnitude than Herstatt, market stability was secured through a cooperative and coordinated effort of central banks from industrial and debtor countries along with international creditor banks and multilateral organizations. My analysis is largely based on Bank of England archives, in particular the apocalypse now and task force collections. These files contain records with discussions on the possible

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<sup>6</sup> Giddy (1981).

<sup>7</sup> BIS Archives and *International Banking Developments*.

<sup>8</sup> Other important banking meltdowns included the failure of the Franklin National Bank and Continental Illinois and the secondary banking crisis in the UK See Schenk (2014) for an account of the banking failures of 1974 and Murlon-Druol (2015) for an analysis of the Herstatt case.

<sup>9</sup> Busch (2012).

<sup>10</sup> The Bank of England, for instance, offered support through the Discount Window to banks encountering liquidity problems in the wholesale market. See Capie (2012), pp. 556-64. See also BIS, *Forty-fifth Annual Report, 1974-1975*, pp. 36, 133-135.

<sup>11</sup> Guttentag and Herring (1985).

consequences of a default by a major debtor country for the Eurocurrency interbank market and the situation of Latin American banks in the wake of the crisis respectively. I also draw on the financial press and historical statistics from the Bank of England Quarterly Bulletin as well as documents from the archives of the Federal Reserve Bank of New York (FRBNY).

The rest of the article is organized as follows. The next section reviews the economics of illiquidity and the systemic risk underlying international interbank markets operations. Section Three presents the historical setting and describes the working and development of the Eurocurrency interbank market during the 1970s. Section Four discusses the problems the international money market encountered in the wake of the Latin American debt crisis of 1982. Section Five analyses the policy responses and the lender of last resort measures undertaken to stabilize the market and avoid banking failures. Last section concludes.

### **The economics of illiquidity and systemic risk**

A main reason why scholars and policymakers have paid attention to funding liquidity and interbank market transactions is due to the underlying systemic risk they create. In its most general sense, as understood in the economic literature, "systemic risk refers to the propagation of an agent's economic distress to other agents linked to that agent through financial transactions."<sup>12</sup> In the particular case of the banking sector, a large network of financial contracts arises from the operations that banks undertake with each other in the payment system and through the interbank market. To the extent that banks are financially interconnected through a chain of mutual claims and obligations, any problem that one institution encounters in fulfilling a contractual commitment with a counterpart could spill over and propagate through the banking system, becoming a source of contagion that may ultimately end up into a full-fledged financial crisis as described in Allen and Gale (2000).

Systemic risk becomes a concern in cases of major financial market disruptions or liquidity crises. Since financial liquidity plays a central role in bank intermediation, it is also a fundamental pillar on which the stability of the banking system stands. To generate cash and manage unexpected financial needs without loss, banks commonly rely on *funding liquidity*, especially by borrowing in the money markets, or *market liquidity* by selling securities to raise money or using them as collateral in their borrowing operations.<sup>13</sup> Hence, a contraction in the wholesale market or a decline in the market liquidity of banks' securities can create funding difficulties at institutions that depend on those instruments to meet their obligations. Both funding and market liquidity could precipitate an adverse feedback loop, as observed in the recent global financial meltdown, and have the potential to trigger bankruptcy and bank failures.<sup>14</sup> In such circumstances, central bank intervention would most likely be needed to cope with contagion or domino effects and prevent the outbreak of systemic crisis.

A fundamental issue for economists has been, therefore, to explain what causes market breakdowns and liquidity crises. The occurrence of breakdowns as possible market outcomes was first formalized by

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<sup>12</sup> Rochet and Tirole (1996), p. 733.

<sup>13</sup> See Tirole (2011), pp. 288-290 and Brunnermeier (2009), pp. 91-92.

<sup>14</sup> On the interaction of both types of liquidity see Brunnermeier and Pedersen (2009).

George A. Akerlof in 1970.<sup>15</sup> He demonstrates how information asymmetries among market participants can lead to market failure and transform an efficient, well-functioning and highly liquid market into a trade-less one. A number of theoretical and empirical papers have built on Akerlof's idea and applied his insights to financial markets, particularly in relation to the functioning of asset and money markets. As a result, the explanations of liquidity crisis, and of contagion in times of financial stress, advanced in the economic and finance literature owe a lot to the role of adverse selection in the funding markets and the way information affects market reactions through shocks or bad news about a particular bank or group of financial institution.

Motivated by the recent global crisis, Acharya, Gale and Yorulmazer (2011) study wholesale market reactions in a framework where banks finance long term asset with short-term rollover debt. They show that, either because of the arrival of bad news about a borrowing bank or a change in the maturity preferences of lender banks, a market freeze may result when the duration of interbank funding comes to be reduced. A shortening of maturities requires the borrowing bank to roll over its funding on a more frequent basis, which increases its vulnerability to an eventual decline in market liquidity and, thereby, make it more prone to fail. Brunnermeier, Gorton and Krishnamurthy (2014) stress the role of balance-sheet mismatches as well but they focus on liquidity imbalances rather than the maturity transformation underlying the assets and liabilities positions of borrowing banks. As they put it, "holding thirty-year Treasury bonds financed overnight involves an extreme maturity mismatch, but the liquidity mismatch of such a position is limited as US Treasuries typically appreciate in times of crisis."<sup>16</sup> Thus, the proclivity of a funding market to a freeze depend on the maturity structure of banks' balance sheet and the type of claims they hold, in particular the liquidity of assets financed with short-term debt in times of distressed market conditions. Banks that are more dependent on short-term debt markets for funding and with worst liquidity position are likely to be the most affected ones, but their problems may impair the liquidity or solvency position of other banks that have lent to them.

One of the channels considered by economists to explain how problems in one bank are transmitted to other banks, and potentially lead to a drying up of liquidity, is counterparty risk. To the extent that interbank market transactions usually take place over-the-counter and determine a complex network of cross exposures, banks' assessments of the health of their counterparts is imperfect and, moreover, tend to get worse at times of financial distress. Caballero and Simsek (2013) model a situation whereby a run in financial markets emerges because of the increasing difficulties that banks confront in processing information about their counterparts in times of deteriorating market conditions. Knowing that any bank in the system could be indebted to any other and incapable of determining the extent of each bank's exposure, lending banks could panic and trigger a generalize withdrawal of wholesale funding lines. This work aligns with a broader group of papers that shows how growing uncertainty and the worsening of information asymmetries during crises increases concerns about counterparty risk that can ultimately make both secured and unsecured interbank lending stop altogether.<sup>17</sup> Furthermore, Bruche and Suarez (2010) demonstrate that freezes in interbank money markets due to counterparty risk may occur even in the absence of information asymmetries when banks benefit from deposit insurance coverage. In their model, as the risk of bank failure becomes significant, the banks with small retail deposit bases can

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<sup>15</sup> Akerlof (1970).

