The Origins of a Financial Boom-Bust Cycle: Petrodollar Recycling and the Latin American Debt Crises of the 1980s*

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Abstract

What is the spark that ignites a financial boom-bust cycle? This study revisits the Less Developed Country (LDC) crises of the 1980s to shed light on this question. Analysis using a newly-digitized historical loan-level dataset shows that banks exposed to the Eurodollar market and inflows of oil receipts from foreign governments in the 1970s increased their supply of credit to Latin American countries. Following the Mexican default in 1982, these banks contracted lending and faced severe losses. Countries more exposed to loan inflows from global banks experienced a compression of spreads during the boom, followed by painful recessions and financial crises during the bust. The findings highlight how a credit supply shock to global banks can translate into boom-bust cycles in faraway places, and they point to a sudden rise in global savings as a primary culprit in explaining financial crises.

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I. Introduction

Real economic activity crumbles during a financial crisis, and as such researchers have investigated the origins of financial crises in painstaking detail. A central conclusion is that credit supply expansion is a primary culprit; large increases in debt along with compressed risk spreads reliably predict financial crises, declines in economic activity, and large drops in bank equity values.[1] However, there remains debate on the ultimate cause of the credit supply expansion that precipitates a crisis.[2] Explanations include financial liberalization, expansionary monetary policy, profligate debtor behavior, flawed expectations, and a sudden excess of saving relative to investment demand. Put differently, what is the specific spark that ignites the boom-bust cycle?

This study tackles this question by revisiting one of the most important series of financial crises in history: the Less Developed Country (LDC) crises of the 1980s, in which Latin America played the traumatic lead role. In the history of crises, the period between World War II and the early 1980s stands out as one of exceptional calm. Variously called the *Trente Glorieuses* in France, the *Wirtschaftswunder* in Germany, or *Golden Age of Capitalism* in the United States, this period of high and relatively stable economic growth was followed by recurring boom-bust cycles in the years since. Surprisingly, however, there is relatively limited empirical evidence documenting the causes of this first wave of the 1980 boom-bust cycles that centered on Latin America.

The argument put forth in this study is that the rapid increase in Eurodollar deposits within the London financial sector in the 1970s was a central culprit in explaining the boom-bust cycle in Latin American economies. In the economic history literature, this view has been commonly referred to as the "Petrodollar Recycling Hypothesis": the large oil price increases of 1973 and 1979 led to a rapid influx of dollars into the Eurodollar market, and these dollars were lent by international banks to Latin American businesses and governments, generating the subsequent boom-bust cycle. This study uses a novel data set and an empirical strategy based on variation in the exposure of banks to the Eurodollar market to provide evidence supporting this hypothesis. It therefore supports the view that a primary instigator of a boom-bust cycle is a sudden rise in savings entering the international financial system.

The empirical analysis relies on a novel data set on bank loans and bank branch locations during the 1970s and 1980s. In particular, we draw on newly digitized contract-

[1] The predictive power of medium-run increases in the private debt to GDP ratio on financial crises and economic slowdowns has been documented, among others, by Borio and Lowe (2002), Schularick and Taylor (2012), Jordà, Schularick, and Taylor (2013), Baron and Xiong (2017), Mian, Sufi, and Verner (2017), Müller and Verner (2023), Ivashina, Kalemli-Özcan, Laeven, and Müller (2024), and Krishnamurthy and Muir (2025).

[2] See, for example, the discussion in Section 3.2 of the survey article by Sufi and Taylor (2021).

level data on large loans during the period 1973 to 1989. In essence, the new databank is a historical counterpart to widely used commercial offerings such as LSEG's Dealscan. Importantly, these data allow us to track essentially the universe of cross-border lending flows at the time, including information on the borrowers, lenders, and detailed contract terms. We complement these data with several other newly constructed historical datasets on the branch presence and balance sheets of global banks.

The data set allows us to directly test the idea that there was substantial recycling of petrodollars through the London branches of global banks. Still the world's dominant financial center at the time, London maintained its unique role for global finance through the Eurodollar market. Driven partly by regulatory arbitrage, the Eurodollar market involved the trading of U.S. dollars outside of the United States. As such, banks with an existing presence in London as part of their historical branch networks were more likely to attract dollar deposits from oil-producing states as oil prices rallied in the 1970s.

We begin by showing that U.S. banks with a branch in London as of 1967 were considerably more likely to receive increased foreign deposits during the 1970s, particularly from foreign governments. The timing of these increases corresponds closely with the oil price shocks of the 1970s. Having a branch in London is associated with a 27.774 percentage point higher share of deposits outside of the United States at the beginning of the lending boom in 1976. Corresponding with the oil price shock of 1979, banks with a presence in London also saw a jump in their share of deposits coming from foreign governments by 2.628 percentage points.

We show that this recycling of petrodollars was associated with a considerable credit expansion during the boom, which ultimately sowed the seeds of the bust. Banks with London branches extended more credit, especially to Latin American governments. U.S. banks with London branches also expanded their overall balance sheet, particularly by increasing their lending to foreign borrowers. After the inflection event of Mexico's default in 1982, banks with London branches soon contracted their loan book and retreated from Latin America. They also ultimately recorded more non-performing loans and decreasing profitability. These findings are a first indication that the London-specific credit supply shock caused by an inflow of Eurodollar deposits played a role in the boom-bust cycles to developing countries.

Next, we use the detailed loan-level data to better isolate a role for credit supply. After all, banks' credit expansion and subsequent contraction may also reflect demand factors such as a change in the composition of borrowers. By comparing loans to the same borrower by banks with and without London branches (Khwaja and Mian, 2008), we can rule out such alternative explanations. We provide evidence that banks exposed to the Eurodollar market in London charged lower credit spreads during the boom,

especially to Latin American governments. Taken together with the large expansion in credit, this pattern suggests a critical role for credit supply, which later reversed during the bust.

Why did some countries experience larger loan inflows during the boom than others? We document a critical role for "Push factors," and exposure to banks with London branches in particular. Countries that had already received loans by London banks in the early 1970s also saw larger inflows after the oil price shocks. The governments of countries experiencing larger inflows borrowed at higher initial spreads and shorter maturities, suggesting that the credit expansion favored riskier borrowers, consistent with an expansion in credit supply. Capital account openness and a lower distance from the U.S. are also correlated with larger loan inflows. Importantly, however, we find limited evidence that the lending spree was fueled by underlying initial productivity (GDP growth and investment rates). In a horse race, being exposed to London banks is the single most important predictor of the credit boom.

In the final part of the paper, we assess the macroeconomic implications of a credit supply shock permeating through the networks of global banks. We show that countries experiencing a larger inflow of cross-border loans during the boom of the 1970s initially saw a larger economic expansion, but ultimately fell victim to severe recessions and a series of sovereign debt crises. A greater expansion in cross-border lending during the boom predicts a greater contraction in both loan volume and economic activity during the bust. Increased borrowing of one percentage point of GDP during the boom also predicts a 0.621 percentage point increase in the probability of experiencing a sovereign debt crisis during the 1980s. We confirm this result by using the fact loan inflows are partly predictable: the component of the credit boom explained by a country's higher initial exposure to London and credit risk also predicts a boom-bust pattern. As such, these findings point to potentially severe implications of major swings in global credit supply.

While our analysis is centered around a particular historical case study, the Eurodollar-funded boom of the 1970s and LDC crisis wave of the 1980s, we believe the implications are much more general. For one, as of 2023, the Eurodollar market is estimated to have a size of $14 trillion and remains a critical funding market for global banks. Indeed, in many ways, the credit boom many countries experienced during the 2000s in the run-up to the European Sovereign Debt Crisis was reminiscent of the run-up to the LDC crisis, in that global banks awash with Eurodollar liquidity extended their supply of credit to periphery countries in a search for yield (Reinhart and Rogoff, 2009; Blanchard, Giavazzi et al., 2010). As such, we believe our findings underscore the potential risks stemming from credit supply shocks to the international banking system.

Related literature and contribution. A central contribution of this study is to use micro-economic data to pinpoint a specific causal chain between a sudden increase in the supply of savings entering the international financial system and a boom-bust cycle, therefore supporting the broader hypothesis that financial crises are a result of imbalances in the supply of saving relative to the demand for investment. This is related to studies that have argued that the "Global Savings Glut" of the 1998 to 2006 period was a cause of the boom-bust cycle that ended with the Global Financial Crisis of 2007 to 2009 (e.g., Bernanke, 2005; Alpert, 2014; Mian and Sufi, 2015; Wolf, 2015). In its approach to identification of the cause of boom-bust cycles, the most similar study is Jordà, Schularick, and Taylor (2015a), who exploit variation across countries in exchange rate regimes to argue that monetary policy expansion fuels a boom-bust cycle in housing and the broader economy.

The findings presented here are related to the broader literature on credit booms and financial crises (Gourinchas and Obstfeld, 2012; Schularick and Taylor, 2012; Jordà, Schularick, and Taylor, 2015b; Müller and Verner, 2023; Sufi and Taylor, 2021). While most of this literature has focused on expansions in *domestic* credit, cross-border borrowing, capital inflows, and loose global financing conditions also foreshadow banking crises (e.g., Bruno and Shin, 2015; Caballero, 2016; Aldasoro, Borio, and Drehmann, 2018; Cesa-Bianchi, Eguren Martin, and Thwaites, 2019). Similarly, lending to ever more distant places has also been shown to be one indication of a dangerous credit boom (Granja, Leuz, and Rajan, 2022; Giannetti and Jang, 2025), perhaps because of the information asymmetries inherent in providing loans across borders (Khwaja and Mian, 2005). By constructing several new historical datasets, we are able to link a specific, clearly identifiable credit supply expansion from its petrodollar origins through the London Eurodollar market and to the ultimate crashes in the developing world, using not only aggregate time series but also granular loan-level data. While there is considerable evidence that crises are transmitted through the internal capital markets of banks (e.g., Huber, 2018; Tripathy, 2020; Popov and Horen, 2015; Ongena, Peydró, and van Horen, 2015; Hale, Kapan, and Minoiu, 2019), we believe our paper is the first clear-cut evidence of how a "displacement shock" (Kindleberger, 1978)—such as the sudden inflow of petrodollars into London—can generate a boom-bust cycle with global reach.[3]

This study also contributes to the literature on the interaction of global banks and sovereign debt distress. Morelli, Ottonello, and Perez (2022) show that shocks to the

[3]The intertwining of bank balance sheets and sovereign debt, and the potential resulting "doom loop," has also been extensively studied (e.g., Gennaioli, Martin, and Rossi, 2014; Acharya, Drechsler, and Schnabl, 2014; Brunnermeier, Garicano, Lane, Pagano, Reis, Santos, Thesmar, Van Nieuwerburgh, and Vayanos, 2016; Bocola, 2016; Farhi and Tirole, 2018). However, this work is mostly silent on the effect bank credit supply may exert on borrower countries or the pricing of their sovereign debt.

balance sheets of global banks transmit to emerging market sovereigns' borrowing costs, and argue they also matter for economic fluctuations in the debtor countries. This study isolates an exogenous shock to the funding availability to global banks, and it shows how this shock ultimately led to sovereign defaults in Latin America.

Finally, this study contributes to the literature that investigates the Latin American debt crisis and the preceding boom. In a classic early account of the Latin American crises, Diaz-Alejandro (1985) focused on the role of financial liberalization in driving the boom, including the role of unfettered cross-border lending flows. Other accounts have emphasized the role of structural problems in the borrowing countries (Sachs, 1989b), a piling up of government debt (Krugman, 1988), rising US interest rates (Meyer, 1989), and the collapse of commodity prices (Cline, 1989). To be clear, our work does not negate a role for these other factors. But the evidence we provide suggests that the boom and bust in developing countries during the 1970s-80s is perhaps best understood as a classic case of an excessive increase in private and public debt fueled by credit supply, which ultimately culminates in a sovereign debt crisis. As such, our paper complements Robert Devlin's eloquent 1989 book "Debt and Crisis in Latin America: The Supply Side of the Story" (Devlin, 1989) and other accounts putting an emphasis on the role of international lenders rather than borrowers (Folkerts-Landau, 1985; Sachs, 1987; Federal Deposit Insurance Corporation, 1997; Pettis, 2017).

II. DATA

For the main part of our analysis, we draw on several newly constructed historical datasets: (1) a newly digitized dataset of (mostly syndicated) loan contracts covering 1973-89; (2) newly digitized data on the historical branch network of banks in each country as of 1967; (3) bank-level data from the FDIC Call Reports and manually-collected historical data from *The Banker* magazine; and (4) cross-country data on macroeconomic statistics, sovereign debt events, and banking crises. We describe these datasets in turn and provide more details, including additional summary statistics, in Online Appendix A.2.

II.1 A New Global Loan-Level Dataset, 1973-89

The backbone of much of our analysis is a rich new dataset on 17,215 loan contracts covering 153 countries for the period 1973-89. These data were painstakingly manually digitized and recorded in a harmonized manner in a structure that resembles widely used commercial data providers such as LSEG's Dealscan.

Figure 1 shows images of the two sources underlying this data effort. From 1973 to 1981, the World Bank published a report called "Borrowing in International Capital Markets" that tabulated newly issued cross-border loans. The report includes information on the borrower, lender(s), loan size, maturity, interest rate spread, reference rate, and other contract details. While the structure of these tables is relatively standardized, the data still had to be manually transcribed due to some intricacies of how some variables are recorded.

Unfortunately, the World Bank stopped the publication of this report in mid-1981. We thus draw on a second source: historical print editions of Euromoney magazine. Since the inception of the Eurodollar market, Euromoney publicized new loan issues in almost all of its monthly editions, mostly in a less structured full-text format. In essence, these data resemble that published as "tombstones" of loan contracts, a print notice formally announcing the transaction. Similar to the World Bank's publication, we can extract all key variables of a loan contract. We use the Euromoney data for the years 1981-89, which are not (fully) covered by the World Bank.[4]

Table 1 provides an overview of the new database we construct. In total, we have information on 17,215 individual loan contracts adding up to a total issuance of $2245 billion. Between the early 1970s and late 1980s, the international loan market saw a staggering increase in its size from $21 billion in 1973 to $320 billion in 1988. Panel A of Figure 3 plots the overall growth of the market, as well as its regional composition. A look at the yearly volume of newly issued loans clearly shows two major demarcation points in the history of cross-border lending: the pull-back in 1975 during the foreign exchange market turbulences following the collapse of Herstatt Bank, and the staggering contraction in new loans surrounding the LDC crises in the early 1980s.

Our database also highlights the global nature of this period of international cross-border lending. The 5,473 unique borrowers in our data come from a total of 153 countries, covering the entire gamut of economic and financial development. These loans are arranged by a total of 827 unique lead banks, although–similar to the modern period–the market is highly concentrated among a relatively small number of big players.

[4]One limitation of the Euromoney data is that we do not know the exact issuance date of a loan for all years, only when it was first reported in Euromoney magazine. Throughout the paper, we allow for a reporting lag and assume that a loan was issued two months before it appears in Euromoney. Because we do not make use of the monthly dimension of the data, this admittedly ad-hoc assumption does not affect any of our results.

II.2 How Comprehensive Is The Historical Loan-Level Data?

A natural question is how representative the newly collected loan-level is relative to the size of cross-border lending at the time. Answering this question is complicated by the fact that the widely used Locational Banking Statistics produced by the Bank for International Settlements (BIS) were in their current form only introduced in 1977. In fact, the BIS started compiling these statistics precisely because the major central banks had become worried about the extent of cross-border borrowing.

That said, we have reason to believe that our loan-level data likely captures close to the universe of cross-border lending flows at the time. The most detailed comparison we can make is that with statistics on the size of the Eurodollar loan market published by Morgan Guaranty Trust in its World Financial Markets publication. Time series produced by the BIS and published in its annual reports at the time also give us some indication.

As Figure A.3a shows, the total issuance of new loans in our dataset captures essentially the entirety of this market between 1973 and 1983, the most critical period of boom and bust for our analysis. Figure A.3b shows there is also an almost perfect cross-sectional correlation between the total amount of newly issued loans we observe in our data relative to what is reported in World Financial Markets.

II.3 Historical Bank Branching Networks

A critical input for our empirical analysis is banks' exposure to the London Eurodollar market. Ideally, we would like to have data on bank balance sheets that unambiguously shows their US dollar deposits in London from the beginning of the Eurodollar market's expansion in the 1960s onwards. Unfortunately, such data are not available. Even for large US institutions, the FDIC Call Reports only record much more aggregated information on deposits in branches outside of the United States, and these data were only collected starting in the late 1970s.

We thus rely on a measure of pre-existing exposure to London based on a bank's branch presence. Specifically, we use the 1967 branch network data taken from the *Banker's Almanac* and create a dummy variable $\mathbb{1}\{London\}$ that takes the value 1 for banks with a branch in London, and 0 otherwise. This measure, while simple, has several appealing features. For one, the *Banker's Almanac* published historical data on the addresses of bank branches in essentially every country, including a comprehensive list of banks with a London presence. By digitizing these data for the period well before the credit boom preceding the LDC crisis, we can assess for each bank active in the cross-border loan market whether they likely had access to London's Eurodollar

market or not.

It is also relatively straightforward to assess the plausibility of the London dummy measure. As we will document below, U.S. banks with London branches relied considerably more on foreign deposits ("Eurodollars") as of 1976, when the FDIC's Call Reports first report this data. For a subset of publicly-listed banks, we can also verify that London banks' reliance on these Eurodollar deposits in fact increased during the 1970s. Based on additional information digitized from the *Banker's Almanac* and a 1978 report in *The Banker*, banks with a London presence also had much higher overall number of branches and more connections to oil-producing states, which deposited large amounts of dollars in London during the 1970s oil price shock.

II.4 Bank-Level Data

We draw on two sources of bank-level information. One has been widely used (the FDIC Call Reports), the other has been newly digitized from print editions of *The Banker*'s Top Banks ranking.

FDIC Call Report Data For banks in the United States, we use an extended version of the FDIC's Call Reports data. From 1976 onwards, these data are relatively easily accessible through WRDS. We use the version available from Philipp Schnabl's website (Drechsler, Savov, and Schnabl, 2017), which pre-processes some variables to create consistent time series. Because this version of the Call Reports does not include all variables we need for our analysis, we add additional data from the Call Reports available on the website of the Federal Reserve Bank of Chicago.

Because we are also interested in the period before 1976, we obtained Call Reports for 1960-75 through a FOIA request from the Board of Governors of the Federal Reserve System. These data have a similar structure to the later Call Reports. Section A.2.2 contains additional information on data cleaning and variable construction.

Historical International Bank Data Because the Call Reports only cover U.S. banks, we also draw on historical editions of *The Banker* to add balance sheet information for international banks. In particular, we digitize data on banks' total assets, leverage, and profits published in the "Top 500" or "Top 300" rankings of the world's largest institutions for the benchmark years 1975, 1980, and 1988.

