



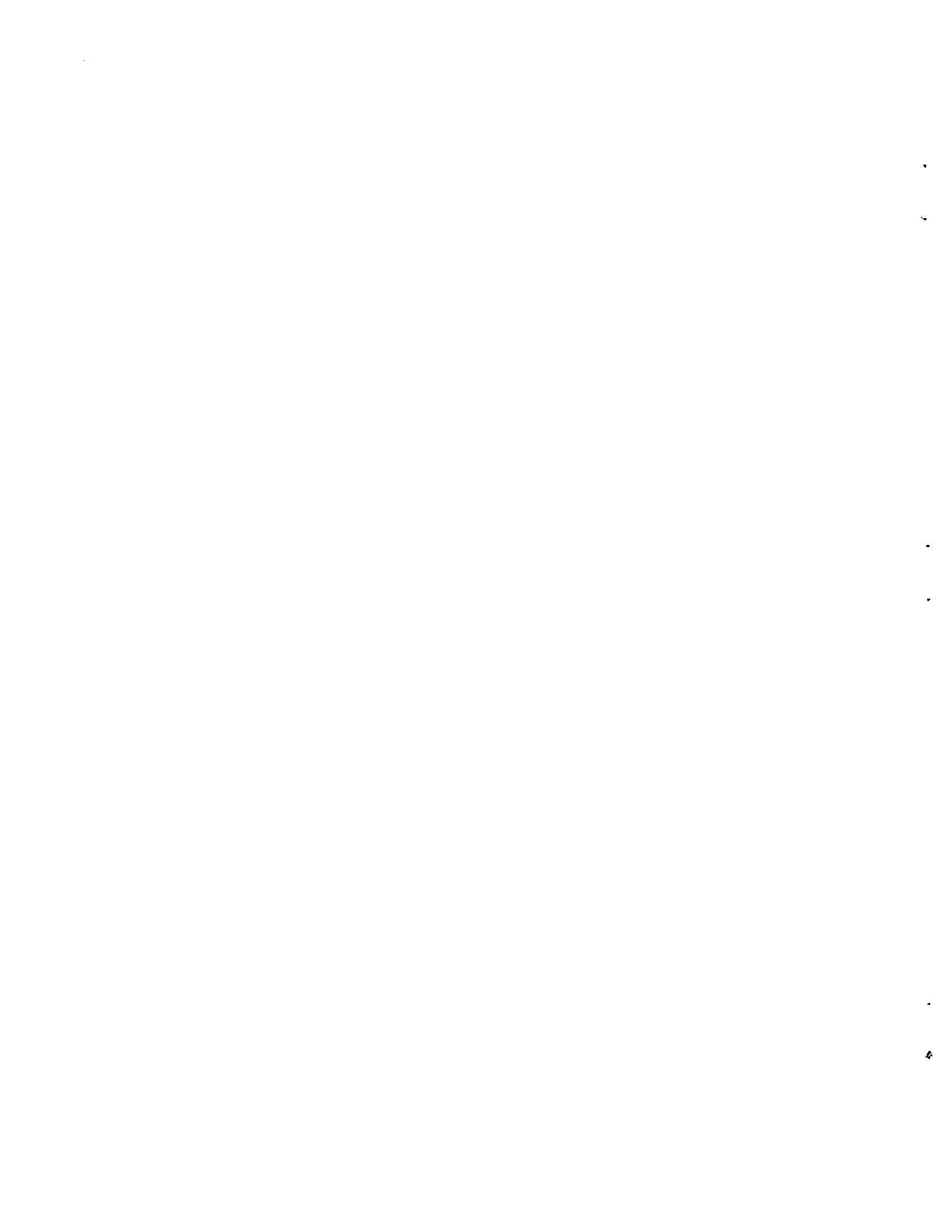
**THE STRUCTURE AND PERFORMANCE OF  
INTERNATIONAL BANKING DURING THE 1970s  
AND ITS IMPACT ON THE CRISIS OF LATIN AMERICA**