<sup>16</sup> Brunnermeier, Gorton and Krishnamurthy (2014), p. 101.

<sup>17</sup> See, for instance, Flannery (1996), Freixas and Jorge (2008), and Heider, Hoerova and Holthausen (2015).

continue to fund themselves in the wholesale market only by paying higher interest premia, which increases counterparty risk up to the point when interbank trade fully vanishes.

In addition to maturity mismatch and counterparty risk, economists have also emphasized the role of liquidity hoarding in interbank lending disruptions. Acharya and Skeie (2011) argue that the rise in spread, the collapse in maturities and the contraction in the interbank market observed during the recent crisis is at least partly attributable to the lending bankers' decision to hoard costly liquidity instead of supplying it to the market. They explain that the reluctance of banks to provide interbank lending may be not only the result of increases in the perceived riskiness of other banks but also of features of lending banks' rollover operations. In anticipating future expected losses or difficulties in renewing short-term debt, banks may build up their cash positions for self-protection thereby reducing market liquidity.<sup>18</sup> Similar problems would arise if liquidity hoarding behavior is motivated by predatory instead of precautionary reasons as advanced by Holmström and Tirole (2011). Acharya, Gromb and Yorulmazer (2012) provide current and historical evidence of rent seeking behavior by large banks with excess liquidity that use their market power in interbank lending to benefit from the fire sale of assets from banks in desperate need of funds to increase market share at their expense. Lending less, and more expensively at shorter maturities, aggravates the funding risk of distressed borrowing banks, and could potentially trigger a flight to quality or a complete freeze of liquidity transfers in the interbank and money markets.<sup>19</sup>

Other important issues in interbank lending that have been considered by economists include central banks' supervisory and lender-of-last resort functions. Because interbank operations are imbedded in a legal and institutional setting, the reaction of lending banks is also dependent on, and shaped by, the wider financial environment and regulatory framework. As Jack Guttentag and Richard Herring observe, market freeze or "runs on banks directly affected by shocks, especially spillovers to other banks, are less likely when overall capital positions are strong, interest rates are stable, and confidence in bank supervisory authorities and lender-of-last-resort arrangements is high."<sup>20</sup> In fact, the recent literature on the failures of interbank markets during crises suggests the need for central bank intervention to correct the afore-mentioned inefficiencies and dealt with wholesale funding tensions for securing the stability of the financial and banking system.<sup>21</sup> In this regard, much of the debate is about the way central banks should provide financial assistance and perform its lender-of-last-resort functions, as well as the policy and supervisory tools they should use, to diminish the likelihood of market breakdowns and liquidity crises.

The analysis of the situation of the interbank market during the wake of the 1982 Latin American debt crisis that I develop in the following sections is framed and shaped by the questions and analytic tools discussed above. To assess the systemic risk underlying the Euromarkets, and international banking system more generally, I first look at the size, scope and nature of interbank transitions within the Eurocurrency market. I then evaluate the vulnerabilities these operations created, and the propensity for breakdowns or liquidity crises, by examining the extent of maturity transformation performed by leading interbank market participants, as well as the reaction of the market to the shock of the Mexican default and the outbreak of the crisis. Finally, I discuss how uncertainty about lender of last resort

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<sup>18</sup> Other works on precautionary hoarding include Acharya and Merrouche (2013) and Gale and Yorulmazer (2013).

<sup>19</sup> See Caballero and Krishnamurthy (2008) and Allen, Carletti, and Gale (2009) respectively.

<sup>20</sup> Guttentag and Herring (1985), p. 22.

<sup>21</sup> See, for instance, Acharya et al. (2012), Allen et al. (2009) and Freixas and Jorge (2008).

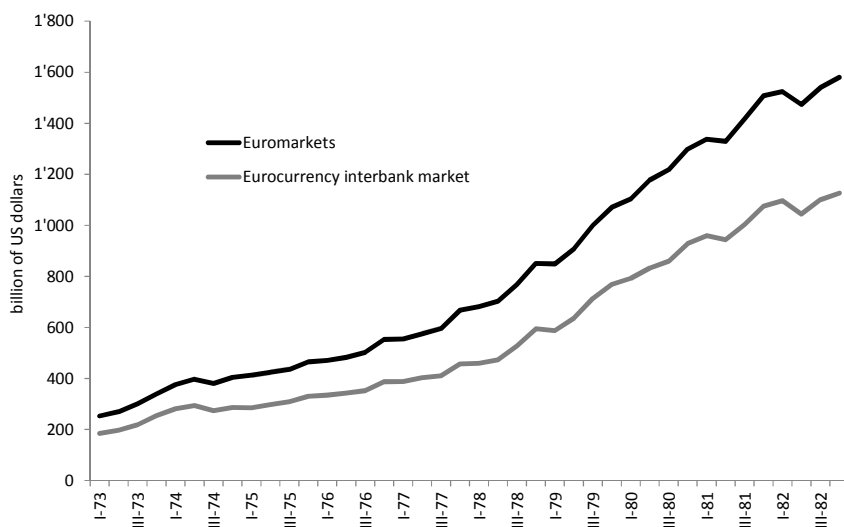


functions in the Eurocurrency wholesale market exacerbated funding and counterparty risk, eventually forcing the coordinated intervention of G10 central banks to secure the repayment of interbank obligations by institutions under liquidity pressures, and thereby prevent market disruption and a potential systemic liquidity crisis.