These data are by no means comprehensive. By definition, they are limited to the largest institutions, some of which may disappear from the ranking from one year to another. For this reason, we focus entirely on *changes* in international bank outcomes, where we require a bank to be present in all three years (1975, 1980, and 1988). See

Section A.2.3 for details.

II.5 Cross-Country Macroeconomic Data

The main source of macroeconomic data we use is the Global Macro Database (Müller, Xu, Lehbib, and Chen, 2025). This dataset merges, cleans, and combines time series from major aggregators such as the World Bank and IMF, and further extends them using historical data sources. For our purposes, what matters is that their coverage also extends to no longer existing countries such as the German Democratic Republic or Czechoslovakia, who were relatively frequent borrowers in the cross-border loan market.

We are also interested in information on whether countries experience various types of crises. We thus obtain data on the incidence of systemic banking crises from Laeven and Valencia (2020). Information on sovereign defaults and haircuts comes from Cruces and Trebesch (2013) & Asonuma and Trebesch (2016).

III. The Eurodollar Market and the Less Developed Country Debt Crisis

This section describes the historical origins of the boom in global lending during the 1970s that sowed the seeds of the LDC crisis.

III.1 The Rise of the Eurodollar Market

The Eurodollar market is made up of institutions that operate outside of the United States and whose liabilities are denominated in U.S. dollars (Friedman, 1971). In 1968, these institutions, or Euro-banks, operated mostly in Western Europe, primarily in London, as well as some other financial centers such as Canada, some Caribbean Islands, and Lebanon (Klopstock, 1968). In the early era of the Eurodollar market, the role of banks was limited to financial intermediation, in that they predominantly channeled deposits from multinational corporations to borrowers including other banks, foreign governments, and corporations (Swoboda, 1968).

The Eurodollar market's origins can be traced to 1958, coinciding with the full implementation of the Bretton Woods system and the adoption of currency convertibility. At the time, Eurodollars were essentially a financial innovation, and London served as the hub. In fact, the first documented example of active Eurodollar "recycling" was a transaction by Midland Bank, which utilized dollar-denominated debt to address

its liquidity needs and capitalized on profitable domestic investments in the United Kingdom. These kinds of early experiments set a precedent for the Eurodollar market's later operational dynamics (Schenk, 1998).

The growth of the Eurodollar market in London proceeded largely unimpeded. Regulators showed a combination of inability, reluctance, and uncertainty regarding the necessity of intervening. This stood in stark contrast to the more proactive stance adopted by their counterparts elsewhere in Europe: "In mid-1960s the Swiss launched a gentlemen's agreement with Swiss banks not to accept short term foreign currency deposits in order to stop the inflow of hot money... France and Germany also prohibited the payment of interest to foreigners" (Schenk, 1998, p. 234). As such, regulators in London tacitly approved London as the center of the Eurodollar market, as reflected in a 1968 quote from a Bank of England official: "however much we dislike hot money we cannot be international bankers and refuse to accept money" (Schenk, 1998, p. 235).

In the United States, banks operated under Regulation Q, which imposed a ceiling on deposit interest rates. However, this regulation did not extend to deposits accepted by U.S. banks' overseas branches (Bernal, 1982). This regulatory discrepancy, coupled with the expansion of American multinational corporations, created an incentive for U.S. banks to open branches abroad to collect deposits. Figure 2 illustrates this growth. It shows that the share of total liabilities of U.S. banks held in foreign branches increased from just over 5% in 1970 to over 20% in 1981.[5] Such international expansions were further fueled by intensifying domestic funding competition, as the money market and Certificates of Deposit (CDs) attracted substantial inflows (Devlin, 1989).

In summary, the driving forces behind the rise of the Eurodollar with London at its epicenter can be summarized with a quote by (Schenk, 1998, p. 237): "A combination of Bank of England support, Treasury tolerance, and controls elsewhere created a regulatory environment which gave London a competitive advantage in the Eurodollar market".

III.2 Petrodollar Recycling and the 1970s Boom

Petrodollars are funds generated from selling oil in U.S. dollars. Following the oil price increases of 1973 and 1979, OPEC members in particular generated massive dollar revenues. Their net foreign assets increased by $485 billion between 1973 and 1982.

However, oil-producing states experiencing this sudden increase in revenues often did not have the domestic capacity to absorb these excess savings. In most cases,

[5]While this data includes liabilities in all foreign branches, not just the ones located in London, this period was also characterized by a rapidly increasing footprint of global banks in London specifically. Figure A.4 shows that both foreign bank presence and staff employed in London close to tripled over the 1970s.

their financial systems were not sufficiently developed to facilitate an intermediation of these funds to borrowers abroad (Sherbiny, 1986). This led to the implementation of multiple international consortia of banks, where Arab banks relied on the expertise and scale of their international counterparts to deploy the excess savings they had amassed.

The largest recipient of these savings were the United States with a share of 16%, followed by the United Kingdom, whose share stood at 11%. Not only did the U.K. receive an outsized share of funds compared to its size, but the uses of funds were also vastly different. While the majority of the funds flowing to the United States were invested in safe assets, OPEC's investments in the United Kingdom were dominated by foreign currency deposits into Eurodollar banks (Sherbiny, 1986).

As described in the previous section, London's Eurodollar market had been established as a venue for banks to collect international deposits. This situated the banks in this market as prime recipients of dollar-denominated funds precisely at the time when an excess of such funds became available in the form of Petrodollars. Banks consequently engaged in so-called "Petrodollar recycling", where these excess funds were lent to borrowers around the world, often to non-oil producing countries faced with severe financing needs in the wake of the oil price shocks.

The IMF under its Managing Director Johannes Witteveen set up multiple facilities in an attempt to alleviate the global imbalances that resulted from the oil price shocks: first was the "Oil Facility" immediately after the oil price shock of 1974, and after its expiry in 1976, the "Supplementary Financing Facility", often called the "Witteveen facility" (Boughton, 2001). These facilities had the stated objective to provide relief for oil importers facing rising trade deficits by channeling Petrodollars from oil exporters who were flush with savings (International Monetary Fund, 1996).

However, IMF officials realized that private institutions would play a major role in channeling excess savings to countries in need of financing, and they identified the Eurodollar market as the main mechanism to do so (International Monetary Fund, 1996). Banks were politically pressured to participate in this process. As a former economic advisor to President Ford noted: "the entire Ford Administration, including me, told the large banks that the process of recycling petrodollars to the less developed countries was beneficial, and perhaps a patriotic duty" (Hanc, 1998, p. 206).

Whether as a "patriotic duty" or for other reasons, private banks engaged in large amounts of Petrodollar-recycling via the Eurodollar market. Total outstanding loans by U.S. commercial banks to Latin America skyrocketed from 29 billion dollars in 1970 to 159 billion dollars in 1979, to 327 billion in 1982 (Federal Deposit Insurance Corporation, 1997). For the largest nine US lenders, loans to Latin America amounted to

176% of their capital, and total LDC debt even reached 290% of capital in 1982.[6]

III.3 From Boom to LDC Crisis

Following the large expansion of cross-border loans during the 1970s, the boom came to an abrupt halt in the early 1980s, and turned into what in Latin America is known as *la decada perdida*, the "Lost Decade". The announcement of Mexico's finance minister Jesus Silva Herzog that Mexico would be unable to service its debt in August 1982 is often seen as the key turning point. Many other developing countries followed Mexico's pivotal declaration. A study by the World Bank shows that 38 developing countries engaged in external debt re-negotiations during 1982-85 (World Bank Group, 1986). This need to restructure debt loads was particularly severe in Latin America: all major Latin American countries with the exception of Colombia faced an external debt crisis during the 1980s (Sachs, 1987).

Our syndicated loan database reflects the sudden stop in lending to Latin America that resulted from this wave of defaults and restructurings. Figure 4 illustrates that loan issuance to Latin America drastically declined, starting with the Mexican default in 1982. This decline was much more dramatic than for other emerging market economies, leading to an almost complete halt of loan issuance to Latin American borrowers by the mid-1980s. The severity of the crisis in Latin America specifically is also reflected in the spreads charged in that region, plotted in Figure 5. The spread between borrowers in Latin America compared to other emerging markets widened to more than a full percentage point in the years immediately following the Mexican default.[7]

The *lost decade* had severe real economic consequences in Latin America. Devlin (1989) motivates his analysis of the causes of the Latin American debt crisis as follows: "A good summary statistic of the region's plight is per capita income: at the end of 1987 it was nearly 6 percent lower than the figure registered in 1980". This particularly painful adjustment was in part necessitated by the fact that, during the credit boom preceding the crisis, Latin American economies increasingly neglected the export-oriented production of tradable goods. Because domestic sales do not generate U.S. dollar income, the result was an exacerbated foreign currency mismatch, which made repaying the debt later on all the costlier (Sachs, 1986).

[6] Detailed accounts of this "petrodollar recycling hypothesis" can be found in Folkerts-Landau (1985), Darity and Horn (1988), Devlin (1989), and Pettis (2017). See also the summary provided in Mian and Sufi (2018).

[7] We can verify these results from our loan database using external data: Appendix Figure A.5 shows that secondary market prices for Latin American debt reflected discounts even when compared to other emerging market economies.

In narrative accounts on the causes of the LDC crises, petrodollar recycling via commercial banks has frequently been discussed as a main culprit for the over-extension of loans that sowed the seeds for the subsequent bust (Devlin, 1989; Sachs, 1987; Federal Deposit Insurance Corporation, 1997).[8] However, for lack of available data, this popular explanation for the LDC debt crisis has not been empirically tested in a rigorous way. In the following sections of this paper, we provide granular bank- and loan-level evidence to back up this narrative explanation.

IV. Global Banks and Boom-Bust Cycles: The Supply Side Story

In this section, we provide evidence that the Eurodollar market played a central role in the boom-bust cycle of the 1970s and 80s. During the boom, higher exposure to the Eurodollar market led to an expansion of credit supply, particularly in Less Developed Countries (LDCs), which then reverted during the crisis episodes of the 1980s.

IV.1 London Branches and Eurodollar Exposure

We begin our empirical analysis with a simple observation: the Eurodollar funding market of the 1960s and 70s was decidedly geographically concentrated in London. Because of the British capital's long history as a financial hub, and British regulators' embrace of the Eurodollar market, it was here that banks received large inflows of U.S. dollar deposits, and especially so during the second half of the 1970s.

To test for the effects of this credit supply shock, we exploit variation in banks' historical branch presence. While the Eurodollar market expanded starting in the 1960s, it was not before the 1970s oil price shocks that it became an important funding source for global banks. To measure a bank's exposure to the Eurodollar market, we thus construct a simple dummy variable called $London\ branch_i$, equal to 1 for banks that had a branch in London as of 1967, and thus before the boom, and 0 otherwise.

Table A.2 in the Online Appendix reports summary statistics for several variables depending on whether or not a bank had a London branch as of 1967. We also report a t-test for the equality of means between the different groups of banks. Because it is not entirely clear what a reasonable comparison group of non-London banks should look like, we report these statistics for three samples: the full sample of U.S. banks

[8] Other popular explanations include, but are not limited to: profligate borrowing and spending by LDC governments, adverse effects of commodity price declines on exporters, increasing debt servicing burdens from rising US interest rates.

in the Call Reports ($N = 10,950$), U.S. banks active in the international loan market ($N = 25$), and a sample of the largest global banks ($N = 300$).

Perhaps unsurprisingly, banks with a London branch are different from other banks. They are larger and perhaps have somewhat higher leverage; if they are in the U.S., they also rely more on non-core liabilities. But the key difference between London banks and others lies in the structure of their deposit base: those with a base in London rely disproportionately more on foreign deposits, including by foreign governments.

To more formally test whether the London indicator indeed captures differences in the exposure of banks to the Eurodollar market, we run the following regression specification:

$$Y_i = \alpha + \beta London\ branch_i + \varepsilon_i, \tag{1}$$

where $London\ branch_i$ continues to measure whether a bank has a London branch as of 1967. Note that, because the Call Reports only start reporting some variables in 1976, the years for which we can define the dependent variables differ somewhat across specifications. Similarly as above, we run our estimations for two different samples: The first sample includes all banks, the second sample is restricted to large international banks .[9]

Table 2 reports the results. Columns (1)-(4) look at measures of deposit structure, which we can measure for U.S. banks only. In column (1), we start by looking at the share of banks deposits in foreign branches as of 1976, the first year this information is reported in the Call Reports. This measure essentially measures a bank's reliance on Eurodollars, which are U.S. dollars held outside of the United States. The coefficient of 0.278 is highly statistically significant at the 1% level. Relative to the full-sample mean of 0.001, London banks are much more reliant on deposits collected in their foreign offices. The results are quite similar when we take as a comparison group large banks that either gave at least 5 loans in the international loan market or appeared in the rankings of the largest international banks in Panel B. Thus, the differences in deposit structure are not merely driven by bank size.

In column (2), we also find similar results when we restrict the sample to publicly-listed U.S. banks included in Compustat Bank. Importantly, we have data on foreign deposits for this smaller sample of banks starting in 1970, which allows us to also test for an *increase* in foreign deposit reliance between 1970 and 1976 in column (3). The coefficient implies that London banks not only had higher foreign deposits as of 1976,

[9]Specifically, we include banks that either issued at least five loans in our international loan database, or are included in the magazine *The Banker*'s ranking of top international banks.

but indeed increased their reliance on Eurodollars between 1970 and 1976 by 8.989 percentage points.

The results in column (4) provide some suggestive evidence that the increase in foreign deposits was at least in part driven by petrodollar recycling. The share of London banks' deposits coming from foreign governments between 1976 and 1981 increased by 0.026 more than for non-exposed banks. As we will document below, the timing of this increase in deposits by foreign governments lines up precisely with the late-1970s oil price shock and the accompanying dollar windfall gains of oil-producing states.

Columns (5)-(7) look at a broader sample of global banks for which we have information either on bank branches or international loans. Column (5) shows that banks with a London branch have a larger international footprint, in that they have branches in 2.584 more countries on average. Column (6) suggests they are significantly more likely to have a branch in an oil-producing country. Finally, column (7) shows that London banks are also considerably more likely to found a consortium with banks from oil states, which played an important role in the credit expansions of the 1970s.

To better understand the dynamics of the increases in Eurodollar deposits documented above, we turn to a bank-level event study specification:

$$Y_{it} = \alpha_i + \delta_t + \sum_{t \neq b} \beta_t \text{London branch}_i \times \text{Year}_t + \varepsilon_{it}, \tag{2}$$

where Y_{it} refers either to the foreign deposit share (based on Compustat Bank data) or the foreign government deposit share (constructed from the Call Reports). London branch$_i$ continues to be the dummy for whether a bank had a London branch in 1967, which we interact with dummies for each year between the first year the dependent variable is available and 1989. Because of differences in data availability, the excluded period b is 1973 for the foreign deposit share and 1976 for the share of deposits from foreign governments.

Figure 6 plots the resulting event study estimates. Figure 6a shows that banks with a London branch were on similar trends in their foreign deposit share until around the first oil price shock in 1973, when they saw an increase lasting for almost a full decade. After the Mexican default in 1982, and the ensuing crises engulfing many emerging economies, London banks' Eurodollar reliance abruptly stopped to increase and even started to decline. Overall, the resulting pattern suggests a boom-bust cycle in reliance on Eurodollar funding liquidity. Figure A.1 in the Online Appendix shows a highly similar dynamic using Call Report data, for which information on foreign deposits becomes available in 1976.

Figure 6b plots event study estimates where we use the share of deposits from foreign governments as a dependent variable, which data availability permits us to start in 1976. While we do not have information on which countries exactly deposited money at banks with a London branch, our estimates show a striking similarity with changes in the oil price during that period. This suggests that the reliance on Eurodollars of some globally active U.S. banks towards the end of the 1970s was at least in part driven by inflows of U.S. dollars from oil-producing states: the very definition of "petrodollar recycling."

In sum, the results in this section highlight a key pattern in the funding structure of global banks at the eve of the boom of the 1970s. If they had a pre-existing branch presence in London, global banks were considerably more likely to fund themselves with foreign deposits, and thus more exposed to the expansion of the Eurodollar market, which gained additional steam during the petrodollar inflow of the late 1970s. In the next sections, we show that variation in this pre-determined exposure is highly predictive of banks' lending activity during the boom and ensuing bust.

IV.2 Eurodollar Exposure, Bank Balance Sheets and Loan Losses

Equipped with our measure of exposure to the Eurodollar market, we next ask whether such exposure was associated with differences in bank lending. Our starting point is a bank-level event study specification as in Equation (2), where the dependent variable is either Log(Total assets) or Log(1+Loan Issuance to Latin America).[10] Given the differences in data availability, the excluded period b is 1973 when we look at banks' total assets, and 1975 for lending to Latin America. While we do not claim that having a London branch was exogenous, it is useful to think through what might violate the identifying assumption underlying equation (2). Specifically, what we hope to isolate is that, in the absence of the Eurodollar funding shock, the balance sheet of banks with and without a London branch would have seen a similar trajectory.

Figure 7 plots the event study estimates from equation (2). Banks with and without London branches exhibited broadly similar trends before the increase in Eurodollar funding starting in the mid-1970s. Figure 7a shows that, over the course of the 1970s, banks exposed to the Eurodollar market grew their balance sheets significantly compared to banks without a presence in London. After the wave of crisis events in the early 1980s, however, the same banks saw a substantial contraction of their balance sheets until they became statistically indistinguishable from the non-exposed banks

[10] Some readers might be concerned about the choice of a "log(1+" transformation. The results we document are predominantly driven by the extensive margin of whether a bank provided *any* loan to Latin America. Perhaps as a result, this transformation is largely inconsequential. We prefer this transformation because it puts at least some weight on the intensive margin of a larger credit expansion.

towards the end of the decade again.

Figure 7b shows that the same boom-bust pattern was reflected in banks' lending to Latin America. Albeit noisier due the nature of the syndicated loan data, specifically the smaller sample size when compared to the Call Reports data underlying Panel (A), exposed banks increased their loan issuance to Latin America significantly more than non-exposed banks. This divergence peaked right before the onset of the LDC crisis in 1982, after which the difference becomes insignificant.

Table 3 confirms these patterns with a set of cross-sectional regressions, where we show how exposure to the Eurodollar market is highly predictive of changes in banks' balance sheets, loan books, and eventually, loan losses. Specifically, we estimate the following equation for a range of bank-level dependent variables:

$$Y_i = \alpha + \beta London\ branch_i + \varepsilon_i, \tag{3}$$

where $London\ branch_i$ is defined as above. We apply a bank's total assets in the base year as weight.[11] We run these regressions separately for the boom period of 1973-1981 and for the bust period of 1981-1989, while allowing some leeway in the time windows dictated by data availability; we refer the reader to Appendix Table A.6 for details. Standard errors are heteroskedasticity-robust.