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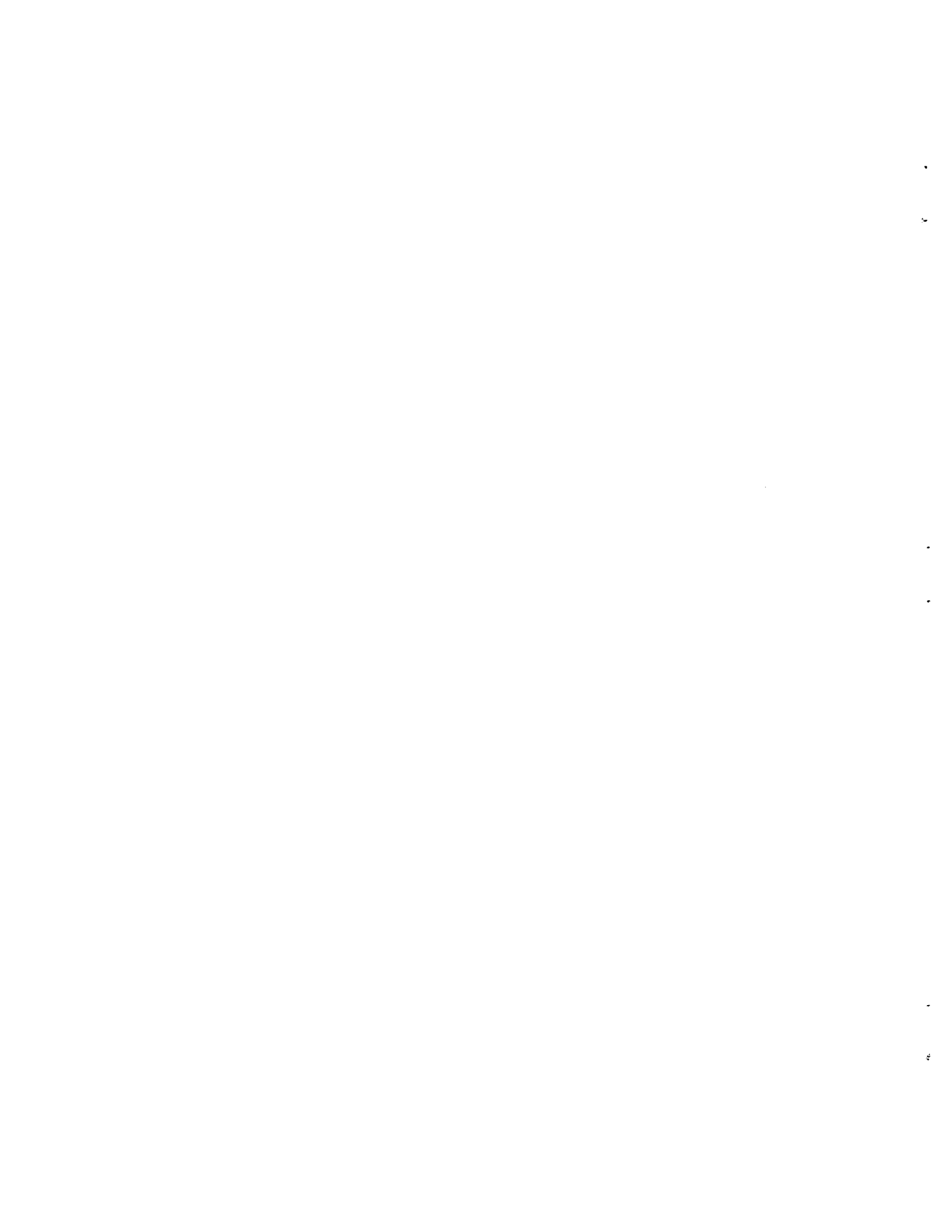


## ABSTRACT

This paper examines the behavior of international private banks and their role as an endogenous source of crisis in Latin America during the 1970s. The analysis first summarizes an interpretation of private banking at the international level that was quite fashionable in the '70s. This interpretation rests on the tradition of portfolio theory, and projects banks as efficient, risk conscious, arm's length lenders, in an atomistic market which maximizes a risk-return calculus. In these circumstances borrowers face conventional upward sloping supply curves and encounter the much touted "discipline of the marketplace." This conventional view is then contrasted with an alternative institutional focus: the bank as a transnational firm in an oligopolistic market, which is destabilized by new entrants. Coupled with an examination of how banks institutionally translate risk assessment into credit volume and price, this allows us to illustrate how permissiveness rather than discipline could be the expected outcome of the banking expansion of the 1970s. It also provides insight into the supply-side dynamics underlying overindebtedness, and thereby begins to lay a technical foundation supporting the Latin American assertion of coresponsibility in the crisis.

## RESUMEN

Este ensayo analiza el comportamiento de los bancos privados internacionales y su rol como fuente endógena de crisis en Latinoamérica durante los setenta. El análisis resume una interpretación de los bancos privados a nivel internacional que estuvo muy de moda en los setenta, basada en la teoría de portafolio, que percibe los bancos como eficientes, conscientes de riesgos, prestamistas a distancia en un mercado atomístico, el cual acrecenta al máximo el cálculo de riesgo-ganancia. En estas circunstancias los prestatarios confrontan curvas ascendentes convencionales de la oferta y encuentran la renombrada "disciplina del mercado." La perspectiva convencional es entonces contrastada con un enfoque institucional alternativo: el banco como empresa transnacional en un mercado oligopólico, el cual se desestabiliza por nuevos postulantes. Junto con un análisis de cómo los bancos institucionalmente traducen la determinación del riesgo en un volumen de crédito y precio, esto nos permite ilustrar cómo la tolerancia y no la disciplina era el resultado a esperarse de la expansión bancaria de los setenta. Ilumina también la dinámica de la oferta que subyace al sobreendeudamiento, y empieza a establecer un fundamento técnico para apoyar la aserción latinoamericana de una responsabilidad compartida para la crisis.



## INTRODUCTION

It is evident that private banks have become major actors in the world economy. Yet research on the "global bank" has lagged well behind developments in the industry. While private banks turned to a transnational growth strategy in the 1960s and 1970s, most analysts focused their attention on the growing presence of the non-financial transnational corporation (TNC). For instance, the ground-breaking and controversial study by Barnet and Müller (1974), which alerted public opinion to the possible socioeconomic repercussions of global profit-making corporate strategies, treats banks only parenthetically. In the second half of the 1970s, and above all with the outbreak of the debt crisis in Latin America in 1982, private banks began to receive more attention. Nevertheless, the overseas operations of these institutions remain relatively unexplored terrain and there are serious gaps in our knowledge.

There is still no developed theory of transnational banking; first, when work on banks is compared to the abundance of research and theory on transnational non-financial firms, banks are definitely the poorer cousins.<sup>1</sup> Second, much remains to be done both on the empirical and theoretical level concerning the exact nature of the interface between private banks and developing countries, both in good times and bad, and the impact of banks' lending on macroeconomic policy and economic development.

One possible reason for this situation is that private banks lagged about a decade behind non-financial firms in their global expansion. While banks had just begun their international expansion in the mid and late-1960s, TNCs were already heavily embroiled in controversy in Europe and the periphery.<sup>2</sup> A second possible reason for the heavy attention given to TNCs is that their expansion was built on highly visible direct

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<sup>1</sup> Some modest attempts at theories are Grubel (1977 and 1983); Aliber (1976) and Weston (1980).