**Eurocurrency and interbank market operations during the 1970s-1980s**

To understand wholesale liquidity problems in the 1970s and 1980s, I began with a discussion of the characteristics of the Eurocurrency markets and their implication for the banking sector. Money market operations in Europe, as in the United States, were shaped by the expansion of international finance and the Euromarkets, which was the major feature of the international banking system during this period. Within the Euromarkets, banks were not limited to dealing in single currency in their national market place as they used to, but could accept deposits and make loans in a number of currencies of other countries and operate at home or from abroad. The variety of borrowing and lending operations that they undertook ranged from buying overnight Eurodollars or issuing negotiable longer-term Euro-CDs to take out syndicated loans and floating Eurobonds depending on the size and reputation of the bank.<sup>22</sup> Based on a large integrated network of international banking offices and correspondent bank relations, the Euromarket functioned as "24-hour-a-day financial supermarket which provide[d] banks and other customer with instant access to all the world's major currencies and money markets."<sup>23</sup>

**Figure 1. Euromarket and Eurocurrency interbank markets, 1973-1982**



Source: BIS International Banking Statistics and Bank of England.

Euromarket operations consisted, to a considerable extent, of transactions between banks themselves. As reported by the Bank of England, the institution under whose jurisdiction most of these activities took

<sup>22</sup> Certificates of deposits and Bonds denominated in Eurodollars.

<sup>23</sup> Moffitt (1984), p. 65.

place, "interbank transactions [were] the most frequent form of trading in the Euromarket."<sup>24</sup> Figure 1 shows the evolution of the Euromarkets, namely external and local positions in foreign currency of BIS reporting banks, along with its interbank component. Interbank activity increased from less than US\$ 200 billion in 1973 to over US\$ 1 trillion by 1982, accounting for between two-thirds and three-quarters of the Euromarkets during the entire period. These figures include cross-border Eurocurrency transactions between unrelated banks and offices of the same banks – so-called "inter-office" business – in different financial centers, as well as within the same financial center of which London was the epicenter. The large size of the Eurocurrency interbank market makes the Euromarket look essentially like an international wholesale money market, where banks could access dollars, sterling, marks, francs, and any other currencies around to conduct their local and offshore businesses.

One important aspect of the Eurocurrency market concerns interbank foreign-exchange transacting. As Catherine Schenk (1998) demonstrates, foreign exchange deals were at the very origin of the Eurodollar market. She shows how in the mid-1950s the Midland Bank, arbitraging between different interest rates, took deposits in dollars, exchanged them in the spot market and bought them back forward as a way to obtain sterling in a context of falling deposits in the local currency. Conversely, the dollar operations that the banks undertook on the forward market had implications on the future foreign exchange position of their balance sheet, which they would normally restore by trading dollars on the interbank spot market and arranging an interbank placement with a maturity that matched the forward transaction.<sup>25</sup> With the end of Bretton Woods in the early 1970s and the advent of flexible exchange rates, commercial banks came to increasingly deal with forward hedging or covering operations and managing their foreign exchange positions by trading with each other in the Eurocurrency interbank market.<sup>26</sup>

Interbank transactions were also important with regard to the international bank loans within the Eurocurrency system. The market was a natural channel whereby banks with deposit holdings that exceeded their requirements could transfer funds to institutions whose liquidity levels were too low to meet their needs. Banks relied on the interbank money market for adjusting their funding and securing their short-term liquidity positions, but they also used it as source of resources to meet lending opportunities that could not be afforded with their own retail deposits. To the extent that liquidity was available at a price (LIBOR plus a premium), banks could borrow in the Eurocurrency market to fund domestic and international credits to corporations, governments and other customers. The depth and breadth of the large interbank market, as Michel Moffitt has ironically put it, "allow[ed] a Eurobank to put a borrower on hold while obtaining the funds to lend him on the other line."<sup>27</sup> In effect, the business model of some London-based banking institutions, notably Consortium banks – or Eurobanks – and the branches and agencies of foreign banks, consisted essentially in making international loan commitments that they financed with money taken from the Eurocurrency interbank market.

A significant degree of maturity transformation built up along the interbank chain as a result of these operations. A bank could, for example, issue a six-month Eurodollar-CD and make a deposit with another

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<sup>24</sup> "Eurobanks and the inter-bank market," Bank of England Quarterly Bulletin: September 1981, p. 352.

<sup>25</sup> See van Roij (1989), p. 109-112. Herring and Marston (1976) argue that the foreign exchange markets and the Eurocurrency market should be analyzed as one integrated market and shows how Eurocurrency transactions can be substituted for foreign exchange transaction.

<sup>26</sup> See McKinnon (1977).

<sup>27</sup> Moffitt (1984), p. 70.

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bank with three-month maturity, which, in turn, may use this money for lending to a final borrower for ten years on a three-month rollover basis. Table 1 examines the net position and balance sheet maturity composition of London-based Consortium banks. With about four fifths of their foreign liabilities due to other banking institutions, these banks were leading players in the interbank market and largely dependent on Eurocurrency liquidity for conducting their businesses. The figures show that Consortium banks were net borrowers from the UK interbank market and banks abroad, and net lenders to non-bank UK residents and non-residents. Column-total values exhibit the extent of maturity transformation they carried out, and how borrowing with maturities of less than one year and lending at maturities of more than one year substantially increased between 1973 and 1982.

**Table 1. Net positions of Consortium banks in London**

*Millions of dollars*

Sector \ Maturity breakdown	1973					1982				
	< 1 month	1-12 months	1-3 years	> 3 years	Total Sector	< 1 month	1-12 months	1-3 years	> 3 years	Total Sector
UK interbank market	-257	-1'132	-34	5	-1'419	-2'063	-8'577	333	340	-9'968
Other UK residents	15	130	132	221	497	-158	30	54	210	137
Banks abroad	-669	-1'815	44	-20	-2'460	-3'570	-4'132	1'687	2'438	-3'577
Other non-residents	262	1'073	821	1'370	3'526	-1'146	1'841	4'216	8'265	13'176
Net CD & CP held*	397	804	-475	-809	-83	86	68	61	61	277
<b>Total</b>	<b>-252</b>	<b>-941</b>	<b>488</b>	<b>767</b>	<b>61</b>	<b>-6'851</b>	<b>-10'770</b>	<b>6'351</b>	<b>11'314</b>	<b>44</b>

\* Net certificates of deposits issues and commercial paper held.

Note: The net position is computed as a difference between assets and liabilities. Negative figures denotes net liabilities; positive figures denote net claims.

Source: *Bank of England's Quarterly Bulletin*.