In line with the event study figures, London banks exhibit a clear boom-bust pattern, even when compared against relatively comparable banks that were also active in the international loan market or among the largest global banks. In column (1), we start by looking at the change in total assets between 1973 and 1981. The coefficient of 0.317 is highly statistically significant at the 1% level and implies a sizeable increase in balance sheet size relative to the mean change over this period of 0.846.

Using our syndicated loan data, it becomes apparent that the overall expansion in assets comes hand-in-hand with new loan issuance to Latin America. Column (2) shows the log change in loans to Latin America between the 1973-1975 period and the height of the boom in 1976-1981. We pool issuance over these two periods since our data captures the flow of new issuance, as opposed to the total stock of outstanding loans. The coefficient of 1.147 compared to the full sample average of 1.248 implies that London banks played a pivotal role in the rapid increase in lending to Latin America in the run-up to the LDC Crisis.

Data from the U.S. Call Reports confirms the special role that London banks took in

[11] The only exception are the regressions purely based on syndicated loan data in column (2) and (6), where we omit the weighting to keep a larger number of observations, given that we do not have balance sheet data for all banks.

international lending. While limited to U.S. banks and less granular than our contract-level syndicated loan database, we can observe the share of loans going to foreign borrowers (starting in 1978). Column (3) shows that American banks with a presence in London increased their share of lending to foreign borrowers by 7.499 percentage points between 1978 and 1981. This foreign lending also extended to sovereigns: at the onset of the crisis in 1981, U.S. banks with a presence in London had a 2.299 percentage points larger share of outstanding loans to foreign governments. In fact, this exposure to government loans is even greater when restricting the sample to comparable banks active in international lending in Panel B. Of course, the increased exposure to governments abroad became a major liability for exposed banks as the sovereign debt crisis of the 1980s unfolded.

As boom turned to bust, triggered by the Mexican default in 1982, banks with a greater exposure to Eurodollar funding turned out to be particularly vulnerable. Columns (5)-(8) show a striking reversal of fortunes during the 1981-89 period. Banks with a London branch saw a contraction in assets of almost the same magnitude as the expansion during the boom. As seen in the event study figures, this boom-bust in overall assets also extended to lending to Latin America. The same banks that were responsible for the rapid expansion of credit to the region now contracted their lending the most, effectively severing credit access to Latin American borrowers. The coefficient in column (6) of -0.698 shows that London banks were responsible for the majority of the average contraction in lending to Latin America of -0.758.

The effects of the debt crisis eventually materialized on the banks' bottom line. Banks exposed to the Eurodollar market had a 2.946 percentage point higher share of non-performing loans of their total loan portfolio in 1989. The associated losses resulted in a decrease of their return on equity of -0.343, a significant reduction compared to the average change in ROE of -0.373.

Taken together, the patterns documented in this section suggest the following. During the 1970s and 80s, there was a boom-bust cycle driven by Eurodollar funding, centred around London, in which exposed banks over-extended during the boom and contracted during the bust. During the boom, banks relying on Eurodollar deposits were far more likely to extend credit to foreign borrowers, especially Latin American clients and foreign governments. During the bust, these same banks drastically cut back their lending to Latin America and ultimately incurred substantial losses, as it became evident that a considerable proportion of their loan portfolio had become non-performing.

IV.3 Loan-Level Results

The preceding results are indicative of an expansion in credit supply by banks with exposure to the Eurodollar market during the boom period. These findings are, however, not entirely conclusive. Perhaps the most obvious alternative explanation is that the borrowers of London-exposed banks increased their demand for credit. In fact, some explanations of the LDC crisis and the defaults in Latin America in particular have put disproportionate blame on spendthrift governments (Krueger, 1987; Sachs, 1989a; Dornbusch and Edwards, 1991). As such, it is important to disentangle the role of credit demand relative to supply factors.

In this section, we conduct a direct test for the presence of a credit supply expansion. Specifically, we compare the loan spreads of banks with and without London branches, which enables us to distinguish between a demand- and supply-driven credit expansion. The logic is simple and follows existing work such as Mian et al. (2017) and Krishnamurthy and Muir (2025). If the demand for credit outstrips its supply, we should observe an increase in spreads, which can be thought of as the price of credit. But if supply-side factors dominate, the increase in lending should come with constant or even lower spreads.

One possible challenge to comparing the loan spreads of banks with or without a London presence could be a change in the borrower pool. Suppose that banks with a London branch were lending to *safer* borrowers during the boom, which attracted lower spreads. This would flip the logic of the above test on its head: while we may observe London banks charging lower spreads, this might in fact reflect more cautious lending standards, suggesting the aggressive over-provision of credit in fact came from banks *without* London branches.

This challenge to identifying credit supply versus demand is an unlikely concern. Existing work has shown, across a variety of contexts, that lending standards are highly procyclical: during booms, banks lend to riskier (not safer) borrowers (Greenwood and Hanson, 2013; Brandao-Marques, Chen, Raddatz, Vandenbussche, and Xie, 2022; Kirti, 2025). Perhaps more importantly, our loan-level dataset also allows us to leverage within-borrower variation in credit conditions across different lending banks, in the spirit of Khwaja and Mian (2008). By definition, this abstracts from concerns of selection, because we compare the same firm or government borrowing from several banks at the same point in time.

Specifically, we estimate loan-level regressions using the following empirical specification:

$$(4) \qquad Spread_{icbt} = \alpha_{it} + \delta_{bt} + \beta London\ branch_b\ x\ Boom_t\ x\ LatAm_c\ x\ Gov_i + \varepsilon_{icbt},$$

where α_{it} are borrower-time fixed effects and δ_{bt} are bank-year fixed effects, which we would employ in the most stringent specification. The former set of fixed effects is particularly relevant for this exercise since it effectively compares the spreads extended by London banks to those of non-London banks *lending to the same borrower in the same year*, thereby absorbing time-varying factors related to credit demand. The interaction terms $London\ branch_b$, $LatAm_c$, and Gov_i are indicators for a bank having a London branch, a country being located in Latin America, and a borrower being classified as a government entity, respectively. The $Boom_t$ indicator is equal to 1 for the years 1976-1981 (the boom years). By restricting the sample to the period 1976 to 1985, it thus measures the difference in spreads during the boom and bust period. Standard errors are double-clustered by bank and borrower country.

Table 4 presents the results. In column (1), we start by only including the *London* x *Boom* interaction. This interaction term picks up the mean difference in loan spreads between banks with and without a London branch during the boom vs. bust period. The inclusion of borrower $\times$ year fixed effects means we are comparing spreads *to the same borrower at the same point in time*. The coefficient of -0.091 is statistically significant at the 5% level, implying that banks with a London branch extended credit at lower spreads, consistent with an increase in credit supply.

In column (2)-(4), we add to the interaction the indicator for a borrower being located in Latin America, which now allows us to also include bank-year fixed effects. We also include increasingly restrictive borrower-time fixed effects: In column (2), we establish a benchmark without any borrower fixed effects. The coefficient on the triple interaction is significantly negative. In column (3), we include borrower-boom fixed effects, which allows for a within-borrower interpretation of the coefficient of interest. During the boom, London banks extended credit to the same Latin American borrowers at significantly lower spreads than other banks. Interestingly, the coefficient is very similar in magnitude to the coefficient in column (2). The implication is that the credit expansion to Latin America, as reflected in the compression of spreads, was largely due to banks' supply of credit.

In column (4) we include the most restrictive borrower-year fixed effects coupled with bank-year fixed effects. The coefficient of interest is now much smaller and no longer statistically distinguishable from zero. Column (5) shows that this is explained by the difference in credit supply to private sector relative to government borrowers. The coefficient on the quadruple interaction is now similar to that in columns (2) and (3)

and statistically significant at the 10% level. It suggests that London banks charged government borrowers in Latin America lower spreads than other banks lending to the same borrower in the same year. The coefficient is economically large: Latin American governments enjoyed a relative cost advantage of -34.427 basis points during the boom if they borrowed from Eurodollar-funded banks.

In summary, our interpretation of these loan-level results is the following. From the preceding sections, we know that banks with exposure to the Eurodollar market experienced a lending boom, especially to Latin American borrowers. This boom was associated with more generous loan terms offered by banks with access to Eurodollar funding, who were particularly lenient in their lending terms to Latin American governments. The following section investigates whether this supply-fueled credit expansion ultimately contributed to the macroeconomic fallout and the ensuing sovereign debt crisis in less developed countries.

V. The Macroeconomic Consequences of Petrodollar Recycling

Which countries experienced the largest loan inflows during the 1970s, and why? What were the consequences of petrodollar recycling for recipient countries? This section investigates these questions. First, we explore what makes a country more likely to become a recipient of international lending during the boom. We show that lending was concentrated among higher-risk borrowers, consistent with the expansion in credit supply we described in the previous section. We then provide evidence that the Eurodollar-fueled boom and bust in bank lending had a predictable macroeconomic aftermath. Countries with a larger inflow of cross-border credit experienced a wave of banking and sovereign debt crises and an economic contraction.

V.1 Determinants of the Credit Boom

Before we turn to the macroeconomic consequences of the credit boom that resulted from the recycling of petrodollars, we have to discuss what made a country susceptible to becoming a recipient of capital in the first place. In this section, we explore the role of various characteristics based on the following regression model:

$$L_c^{1976-81} = \alpha + \beta X_c + \varepsilon_c, \tag{5}$$

where $L_c^{1976-81}$ is loan issuance during the 1976-1981 boom, scaled by 1973 GDP, which we regress on various pre-determined or fixed country-level characteristics. Standard errors are heteroskedasticity-robust.

We are particularly interested in understanding the relative role of "pull" relative to "push" factors. While the previous section squarely establishes a role of credit supply for individual bank behavior, it cannot tell us about what country characteristics determined the inflow of credit. According to the permanent income hypothesis, for example, the ultimate source of loan inflows would be higher expected future income rather than push factors such as global banks' credit supply.

Table 5 presents the results from estimating equation (5). To understand the role of London-exposed banks, we construct a measure capturing the share of loans a country received between 1973-75 that came from lenders with a London branch.[12] This is motivated by Devlin (1989)'s argument that banks valued their relationships with a country to the extent that "loan access became nearly automatic. Thus a country could find credit volume high and terms improving, even while important indicators of creditworthiness were deteriorating" (Devlin, 1989, p.135). Column (1) shows that for every additional percentage point of a country's loan share coming from a London bank in the pre-period, a country received additional loans equal to 0.286 percent of its 1973 GDP. The implication is clear: where countries were ex-ante more exposed to London banks, they saw a greater credit expansion, consistent with a key role for credit supply push factors.

Next, we investigate the riskiness of a borrower country as a predictor of loan inflows. If credit supply played a role, it should have benefitted ex-ante riskier borrowers. To test this hypothesis, we explore two different measures of country-level risk taken from the World Bank's International Debt Statistics, both measured in the 1973-1975 pre-period; note that these data are only available for developing countries. Columns (2) and (3) show that sovereigns who paid higher spreads and borrowed at shorter maturities saw a larger influx of cross-border credit. These results are consistent with those in column (1) in that they suggest a credit supply expansion targeting riskier borrowers.

What gave rise to the capital inflows in the first place, and why did they flow specifically to Latin America? One institutional reason could be the openness of the capital account. Indeed, column (4) shows that countries with more liberalized capital accounts, based on the Chinn and Ito (2006) measure, issued more loans in international markets during the boom. Another determinant of capital flows was geographical distance from the United States: column (5) shows that, the closer a country's most populated city is to New York City, the larger the amount of loans it received. One

[12] We set the variable to zero for countries receiving no loans at all.

reason for this strong pattern is what Devlin (1989) calls the "geographical specialization" of U.S. banks in relatively nearby Latin America.

A natural question is whether capital did simply flow to its most productive uses, or whether it followed higher credit demand. After all, the neoclassical growth model would predict that higher productivity growth attracts higher capital flows, and the permanent income hypothesis would predict a higher need for borrowing in anticipation of higher future income. Columns (6)-(7) look at GDP growth during 1973-75 and the investment-to-GDP ratio as of 1973 as proxies for underlying pull factors or financing needs.

The clearest measure of productivity growth we can construct for this period—the change in log GDP between 1973-75—is not a statistically significant predictor of cross-border loan issuance, despite having being available for a large sample. The investment-to-GDP ratio has the "correct" sign, in that a higher investment ratio at baseline predicts larger loan inflows.

Importantly, however, when we challenge the different factors to a statistical horse race, exposure to London banks is the single strongest predictor of which countries were issued loans during the 1970s boom. In fact, when including all covariates jointly, almost all others lose statistical significance. In sum, our takeaway is that push factors—specifically, greater exposure to Eurodollar banks with London branches—was critical for understanding the 1970s credit boom.

V.2 Credit Expansion and the 1970s-80s Boom-Bust Cycle

It has been well-documented that credit expansions are a frequent precursor of deep recessions and financial crises (Gourinchas and Obstfeld, 2012; Kalantzis, 2015; Müller and Verner, 2023). If the narrative evidence about the LDC crisis is to believed, the countries that saw the largest credit booms also experienced the most painful adjustments in their aftermath (Devlin, 1989; Sachs, 1987; Federal Deposit Insurance Corporation, 1997).

Figure 8 confirms this pattern based on our newly collected data. Between 1976 and 1981, the countries experiencing the largest inflow of cross-border credit also had a more rapidly expanding economy, as measured by the growth rate of their real GDP. Likewise, they experienced a greater compression in spreads, again suggesting that the credit boom was fueled by an expansion in credit supply. When boom turned to bust however, the same economies saw a larger economic contraction and a greater increase in spreads.

Table 6 challenges this correlation to a statistical test. In particular, we run a set of country-level regressions relating various financial indicators and measures of eco-

nomic activity to the extent to which countries experienced an inflow of cross-border credit, as proxied by the loan issuance relative to GDP over the boom period of 1976-81. Specifically, we estimate the following regression:

$$Y_c = \alpha + \beta L_c^{1976-81} + \varepsilon_c, \tag{6}$$

where $L_c^{1976-81}$ is our measure proxying the magnitude of the credit expansion, continued to be defined as the total loan issuance in country c between 1976 and 1981, scaled by nominal GDP in 1973.

Column (1) reports the coefficient of a regression of the change in average spreads during the boom on our measure for the credit expansion. The coefficient implies that for every percentage point in additional loan issuance (as a share of GDP) during the boom, spreads *decreased* by 0.356 basis points. As argued before, the negative correlation between loan issuance and spreads is suggestive of a credit boom driven by supply as opposed to demand. The lower panels show that the same results holds when restricting the sample to emerging economies and Latin American countries, with a striking similarity in the magnitude of the coefficients across samples. Although the statistical significance vanishes in these smaller samples, the coefficients are still negative, suggesting a compression in spreads accompanying the credit expansion.

Column (2) shows that during the credit boom, countries who experienced a greater credit boom also experienced a contemporaneous boom in real GDP. Additional borrowing equivalent of 1 percentage point of GDP increased the annual growth rate of real GDP by 2.499 basis points above trend. Likewise, this holds with comparable magnitudes for the sample of emerging economies.

In the ensuing bust, during 1982-89, we see a pronounced reversal of these patterns as reported in the remaining columns of Table 6. Additionally, we find that loan issuance during the boom period is predictive of a wide set of measures of likelihood and severity of subsequent sovereign debt crises.

Column (3) shows that during the bust period, spreads increased to a greater extent for countries that previously exhibited a greater credit boom. While this increase is not statistically significant, it suggests that the decline in spreads seen during the boom period is not simply capturing a long run trend of declining spreads, e.g. due to improving country fundamentals.

Column (4) shows that the stronger growth in real GDP seen during the boom reverted during the bust. Additional loan uptake during the boom of one percentage point of GDP predicts real GDP growing 1.903 basis points slower per year between

1981 and 1989. This finding is particularly relevant in light of the previous discussion of the determinants of the credit boom: if the allocation of credit had followed the most productive use of capital or higher expected income, we should observe a positive correlation between credit issuance and subsequent growth rates. The negative correlation in the data thus rejects the hypothesis that capital was predominantly allocated based on expected future income, instead favoring a role for credit supply.

In column (5), we show that overall loan issuance mirrored the boom-bust pattern in real GDP growth. Loan issuance contracted more for countries that had previously experienced a greater credit boom: every percentage point of additional loan issuance relative to GDP predicts a decrease in loan issuance during the bust of 0.110 percentage points. The coefficient is also statistically significant and of a similar magnitude in all three samples.

As the credit boom turned to bust, turmoil ensued for sovereign borrowers. While the precise timing of sovereign debt crises and defaults varied across countries, we construct measures that capture their incidence broadly over the bust period of 1982-89 and relate them to loan inflows during the boom. Columns (6)-(8) report the results. Additional loan issuance during the boom equal to 1% of GDP increased the probability of a sovereign debt crisis, based on the definition of Laeven and Valencia (2020), by 0.621%. The probability of a sovereign default as classified by Asonuma and Trebesch (2016) increased by 0.586%. Countries more exposed to the credit boom also restructured a greater share of their sovereign debt during the 1980s: restructured debt increased by 0.486 percentage points of GDP for every additional percentage point of loan issuance relative to GDP during the boom, based on data on debt restructuring from Cruces and Trebesch (2013). The link between the credit expansion and sovereign debt distress was particularly pronounced for Latin American borrowers.

The results in Table 6 discussed so far were based on OLS regressions. However, Table 5 suggests that the degree to which countries experienced loan inflows was partly predictable by indicators capturing credit supply. This allows us to ask whether we can forecast subsequent macroeconomic outcomes with the component of the borrowing spree accounted for by credit supply.

We implement this methodology by means of a two-stage least squares regression setup. The first step consists of projecting loan inflows on credit supply indicators as in Table 5. The second step then projects macroeconomic outcomes, such as an indicator for a sovereign default, on the fitted values from the first step regression. More formally, we can write this method as the following set of equations:

$$L_c^{1976-81} = \alpha_1 + \beta_1 Z_c + \varepsilon_{1c} \tag{7}$$

$$Y_c = \alpha_2 + \beta_2 \widehat{L}_c^{1976-81} + \varepsilon_{2c} \tag{8}$$

where $L_c^{1976-81}$ continues to denote the loan expansion during 1976-81 (relative to 1973 GDP) and Z_c is a variable capturing credit supply. We estimate equations (7) and (8) jointly to take into account the generated-regressor issue.