<sup>2</sup> The controversy itself is captured both in the analysis and titles of Vernon (1971) and Servan-Schreiber (1968).

investment, while most of the international banks' expansion was indirect investment via lower profile cross-border lending, usually shrouded in secrecy. A third, and perhaps the most important, factor may have been that until the eruption of the debt crisis in 1982, bank lending abroad was generally very robust and--with the exception of a brief mini-crisis in 1974-1975<sup>3</sup>--free of controversy, thereby keeping it sidelined on research agendas.

Since international banking is still a relatively immature area of study, there is room for a wide range of interpretations about the nature of the market, its functioning and its welfare effects. This paper presents a brief stylized picture of a very popular and influential interpretation of the functioning of private banking markets, based on the notion of efficiency. I will conclude that the popular version seriously underestimates the role of the banks' behavior as an endogenous source of financial problems and thus provides an incomplete explanation of how international financial markets really work. In particular, I show that the modern private bank does not necessarily allocate credit efficiently; that it can be prone to overlend and thereby contributes to making the financial system vulnerable to crisis.

Taken broadly, my argument is not entirely original. Economists with such diverse analytical perspectives as Karl Marx (1967), Thorstein Veblen (1904) and, in more modern times, Hyman Minsky (1982) have in their different ways posited that unregulated private markets are prone to overexpansion and crisis. Their theories, however, are developed at a very macro-level for the capitalist economy as a whole. My analysis is more focused institutionally on the modern international bank during the 1970s, with special reference to lending to Latin America.

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<sup>3</sup> The crisis arose out of the bankruptcies of Bankhaus Herstatt of Germany and Franklin National Bank in the U.S. on account of poor foreign currency speculation. The bank failures created a crisis of confidence in the interbank market which brought a sharp slowdown in international lending. See Devlin (1978, p.81).

While I do not pretend to present a complete alternative theory of international banking, the paper hopefully will offer direction for this type of work. Another outcome of the study is that by illustrating how private banks can be an active agent in crisis, I will provide some building blocks for a more technical foundation to the frequent assertion in Latin America that there is coresponsibility for the region's debt crisis ["Latin American Economic Conference" (1984, p.43)].<sup>4</sup>

### I. A SCHEMATIC OVERVIEW OF A POPULAR INTERPRETATION OF INTERNATIONAL BANKING<sup>5</sup>

Ever since Adam Smith made famous the Invisible Hand, practitioners of economics and policy have been fascinated by the possibilities of self-regulating free private markets. History, however, has not always been so kind to Smith's paradigm; as Polanyi (1957) has shown, the self-regulating market system proved to be anti-social in its effects, forcing societies to promote growing public intervention to check the action of the market relative to labor, land and capital. Nonetheless, it is fair to assert that even with the prosperity of the modern welfare state, along with oligopoly and monopoly in markets, the ideal of the free, self-regulating economy still captures the imagination of many economists.

This liberal sentiment was kindled by the post-war expansion of international banking. With domestic banking systems strictly controlled by governments to avoid a repetition of the 1929 financial collapse, as well as to facilitate deliberate public fiscal and

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<sup>4</sup> From the very outset of the crisis Latin Americans have admitted that there were severe deficiencies in their economic policy. But they have also argued that there is coresponsibility in the crisis due to the effect of external factors. The high level of world interest rates and the aggressiveness of bank lending are frequently cited. This paper addresses the latter issue.

<sup>5</sup> Restrictions on space have required me to limit myself to this very schematic overview. A more complete analytical summary of the literature can be found in a forthcoming article of mine to be published as a Nota Técnica of CIEPLAN, Santiago, Chile.

monetary policies, the rise of the free-wheeling Eurocurrency market and unrestricted international private banking was viewed enthusiastically by economists of diverse persuasions.

For example, in reference to the Eurocurrency market, McKinnon's (1977, p.5), analysis concludes that "Freedom from restraint has created a paragon of international banking efficiency." Meanwhile, according to Dufey and Giddy (1978, pp. 1 and 3):

In the international context the Euromarkets facilitate market-induced allocation at the expense of government-induced allocation... Indeed, probably no other single force has made such a great contribution to the efficient international allocation of credit as have the Eurocurrency markets.

In effect, the unregulated Eurocurrency market was not perceived as a "renegade" that threatened financial stability, but rather as a "freedom fighter" that had established a beachhead of rationality and efficiency in a financial world hamstrung by government intervention.

Many economists also were quite confident about the efficiency of the private banks in the world-wide recycling of petrodollars. Their intermediation during the 1973/74 oil price shock was interpreted as the main factor in avoiding a collapse of the international financial system [Whitman (1978, p.148)]. Moreover, conventional wisdom was lineal as it perceived that trends in developing countries' debt accumulation with the banks were entirely manageable [Biem (1977); Beek (1977); van B. Cleveland and Brittain (1977); Brittain (1977), Sargen (1976); Smith (1977) and Solomon (1977)]. Even after the second oil price shock in 1979/80 there was a confident outlook regarding the buildup of the banks' claims in developing countries [Nowzad, et al., (1981, p.11)].

Underlying much of the conventional optimism was a view that private markets impose financial "discipline" on a borrower government's economic policy in a non-paternalistic way and that the consequent management needed for creditworthiness in private international capital markets is the same kind of management that is needed for



economic growth and development [Kindelberger (1970, p. 338)<sup>6</sup>; Friedman (1977, p. 61); Morgan Guaranty Trust Co. (1976, p. 9)].