A similar situation can be also observed for the London agencies and branches of Latin American banks. Table 2 display both the gross and net balance sheet position of Brazilian, Mexican and Argentine banking offices, and underlines the importance of interbank operations that is misrepresented by the net figures in Table 1. As of June 1982, liabilities to other banks in the UK and abroad represented as much as 74.3 and 65.1 per cent of total liabilities of Mexican and Brazilian agencies respectively (52.1 per cent for Argentines), which makes clear the wholesale nature of their funding structure. In contrast, claims were largely concentrated on non-bank borrowers and their own banking offices abroad. As a matter of fact, as Alvarez (2015) has shown for the case of Mexican banks, these agencies were borrowing very short-term in the interbank market and lending a much longer terms back home, and incurring considerable maturity transformation. Although with different asset and liability structures and business models, Eurocurrency interbank transactions weighted also heavily in the books of the rest of the banks operating in London.<sup>28</sup>

<sup>28</sup> In 1981, interbank liabilities accounted for 45 per cent of the foreign liabilities of American banks and as much as 58, 65 and 69 per cent of British's, Japanese's and other overseas banks' respectively.

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**Table 2. Branches and agencies of Latin American banks in London**

*End-June 1982, millions of dollars*

	Brazil			Mexico			Argentina*		
	Assets (1)	Liabilities (2)	Net Position (1)-(2)	Assets (1)	Liabilities (2)	Net Position (1)-(2)	Assets (1)	Liabilities (2)	Net Position (1)-(2)
Banks	3,921	4,520	-599	1,068	1,824	-756	1,308	750	558
In the UK	404	1,435	-1,031	260	1,147	-887	350	194	156
Outside the UK	570	1,938	-1,368	331	429	-98	176	498	-322
Own offices abroad	2,947	1,147	1,800	477	248	229	782	58	724
Non-Banks	1,083	369	714	984	52	932			
In the UK	90	40	50	0	0	0			
Outside the UK	993	329	664	984	52	932			
Other	178	292	-114	70	246	-176	20	578	-558
Negotiable papers	4	199	-195	3	243	-240	0	555	-555
Other	174	93	81	67	3	64	20	23	-3
<b>Total</b>	<b>5,182</b>	<b>5,181</b>	<b>0</b>	<b>2,122</b>	<b>2,122</b>	<b>0</b>	<b>1,328</b>	<b>1,328</b>	<b>0</b>

\* Data for End-March 1982

Source: Bank of England's archives.

The reliance of banks on interbank short-term funding along with their liquidity mismatch made them more vulnerable to shocks or shifts in market conditions. During normal times, when interbank liabilities came due, the banks would usually call the creditor banks to roll over their debts, either by renewing the deposit directly with them, or by borrowing from some other bank and refunding the first. However, as tensions in the interbank market emerged and credit lines deteriorated because of a shock or adverse events, funding risk became significant and the financial position of the banks seriously compromised. Their solvency depended on the ability to place new liabilities at least equal to the amount by which maturing liabilities exceeding maturing and readily salable assets, as well as on the access to lender of last resort financial assistance. Given the high volume, the uncollateralized nature, and the cumulative structure of these Eurocurrency interbank transactions, the potential systemic risk resulting from a payment disruption of a particular bank was considerable.

Interbank market operations were indeed at the heart of liquidity strains and banking failures in the mid-1970s, of which the Herstatt crisis of 1974 is the most prominent case. On June 26, 1974, the Bankhaus I. D. Herstatt, a relatively minor German banking institution, collapsed because of losses arising from short positions - mainly against U.S. dollar - in forward operations with short-term maturity schedules.<sup>29</sup> The bank was heavily engaged in interbank foreign currency trading and its failure affected international creditor banks, especially in New York and London, which had outstanding deposits and forward foreign-exchange contracts with Herstatt.<sup>30</sup> Lack of information about bank exposure and counterparty risk led

<sup>29</sup> Schenk (2014).

<sup>30</sup> Murlon-Druol (2015), pp. 326-8.

to a chain reaction across financial centres that provoked "withdrawals from commercial banks in Germany, a sharp increase in Eurodollar market interest rates, and a contraction in international banking activities as banks around the world repatriated their assets."<sup>31</sup> At an international level, the external and local interbank positions in foreign currency of BIS reporting banks dropped by 7 per cent in the third quarter of 1974, marking an inflection point in the evolution of the Eurocurrency market during the 1970s (see Figure 2).

The freeze in the interbank market prompted central bank intervention to cope with the underlying systemic risk. In Germany, the Bundesbank performed its function as lender of last resort by extending rediscount and Lombard lending facilities,<sup>32</sup> thereby making liquidity available to banks suffering from funding pressures.<sup>33</sup> The Bank of England was also approached by financial institutions explaining their increasing difficulties in raising money in the international currency markets after the Herstatt failure. The failure, along with the Israel-British Bank of Tel Aviv and foreign-exchange losses suffered by the Lugano Branch of Lloyds Bank International, generated strains in the UK interbank market. The Bank's response was to offer financial assistance through its Discount Office to banks encountering liquidity problems. In the U.S., the Clearing House Interbank Payment System (CHIPS), which was the dominant international settlement system in U.S. dollars, was suspended because of fears of further collapses. Although to a lesser extent, similar interbank market problems and cross-jurisdictional effects have also taken place during the secondary banking crisis in the UK in 1973-75 and the failure of the Franklin National Bank in the U.S. in 1974.<sup>34</sup>

### **The Latin American debt crisis and the foreign agencies issue**

The Latin American debt crisis of 1982 represented a new shock to the international interbank market after the Herstatt affair in 1974. Defaults by major international debtor countries, such as Mexico, Brazil and Argentina, put the financial and solvency position of banks that had lent to them in serious jeopardy. Numerous commercial banks from G10 countries, as well as from a number of emerging economies, had outstanding claims on troubled countries that weighed heavily in their loan portfolio and represented several times their capital base; they were, therefore, dangerously exposed to the crisis. Given the far-reaching interconnection among banks through mutual claims and obligations, and the extent of maturity transformations performed along the chain of interbank transactions, fears about insolvency raised liquidity strains and prompted a contraction in the Eurocurrency money market within and across financial centers.

As Figure 2 shows, Eurocurrency interbank positions of BIS reporting banks grew, at increasing rates, following a temporary freeze on interbank trading levels in the aftermath of the Herstatt crisis. However, they slowed down progressively from the early 1980s onward. In the months that followed the Mexican default, the Eurocurrency market virtually stagnated and reached the lowest growth rates since 1975. By November 1982, BIS official Alexandre Lamfalussy reported to the Eurocurrency standing committee "a

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<sup>31</sup> Schenk (2014), p. 1136.