Our preferred measure of credit supply is the first principal component of two variables: a country's initial exposure to London banks (capturing exposure to the international push factor) and the initial interest rate a country paid on its government debt based on the World Bank's International Debt Statistics or IDS (capturing country risk).[13] These factors jointly capture an outward shift in the credit supply curve, which should increase lending to ex-ante riskier borrowers. From a statistical perspective, they are also the variables most predictive of loan inflows during the boom, and taking the first principal component maximizes their information content while sidestepping issues related to multiple instruments.[14]

While the methodology we outline above follows the exact mechanics of an instrumental variables (IV) approach, we do not claim that the estimates from equation (8) necessarily capture the causal effect of credit supply. The reason is that the "first stage" is unlikely to plausibly satisfy the exclusion restriction. That said, our estimates provide an answer to a central question: Does the component of the credit expansion predicted by a shift in credit supply foreshadow subsequent economic turmoil?

For brevity, we only report the results for a single key dependent variable, the incidence of sovereign defaults, in column (9) of Table 6. The remainder, including first-step estimates, is in Table A.1. The second-stage coefficient is large and statistically significant for the all samples. While there are other possibilities, the fact that the 2SLS coefficient of 1.289 is greater than the OLS coefficient of 0.586 could suggest that the OLS estimates are downward biased without sorting out the supply versus demand drivers of the credit expansion. In other words, the extent to which a country has been exposed to London banks in the pre-period predicts not only loan issuance during the boom, but also a higher likelihood of a sovereign default during the less developed country crisis.

In summary, the results presented in Table 6 exhibit a striking pattern. A credit boom

[13] Note again that the IDS data are only available for emerging economies.

[14] Initial exposure to London banks and interest rates are also the variables one would pick based on the LASSO IV approach of Belloni, Chernozhukov, and Hansen (2014). Including these measures separately, rather than their first principal component, leads to qualitatively and quantitatively similar results.

that originated with a small number of global banks active in the Eurodollar market in London during the 1970s ended up in a severe and long-lasting bust across a wide spectrum of countries around the globe. These countries experienced painful defaults and restructurings for the rest of the 1980s (and for some of them, well after that).

VI. Conclusion

Booms in credit that are followed by severe recessions are a recurring theme in economic history. A better understanding of these cycles requires an analysis of what gave rise to the boom in the first place (Sufi and Taylor, 2021). Our analysis suggests that an increased willingness of global banks to extend loans at compressed rates can precipitate boom-bust cycles in places far away from their headquarters and ultimately sow the seeds of sovereign debt crises.

We document evidence in favor of this view during a critical case study: the first wave of financial crises in Less Developed Countries (LDCs) following the long period of relative calm in the 30 years after World War II. Our findings point to a global source of coordinated booms and busts across countries, in line with the idea of a global financial cycle (Rey, 2015). Different from the existing literature, our setting allows us to pinpoint the specific origin of a global credit supply shock, the rise of the Eurodollar market, as the initial "dislocation" which we are able to tie to the wave of LDC crises.

Our work also poses some questions for theories motivated by the developing country defaults at the time. A frequent feature of such models is that buoyant fiscal spending by politicians with limited commitment is a core contributor to such defaults. While our results do not rule out such factors, they suggest a perhaps even more central role for credit supply, which then ultimately escalates into sovereign debt crises.

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TABLES

TABLE 1: A New Dataset on Loans Issued in International Markets, 1973-89

	Loan amount ($ billion) (1)	Number of loans (2)	Number of borrowers (3)	Number of countries (4)	Number of banks (5)
Full sample	2244.5	17215	5473	153	827
By year					
1973	20.5	393	264	61	115
1974	28.5	473	357	67	121
1975	20.6	418	297	70	127
1976	29.6	389	293	65	121
1977	31.1	406	297	76	118
1978	67.9	688	458	84	181
1979	67.0	746	498	89	175
1980	69.1	775	537	81	194
1981	162.3	1235	728	104	223
1982	132.8	1266	699	91	227
1983	98.2	926	541	88	210
1984	137.8	1151	585	80	230
1985	238.5	1392	773	76	252
1986	238.6	1570	877	77	219
1987	316.1	1972	1039	76	247
1988	319.5	1989	1078	68	235
1989	266.2	1426	816	73	225
By country group					
Advanced economies	1600.4	9059	3257	36	529
Emerging economies	628.8	8038	2253	115	575
Supranational	15.3	118	29	2	48

Notes: This table plots descriptive statistics on the coverage of our new loan-level dataset. See Section II for details on data sources and construction.

TABLE 2: First Stage – London Branches and Eurodollar Exposure

	U.S. Banks				Global Banks		
	Foreign/ Total deposits (CR, '76)	Foreign/ Total deposits (CS, '76)	Δ_{70-76} Foreign/ Total deposits	Δ_{76-81} Foreign gov. dep. share	Number of countries w/ branch	Branch in oil country	Joint Venture w/ oil bank, '78
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Panel A: All Banks							
London branch	0.278**	0.305**	0.090**	0.026**	2.584**	0.212**	0.123**
	(0.043)	(0.033)	(0.019)	(0.006)	(0.519)	(0.042)	(0.038)
Observations	12,689	34	34	2,015	346	629	1,714
R^2	0.39	0.65	0.30	0.11	0.10	0.07	0.03
Panel B: Large Banks							
London branch	0.216**	0.311**	0.106**	0.025**	2.794**	0.278**	0.096*
	(0.048)	(0.037)	(0.017)	(0.007)	(0.650)	(0.048)	(0.039)
Observations	50	21	21	28	199	482	612
R^2	0.38	0.77	0.69	0.37	0.08	0.13	0.02

Notes: This table reports the results from bank-level regressions relating banks' exposure to petrodollar inflows in the Eurodollar market to whether they had a London branch in 1967. Panel A lists results for all banks in the sample, Panel B restricts the sample to banks who either gave at least 5 loans in our syndicated loan data, or appeared in the top international bank rankings by the magazine *The Banker*. In column (1), foreign deposits are defined based on Call Report data, which report such data for the first time in 1976. In column (2) and (3), we use data on publicly-listed banks from Compustat Bank, which includes data on foreign deposits since 1970. Column (4) looks at the share of foreign governments in total deposits from the Call Reports, which rose during the oil boom of the late 1970s. Column (5) uses the number of countries with a branch, a measure of internationalization. Column (6) indicates banks with at least one branch in an oil-producing country. Column (7) uses an indicator variable for banks who were in a joint venture with a bank from an oil-producing country as of 1978. Robust standard errors are reported in parentheses, with **, *, and + indicating statistical significance at the 1%, 5%, and 10% level, respectively.

Sources: The indicator *London branch* is constructed based on the full address directory of banks in London published in *The Bankers' Almanac and Yearbook 1967* (see Section A.2.1). Information on bank branches in other countries are taken from the same source. Bank balance sheet and income statement data are taken from the FFIEC's *Consolidated Report of Condition and Income* ("Call Reports"). See Section A.2.2 for details on data cleaning and variable construction. Data on foreign deposits in columns (2) and (3) is taken from Compustat. Data on joint ventures with banks in major oil-producing countries comes from a 1978 edition of *The Banker* (see Section A.2.3).

TABLE 3: Eurodollar Exposure and Bank-Level Consequences

	Boom				Bust			
	Δ_{73-81} Assets	$\Delta_{7375-7681}$ Loans to LatAm	Δ_{78-81} Foreign Loan Share	1981 Foreign Gov. Share	Δ_{81-85} Assets	$\Delta_{7681-8285}$ Loans to LatAm	1989 NPL Share	Δ_{81-89} ROE
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: All Banks								
London branch	0.317**	1.147**	0.075*	0.023*	-0.206**	-0.698+	0.029**	-0.343*
	(0.057)	(0.377)	(0.032)	(0.011)	(0.074)	(0.350)	(0.005)	(0.156)
Observations	9,345	62	77	113	7,812	74	9,946	5,018
R^2	0.18	0.13	0.22	0.08	0.09	0.06	0.36	0.01
Panel B: Large Banks								
London branch	0.296**	1.131**	0.075+	0.035**	-0.269**	-0.698+	0.029**	-0.405*
	(0.062)	(0.392)	(0.036)	(0.011)	(0.082)	(0.350)	(0.006)	(0.160)
Observations	52	60	20	24	42	74	43	33
R^2	0.35	0.13	0.18	0.27	0.21	0.06	0.45	0.17

Notes: This table reports the results from regressions relating different measures of banks' assets, loan exposure to foreigners in general and Latin American borrowers specifically, as well as their non-performing loans and return on equity to whether they had a London branch in 1967, our measure of exposure to the rise of the Eurodollar market. Columns (1) and (5) show the change in log assets over the 1973-1981 & 1981-1985. Columns (2) and (6) show the change in log loan issuance to Latin American borrowers over 1973-1975 to 1976-1981, and 1976-1981 to 1982-1985, respectively. Column (3) shows the change in the share of loans to foreigners between 1978 and 1981, column (4) the share of loans to foreign governments in 1981. Column (7) shows the share of non-performing loans in 1989, and column (8) shows the change in return on equity between 1981 and 1989. Panel A includes all banks in our sample, while Panel B only includes banks that either issued at least 5 loans in our syndicated loan database, or were listed in the top international bank rankings published by *The Banker* (see *Sources* below). All regressions except the ones solely based on syndicated loan data in columns (2) and (6) are weighted by assets in the base year (e.g. 1973 in column (1), 1978 in column (3) etc.). Shares in columns (3), (4) and (7) are defined relative to overall outstanding loans. The indicated years are dictated by data availability, see Appendix Table A.6 for details. Robust standard errors are reported in parentheses, with **, *, and + indicating statistical significance at the 1%, 5%, and 10% level, respectively.

Sources: The indicator *London branch* is constructed based on the full address directory of banks in London published in *The Bankers' Almanac and Yearbook 1967* (see Section A.2.1). Bank balance sheet and income statement data are taken from the FFIEC's *Consolidated Report of Condition and Income* ("Call Reports"). See Section A.2.2 for details on data cleaning and variable construction. Data on non-US bank balance sheets and income statements are based on the "Top 300" and "Top 500" rankings published by *The Banker* (various issues), which we digitized from historical print editions for the benchmark years 1975, 1980, and 1988 (see Section A.2.3). Loan data digitized from the World Bank publication *Borrowing in International Capital Markets* (1973-80) and *Euromoney* magazine (1981-89). See Section II for details.

TABLE 4: Loan-Level Results

	Loan Spread				
	(1)	(2)	(3)	(4)	(5)
$\text{London}_b \times \text{Boom}_t$	-0.091*				
	(0.039)				
$\text{London}_b \times \text{Boom}_t \times \text{LatAm}_c$		-0.492**	-0.424**	-0.073	-0.004
		(0.188)	(0.159)	(0.074)	(0.070)
$\text{London}_b \times \text{Boom}_t \times \text{LatAm}_c \times \text{Gov}_i$					-0.344+
					(0.173)
Observations	1,822	4,370	2,645	1,265	1,265
No. of countries	73	125	90	69	69
No. of borrowers	336	1,869	536	264	264
No. of banks	186	236	171	119	119
R^2	0.95	0.70	0.94	0.98	0.98
Avg. spread (percent)	0.835	0.899	0.876	0.817	0.817
Loan controls	✓	✓	✓	✓	✓
Fixed effects					
Bank	✓				
Bank × Year		✓	✓	✓	✓
Borrower × $\text{Boom}_{1976-81}$			✓		
Borrower × Year	✓			✓	✓

Notes: This table reports the result of regressions on the borrower-bank-year level, where the dependent variable is the loan spread. The sample period is 1976-85. London_b is an indicator equal to one if a bank had a presence in London in 1967. Boom_t is a dummy for the boom period of 1976-81. LatAm_i is an indicator for countries in Latin America and the Caribbean and Gov_i for central and local government borrowers. Loan controls include the USD loan amount (in logs), maturity (in months), and a dummy for government borrowers (absorbed by the fixed effects in all regressions except column 2). The regressions include the full set of lower order interaction terms (not reported here). Regressions are weighted by the loan amount, and standard errors are double-clustered on the borrower country and bank level. **, *, and + indicating statistical significance at the 1%, 5%, and 10% level, respectively.

Sources: Loan data digitized from the World Bank publication *Borrowing in International Capital Markets* (1973-80) and *Euromoney* magazine (1981-89). See Section II for details. The indicator *London branch* is constructed based on the full address directory of banks in London published in *The Bankers' Almanac and Yearbook 1967* (see Section A.2.1).

TABLE 5: What Predicts Loan Inflows During the Boom?

	Total Loan Issuance$_{1976-81}$ / GDP_{1973}							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Exposure to London Banks	0.286**							0.321**
	(0.047)							(0.097)
Initial Spread		0.056**						0.010
		(0.010)						(0.022)
Initial Maturity			-0.011**					0.001
			(0.003)					(0.004)
Capital Account Openness				0.039+				0.042
				(0.020)				(0.027)
Distance from the US					-0.011*			-0.019+
					(0.005)			(0.010)
GDP growth						0.087		0.461
						(0.166)		(0.335)
Investment/GDP							0.006*	0.002
							(0.003)	(0.003)
Observations	141	69	69	102	140	141	87	47
R^2	0.22	0.27	0.16	0.05	0.03	0.00	0.07	0.55

Notes: This table reports the results of country-level regressions of total cumulative loan issuance during 1976-81 (scaled by nominal 1973 GDP) on various predetermined factors. *Exposure to London Banks* measures the share of loans a country received in 1973-75 that came from a bank with a branch in London. *Initial Spread* measures the spreads governments were charged, and *Initial Maturity* the maturity of their debt, over the pre-period of 1973-75, as reported in the World Bank's International Debt Statistics. *Capital Account Openness* captures the Chinn-Ito measure of capital account openness in 1976. *Distance from the US* measures the linear distance from a country's most populated city to New York City. *GDP growth* and *Investment-to-GDP* are averages for 1973-75.

TABLE 6: Cross-Border Loan Issuance and Boom-Bust Cycles

	Boom period, 1976-81		Bust Period, 1981-89						
	$\Delta_{7375-7681}$ Spreads	Δ_{76-81} GDP	$\Delta_{7681-8289}$ Spreads	Δ_{81-89} GDP	$\Delta_{7681-8289}$ Loan Issuance	Debt Restr._{82-89}	Sovereign Debt Crisis_{82-89}	Sovereign Default_{82-89}	Sovereign Default_{82-89}
	OLS	OLS	OLS	OLS	OLS	OLS	OLS	OLS	IV
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Panel A: All countries									
Loan Issuance	-0.356+	0.025**	0.297	-0.019**	-0.110**	0.486**	0.621**	0.586**	1.289**
	(0.196)	(0.010)	(0.181)	(0.006)	(0.008)	(0.162)	(0.188)	(0.172)	(0.346)
Kleibergen-Paap F-stat									44.17
Observations	61	141	45	141	140	141	115	141	69
R^2	0.05	0.07	0.04	0.06	0.64	0.15	0.10	0.09	0.21
Panel B: Emerging economies									
Loan Issuance	-0.360	0.022*	0.152	-0.016*	-0.117**	0.492**	0.607**	0.516**	1.273**
	(0.232)	(0.010)	(0.202)	(0.007)	(0.005)	(0.172)	(0.195)	(0.186)	(0.349)
Kleibergen-Paap F-stat									43.43
Observations	44	107	29	107	106	107	95	107	68
R^2	0.05	0.05	0.01	0.04	0.86	0.14	0.10	0.07	0.20
Panel C: Latin America									
Loan Issuance	-0.347	0.015	-1.576	-0.014*	-0.126**	0.885**	0.654*	0.814**	1.528+
	(0.320)	(0.011)	(1.130)	(0.006)	(0.006)	(0.301)	(0.290)	(0.198)	(0.856)
Kleibergen-Paap F-stat									4.59
Observations	17	31	5	31	31	31	24	31	19
R^2	0.06	0.05	0.28	0.08	0.96	0.23	0.14	0.21	-0.28

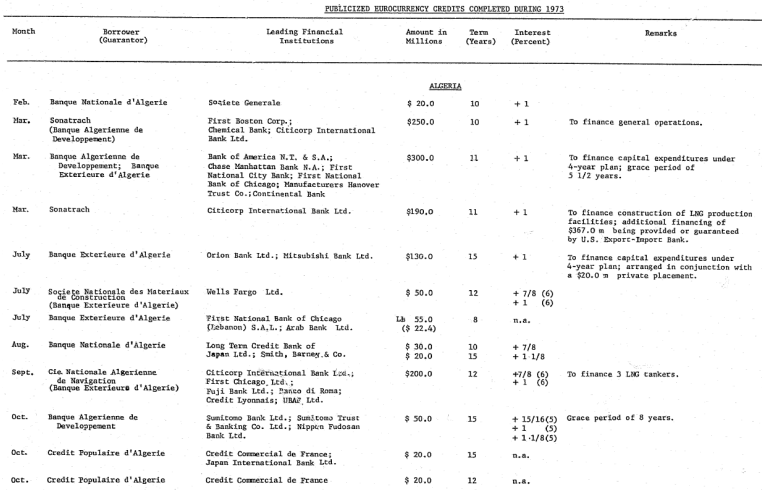
Notes: This table reports regressions relating inflows of cross-border loans to boom-bust cycles. The independent variable in all regressions is the total loan issuance in the boom period of 1976-81, scaled by 1973 GDP. In column (9), we instrument this variable with the first principal component of the pre-existing share of loans by banks with a London branch between 1973-75 and the average spread a country was charged during the same period. The dependent variables are constructed as follows: Column (1) is the change in average spreads from 1973-75 to 1976-81, weighted by loan amounts. Column (2) is the growth in real GDP between 1976 and 1981, residualized by country and year dummies over the 1973-89 period. Column (3) is analogous to column (1), but the change is from 1976-81 to 1982-89. Column (4) is analogous to column (2), but between 1981 and 1989. Column (5) is the log change in total loan issuance from 1976-81 to 1982-89. Column (6) is the total amount of sovereign debt that was restructured between 1982 and 1989, scaled by GDP in 1975. Column (7) is a dummy for a country experiencing a sovereign debt crisis in 1982-89. Columns (8)-(9) use a dummy for a country experiencing a sovereign debt default in 1982-89. Standard errors are heteroskedasticity-robust, with **, *, and + indicating statistical significance at the 1%, 5%, and 10% level, respectively.

Sources: Loan data digitized from the World Bank publication *Borrowing in International Capital Markets* (1973-80) and *Euromoney* magazine (1981-89). See Section II for details. Macroeconomic variables come from Müller et al. (2025). Crisis definitions are based on Laeven and Valencia (2020). Data on sovereign defaults are from Asonuma and Trebesch (2016). Data on debt restructuring are from Cruces and Trebesch (2013).