The much touted "discipline of the marketplace" has at least some of its roots in the classically-inspired parable of efficient financial intermediation, according to which loans can be bought and sold in arm's-length atomistic auction markets much like any other commodity.<sup>7</sup> Notwithstanding this, mainstream economics recognizes that capital markets are not perfect and that informational costs and uncertainty can introduce distortions in the allocation of credit. In particular, the technical literature stresses that markets may not be cleared by prices, such that supply may not equal demand and projects with positive present value income streams will not necessarily receive financing. Broadly speaking, the phenomenon is termed credit rationing. There is a growing body of analysis in this area with imaginative and sometimes quite complex models on diverse aspects of rationing [Jaffee and Modigliani (1969); Jaffee (1971); Jaffee and Russell (1976); Stiglitz and Weiss (1981); Eaton and Gersovitz (1981a and 1981b); Sachs (1982 and 1983); Vandell (1984); Folkerts-Landau (1984); and Guttentag and Herring (1984)]. But the message is similar: creditors are cautious and rational profit maximizers and in the face of uncertainty this induces them to ration credit to borrowers. Inherent in the process is a built-in discipline via the action of creditors with regard to their loan prices and quantities. Moreover, the distortion highlighted by the credit rationing literature places emphasis on the possibility of underlending rather than overlending.

According to the conventional framework, creditors will lend even in the face of a positive probability of default if they can be compensated with appropriate risk premia. The risk of default increases with the quantity of loans and the supply schedule is upward sloping; i.e., more lending will be forthcoming only at a rising premium over the

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<sup>6</sup> Kindelberger (1978) subsequently revised his optimism concerning the international expansion of banking, pointing to the tendency of private markets to overexpand and fall into crisis.

<sup>7</sup> McKinnon's (1977) interpretation borders on this type of framework.

opportunity cost of funds of the lender to compensate for the greater risk. In effect, in the conventional view the borrower is considered a quasi-monopsonist; while it cannot affect the overall market rate, its marginal cost of borrowing is greater than its average cost because more loans are available only at a higher rate of interest [Harberger (1981, p. 187); Sachs (1982, p. 211)]. Moreover, the relationship between the volume of lending and the interest rate is not monotonic. At some point credit limits must be imposed because at a sufficiently large loan volume the probability of default obtains a value of one.<sup>8</sup> In a world of perfect information a lender could always calculate precisely the points where default would occur. But the world is uncertain; the future investment returns, income and disposition of the borrower to honor debts--and hence repayment capacity--are stochastic events.

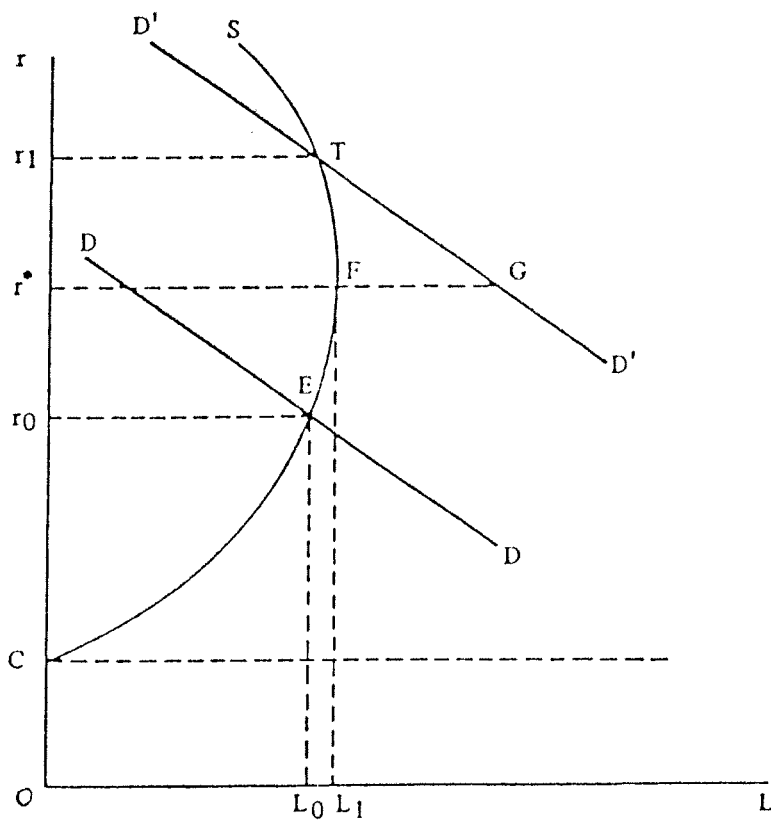
The complicating factor of uncertainty enjoys a further specification in the economic literature under the heading of adverse selection [Jaffee and Russell (1976) and Stiglitz and Weiss (1981)]. This phenomenon arises because risk is influenced not only by the size of the loan, but also by the level of the interest rate. In effect, as the interest rate rises, relatively lower risk project developments (or borrowers) tend to be squeezed out of the market, raising the average risk of the loan portfolio and lowering the creditor's expected rate of return. In other words, the raising of the rate of interest can bring an adverse selection of projects (or borrowers) from the standpoint of the creditor. The theory of adverse selection adds a backward slope to the conventional upward sloping supply curve for credit because at some point the favorable effects of a rising interest rate on the expected profits of the creditor are offset by the indirect negative effects of adverse selection.

The conventional view of the supply curve that arises from the analysis is seen in figure 1. At point E, supply equals demand and the interest rate clears the market. But

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<sup>8</sup> The default point can be due to insolvency, illiquidity or positive incentives to repudiate the debt.