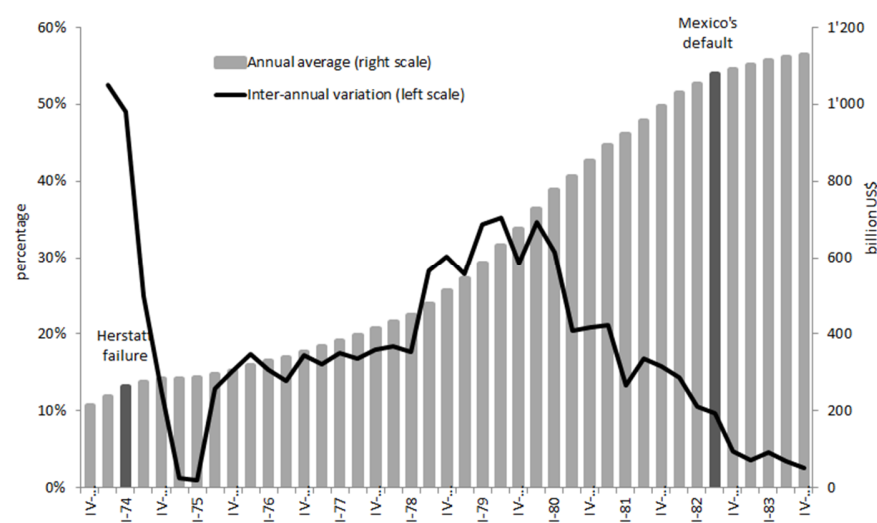
<sup>32</sup> A Lombard loan is the granting of credit by financial institutions against pledged collateral, namely securities.

<sup>33</sup> Busch (2012), pp. 100-2.

<sup>34</sup> See Reid (1982) and Spero (1980) respectively.

shrinkage of interbank positions and a halt in the cross-border interbank market."<sup>35</sup> The sluggishness of the market is even more evident when we look at the four-quarter moving average of banks' Eurocurrency interbank positions plot in Figure 2. Average values allow for a clearer picture of the general trend of the series which is more difficult to observe in Figure 1 because of the seasonal movements in the data. Tight market conditions by the time of Latin American debt crisis increased the funding risk of institutions with heavy dependence on international interbank financing, exacerbating liquidity strains and systemic risk.<sup>36</sup>

**Figure 2. Eurocurrency interbank markets, 1973-1983**



Source: BIS International Banking Statistics and Bank of England.

The foreign agencies and branches of Latin American banks were among the first to feel the consequences of the crisis on the Eurocurrency market. In effect, their normal interbank funding transactions and rollovers of existing money market lines with creditor banks were seriously disturbed with the rise of defaults. These were small institutions, highly reliant on the interbank market for funding and without an own dollar retail deposit base. They had large country risk exposure, and accumulated dangerous asset-liabilities mismatches in their books.<sup>37</sup> Lender of last resort facilities by the Bank of England were not available to them either and their parent banks and central banks have precarious capacity to assist them with foreign exchange.<sup>38</sup> Hence, the increased risk perception on operations with Latin American banking offices prompted a decrease in liquidity and pushed creditor banks to reduce the

<sup>35</sup> FRBNY's archive, Box 108406, Notes on the G-10 Governors' Meeting held at the BIS, November 8, 1982.

<sup>36</sup> See Alvarez (2016), in particular Chapter 5, for an analysis of the case of Mexican agencies.

<sup>37</sup> See Alvarez (2015).

<sup>38</sup> These agencies were not technically defined as banks and therefore were not covered by banking law. Most of Latin American countries suffered also from currency crisis and dwindling international reserves in their central banks.

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term of interbank funding lines at the time of renewals, charge higher spreads or even demand to be fully repaid at maturity.

**Table 3. Maturity analysis of the interbank position of London banks and agencies, 1982**

*Liabilities (-) / Claims (+)*

	Net Interbank business / Total Interbank Liabilities (%)							
	Consortium Banks		Mexican branches		Brazilian branches		Other overseas banks*	
	18-Aug	17-nov	18-Aug	17-nov	18-Aug	17-nov	18-Aug	17-nov
Less than 8 days	-6.9	-6.4	-6.3	-1.7	-6	-3.8	-2.5	-3.6
8 days-1 month	-9.0	-11.8	-1.6	-24.2	-2.8	-1.8	3.2	-0.4
1-3 months	-17.5	-20.7	-22.1	-33.9	-4.6	-6.1	-0.3	0.5
3-6 months	-18.6	-13.6	-21.6	0.1	-2.8	-0.5	0.4	1.2
6-12 months	0.1	0.2	-0.1	-1	0.8	0.5	-0.1	0.1
1-3 years	5.7	5.9	1.1	2.1	2.3	2.1	2.2	2.4
3 years and over	7.9	7.3	4.5	5.5	2.7	2.1	3.3	3.3

\*All banks less British, American, Japanese and Consortium banks

*Source: Bank of England Quarterly Journal and Archives.*

Table 3 illustrates how interbank market funding shortened in the months that followed the outbreak of the crisis on August 20, 1982. The table displays the interbank net position of Mexican and Brazilian agencies in London, as well as of consortium banks and the group of other overseas banks, as a percentage of total interbank liabilities by maturity band. The case of Mexican agencies shows the most dramatic change: the proportion of interbank liabilities with maturity of less than three months doubled from 30 to 59.8 percent between August and mid-November. Although less significant, interbank operations in the maturity band of three month and above also increased for the group of other overseas banks as well as consortium banks. But contrary to Latin American banking offices, consortium banks benefited from the financial support from their shareholder banks and had access to Bank of England's Discount Office.<sup>39</sup> To the extent that these institutions were relying on the interbank market to fund longer term lending to non-banks, the shortening of their source of interbank funding translated into a greater degree of maturity mismatching in their balance sheets.<sup>40</sup>