VII. FIGURES

FIGURE 1: Example Images of the Original Data Sources

(A) World Bank



PUBLICIZED EUROCURRENCY CREDITS COMPLETED DURING 1973

Month	Borrower (Guarantor)	Leading Financial Institutions	Amount in Millions	Term (Years)	Interest (Percent)	Remarks
			ALGERIA			
Feb.	Banque Nationale d'Algerie	Societe Generale	$ 20.0	10	+ 1	
Mar.	Sonatrach (Banque Algerienne de Developpement)	First Boston Corp.; Chemical Bank; Citicorp International Bank Ltd.	$250.0	10	+ 1	To finance general operations.
Mar.	Banque Algerienne de Developpement; Banque Exterieure d'Algerie	Bank of America N.T. & S.A.; Chase Manhattan Bank N.A.; First National City Bank; First National Bank of Chicago; Manufacturers Hanover Trust Co.; Continental Bank	$300.0	11	+ 1	To finance capital expenditures under 4-year plan; grace period of 3 1/2 years.
Mar.	Sonatrach	Citicorp International Bank Ltd.	$190.0	11	+ 1	To finance construction of LNG production facilities; additional financing of $367.0 m being provided or guaranteed by U.S. Export-Import Bank.
July	Banque Exterieure d'Algerie	Orion Bank Ltd.; Mitsubishi Bank Ltd.	$130.0	15	+ 1	To finance capital expenditures under 4-year plan; arranged in conjunction with a $20.0 m privace placement.
July	Societe Nationale des Materiaux de Construction (Banque Exterieure d'Algerie)	Wells Fargo Ltd.	$ 50.0	12	+ 7/8 (6) + 1 (6)	
July	Banque Exterieure d'Algerie	First National Bank of Chicago (Lebanon) S.A.L.; Arab Bank Ltd.	Lb 55.0 ($ 22.4)	8	n.a.	
Aug.	Banque Nationale d'Algerie	Long Term Credit Bank of Japan Ltd.; Smith, Barney & Co.	$ 30.0 $ 20.0	10 15	+ 7/8 + 1 1/8	
Sept.	Cie. Nationale Algerienne de Navigation (Banque Exterieure d'Algerie)	Citicorp International Bank Ltd.; First Chicago Ltd.; Fuji Bank Ltd.; Banco di Roma; Credit Lyonnais; UBAF Ltd.	$200.0	12	+7/8 (6) + 1 (6)	To finance 3 LNG tankers.
Oct.	Banque Algerienne de Developpement	Sumitomo Bank Ltd.; Sumitomo Trust & Banking Co. Ltd.; Nippon Fudosan Bank Ltd.	$ 50.0	15	+ 15/16(5) + 1 (5) + 1 1/8(5)	Grace period of 8 years.
Oct.	Credit Populaire d'Algerie	Credit Commercial de France; Japan International Bank Ltd.	$ 20.0	15	n.a.	
Oct.	Credit Populaire d'Algerie	Credit Commercial de France	$ 20.0	12	n.a.	

(B) Euromoney



Japan

● **Borrower:** Promise Co Ltd $15 million
Terms: Maturity 2 years
Lead managers and providers: Norwest Bank Minneapolis; Banco di Roma (Chicago); Pittsburgh National Bank; National Australia Bank

Korea

● **Borrower:** Kukje American Corporation $30 million
Guaranteed by: Kukje Corporation (Seoul)
Standby facility for the establishment of a commercial paper issuance programme. Master letter of credit to be issued by Marine Midland Bank in favour of American International Group which will issue its bonds in favour of the trustee acting on behalf of the commercial paper noteholders
Terms: 1 year with a ⅛% utilization fee payable quarterly. The margin for any drawdown is 2% above Marine Midland's prime rate
Lead manager: Marine Midland Bank
● **Borrower:** Hankuk Glass Industry Co $36 million
Tranche: (A) $31 million (B) $5 million — tax-spared, provided by NatWest
Terms: (A) Years 1-3 at 1% over Libor, years 4-8 at 1⅛% (B) 8 years at ⅜% over Libor
Lead managers: BA Asia; KDB International (Singapore)
● **Borrower:** Saehan Media Corporation $20 million
Guaranteed by: Hanil Bank Ltd
Terms: 8 years at 1⅛% above Libor
Lead managers: Citicorp Capital Markets Group; KEB (Asia) Finance Ltd

Malaysia

● **Borrower:** Perbadanang National Shipping Line Berhad $30 million
Guaranteed by: the Federation of Malaysia
Terms: 10 years at ½% over Libor
Lead managers: Chase Manhattan Bank; Bank Bumiputra Malaysia; Tokai Bank; United Malayan Banking Corp; Saitama Bank

New Zealand

● **Borrower:** Indosuez New Zealand Ltd £3 million
Sole provider: Indosuez Export Finance Ltd

Norway

● **Borrower:** A/S Pelican & Co K/S $100 million
Tranche: (A) $80 million — project loan (B) $20 million — corporate loan. Guaranteed by Bergen Bank SA
Terms: (A) maturity 8 years (B) 9 years at ½% over Libor
Lead managers and providers: Barclays Bank International; Banque de la Société Financière Européene; Algemene Bank Nederland; Amsterdam-Rotterdam Bank; Banque Nationale de Paris; Bank of Montreal; Banque Indosuez; Morgan Grenfell; Royal Bank of Canada; Union Bank of Switzerland
● **Borrower:** Sparebanken Oslo Akershus $45 million
Terms: 5 years at ⅛% over Libor
Lead manager and agent: Manufacturers Hanover Ltd
● **Borrower:** Tofte Industrier A/S $26.3 million
Temrs: Years 1-5 at ¾% above Libor, years 6-10 ⅞%
Lead manager and agent: Citicorp International Bank Ltd

Oman

● **Borrower:** National Hotels Company of Oman $6 million
Terms: maturity 7 years
Lead manager and agent: Banque Paribas

Panama

● **Borrower:** Westhydro Contractors (W.H.C.) SA Panama $30 million
Guaranteed by: Impersit SpA
Terms: 5 years at ¾% over Libor
Lead managers and providers: Banca Commerciale Italiana; Royal Bank of Canada (Barbados); Banca della Svizzera Italiana; Crédit Agricole; Cassa di Risparmio delle Provincie Lombarde (CARIPLO); Continental Illinois; Banca Union di Credito

Philippines

● **Borrower:** National Power Corporation of the Philippines $100 million
Guaranteed by: the US Eximbank (100%) and the Republic of the Philippines
Tranche: (A) $50 million (B) $50 million
Terms: (A) 8 years at ¼% over Libor (B) 8 years at 3/16% over Libor
Sole provider: American Express Export Credit Corp

Portugal

● **Borrower:** Companhia Nacional de Petroquimica £20 million
Terms: Maturity 2 years with the option to extend for a further year, at ⅜% over Libor plus MLAs. Fully revolving
Lead managers: Samuel Montagu; Banque Belge
● **Borrower:** Electricidade de Portugal $20 million
Terms: 1 year at ⅜% over Libor
Lead manager and agent: Al Saudi Banque
● **Borrower:** Republic of Portugal ¥ 5 billion
Terms: 8 years at 0.2% over JLTP. Fixed rate
Lead manager and agent: IBJ

Saudi Arabia

● **Borrower:** S. Al-Amry Establishment/CMC Construction $23.57 million (equivalent)
Tranche: (A) SR 10.75 million — performance guarantees (B) SR 43 million — advance payment guarantees (C) $2.5 million — (1) letter of credit and (2) refinancing facility (D) $2.5 million — progress payment facility (E) $3 million — working capital loan
Terms: (A) 2 years at 1⅛% guaranteed commission (B) 1 year at 1⅛% guarantee commission (C) 1¼ years at (1) 1⅛% letter of credit commission (2) 1¼% over Bibor (D) 1 year at 1¼% over Bibor (E) 1 year at 1⅛% over Bibor, extendable for 3 months
Lead managers: National Bank of Bahrain; Kuwait Asia Bank
● **Borrower:** Saudi Compound Company $53.3 million
Terms: Maturity March 31st, 1989. Margin 1¾% over Bibor
Lead managers: Bank of Bahrain and Kuwa Gulf Bank of Kuwait; KFTCIC

Seychelles

● **Borrower:** Seychelles Public Transport Corporation Swfr 22.7 million
Guaranteed by: the Republic of the Seychell and SACE
Terms: Maturity 5 years from each shipment at 7% fixed rate. There will be a Mediocredito Centrale subsidy for the difference between the fixed rate and a floating rate of ¾% over Libor
Arrangers: Euromobiliare Ltd; Samuel Montagu

Singapore

● **Borrower:** Indo-Cement Singapore Priva Ltd S$25 million
Terms: 7 years 3 months at 1¼% over Sibo
Arranger: First Pacific Finance
Lead managers and providers: Bank Negara Indonesia 1946; Amsterdam-Rotterdam Bank; Bank of America; Bank of Tokyo

South Africa

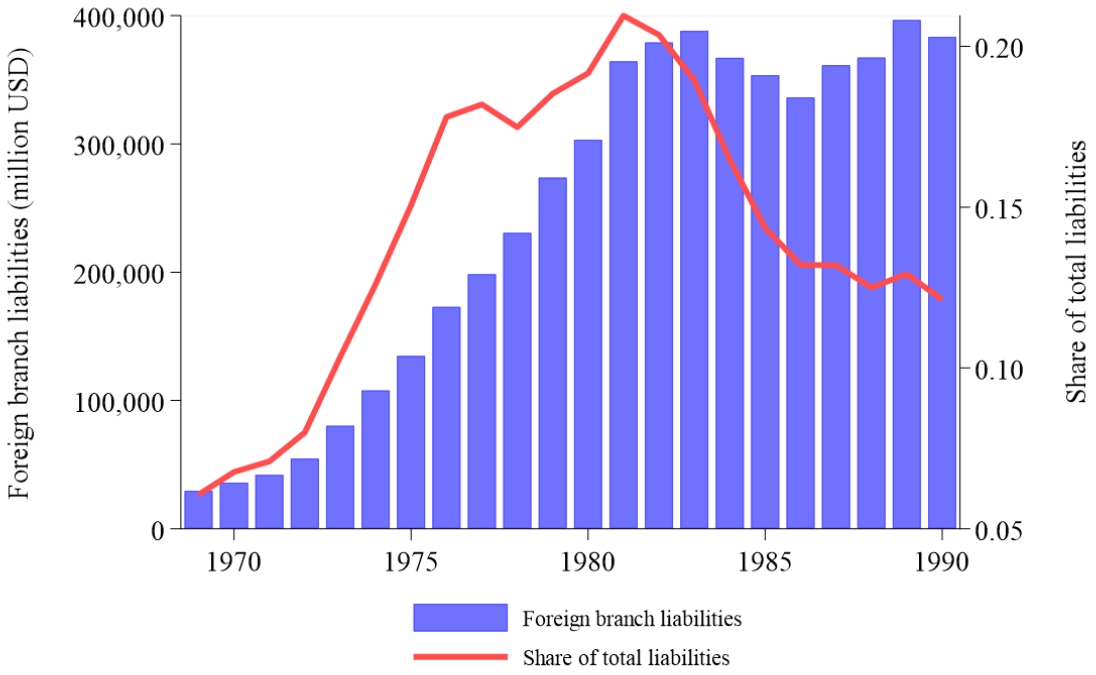
● **Borrower:** Barclays National Bank $140 million
Remarks: Club deal. Morgan Guaranty was one of the lead managers
● **Borrower:** Republic of South Africa Swfr 70 million
Terms: 5½ years at 6% fixed rate
Lead manager and agent: Union Bank of Switzerland
● **Borrower:** South African Transport Servi £10 million
Sole provider: Lloyds Bank International

Spain

● **Borrower:** Autopistas del Atlantico, C.E.S.A. DM 75 million
Guaranteed by: the Kingdom of Spain
Terms: Years 1-3 at ¾% over Libor, years 4- at ⅞%
Lead managers and providers: Banco Arabe Espanol; Arab Banking Corp; Crédit Commercial de France; Kredietbank; KFTCIC; FRAB Bank; Arab Hellenic Ban
● **Borrower:** Compania Telefonica Nacional de Espana $100 million
Terms: Years 1-6 at ½% over Libor, years 7-10 at ⅝%
Lead managers and providers: Sumitomo Ban (Madrid); Taiyo Kobe Bank; Fuji Bank; Sanwa Bank; Dai-Ichi Kangyo Bank; Deutsche Bank Compagnie Financière Luxembourg; Banque Bruxelles Lambert; Banque Nationale de Paris; Toronto-Dominion International; Bank of Nova Scotia Group
● **Borrower:** Fuerzas Electricas de Cataluna SA $50 million
Terms: Commercial paper facility, supported by a surety bond issued by the National Union Fire Insurance Company of Pittsburgh, which expires after 3 years, extendable a further 2 years, with an extension fee of ⅛%. During this period the borrower can request 90 days loans at either ⅜% over US prime, or 1% over

128 Euromoney March 1984

FIGURE 2: U.S. Banks' Foreign Branch Liabilities

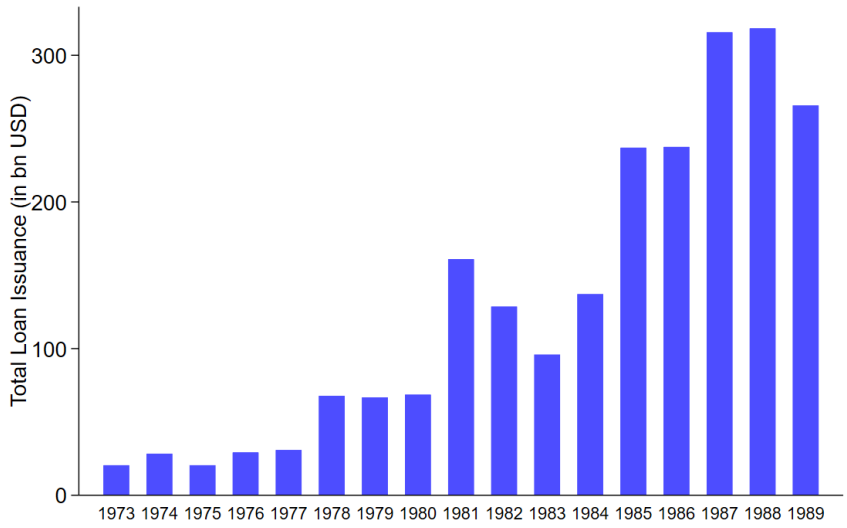


Notes: This figure documents the increasing importance of foreign deposits in U.S. banks' funding structure. It plots the total liabilities of U.S. banks' foreign branches (in USD billions), and the share of foreign branches in their overall liabilities.

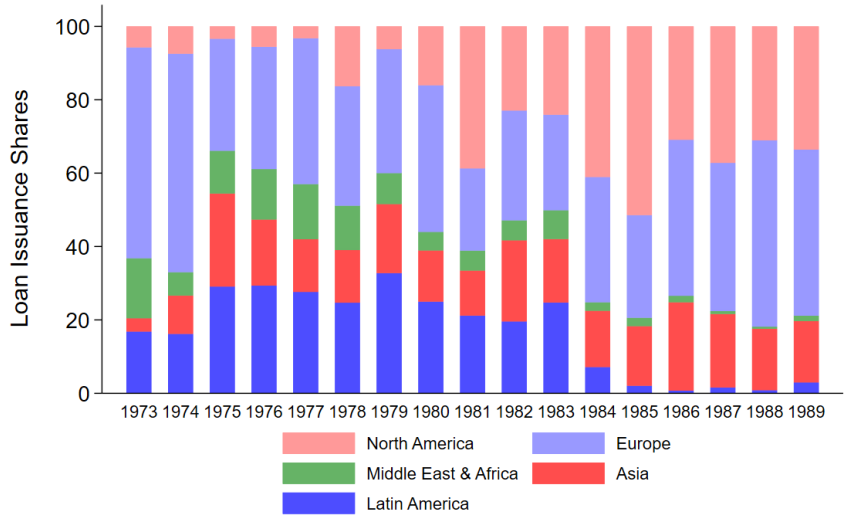
Sources: Liabilities of U.S. banks and their foreign branches up to 1975 are from the *Federal Reserve Bulletin* (various years). Total liabilities after 1975 are from the *Federal Reserve*'s H.8 release.

FIGURE 3: The LDC Boom-Bust Cycle – Loan Volumes and Regional Shares

(A) Issuance Volume by Year



(B) Issuance Share by Region

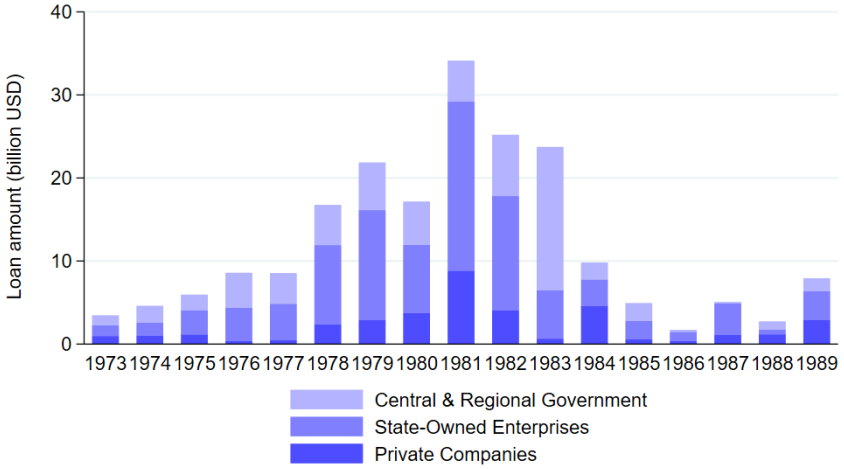


Notes: These figures plot the composition of new loan issuance by the region or sector of the borrower.

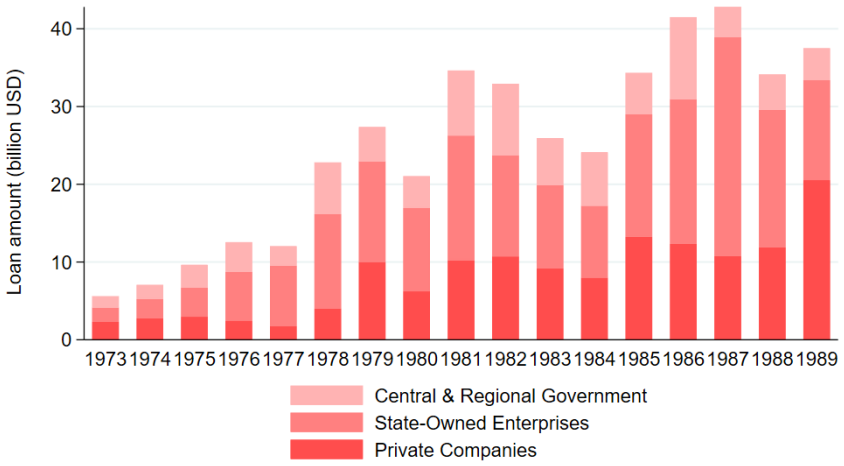
Sources: Loan data digitized from the World Bank publication *Borrowing in International Capital Markets* (1973-80) and *Euromoney* magazine (1981-89). See Section II for details. Country classifications are based on the World Bank's *World Development Report* (1980 edition).