Figure 1  
CREDIT RATIONING



*Symbols:* D = Demand schedule.  
 S = Supply schedule.  
 r = Rate of interest.  
 L = Loans.  
 C = Opportunity cost of funds for the bank.

the literature places its emphasis on the possibility of rationing; for example, in figure 1 when the demand curve intersects supply at T, there is rationing equivalent to FG. The interest rate ( $r_1$ ) that would clear the market never appears because the same loan supply could be obtained at a lower rate.

Thus the technical economic literature on bank credit presents a market that is disciplined, cautious, rational and profit maximizing. In the face of default risk, banks coldly evaluate credit applicants at the margin and charge appropriate premia. The premia in turn emit constant price signals concerning the view of the borrower's creditworthiness. Further discipline is imposed through credit rationing as loans are not a normal product for which a sufficiently high price will always elicit a supply. But it is important to note again that the major distortion in credit markets is supposed to bias the system towards underlending.

## II. AN ALTERNATIVE VIEW OF INTERNATIONAL BANKING

### 1. Modern International Banking

The conventional view of the arm's length efficiency of international banking is more generally grounded in the assumption that loan supply has its determinants in an extension of modern portfolio theory [Jaffee (1971, p.105); Friedman (1983, pp. 248-249)]. In other words, banks impersonally allocate credit on the principle that the discounted expected return, appropriately adjusted for risk, is equal to the present value

of risk-adjusted returns on other assets in the portfolio.<sup>9</sup> It is a view of a distant, arm's length lender, who coldly considers loan placements at the margin on the basis of differential returns and opportunity costs in competitive markets.

International investments of non-financial firms have also traditionally been evaluated in terms of differential rates of return and opportunity costs. It was Stephen Hymer's 1960 doctoral dissertation--so controversial that it was published only posthumously in 1976--which marked a break with the traditional approach. Hymer showed that portfolio theory could not easily be used as an instrument to predict international capital flows; in his own words, in the real world of risk, uncertainty and administrative barriers "almost anything can happen" with regard to the movement of capital [Hymer, (1976, p. 7)]. It is on the basis of the work of Hymer and subsequent analysts that we now know that transnational firms, which are vertically and horizontally integrated across the globe, can have criteria other than maximization of rates of return for undertaking new investments; factors such as control, market penetration and shares, collusion, public image, rivalry, and so on, can be important determinants of the timing and place of investments.

One can, in fact, use portfolio theory to interpret the international expansion of banking; profits in regulated domestic markets were shrinking and banks saw higher differential profit rates in unregulated overseas markets. In effect, one could legitimately argue that lending to LDCs in the 1970s was part of a stock adjustment of the loan portfolio after the 40-year retrenchment following the financial collapse of the 1930s.

<sup>9</sup> Or in a portfolio with two types of assets:

$$PV_L = \sum_{t=0}^n \frac{EV_L}{(1+i+\lambda)^t} = PV_A = \sum_{t=0}^n \frac{EV_A}{(1+i+\lambda)^t}$$

PV = present value

EV = expected value of the future income stream

L = loans

A = other assets

i = bank's cost of funds

$\lambda$  = risk where  $0 < \lambda < 1$

While portfolio theory can probably tell us in broad terms why lending shifted from domestic to international markets and why credit flows went from the Center to the Periphery, it has more difficulty explaining why a credit was extended to one country and not another, the terms and conditions of lending, exposure levels, etc. Indeed, borrowing from Hymer's general insight, it may be appropriate to go beyond portfolio analysis and develop a more discriminating institutional theory to understand the lending behavior of the modern bank. The modern bank is transnational, diversified around the world with branches, subsidiaries and affiliates that serve local and international markets at both the retail and wholesale levels. Services range from local checking accounts, to commercial retail and wholesale loans, correspondent banking, currency exchange, underwriting, fiduciary accounts, specialized consulting and financial services, all directed at vertical and horizontal integration.<sup>10</sup> Clients range from TNCs to the host governments of the TNCs and the common person walking the street. Thus it is probably excessively simplistic to look to only "indifferent" capital seeking out the highest rates of return as an explanation for bank lending to LDCs in the 1970s. Explanation can in fact be enriched and made more useful for policy-making by adjusting theory to the institutional realities of the modern transnational bank.

In this regard, Rae Weston (1980, p.24) offers some refreshing insights. He has observed that portfolio theory treats a bank as an investor and not as a firm. Once a bank is viewed as a global firm, a foreign currency loan is just one dimension of a multi-dimensional business that may or may not be dedicated to long-term global profit maximization.<sup>11</sup> Thus, in practice, loan transactions to a country or group of countries can

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<sup>10</sup> An examination of any annual report of Citicorp--probably the world's most international bank--confirms the diverse and global reach of a modern transnational bank.

<sup>11</sup> Profit maximization of course need not be a goal at all. Baumol, for instance, has developed a hypothesis suggesting that firms can seek to maximize sales, or market shares, constrained by a minimum level of profits. A variant of this comes from Galbraith who has argued that modern firms are run bureaucratically and can sacrifice profits for stability and other objectives. Caves supports the notion that profits might be traded off for stability [Baumol (1959, pp. 47-57); Galbraith (1967) and Caves (1970)].

be motivated by factors other than optimal diversification, price and profit maximization; indeed according to Weston (1980, p.24) "the basic tenet of the rational investor is broken consistently by bankers..." Thus in the context of global banking firms, deviations from the optimal allocation of world credit become possible for many reasons other than the miscalculation of an individual investor which is underscored in the literature on credit rationing. The discipline of the supply side of the market that seems inherent in the cold, rational investor can no longer be presumed.

## **2. The Bank and Its Product**

Pursuing the analysis of the bank as a global firm is instructive because it can help us further understand how supply dynamics might have been a special contributing factor in the 1970s debt build-up in LDCs.