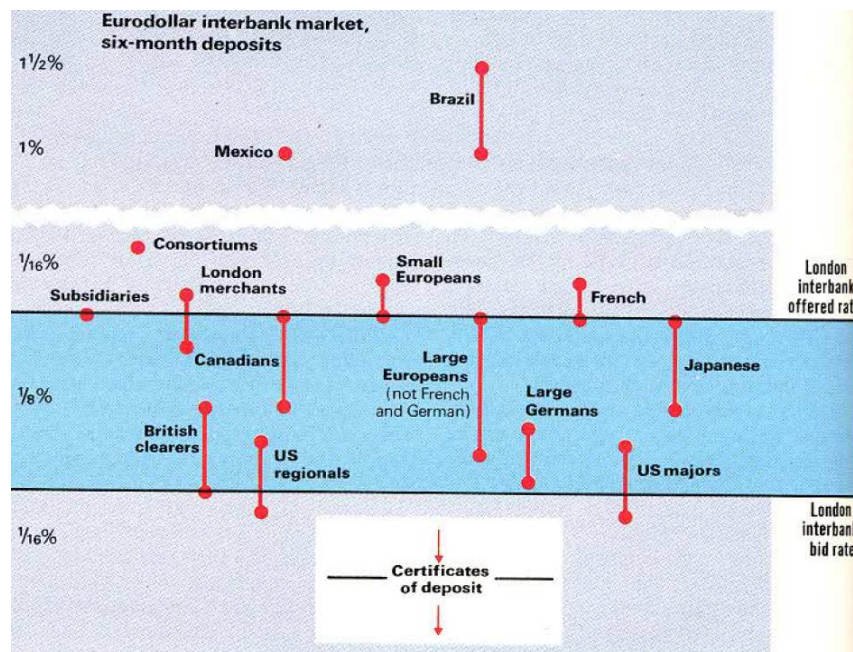
Growing uncertainty and risks in the interbank market were also reflected in prices. While in normal times interest rates applicable to all banks were uniform and the usual range was about ¼ percent above LIBOR, under distressed market conditions spreads increasingly differentiate among banks in terms of

<sup>39</sup> See Bank of England's archive, Consortium Banks, Banking Supervision Division, February 3, 1983, 13A195.1 Task Force.

<sup>40</sup> For Mexican agencies lending in the three years and over bands increased from 29.5% of total claims to 37.8% between August and November 1982.

creditworthiness and the market's assessment of their quality (*tiering*). As during the Herstatt crisis, when the range of rates extended to 1 or 2 percent depending on the individual bank and its creditors, "increasing tiering among banks and banking systems" was observed in the interbank market after the Mexican default, especially with regard to the nature and nationality of the borrowing bank.<sup>41</sup> For Mexican and Brazilian banks, though normally charged spreads of 1/8 percent (1/4 percent at most) prior to the crisis, by September-October 1982 they came to pay "outrageous rates of almost 1-3/4% over market rates."<sup>42</sup> Moreover, lending banks began also to require an extra fee or commission of 1/8 to 1/4 percent, which added to the greater spreads and arose premia up to as high as 2 percent in some cases.<sup>43</sup>

Figure 3. The Rates Banks Bid For Funds



Source: "From Brazil? Just a minute, Sir," *Euromoney*, July 1983, p. 63.

Figure 3 reproduces a diagram published by *Euromoney* in July 1983 as a guide to the new shape of the Eurocurrency interbank market in the post-crisis period. It plots the premia above and below the London interbank market rates that groups of banks of different type and nationalities had to pay for six-month Eurodollar deposits. The graph shows how almost a year after the outbreak of the crisis, even when tensions had already settled down, there was still tiering in the wholesale markets. Mexico and Brazil are broken out from the rest of the market participants, followed far behind by consortium banks with spreads of over 1/16 percent, but that could be considerably higher for those specialized in lending to

<sup>41</sup> Alexander Lamfalussy, September 27, 1982. FRBNY's archive, Sam Cross – Box 108406.

<sup>42</sup> Lloyds F/1/BD/LAT/21 9239, p. 10.

<sup>43</sup> Premiums of 200 points were considered very expensive at the time. For instance, by the time of Herstatt crisis, Japanese banks were paying premiums of up to 2 percentage points over and above the going market rate, the Japanese authorities requested their banks "to refrain from rushing to borrow and from paying extremely high premiums." BE Archives, Apocalypse Now, 3A143/4: Bank of Japan's paper, December 1980.



Latin America.<sup>44</sup> In contrast, U.S. regional banks along with major money-center banks, which rarely borrowed in the interbank market and had instead been prominent net suppliers of funds, were offered more deposits than before and could "take in funds even when they underbid the market."<sup>45</sup> Banks from other developed countries obtained market rates within the range of 12.5 basis points that was the usual spread between the London interbank offered and bid rates (LIBOR and LIBID respectively) in normal times.

Along with shorter maturities and higher spreads, there was also a progressive cutback in interbank deposit lines. During the second half of 1982 the foreign agencies of Brazilian banks in London and other financial centers lost US\$ 3.5 to US\$ 4 billion in the interbank market, an amount representing a drop of 35-40 per cent drop of their total interbank deposits that stood at an estimated of US\$ 10 billion in mid-1982.<sup>46</sup> As for the Mexican foreign banking offices, between June and December 1982 creditor banks withdrew about US\$ 800 million of the US\$ 6.5 billion they had in deposits with them.<sup>47</sup> A number of other foreign banks' branches in London seemed also unable to fund maturing Eurocurrency interbank liabilities in the market. In effect, the "widening problem of branches and agencies, not only [involved] Mexican banks but also Brazilian, Argentinian and Korean, and others, whose liabilities were owed to the interbank market and whose assets were not liquid."<sup>48</sup>

Funding risk and the solvency position of troubled interbank market participants was an issue of major concern for policymakers and financial authorities from G10 countries. The collapse of Herstatt in 1974 has made very clear to central bankers that the failure of small active banks could transmit large losses to solid banks and spread to the rest of the banking system through the interbank market. The failure exerted the most contractionary impact the Euromarkets had hitherto experienced, with interbank positions being the most severely affected. Yet, while the outstanding interbank foreign exposure of the Herstatt bank at the time of its bankruptcy filing was estimated at US\$ 200 million or less than 0.1 percent of the Eurocurrency market, the interbank short-term mismatched obligations of Mexican and Brazilian foreign agencies alone accounted for about US\$ 16 billion or 1.5 percent of the market. Had these agencies defaulted on interbank obligations, it would likely most likely have triggered a far more dangerous domino or knock-on effect, raising the prospect of a systemic collapse in London, as well as in other financial centers.