FIGURE 4: Loan Issuance by Borrower Region and Sector

(A) Loan Issuance to Latin America



(B) Loan Issuance to other Emerging Markets

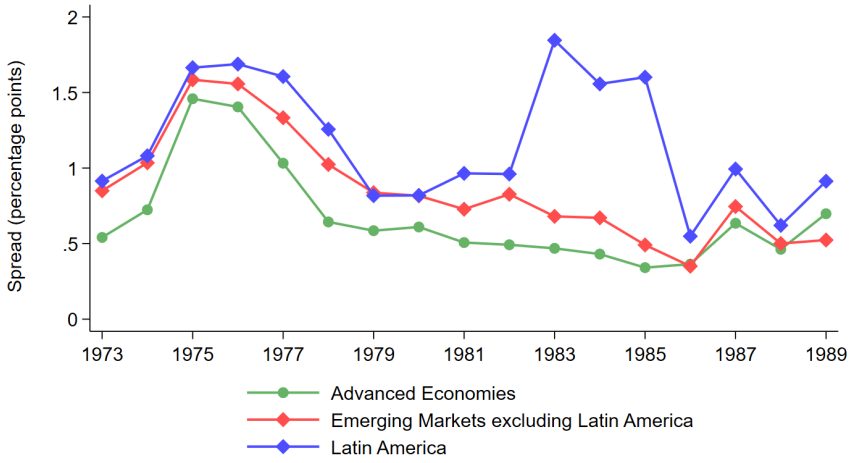


Notes: These figures plot the composition of new loan issuance by the region or sector of the borrower.

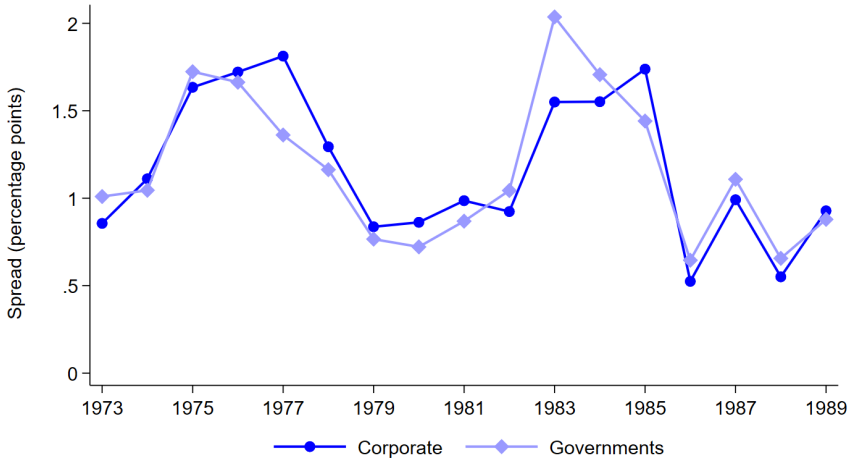
Sources: Loan data digitized from the World Bank publication *Borrowing in International Capital Markets* (1973-80) and *Euromoney* magazine (1981-89). See Section II for details. Country classifications are based on the World Bank's *World Development Report* (1980 edition).

FIGURE 5: Spreads of Newly Issued Loans by Borrower Region and Type

(A) Spreads by Borrower Region



(B) Spreads in Latin America

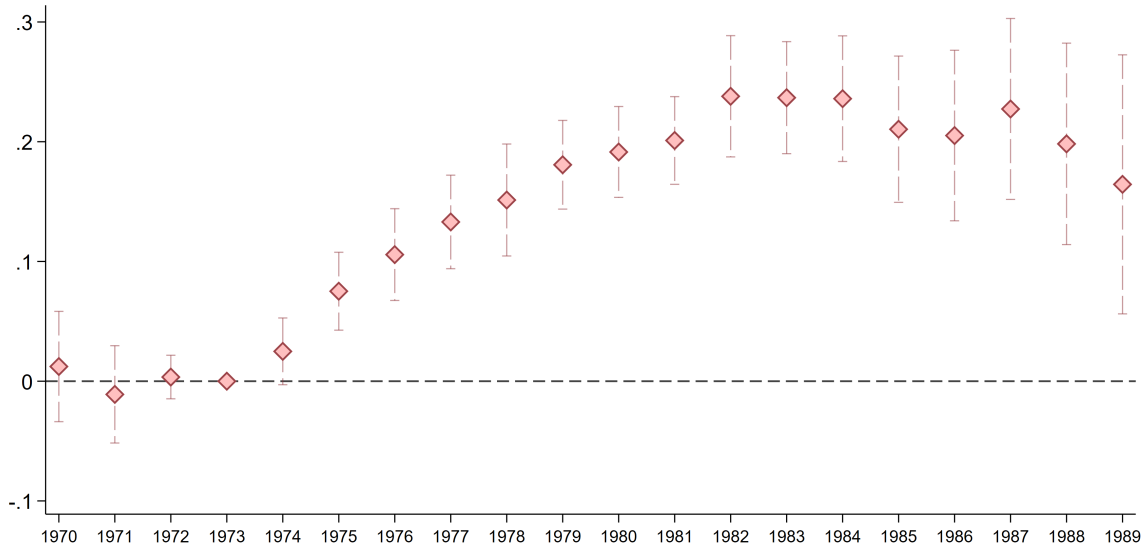


Notes: These figures plot the average interest rate spreads of newly issued loans by country group and the sector of the issuer. We classify non-financial and financial corporations as corporate. Loan terms are weighted by loan size.

Sources: Loan data digitized from the World Bank publication *Borrowing in International Capital Markets* (1973-80) and *Euromoney* magazine (1981-89). See Section II for details. Country classifications are based on the World Bank's *World Development Report* (1980 edition).

FIGURE 6: London Branches, Eurodollars, and the Petrodollar Shock

(A) Foreign Deposit Share



(B) Deposit Share from Foreign Governments and Oil Prices

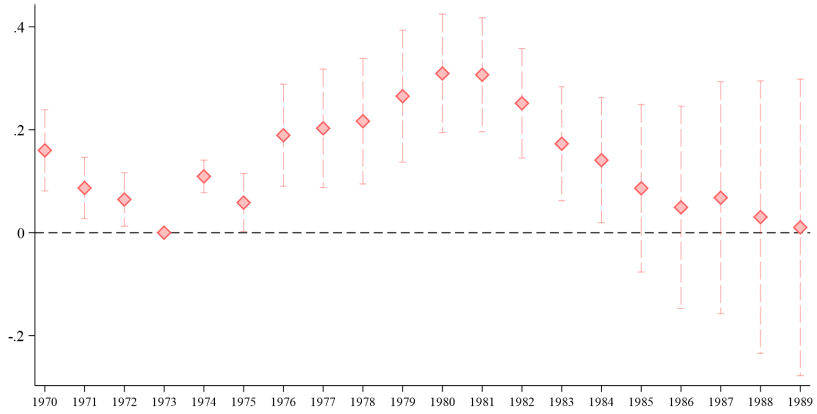


Notes: These figures plot the regression estimates β_t of a bank-level event study specification as in Equation (2). In Panel A, the dependent variable is the share of banks' foreign in total deposits, i.e. their share of Eurodollar deposits, based on data from Compustat Bank. In Panel B, the dependent variable is the share of deposits by foreign governments, where we plot the event study coefficients next to the price of crude oil. Note that the data on foreign government deposits is only available in the Call Reports starting in 1976. We plot 95% confidence intervals based on standard errors clustered by banks.

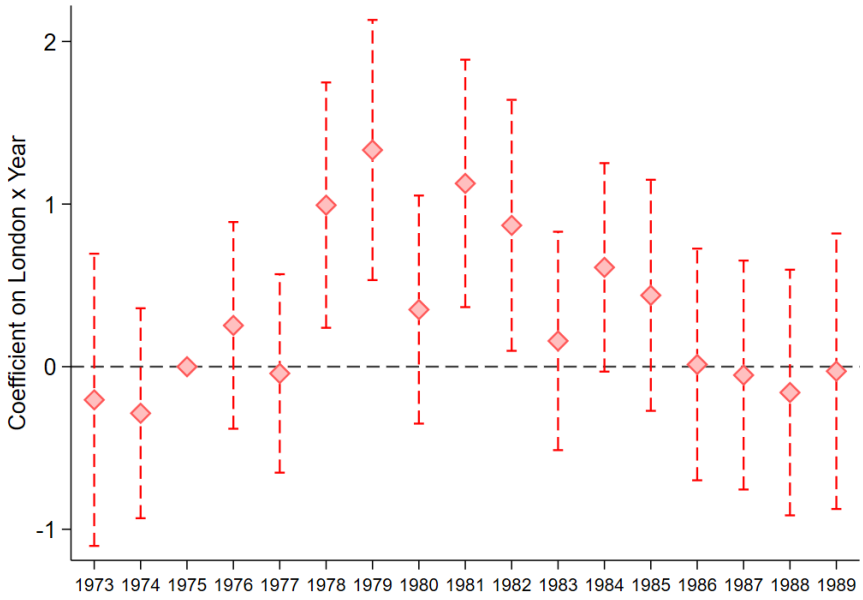
Sources: The indicator *London branch* is constructed based on the full address directory of banks in London published in *The Bankers' Almanac and Yearbook 1967* (see Section A.2.1). In Panel A, we use data from Compustat Bank. In Panel B, the data are taken from the FFIEC's *Consolidated Report of Condition and Income* ("Call Reports"). See Section A.2.2 for details on data cleaning and variable construction.

FIGURE 7: Eurodollar Exposure and Bank-Level Credit Expansion

(A) Log(Total assets)



(B) Log(1+Newly Issued Loans to Latin America)



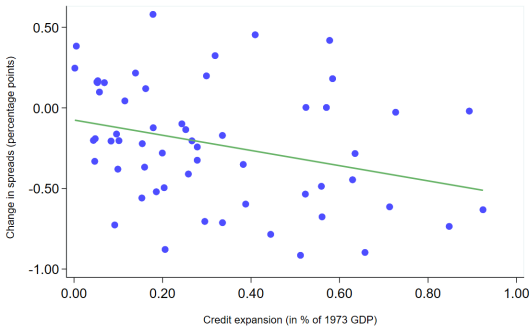
Notes: These figures plot the regression estimates β_t of a bank-level event study specification as in Equation (2). The dependent variables are total assets (in log) in panel (A) and the volume of newly issued loans to Latin American countries in panel (b). We plot 95% confidence intervals based on standard errors clustered by banks.

Sources: The indicator *London branch* is constructed based on the full address directory of banks in London published in *The Bankers' Almanac and Yearbook 1967* (see Section A.2.1). The data are taken from the FFIEC's *Consolidated Report of Condition and Income* ("Call Reports"). See Section A.2.2 for details on data cleaning and variable construction.

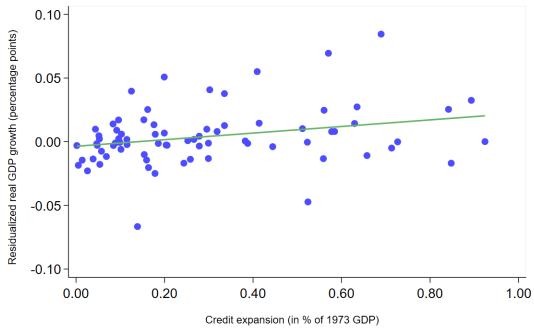
FIGURE 8: Credit Supply and Boom-Bust Cycles on the Country Level

(A) Boom period: 1976-81

Changes in spreads

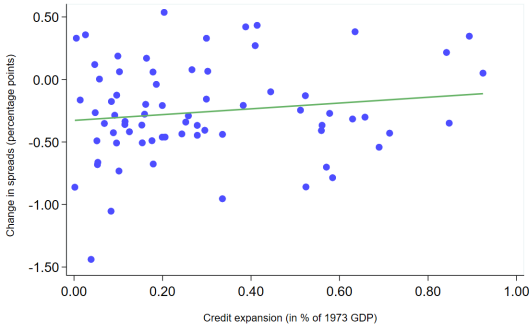


Growth in real GDP

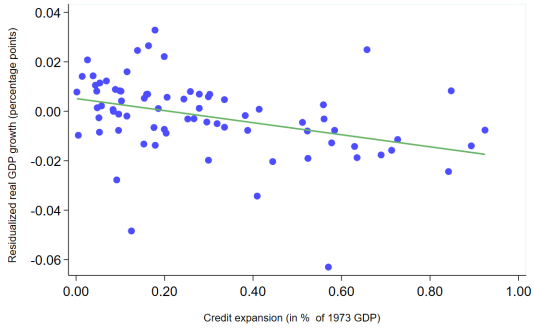


(B) Bust period: 1982-89

Changes in spreads



Growth in real GDP



Notes: These figures plot changes in spreads and real GDP growth during boom and bust periods against the amount of loans issuance during the boom. The boom period here is defined as 1976-81, the bust period as 1982-89. Loan amounts are scaled by nominal GDP in 1973. Average spreads by country are weighted by loan size. Real GDP is residualized using year- and country-dummies over the entire sample period, 1973-89.

Sources: Loan data digitized from the World Bank publication *Borrowing in International Capital Markets* (1973-80) and *Euromoney* magazine (1981-89). See Section II for details. Macroeconomic variables come from Müller et al. (2025).

ONLINE APPENDIX

A.1 A Novel Loan-Level Dataset, 1973-89

A.1.1 Additional Summary Statistics

We provide additional summary statistics to augment the information provided in Table 1 by splitting the loan data along other informative dimensions.

Table A.3 reports summary statistics on loan volumes and terms by geographical region, separately for the boom period of 1973-1981 and the bust period of 1982-1989. It lists the five largest borrower countries in each region, as well as the regions' totals. While overall lending volumes continues to increase in all regions outside of Sub-Saharan Africa in during the 1980s compared to the 1970s, Latin America saw a marked decline of loan issuance during its "Lost Decade". Similarly, average spreads widened and loan maturities shortened.

Table A.4 provides the same summary statistics, split by country development groups as classified by the World Bank's 1980 *World Development Report*. During the boom, the total volume of loan issuance in the international loan market was greater in emerging markets than in advanced economies. This markedly reversed during the bust period, as lending to Latin America and other emerging economies became increasingly restricted.

Table A.5 augments Table A.2 by providing information from our loan data on loan volumes and terms by lenders, split into banks with and without a London presence. Unsurprisingly, banks with a presence in London were more active in international loan markets in terms of volume of overall loan issuance. On average, they provided loans at more generous terms than non-London banks during the boom. After the Mexican default however, banks represented in London charged higher spreads and extended loans at shorter maturities than their counterparts.

A.2 Additional Details on Data Construction

A.2.1 Bank Branches (in London) and Joint Ventures with Oil Producers

Our measure of banks' exposure to the Eurodollar market is geographical in nature. In particular, we exploit that in the 1970s borrowing in foreign currency outside of the United States was highly localized in London. Given that we do not have granular data telling us how much each bank was borrowing through its London branches, we instead rely on a simple indicator variable for whether a bank had a London presence.

We consulted several historical print publications for constructing these data. The principal one is the *The Bankers' Almanac and Yearbook*, which contains an address list of banks in each country, including in the United Kingdom. Given the large volume of the branch networks reported there (spanning hundreds of pages), we focused on a single reference year (1967). The choice of year was dictated by the fact that the Eurodollar market was still developing at the time, and many banks only entered London afterwards. As such, our conjecture is that "early adopters" were more exposed to the inflow of petrodollars into London. Digitizing these data allows us to create an indicator *London branch*, which is equal to 1 for banks with a presence there in 1967, and 0 otherwise. From the same directory, we can also compute the number of countries a bank has a branch in.

As alternative metric, we also consulted a 1978 edition of *The Banker*, in which the magazine published a list of foreign banks in London. This list includes foreign banks' founding date in London and their current number of employees. With these data, we construct alternative measures of whether a bank had a London branch (*London branch, 1969* and *London branch, 1972*). Importantly, because the table from *The Banker* only includes non-UK institutions, we also add the ten largest UK banks to the list of exposed banks, where we determine the top ten banks by their overall loan volume issued over the entirety of our loan-level data. We also use the data on foreign banks in London to construct statistics on the increasing importance of London as a hub for globally active banks.

The same *The Banker* edition also includes a table with detailed information on banking joint ventures, which became substantially more popular during the 1970s, and their founding dates. In fact, according to data published in Table 3.2 in (Devlin, 1989, p. 93), such joint ventures (or consortia) were among the most important lenders in the run-up to the LDC crisis. Importantly for our purposes, the data include not only information on the members of each joint venture but also their headquarter country, which allows us to manually identify banks with a clear link to a major oil-producing country (most of them states in the Middle East).

A.2.2 U.S. Bank Data

We use data on bank balance sheets and income statements for the United States from the *Consolidated Report of Condition and Income* ("Call Reports") published by Federal Financial Institutions Examination Council (FFIEC).

Data sources The Call Reports have been published in their current form since 1976 and can be downloaded directly from the FFIEC. However, constructing consistent

time series based on these data (which are collected for regulatory purposes) is challenging for a number of reasons. First, the dataset contains many thousands of variables of varying availability. As such, the sheer size of the dataset can be difficult to handle. Second, there are numerous changes in the definition and coverage of key variables over time.

Given these difficulties, our starting point is a relatively consistent set of time series constructed by Drechsler et al. (2017) and publicly available on Philipp Schnabl's website. Their SAS code downloads the raw Call Reports data through WRDS and then combines and cleans some of the most important variables to form consistent time series.

Because the data they make available does not include all variables we need for our analysis, we also use another pre-packaged source: the "complete files" made available by the Federal Reserve Bank of Chicago. We then clean their 1976-2000 dataset, also in SAS format, in line with the guidelines from the Chicago Fed and Drechsler et al. (2017) for the remaining variables.

Finally, we are also interested in the period before 1976, which means we need to tap into yet another data source. The digitized Call Reports indeed go back further than 1976, and we obtained a version (delivered on CD-ROM!) starting in 1960 through a FOIA request with the Federal Deposit Insurance Corporation (FDIC). We use these data to add a few additional observations that allow us to evaluate differences in trends between banks depending on their Eurodollar exposure.

One downside of the Call Report data is that the time series on foreign deposits (i.e. Eurodollar deposits) are only reported from 1976 onwards. To validate our London branch measure, we thus also draw on data on publicly-listed banks from Compustat Global, which contains a variable on foreign deposits starting in 1970.

Aggregation to Bank Holding Companies Because our loan-level data usually only indicates a bank name, rather than the exact subsidiary, we aggregate the Call Report data to the level of the Bank Holding Company (BHC), which may include several individual banks. We use the FFIEC's *Relationships* table for this mapping.