When a bank is considered a global firm, one must ask what it produces. There is considerable debate about this [Weston (1980, pp. 25-27): Aliber (1976, pp. 6-7)]. Some interpret the bank as a manufacturer; while the arguments vary, broadly speaking, deposits are viewed as inputs and loans and services as outputs. Weston (1980, p.27), however, argues that banking activities do not fit easily into this scheme, because there is really no transformation process whereby inputs lose their identity and other goods and services are generated. In his judgement, the bank can best be viewed as a retailer, a distributor of funds and related services.

To Weston's "the bank as retailer" it is convenient to add "the bank as wholesaler," to account for the large international loans of the Eurocurrency market. But what is important is that both functions come as subsets of marketing theory. This is an important insight because the bank as manufacturer, and above all the bank as investor, portray the banker as an impersonal arm's length economic agent. This indeed is the image we all traditionally like to confer on our finance people and it may be a bit shocking

to put them into the same company with purveyors of used cars, Coca-Cola, and comflakes.<sup>12</sup> Bankers themselves abhor this last image, which in part explains why some have been so assertive in arguing that LDC lending was demand-driven [Friedman (1977, p.48; 1983, p.45)]. But it cannot be escaped that salesmanship goes hand-in-hand with contemporary banking.<sup>13</sup> Thus one finds in a modern management text on commercial banking such statements as "no well-run bank can take a passive attitude towards lending"; "successful banks...are those that have found the means to make more loans than their neighbours and to make some loans that their neighbours would not make at all;" and "in a competitive world, it is not enough to be a good fellow; one must aggressively seek business" [Cross and Hempel (1973, pp.207 and 280)].

The marketing concept in banking first blossomed in the U.S. in the 1950s. In domestic markets it had its manifestation in the rare sight of bankers offering gifts to depositors and borrowers [Odle (1981, p. 164)]. In the international markets it had its manifestation in, among other things, the much publicized Eurocredit. We traditionally consider loans to be highly private affairs. But during the 1970s individual Eurocurrency credits were splashed in full page ads (with surprising foresight nicknamed "tombstones" by the bankers) in major financial media. Moreover, it is well known that the banks participating in a syndicate could enter into long debates over where to position their names in the add so as to be located in the most prominent area of the page [Sampson (1983, p.145)].

The aggressiveness of the salesmanship of the international bank is a matter of record. It began to take on a noticeable dimension around 1970:

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<sup>12</sup> As Galbraith (1975, p. 119) has observed: "Money is, to most people, a serious thing. They expect financial architecture to reflect this quality--to be somber and serious, never light or frivolous. The same, it may be added, is true of bankers. Doctors, though life itself is in their hands, may be amusing ... a funny banker is inconceivable."

<sup>13</sup> Delamaide (1984, p. 43) characterizes modern bankers as "traveling money salesmen."



In the early years of the Eurodollar (sic) the raising of international loans was a sedate and gentlemanly business. The borrower, whether a corporation or a foreign government agency, would approach its customary bank or a specialized bank, which would then arrange the syndicate. But as it became more lucrative and competitive, the loan officers of the banks began--around 1970--to solicit business, and to telephone or visit corporations and government agencies on their own initiative. Some of the banks were no longer acting simply as intermediaries between a surplus and shortage of funds: they were now actively selling loans... [Sampson (1985, pp.145-146)].

As the tone and intensity of salesmanship increased, those paid to observe market behavior on a daily basis made the appropriate assessments about the new style of banking. In the latter half of the 1970s, the specialized financial magazine Euromoney (1979, pp. 14-30) coined the terms "Gunslingers," "Panthers," and "Sheep" to rank in corresponding order the aggressiveness of the banks in the market; in 1978 47% of the institutions classified were Gunslingers and only 8% were Sheep.<sup>14</sup> Meanwhile, the Wall Street Journal [as quoted in Hayes (1977, p. 49)] at one point characterized creditor practices as a "glad-handed name your price approach." These real life images clearly do not square with the traditional picture of the bank as a passive arm's length investor. Indeed, it will become more evident in this paper that in Latin America during the 1970s banks often were not rationing credit, but rather were marketing money like any other product. The "distortion" was not underlending, but overlending.

The image of the supply side of the market as arm's length and restrained is further eroded when we consider the nature of the service that is marketed. Selling a loan is not really identical to selling cornflakes. When cornflakes are sold, the exchange is a simultaneous one of money for the product. When banks market a loan, payment is in the distant future. Thus confidence and trust in the character of the borrower is a central factor, making banking an even more personal business than other types of marketing operations.

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<sup>14</sup> Euromoney used the spreads and maturities on loans to rank the banks.

The personal nature of the business can make the modern bank an inherently forthcoming institution. First, since trust is built on information, a client relationship is an investment. Long-term relationships and market presence are a form of capital deepening that raise the productivity of the bank; it acquires continuous information at such low cost and high speed that it gains a competitive advantage over other institutions. Thus, once a bank establishes a relationship it is inclined to service the client's needs as much as possible; the reliable provision of services underscores the quality of the bank's products and helps the institution avoid losing the customer to other banks. Moreover, since the client relationship has a high fixed cost, servicing additional requests has lower marginal costs than dealing with new clients [Grubel (1977, pp. 352-353)].

Looked at from another angle, default risk on foreign currency lending --the concept which underlies portfolio theory and the credit rationing literature--is only one component in the overall aggregate risk of the global banking firm. A bank gains utility from a client relationship. A new loan may raise default risk and lower expected profits, but not granting the loan to an established client may raise the aggregate risk of the firm even more and lower expected profits in the short and long term. The argument is reinforced if the client is an important depositor.<sup>15</sup> Default risk may take on decisive weight in decision making only at a very advanced stage of a credit cycle. Even then this might not preclude new lending due to lock-in effects, i.e., fresh credits generate positive externalities with regard to the solvency of old debt.