### **A regulation loophole: Who bail the agencies out?**

Under this circumstances, it was far from clear who was responsible for securing the financial support foreign banking offices needed. Yet, the issue of a lender of last resort for international banking and the Euromarkets had been debated among G10 central bankers for some time prior to the crisis. In the early

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<sup>44</sup> Eurobraz and Intermex, two of the three Latin American consortium banks, used interbank lines from their shareholders that they could obtain at finest rates. See Bank of England' archive, 13A195.1 Task Force: Consortium Bank, February 3, 1983.

<sup>45</sup> John Robertson, from Citibank in London. Bank of England's archive, 13A195.2 Task Force, International Division, 20 September 1982. London based US money center-banks normally funded themselves through Eurodollar CDs that they could issue at as much as 75 basis points under interbank rates (see Figure 3).

<sup>46</sup> FRBNY's archive: Sam Cross' material, Box 108406, Brazilian agency problems.

<sup>47</sup> FRBNY's archive: C261 Brazil – Banco Central do Brasil 1981-82, Money market lines for BANESPA and Banco do Brasil, December 24, 1982.

<sup>48</sup> FRBNY Archives, FRBNY Archives, Box 108406, Sam Y. Cross Chronological Files August-December 1982: Notes on G-10 Governors meeting held at the B.I.S., September 27, 1982. See also "Review of International Financial Developments 1982-1983" (pp. 10-13), BoE's archive, File 13A195/1.

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1980s, the BIS circulated a questionnaire to review the measures at the disposal of financial authorities for dealing with international financial crises, and in particular the availability of emergency liquidity arrangements. A central issue was to assess the extent to which foreign banks that operated in BIS member countries and the overseas establishments of their domestic banks could benefit from central banks' emergency lending facilities in domestic and foreign currencies in case of funding needs.

The most immediate antecedent of this matter dated back to the aftermath of Herstatt failure. In late 1974, G10 central bank governors issued a communiqué on their lender of last resort functions in the Eurocurrency market and formed the Basel Committee on Banking Supervision to address the question of who was responsible when a foreign banking affiliate or an international bank was faced with insolvency. This resulted in the Concordat of 26 September 1975, which set out some basic principles and collaborative guidelines over banks' overseas operations and provided a framework for the allocation of certain responsibilities between home and host countries.<sup>49</sup> A main point was that while host authorities were chiefly responsible for the supervision of foreign establishments' liquidity in the domestic currency, the parent financial authority should have primary responsibility for all other currencies. But the concern of the agreement was on coordinating supervision on internationally active banks and did not embody or govern bailing out operations.<sup>50</sup>

Not surprisingly perhaps, opposing views and ambiguous positions came out from the BIS questionnaire. The main controversy was still about who should assist the financial needs of foreign branches and subsidiaries under liquidity strain. As an internal document of the Bank of England illustrates, when "reading a little between the lines of the Fed's response and stating the position a little crudely the Fed appear[ed] to be arguing that if an American branch or subsidiaries of a British banks (for example) [was] experiencing liquidity difficulties then it [was the Bank of England's] job to provide support via the parent bank and if it [was] a British branch or subsidiary of an American bank in difficulties it [was] also [the Bank of England] job as the host authority to provide support."<sup>51</sup> This makes clear the lack of understanding among central bankers with respect to their roles in case of crisis and the gaps that existed in international banking about lender of last resort coverage.

The liquidity problems of Latin American agencies in the wake of the crisis brought these policy issues into sharp focus.<sup>52</sup> What caused concern among G10 governors was the question of who, if anyone, would support banks from developing countries in the major international centers if they were to run into liquidity difficulties. Unlike industrial countries, no clear safeguard existed, since central banks from Latin American countries could only provide token support for the foreign currency needs of the foreign agencies, and interbank claims on these countries were also limited.<sup>53</sup> A statement from a Bank of England official makes the dichotomy that central bankers faced very clear: "if [the necessary support for a foreign bank in London] was not forthcoming would [the Bank of England] be prepared to stand by and watch foreign banks become insolvent or would [it] find [it] necessary to act to protect London's reputation as an international center?"<sup>54</sup>

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<sup>49</sup> See Baker (2002), p. 45-50.

<sup>50</sup> See Lionel D. D. Price's discussion on Saunders (1987, pp. 234-238).

<sup>51</sup> "Replies to the questionnaire raised on liquidity support arrangements for international banking," BoE's archive, File 3A143/5.

<sup>52</sup> Discussions about this were also pushed by the collapse of Banco Ambrosiano as well as the problems with the interbank deposits placed with the Manila branch of Citibank in 1982. See Guttentag and Herring (1985, pp. 27-28).

<sup>53</sup> Kane (1983, p. 117).

<sup>54</sup> Bank of England Archives, Apocalypse Now, 3A143/2: Paper draft, June 1980.

The situation of the agencies was a serious worry for Latin American policymakers and financial authorities as well. The Brazilian central bank, for instance, "regard[ed] as imperative to curb any further deposit outflow from Banco do Brasil, Banespa or other Brazilian bank" and asked "all Brazilian overseas agencies (...) to make maximum efforts to renew all maturing deposits."<sup>55</sup> Likewise, the Mexican authorities looked for understanding and cooperation from creditor banks, and asked them "not to create a problem by drawing down credit lines" with the overseas agencies of their domestic banks.<sup>56</sup> Argentina's central banker and finance minister sought also to lock in the interbank lines with foreign banking offices, and Venezuela's counterparts urged creditor banks "to voluntarily maintain their deposits with the agencies."<sup>57</sup> The agencies in trouble belong to these countries' largest banking institutions, which were the backbone of their domestic banking and financial systems. Central banks had indeed been providing support to the parent banks, but their international reserves were largely insufficient to afford the potential foreign exchange needs of the overseas agencies.<sup>58</sup>