Data cleaning After aggregating the data to the BHC level, we apply several cleaning steps closely following the discussion in den Haan, Sumner, and Yamashiro (2007):

- We only keep banks located in the 50 states and DC ($0 <$ rssd9210 < 57)
- We only keep insured banks (rssd9424 $= 1, 2,$ or 6)
- We only keep institutions chartered as commercial banks (rssd9048 $= 200$)

- We only keep observations with positive assets (rcfd2170 > 0
- We set the value of a variable to missing if it lies more than 5 standard deviations above or below a variable's mean in that quarter

There is an additional issue with the reporting of a few variables in 1983, an issue also noted by den Haan et al. (2007). For our purposes, this is only relevant for the variable on foreign deposits. In particular, the 1983 values are around 80% lower than in the years before and after, which is implausible. We thus replace the 1983 values of foreign deposits for each bank with the average of 1982 and 1984 (i.e., we use a linear interpolation to impute them).

In addition to these cleaning steps, we also winsorize all variables at the 1st and 99th percentile when running regressions to limit the influence of outliers.

Variable construction For the construction of bank balance sheet and income statement information, two things are worth noting.

First, we construct an annual bank-year dataset from the underlying quarterly data. For balance sheet variables, we compute annual averages. For variables based on banks' income statement, we first annualize them (by multiplying them by 4), and then take their average. This is to avoid cases where a bank may only report its income, for example, in a single quarter, which would introduce noise when simply taking the sum of income statement measures in a year.

Second, the variable for total deposits we take from the Call Reports posted by Drechsler et al. (2017) notably *excludes* foreign deposits, being defined as `deposits=rcon2200` in their SAS code (line 138). This is because the *rcon* series in the Call Reports only include numbers from domestic, but not foreign branches of U.S. banks. When calculating the share of foreign deposits (defined as `foreigndep=rcfn2200`), we thus add foreign deposits to the denominator.

A.2.3 Historical Non-U.S. Bank Data

To get a sense of how the balance sheets and income statements of banks outside of the United States developed over the course of the 1970s and 80s, we turn to historical print editions of *The Banker*, a leading industry magazine. Importantly for our purposes, *The Banker* published rankings on the world's top banks (initially on the "Top 300", later the "Top 500"), and these rankings include some data on banks' assets, equity capital, and profitability.

Clearly, relying on a ranking to obtain such data could be problematic because, by definition, banks experiencing substantial growth or contraction may enter or drop from

the ranking. That is why we focus on our empirical analysis on *changes* in bank outcomes. This is akin to looking at a balanced sample of large institutions (that remain among the world's top banks), and thus sidesteps the potential sample selection issue inherent in using data from a ranking table.

Figure A.2 shows an excerpt from the ranking for 1975, around the starting period of the most pronounced part of the lending boom to LDCs. We also obtained the rankings for 1980 and 1988, which roughly correspond to the height of the 1970s credit expansion and the end of the ensuing bust, respectively.

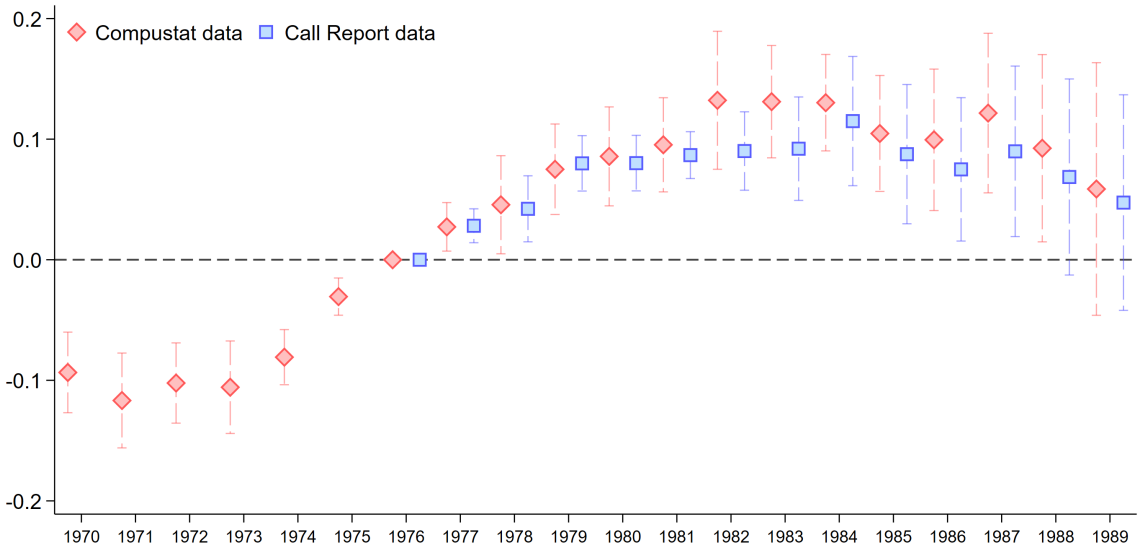
A.2.4 Merging Data Sources

With the exception of the U.S. Call Reports, all micro datasets used in this study were created from scratch. This meant there are no existing concordance tables that would allow us to merge, for example, the data on banks' London branches to their newly issued loans. We thus created manual linking tables for each dataset.

To make sure the linking of the data is as accurately as possible, we used a combination of approaches. First, we used fuzzy matching algorithms to create a set of candidate matches between any two datasets. Second, these potential matches were then verified manually by at least two research assistants, various LLM tools, and at least one of the coauthors. Third, we always checked for the plausibility of the resulting matches by consulting the list of the largest institutions to make sure none of them were incorrectly missing from a linking table.

A.3 Additional Results

FIGURE A.1: London Branches and Eurodollars – Compustat vs. Call Reports



Notes: This figure plots the regression estimates β_t of a bank-level event study specification as in Equation (2). We estimate this event study using two datasets: data from Compustat Bank as in Figure 6, and data from the Call Reports, which only report data on foreign deposits from 1976 onwards. Note that, different from Figure 6, we use 1976 as the excluded period to make the estimates from the two data sources comparable, which mechanically introduces a "pre-trend" in the Compustat data. We plot 95% confidence intervals based on standard errors clustered by banks.

Sources: The indicator *London branch* is constructed based on the full address directory of banks in London published in *The Bankers' Almanac and Yearbook 1967* (see Section A.2.1). We use data from Compustat Bank and the FFIEC's *Consolidated Report of Condition and Income* ("Call Reports"). See Section A.2.2 for details on data cleaning and variable construction.

TABLE A.1: Cross-Border Loan Issuance Predicted by Credit Supply Factors

	Predictive		Boom period, 1976-81		Bust Period, 1981-89					
	Loan Issuance OLS (1)	Loan Issuance OLS (2)	$\Delta_{7375-7681}$ Spreads 2SLS (3)	Δ_{76-81} GDP 2SLS (4)	$\Delta_{7681-8289}$ Spreads 2SLS (5)	Δ_{81-89} GDP 2SLS (6)	$\Delta_{7681-8289}$ Loan Issuance 2SLS (7)	Debt Restr.$_{82-89}$ 2SLS (8)	Sovereign Debt Crisis$_{82-89}$ 2SLS (9)	Sovereign Default$_{82-89}$ 2SLS (10)
London Share	0.278**									
	(0.091)									
Avg. Interest Rate 73-75	0.035**									
	(0.010)									
PCA Instrument		0.126**								
		(0.019)								
Loan Issuance			-0.952	0.010	0.126	-0.031**	-0.118**	0.821**	0.925**	1.289**
			(1.454)	(0.014)	(0.280)	(0.009)	(0.008)	(0.250)	(0.348)	(0.346)
Kleibergen-Paap F-stat			1.43	44.17	16.61	44.17	44.17	44.17	42.25	44.17
Observations	69	69	28	69	15	69	69	69	67	69

Notes: This table reports 2SLS regressions relating inflows of cross-border loans to boom-bust cycles for the sample of emerging economies with available data on interest rates from the World Bank's International Debt Statistics (IDS). Columns (1)–(2) report predictive regressions of total loan issuance in the boom period of 1976-81 (scaled by 1973 GDP) on measures capturing credit supply. Column (1) regresses loan issuance on the pre-existing share of loans by banks with a London branch (1973-75) and the average interest rate in 1973-75 separately. Column (2) uses the first principal component of these two variables as a single instrument. Columns (3)–(10) report 2SLS estimates using the principal component as the instrument. Column (3) is the change in average spreads from 1973-75 to 1976-81, weighted by loan amounts. Column (4) is the growth in real GDP between 1976 and 1981, residualized by country and year dummies over the 1973-89 period. Column (5) is analogous to column (3), but the change is from 1976-81 to 1982-89. Column (6) is analogous to column (4), but between 1981 and 1989. Column (7) is the log change in total loan issuance from 1976-81 to 1982-89. Column (8) is the total amount of sovereign debt that was restructured between 1982 and 1989, scaled by GDP in 1975. Column (9) is a dummy for a country experiencing a sovereign debt crisis in 1982-89. Column (10) is a dummy for a country experiencing a sovereign debt default in 1982-89. The Kleibergen-Paap F-statistic is reported for all 2SLS columns. Standard errors are heteroskedasticity-robust, with **, *, and + indicating statistical significance at the 1%, 5%, and 10% level, respectively.

Sources: Loan data digitized from the World Bank publication *Borrowing in International Capital Markets* (1973-80) and *Euromoney* magazine (1981-89). See Section II for details. Macroeconomic variables come from Müller et al. (2025). Crisis definitions are based on Laeven and Valencia (2020). Data on sovereign defaults are from Asonuma and Trebesch (2016). Data on debt restructuring are from Cruces and Trebesch (2013).

TABLE A.2: Bank Characteristics by London Branch

	No London branch (1)	Has London branch (2)	Diff. (2) - (1)	Diff. t-stat.
Panel A: All U.S. Banks ($N = 10,950$)				
Total assets$_{73}$	51.31	10193.12	10141.81	74.05
Book leverage$_{73}$	0.91	0.94	0.03	2.27
Return on equity$_{73}$	0.52	0.48	-0.05	0.75
Loans$_{73}$	28.82	6437.65	6408.83	75.29
Foreign deposit share$_{76}$	0.00	0.29	0.29	94.52
Foreign government deposit share$_{78}$	0.00	0.05	0.05	42.28
Non-core liability share$_{73}$	0.02	0.26	0.24	32.01
Panel B: U.S. Banks Active in International Loan Market ($N = 25$)				
Total assets$_{73}$	5747.61	10618.99	4871.38	1.43
Book leverage$_{73}$	0.94	0.94	0.00	0.28
Return on equity$_{73}$	0.55	0.48	-0.07	1.23
Loans$_{73}$	3489.60	6717.17	3227.57	1.40
Foreign deposit share$_{76}$	0.10	0.30	0.20	2.76
Foreign government deposit share$_{78}$	0.01	0.05	0.04	2.63
Non-core liability share$_{73}$	0.18	0.26	0.08	1.43
Panel C: Largest global banks ($N = 300$)				
Total assets$_{75}$	5229.74	14662.20	9432.46	9.30
Book leverage$_{75}$	0.95	0.96	0.01	2.59
Non-core liability share$_{75}$	0.15	0.13	-0.02	1.04

Notes: This table reports differences in bank characteristics depending on whether a bank had a London branch in 1967. The indicator *London branch* is constructed based on the full address directory of banks in London published in *The Bankers' Almanac and Yearbook 1967* (see Section A.2.1). Panel A focuses on U.S. banks, where the data are taken from the Call Reports (see Section A.2.2 for details on data cleaning and variable construction). Note that data on foreign deposits and foreign governments' deposits only becomes available in 1976 and 1978, respectively. Panel B looks at U.S. banks active in the international loan market, defined as those serving as lead arranger in at least five contracts in our loan-level dataset. Panel C looks at a sample of the largest global banks taken from *The Banker* (see Section A.2.3). We only have information on a few characteristics for international banks. The (absolute value of the) t-statistic reported is for the difference of means between banks with and without a London branch.

TABLE A.3: Largest borrowers by region

	1973-81				1982-89			
	Total Loan Amount (1)	Gov Share (2)	Spread (3)	Maturity (4)	Total Loan Amount (5)	Gov Share (6)	Spread (7)	Maturity (8)
Panel A: Asia Pacific								
South Korea	12.54	0.024	0.915	91.87	21.09	0.014	0.528	69.11
Philippines	8.548	0.029	1.163	101.4	2.948	0.005	0.776	106.6
Indonesia	7.041	0.507	1.235	99.81	15.73	0.782	0.590	100.5
Australia	6.849	0.070	1.158	152.2	86.20	0.129	0.347	64.66
Hong Kong	5.123	0.013	1.084	109.1	22.17	0.000	0.592	73.95
Total	60.33	0.170	0.970	99.89	272.8	0.126	0.518	75.80
Panel B: Europe								
Italy	26.85	0.010	0.651	90.31	67.69	0.007	0.328	73.31
United Kingdom	21.80	0.311	0.756	99.93	290.0	0.011	0.454	66.37
Spain	21.67	0.097	0.882	92.60	32.41	0.144	0.436	97.46
France	16.82	0.089	0.590	100.4	86.46	0.091	0.276	86.58
Sweden	9.895	0.599	0.596	91.54	41.38	0.494	0.291	79.06
Total	171.3	0.197	0.774	92.65	723.1	0.101	0.428	73.57
Panel C: North America								
United States	76.80	0.001	0.540	81.87	528.8	0.010	0.667	62.55
Canada	18.95	0.634	0.548	106.1	80.33	0.398	0.480	85.93
Total	95.76	0.126	0.542	86.74	609.3	0.062	0.644	65.63
Panel D: Latin America								
Mexico	39.93	0.179	0.897	87.45	29.98	0.256	1.251	55.43
Brazil	29.99	0.182	1.492	104.1	22.80	0.143	1.627	96.55
Venezuela	16.12	0.431	0.715	65.91	7.727	0.294	0.758	50.61
Argentina	11.34	0.125	1.017	93.74	4.380	0.007	1.522	48.22
Chile	5.203	0.000	1.082	89.65	2.071	0.038	0.975	112.8
Total	121.6	0.247	1.088	89.49	82.62	0.239	1.192	70.78

(Continued on next page)

TABLE A.3: Largest borrowers by region

(Continued from previous page)

	1973-81				1982-89			
	Total Loan Amount (1)	Gov Share (2)	Spread (3)	Maturity (4)	Total Loan Amount (5)	Gov Share (6)	Spread (7)	Maturity (8)
Panel E: Middle East North Africa								
Algeria	6.875	0.000	1.231	101.7	6.741	0.000	0.491	98.66
Iran	4.849	0.204	1.003	91.72	0.041	0.000	6	
Morocco	3.689	0.527	1.166	89.11	1.201	0.053	0.729	43.84
UAE	2.879	0.627	1.311	70.79	2.129	0.225	0.611	81.54
Saudi Arabia	1.850	0.008	1.138	53.94	4.386	0.000	0.696	59.29
Total	26.70	0.242	1.130	86.16	27.87	0.183	0.623	79.43
Panel F: South Asia								
India	0.989	0.000	0.602	110.3	9.495	0.015	0.413	116.4
Pakistan	0.575	0.608	1.244	38.82	2.325	0.715	0.818	46.97
Sri Lanka	0.277	0.450	0.747	90.65	0.376	0.733	0.621	105.9
Total	1.889	0.264	0.821	84.89	12.28	0.173	0.526	103.1
Panel G: Sub-Saharan Africa								
Nigeria	6.738	0.929	0.966	93.66	1.756	0.881	0.866	99.62
South Africa	3.321	0.331	1.184	77.81	0.847	0.221	0.760	70.97
Ivory Coast	1.636	0.648	1.530	104.1	0.689	0.502	1.309	82.79
Gabon	0.539	0.898	1.658	94.16	0.073	0.993	0.953	96
Zambia	0.534	0.280	1.490	57.66	0.472	0.000	1.476	57.09
Total	15.53	0.693	1.197	88.40	7.782	0.443	1.070	73.26

Notes: This table presents data on the largest international borrowers by region for two time periods: 1973-81 and 1982-89. It provides variables over the two periods: total loan amount (in billion USD), government loan share, spreads (in percentage points), and maturity (in months). The government loan share, spread, and maturity are weighted by the loan amount.

Sources: Loan data digitized from the World Bank publication *Borrowing in International Capital Markets* (1973-80) and *Euromoney* magazine (1981-89). See Section II for details.

TABLE A.4: Largest Borrowers by Group (Advanced vs. Emerging)

	1973-81				1982-89			
	Total Loan Amount (1)	Gov Share (2)	Spread (3)	Maturity (4)	Total Loan Amount (5)	Gov Share (6)	Spread (7)	Maturity (8)
Panel A: Advanced Economies								
United States	76.80	0.001	0.540	81.87	528.8	0.010	0.667	62.55
Italy	26.85	0.010	0.651	90.31	67.69	0.007	0.328	73.31
United Kingdom	21.80	0.311	0.756	99.93	290.0	0.011	0.454	66.37
Canada	18.95	0.634	0.548	106.1	80.33	0.398	0.480	85.93
France	16.82	0.089	0.590	100.4	86.46	0.091	0.276	86.58
Sweden	9.895	0.599	0.596	91.54	41.38	0.494	0.291	79.06
Denmark	9.519	0.783	0.750	91.69	17.69	0.434	0.278	83.45
Norway	7.307	0.004	0.909	96.97	17.78	0.004	0.524	75.44
Australia	6.849	0.070	1.158	152.2	86.20	0.129	0.347	64.66
Finland	4.141	0.004	0.718	93.83	14.77	0.343	0.163	72.52
Total	219.2	0.196	0.635	92.30	1381.	0.080	0.509	67.62
Panel B: Emerging Markets								
Mexico	39.93	0.179	0.897	87.45	29.98	0.256	1.251	55.43
Brazil	29.99	0.182	1.492	104.1	22.80	0.143	1.627	96.55
Spain	21.67	0.097	0.882	92.60	32.41	0.144	0.436	97.46
Venezuela	16.12	0.431	0.715	65.91	7.727	0.294	0.758	50.61
South Korea	12.54	0.024	0.915	91.87	21.09	0.014	0.528	69.11
Argentina	11.34	0.125	1.017	93.74	4.380	0.007	1.522	48.22
Philippines	8.548	0.029	1.163	101.4	2.948	0.005	0.776	106.6
Soviet Union	7.171	0.000	0.988	78.56	20.44	0.000	0.390	83.98
Indonesia	7.041	0.507	1.235	99.81	15.73	0.782	0.590	100.5
Algeria	6.875	0.000	1.231	101.7	6.741	0.000	0.491	98.66
Total	274.0	0.223	1.038	90.20	354.7	0.185	0.755	84.41

Notes: This table reports the list of the largest borrowers among advanced and emerging market economies for two time periods: 1973-81 and 1982-89. It provides variables over the two periods: total loan amount (in billion USD), government loan share, spreads (in percentage points), and maturity (in months). The government loan share, spread, and maturity are weighted by the loan amount.