A second consideration is that the element of trust and confidence imparts economies of scale; according to Weston (1980, pp. 38-40) uncertainties can be reduced in size by more comprehensive information flows.<sup>16</sup> (Later we will see that there are other

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<sup>15</sup> The deposit relationship can also induce a loan to a third party. There is evidence that the presence of an important corporate depositor wishing to sell equipment to a country can be a factor in a bank extending a loan that it otherwise might not make, due to concern for default risk. For a concrete example of this see Gwynne (1983, pp.25-26). The primary deposit relation is modeled in Kane and Malkiel (1965).

<sup>16</sup> For a study on economies of scale see Benston (1972).

factors that reward size.) Thus economies of scale explain in part the growth bias in the industry in the 1960s and 1970s and generate a logical concern for market shares. This in turn means that a bank's decision to lend or not will not only be based on the default risk related to that transaction; there is an additional awareness of positive externalities from global operations and the consequent need to maintain a presence in the market.

Meanwhile, new entrants will be concerned about attaining a minimum acceptable loan volume, without which their own viability--apart from any consideration of default risk--is in jeopardy.

Of course, much analytical work remains to be done on the transnational banking firm. But the above is already sufficiently suggestive, and runs counter to the notion of a passive, arm's length investor which frequently dominates the conventional image of banking. The modern bank has diverse objectives, is forthcoming, inclined to growth, and aggressively markets its services. It is not easy to understand why economically efficient credit allocation is the necessary outcome of the global financial firm's decision making, which furthermore is undertaken in a world of uncertainty.

### **3. The Structure of the Market**

#### **a) Domestic Markets**

Further insight into the nature of supply in the 1970s can be gathered by examining the structure of the international banking industry. Virtually since its inception, banking has been notoriously concentrated with a handful of banks dominating the markets [Born (1983)]. Today's domestic money markets are also concentrated. In the Netherlands, banking is dominated by two firms, in France by four, in Canada by five, in Germany by three, Japan by thirteen and Great Britain by eight to ten [Aliber (1976, p. 6); Wendt (1983); Spindler (1984, pp.15-17)]. The U.S., with the enormous total of nearly 15,000 banking institutions, is generally considered to be one of the least concentrated

markets. The top ten banks in the system control 18% of all assets and 15% of all domestic deposits. The large number of banks reflects the effects of domestic banking regulation. But effective concentration is more than the numbers would suggest, since U.S. banks are largely confined within state boundaries and New York banks are generally restricted to the city of New York [Benston (1972, p.198)].<sup>17</sup>

Domestic banking industries are considered to be loosely oligopolistic, with attempts at indirect collusion on deposit rates and loan rates. The Prime Rate convention used to price loans in the U.S. is considered to be a classic mode of indirect communication in an industry without a dominant price leader. The Prime Rate is a way to set up a simple and easily verifiable rate structure that objectively discriminates among borrowers and thereby minimizes competitive underbidding of loan rates. The rate tends to move infrequently and to lag behind other market trends because the leaders need time and clear indications of need before attempting to modify the basic rate. A major signal to alter the Prime Rate is said to be a change in the Federal Reserve's Discount Rate [Jaffee (1971, pp. 104-7); Weston (1980, pp. 38-43)].

We mentioned earlier that the need for comprehensive information flows gives economies of scale to banking. But there are other (not wholly unrelated) factors that reward size and promote concentration. Benston (1972, p. 338) points to technological considerations within the bank such as lower average skill (and hence wage) levels and indivisibilities in information processing. Size also allows banks to cement customer relations (which lower information costs) by enabling them to provide a broad array of services. Additionally, size can lower risk by allowing for greater opportunity to diversify. It can furthermore be argued that size reduces risk to the extent that bigness entitles banks to easy access to lender-of-last-resort facilities, while smallness merely entitles them to

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<sup>17</sup> This situation is, of course, now gradually changing due to the recent trend towards deregulation of U.S. banking.

bankruptcy. Indeed, as represented in the bailout of Continental Illinois in 1984, supervisors tend to rescue bigger institutions rather than let them fail.<sup>18</sup>

Compared to manufacturing, banking has greater ease of entry and thus oligopolistic arrangements can more often be subject to competitive waves. Money is money and financial services are relatively standardized, so banks have difficulty in differentiating the products that they market. Customer loyalty depends on loan availability, price and services. Since there are economies of scale, a main roadblock to entry is access to deposits. An institution that does not quickly capture a sufficient amount of deposits will have its scale limited and operate under higher average costs. It may then be subject to takeover by the larger banks. New entrants will manipulate price to obtain a foothold in the market; deposit rates will be set higher and loan rates set lower. Established banks attempt to dissuade entry by keeping deposit rates sufficiently high, while competing with each other on loan volume and service, but not price.

Market structure also raises attention about market shares. As mentioned earlier, a market share is both a customer relation and an investment in information that lowers average costs. Also, big banks traditionally follow a policy of stable dividends, which requires growth and protection of market shares [United Nations Centre on Transnational Corporations (1981, p. 65)]. A bank will thus be reluctant to accept an erosion of its share and indeed, if not involved in collusion or under regulatory restriction, will aggressively attempt to expand it. Given that the industry is dominated by a handful of large banks, shares are quite visible to all participants and can be monitored easily. This explains tendencies to collude as well as tendencies to compete with others.

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<sup>18</sup> During the first eleven months of 1985 one hundred U.S. banks failed; all were small institutions [Nash (1985)]. Swoboda (1985, pp. 161-63) argues that the big banks were aware that they were candidates for lender-of-last-resort facilities and that this influenced lending behavior. He may be right; on one occasion Citibank explicitly stated that central banks would not let big institutions fail [Brett (1983, p. 223)].