Against all odds, disruptions in the international money and interbank markets eventually prove to be minimal. The number of borrowing banks was reduced and many Latin American banks were squeezed out of the market, but, unlike in the Herstatt crisis, there were no illiquidity-induced failures. The financial position of the agencies was protected, and systemic risk contained, thorough the coordinated action of financial authorities and international organizations with the collaboration of creditor banks. G10 central banks actively intervened to persuade creditor banks to roll over their claims with Latin American banks, as during the run against Mexican banks that broke out in the interbank market in September 7, 1982. To stabilize the market, the Fed and the Bank of England officials exhorted their own domestic commercial banks to maintain the level of interbank credits, while BIS and U.S. emergency liquidity assistance to Banco de Mexico was used to meet the withdrawals and avoid any payment interruption.<sup>59</sup> In light of the Herstatt experience, as pointed out in a Bank of England's internal document on the situation of the overseas interbank obligation of Mexican and Brazilian banks, "it [was] evident that no-one – banks, borrowing authorities, Fund or central banks – wanted to run the risk of paralyzing the [interbank] market."<sup>60</sup>

Different approaches were used to secure the renewals of interbank deposits at maturity and avoid a disruption in the interbank market. Some countries, such as Argentina and Brazil, asked their creditors to sign formal agreements whereby creditor banks agreed to maintain their interbank deposit liabilities at their levels on the date of the moratorium declaration. Other countries, like Mexico or the Philippines, agreed to a clause in their restructuring documents that stated that a default event would be triggered if the aggregate level of interbank liabilities placed with the offshore agencies and branches of their domestic banks were to drop below the pre-moratorium levels.<sup>61</sup> For their part, the agencies agreed to continue to pay interest on these liabilities when they came due, and their home governments and central banks agreed to make the necessary foreign exchanges available to do so. The principle underlying these approaches was to avoid restructuring interbank debts, which would have seriously disturbed the international financial market, and caused problems for proposed rollovers.

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<sup>55</sup> FRBNY's archive, Sam Cross Box 108406, p. 39.

<sup>56</sup> FRBNY Archives, Central Records, C261 - Mexican Government 1917-1984: Office Memorandum, August 30, 1982.

<sup>57</sup> FRBNY's archive, Sam Cross – Box 108406, p. 69-70.

<sup>58</sup> In the case of Mexico, for instance, the US\$ 6-6.5 million mismatch on their interbank debts represented about 3 to 3.5 times the volume of international reserves during the August to December 1982 period. See Alvarez (2016, pp. 122-3).

<sup>59</sup> Boughton (2001, pp. 301-2)

<sup>60</sup> "The International Financial Situation," Bank of England, Task Force, 3.2.1983. File 13A1951/1.

<sup>61</sup> See Buchheit (1991, pp. 15-16).

These schemes were an integral part of the broader financial packages and restructuring programs implemented to manage debt-payment crises and guarantee the stability of the international financial system. When Mexico communicated its difficulties to pay foreign debt obligations to the U.S. on August 12, 1982, the Federal Reserve and Treasury Department promptly developed a rescue strategy to provide the country with direct emergency funding. Presumably out of concern with the potential implications for its banking system, U.S. officials led an international cooperative effort for greater financial assistance to prevent an interruption of repayments to international commercial banks.<sup>62</sup> The extent of Mexico's debt-service obligations relative to creditors' individual resources and financial capacities eventually required the participation of all creditors to keep the country afloat. Debtor governments, European and Japanese central bankers and finance ministries, the IMF, and commercial banks in both the U.S. and abroad were all mobilized in this regard. An international policy response to confront the Mexico's debt payment problems and handle the broader Latin American debt crisis of 1980s was developed among through the cooperation of all these actors.

### Conclusions

The development of the Euromarkets during the 1970s and early 1980s came along with increasing international money market transactions among banks within and across financial centers. Although frequently regarded by scholars as an inconvenient amount of double counting in the statistics, the Eurocurrency interbank market came to be worth several billions and involved a large number of financial institutions all around the world. This article shows that by neglecting the interbank element, the risk posed by the Euromarkets to the international banking system and its full economic consequences have been underestimated.

The instability of the interbank wholesale market in the face of the Latin American debt crisis of 1982 is an important finding. The crisis represented a major funding shock to the market, affecting in particular the foreign banking offices of Latin American banks, and was a source of solvency exposure. These were small banks with large outstanding claims with defaulting countries, heavily reliant on interbank funding and without a non-bank customer deposit funding base in foreign exchange. Restriction of credit jeopardized their ability to refinance maturing interbank liabilities, putting in danger the financial position of banks with claims on them. Given the high volume, the uncollateralized and international nature, and the cumulative structure of interbank transactions, the systemic risk behind a payment disruption by Latin American banks was high. Furthermore, the financial problems of these foreign agencies were in a regulatory limbo and it was not clear who was to act as lender of last resort to them, which exacerbated wholesale funding tensions, leading to higher liquidity and counterparty risk. Yet, unlike during the recent global financial crisis or previous episodes of international financial distress, disruptions in the interbank market were minimal and no freeze or illiquidity-induced failures occurred.

This paper argues that previous experience with problems in the international interbank market in the mid-1970s and the subsequent meetings of G10 governors in Basle provided valuable background for dealing with the challenges posed by the 1982 debt crisis. As of 1977, the Bank of England started to prepare a paper on the possible consequences of a default by a major borrowing country. This paper, which was extensively discussed among G10 central bank governors at the BIS meetings of the Standing Committee on the Eurocurrency Market and the Basel Committee on Banking Supervision, had already identified the importance of the interbank market as a channel for transmitting default throughout the banking system. Discussions particularly focused on the implications for crisis management in the

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<sup>62</sup> See United States General Accounting Office (1997, pp. 19-34).

interbank wholesale dollar markets.<sup>63</sup> Thus, despite the lack of understanding about the allocation of lender of last resort responsibilities towards international banking offices, coordination and cooperation among G10 financial authorities proved effective to avoid defaults on interbank claims and secure the international money markets on which they were all dependent.

An important question that arise from this study is how come financial regulators disregarded the risks and vulnerabilities behind the international interbank market. This is particularly suppressing given that Eurocurrency money market transactions have been at the root causes and transmitting mechanisms of the Herstatt crisis of 1974. In fact, the Herstatt crisis did not reduce reliance on the interbank market nor had major implication on the nature of the businesses or lending policies of commercial banks when transacting with each other. Interbank market transactions, at least those involving banks located in the same financial center, continued to be regarded as low risk until new shocks to the market arrived in 1982. From a regulatory perspective, in many G10 countries, some of which were main international financial centers such as the UK or Switzerland, the capital requirement against interbank assets were typically lower that against claims on nonbanks.

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<sup>63</sup> See Bank of England Archive, Apocalypse Now, 3A143/1 to 3A143/5.

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