Sources: Loan data digitized from the World Bank publication *Borrowing in International Capital Markets* (1973-80) and *Euromoney* magazine (1981-89). See Section II for details. Country classifications are based on the World Bank's *World Development Report* (1980 edition).

TABLE A.5: Largest lenders with and without a London Branch

	1973-81					1982-89				
	Total Loan Amount (1)	Gov Share (2)	EMG Share (3)	Spread (4)	Maturity (5)	Total Loan Amount (6)	Gov Share (7)	EMG Share (8)	Spread (9)	Maturity (10)
Panel A: Banks Without a London Branch										
Algemene Bank Nederland	12	0.43	0.429	0.74	103	18	0.28	0.505	0.43	88
Arab Banking Corp	7	0.24	0.836	0.71	89	17	0.24	0.943	0.72	70
Westdeutsche Landesbk Girozentrale	5	0.19	0.781	1.05	97	1	0.35	0.749	0.59	96
Dresdner Bank Ag	5	0.26	0.924	1.08	82	4	0.17	0.560	0.73	89
Banque Nationale De Paris	5	0.16	0.775	0.93	93	17	0.04	0.203	0.41	104
Commerzbank Ag	5	0.71	0.238	0.83	96	1	0.30	0.300	0.44	59
Deutsche Bank Compagnie Financiere A Luxembourg	4	0.42	0.641	0.94	97	7	0.04	0.752	0.54	93
Amsterdam-Rotterdam Bank	4	0.23	0.543	0.96	89	7	0.26	0.159	0.33	89
Libra Bank Ltd	3	0.04	1	1.46	86	0	0.38	1	1.73	110
Wells Fargo Bank	3	0.18	0.919	1.10	76	1	0.00	0.641	0.93	51
Total for Banks without a London branch	159	0.26	0.634	0.90	88	473	0.13	0.298	0.47	78
Panel B: Banks With a London Branch										
Chase Investment Bank	45	0.17	0.449	0.77	88	94	0.15	0.200	0.66	77
Bank Of America International	42	0.14	0.697	0.93	87	107	0.08	0.285	0.80	63
Citicorp Investment Bank	41	0.23	0.481	0.97	95	209	0.09	0.115	0.60	65
Morgan Guaranty	26	0.24	0.334	0.80	92	80	0.06	0.094	0.43	72
Bank Of Montreal	23	0.19	0.319	0.78	108	14	0.10	0.084	0.56	83
Bankers Trust International	14	0.06	0.474	0.76	80	73	0.00	0.074	1.13	61
Credit Lyonnais	13	0.08	0.354	0.70	105	22	0.00	0.057	0.26	67
Manufacturers Hanover	12	0.28	0.783	0.88	100	72	0.04	0.091	0.69	56
Bank Of Tokyo	9	0.20	0.757	0.72	92	27	0.47	0.564	0.29	112
Barclays	7	0.40	0.249	0.70	100	55	0.09	0.173	0.29	68
Total for Banks with a London branch	336	0.19	0.519	0.85	93	1,208	0.08	0.169	0.60	69

Notes: This table reports loan characteristics for the largest 10 lenders with and without a branch in London in 1973-81. It reports these characteristics for two time periods: 1973-81 and 1982-89. The variables reported include: total loan amount (in billion USD), government & emerging market loan share, spreads (in percentage points), and maturity (in months). Loan shares, spread, and maturity are weighted by the loan amount.

Sources: Loan data digitized from the World Bank publication *Borrowing in International Capital Markets* (1973-80) and *Euromoney* magazine (1981-89). See Section II for details. The indicator *London branch* is constructed based on the full address directory of banks in London published in *The Bankers' Almanac and Yearbook 1967* (see Section A.2.1).

TABLE A.6: Call Reports Variable Availability

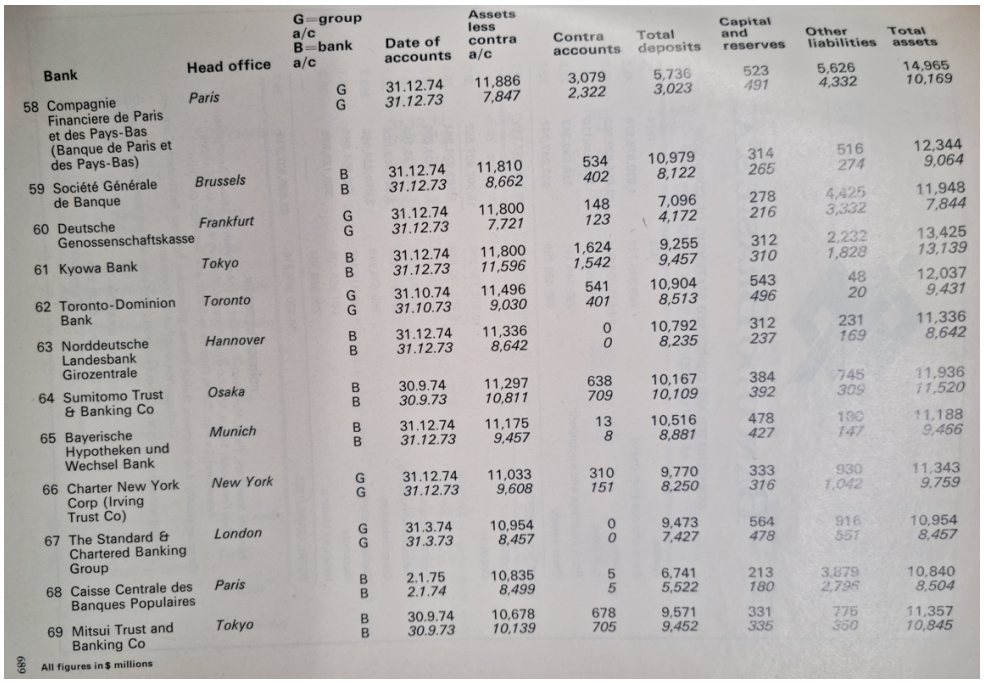
Variable	Call Report Code	Available from
Net Income	RIAD4340	1976
Assets	RCFD2170	1976
Equity	RCFD3210	1976
Domestic Deposits	RCON2210	1976
Foreign Deposits	RCFN2210	1976
Foreign Government Deposits	RCFD2650	1976
Total Loans	RCFD1400 + RCFD2165	1976
Foreign Loans	RCFN3360	1978
Foreign Government Loans	RCFD2081	1978
Non-performing loans	RCFD1403 + RCFD1407	1983
Foreign C&I Loans	RCFD1764	1984

Notes: This table describes the construction and availability for the variables obtained from the FFIEC's *Consolidated Report of Condition and Income* ("Call Reports").

Sources: Bank balance sheet and income statement data are taken from the FFIEC's *Consolidated Report of Condition and Income* ("Call Reports"). See Section A.2.2 for details on data cleaning and variable construction.

A.1. FIGURES

FIGURE A.2: Example Image of the "Top 300" Bank Data

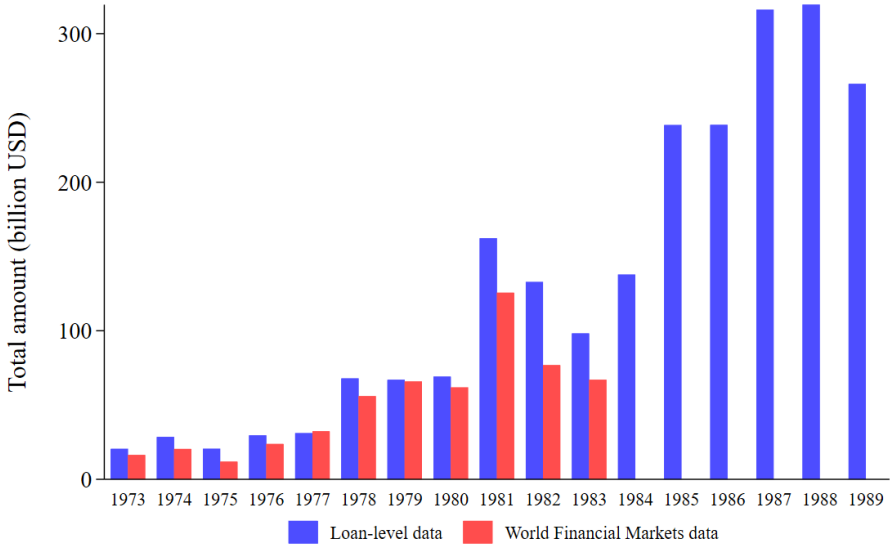


	Bank	Head office	G=group a/c B=bank a/c	Date of accounts	Assets less contra a/c	Contra accounts	Total deposits	Capital and reserves	Other liabilities	Total assets
58	Compagnie Financiere de Paris et des Pays-Bas (Banque de Paris et des Pays-Bas)	*Paris*	G	31.12.74	11,886	3,079	5,736	523	5,626	14,965
			G	*31.12.73*	*7,847*	*2,322*	*3,023*	*491*	*4,332*	*10,169*
59	Société Générale de Banque	*Brussels*	B	31.12.74	11,810	534	10,979	314	516	12,344
			B	*31.12.73*	*8,662*	*402*	*8,122*	*265*	*274*	*9,064*
60	Deutsche Genossenschaftskasse	*Frankfurt*	G	31.12.74	11,800	148	7,096	278	4,425	11,948
			G	*31.12.73*	*7,721*	*123*	*4,172*	*216*	*3,332*	*7,844*
61	Kyowa Bank	*Tokyo*	B	31.12.74	11,800	1,624	9,255	312	2,232	13,425
			B	*31.12.73*	*11,596*	*1,542*	*9,457*	*310*	*1,828*	*13,139*
62	Toronto-Dominion Bank	*Toronto*	G	31.10.74	11,496	541	10,904	543	48	12,037
			G	*31.10.73*	*9,030*	*401*	*8,513*	*496*	*20*	*9,431*
63	Norddeutsche Landesbank Girozentrale	*Hannover*	B	31.12.74	11,336	0	10,792	312	231	11,336
			B	*31.12.73*	*8,642*	*0*	*8,235*	*237*	*169*	*8,642*
64	Sumitomo Trust & Banking Co	*Osaka*	B	30.9.74	11,297	638	10,167	384	745	11,936
			B	*30.9.73*	*10,811*	*709*	*10,109*	*392*	*309*	*11,520*
65	Bayerische Hypotheken und Wechsel Bank	*Munich*	B	31.12.74	11,175	13	10,516	478	190	11,188
			B	*31.12.73*	*9,457*	*8*	*8,881*	*427*	*147*	*9,466*
66	Charter New York Corp (Irving Trust Co)	*New York*	G	31.12.74	11,033	310	9,770	333	930	11,343
			G	*31.12.73*	*9,608*	*151*	*8,250*	*316*	*1,042*	*9,759*
67	The Standard & Chartered Banking Group	*London*	G	31.3.74	10,954	0	9,473	564	916	10,954
			G	*31.3.73*	*8,457*	*0*	*7,427*	*478*	*551*	*8,457*
68	Caisse Centrale des Banques Populaires	*Paris*	B	2.1.75	10,835	5	6,741	213	3,879	10,840
			B	*2.1.74*	*8,499*	*5*	*5,522*	*180*	*2,796*	*8,504*
69	Mitsui Trust and Banking Co	*Tokyo*	B	30.9.74	10,678	678	9,571	331	775	11,357
			B	*30.9.73*	*10,139*	*705*	*9,452*	*335*	*350*	*10,845*

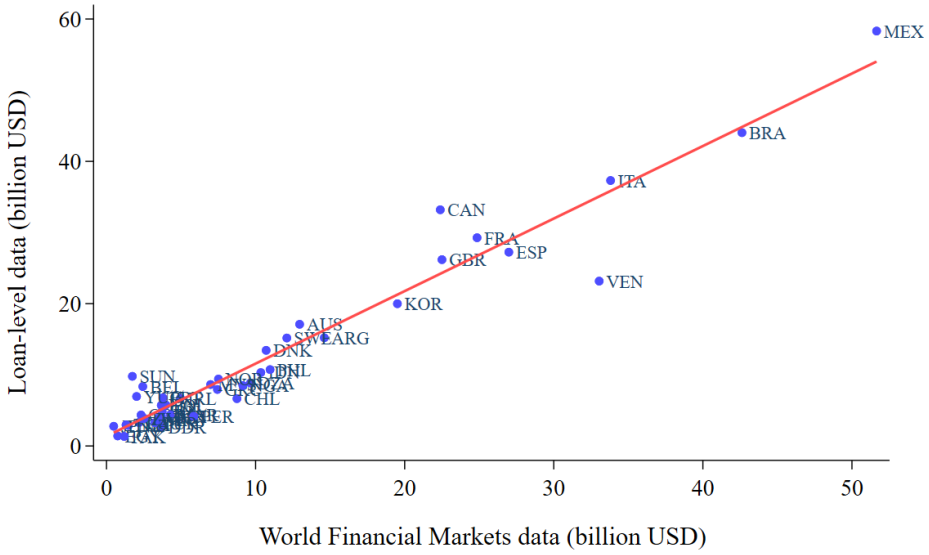
689 All figures in $ millions

FIGURE A.3: Comparing Loan-level and Aggregate Data on Cross-Border Loan Issuance

(A) Global Time Series



(B) Average Loan Issuance by Country

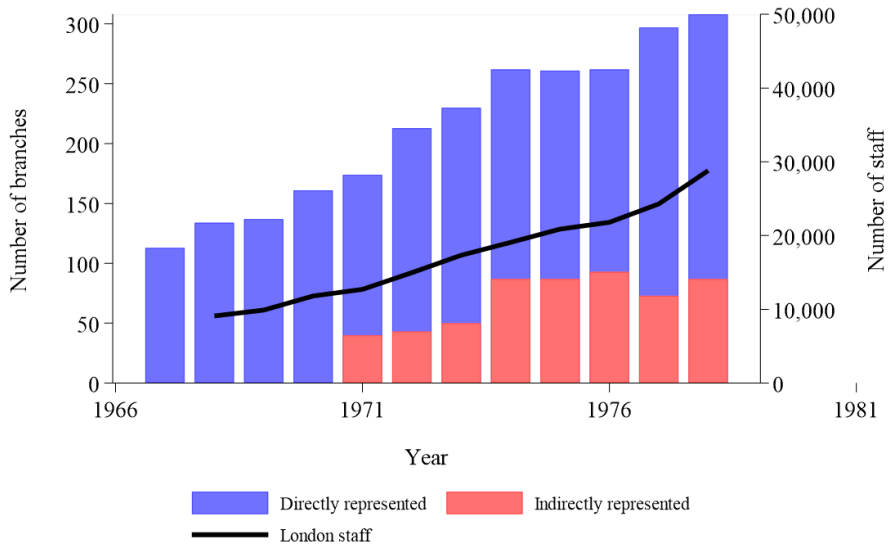


Notes: These figures compare the newly-constructed loan-level data with existing estimates of the size of cross-border loan issuance published in *World Financial Markets*. Panel (A) compares the total amount of newly issued loans globally by year. Panel (B) compares the total amount of loans by recipient country for the years available in both sources.

Sources: Loan data digitized from the World Bank publication *Borrowing in International Capital Markets* (1973-80) and *Euromoney* magazine (1981-89). See Section II for details. Aggregate data on "eurocurrency loan issuance" was digitized from physical copies of *World Financial Markets* (various issues).

FIGURE A.4: London and the Rise of the Eurodollar Market

(A) Foreign bank presence in London

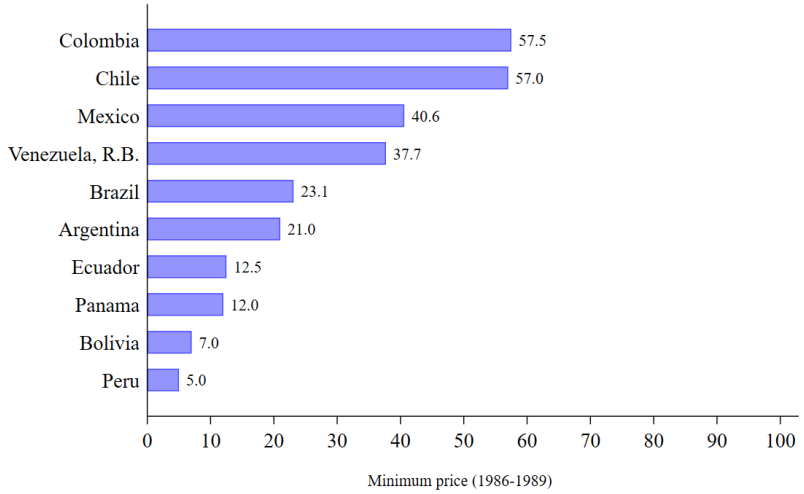


Notes: This figure document the concurrent rise of foreign banking presence in London. It plots the number of foreign bank branches and employees in London. Branches are split into direct representations (own branches) and indirect representations (branches of joint ventures with other banks).

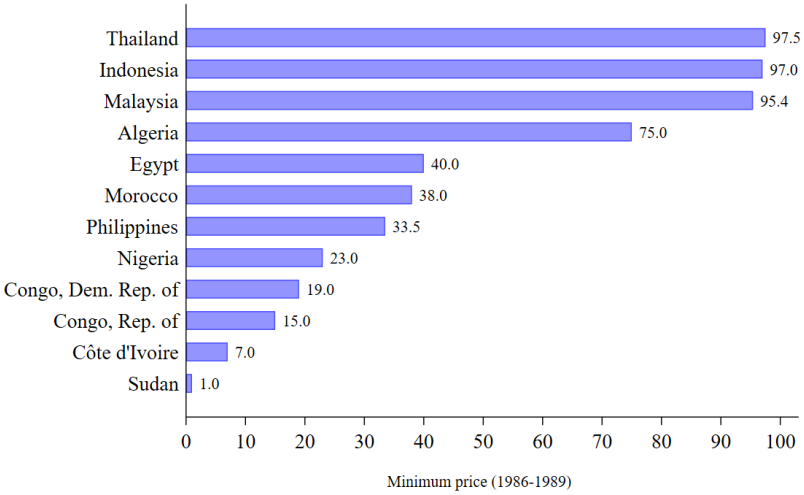
Sources: Foreign branches and number of employees are taken from *The Banker*, November 1978.

FIGURE A.5: Secondary Market Prices for Emerging Market Debt

(A) Latin America



(B) Other emerging markets



Notes: Prices listed are the minimum secondary market prices (in cents on the dollar) for emerging market sovereign debt over the period 1986-89. Lower prices mean a larger haircut to creditors.

Sources: Data reported by Zettelmeyer, Weder, and Klingen (2004); first data point in 1986.