In sum, domestic markets are vulnerable to a process of short-term cut-throat competition and long-run concentration. This dynamic is dampened to the extent that the markets are regulated. Indeed, it is the industry's tendency to move between extreme stability and instability that has been one of the justifications for domestic banking regulation [Odle (1981, pp. 4-5); Weston (1980, pp. 38-43)].<sup>19</sup>

## **b) International Markets**

### **i) The 1960s.**

At the international level banking had an unambiguously oligopolistic structure in the 1950s and the 1960s. There is only limited published data for this period, but some simple indicators are reflective of the situation.

Beginning in 1970, the magazine The Banker began to rank banks world-wide by size according to the value of their assets. Although the internationalization of banking began in earnest in the late 1960s, 1970 can be used as an approximate benchmark for dividing the years of basically domestic banking from those where a predominantly international orientation took hold. Table 1 indicates that there was a strong degree of concentration in world banking before the boom: in 1970 of the 300 largest banks, the top 10 held 17% of all assets, the top 25 a third of all assets and the top 50 one half.

Within this concentrated structure, the U.S. had an overwhelmingly dominant position. Of the top 10 banks world-wide, six were American and they accounted for 70% of all assets in this subgroup.<sup>20</sup> While data are not available on how the assets of the world's banks were distributed between domestic and international lending, it is well known that up until 1970 overseas operations were largely a U.S. domain. In effect, the

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<sup>19</sup> Of course, the major reason for regulation is that a bank's liabilities are considerably more liquid than its assets.

<sup>20</sup> Calculated from the data in The Banker (May 1971, pp. 663-684).

**TABLE 1**  
**CUMULATIVE DISTRIBUTION OF THE VALUE OF TOTAL ASSETS**  
**OF THE TOP 300 BANKS WORLD-WIDE <sup>a</sup>**

	1970	1975 <sup>b</sup>	1980 <sup>b</sup>
Top 10	17	17	17
Top 25	33	32	32
Top 50	51	52	51
Top 100	72	74	73
Top 300	100	100	100

Source: Calculated from data in The Banker, June 1971, pp. 663-689; June 1976, pp. 653-697 and June 1981, pp. 153-181.

a The magazine The Banker converts all assets into dollars.

b Less contra accounts.

dollar's privileged status as the only convertible currency in the years immediately after World War II, and its relatively unchallenged position up until the late 1960s, gave American banks an overwhelming advantage world-wide. Moreover, international operations were basically limited to a coterie of big banks from New York, Chicago, and San Francisco.<sup>21</sup> An idea of the degree of concentration of activity in a few American banks is given by the fact that in 1970 the nine major New York City banks accounted for 319 of a total of 550 foreign branch offices of U.S. banks and for more than 50% of all foreign branch deposits [Mastrapasqua (1973, p.27)].

Developing countries undoubtedly confronted an even tighter oligopolistic structure, since the then less familiar terrain of the periphery tended to be divided up according to historical, political and economic links with the Center. For instance, U.S.

<sup>21</sup> The banks were (i) New York: Chase Manhattan, Citibank, Chemical Bank, Morgan Guaranty, Manufacturers Hanover, Irving Trust, Marine Midland and Bank of New York; (ii) Chicago: Continental Illinois and First Chicago, and (iii) San Francisco: Bank of America. Some of the non-U.S. banks with a significant international presence were Barclays and Lloyds of the U.K.; Bank of Tokyo of Japan, Bank of Nova Scotia and Royal Bank of Canada of Canada, Deutsche Bank of Germany and Crédit Lyonnais of France.

banks had a high profile in Latin America, the English-speaking Caribbean was an English and Canadian preserve, while French-speaking Africa was a natural market for French banks, and so on. As far as I know, there is no systematic disaggregated data on the borrowing experience of LDCs with private banks during the 1960s. My case study work on Peru [Devlin (1985)]--one of the few Latin American countries with significant access to term loans from the banks prior to 1970--has, however, generated data that are suggestive of how the regional market might have been structured prior to the banking boom of the 1970s.<sup>22</sup>

During 1965-1970 Peru had only 27 commercial bank lenders. Within this group, 14 institutions were from the U.S. and they accounted for 86% of the U.S. \$358 million authorized for the period. (The next largest group was Canada with an 8% share lent out by 3 banks.) The leading six lenders--Manufacturers Hanover, Citicorp, Bankers Trust, Chase Manhattan, Continental Illinois and Bank of America--accounted for nearly three-quarters of total lending. All these principal lenders were American and they were all very big: four of them ranked in the top 10 world-wide and all six were in the top 25.<sup>23</sup>

This concentrated structure also evidenced more cooperation than competition, as 68% of all authorizations came via what might be termed multibank, or club, agreements. These agreements represented an umbrella contract for credits from several banks and were a precursor of the loan syndicate of the 1970s. However, the participating banks were all of the same national origin. Furthermore, there was no official lead, or agent bank, no organization fees, and disbursement/ payments were effected on a bank-by-bank basis. Peru's principal creditors made use of this arrangement and were

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<sup>22</sup> The case study was done on all medium-term loans from banks to the government in the period 1965-1978. The data were collected from individual loan contracts at the Ministry of Finance's central archives.

<sup>23</sup> The figure on global authorizations is an unpublished one calculated from data of the Peruvian Ministry of Finance (MINFIN). The rest of the data appear in Devlin (1985, Chapter 5).



more frequently lending together than competing: 80% of the U.S. \$257 million extended by the top six banks was via joint lending with each other.<sup>24</sup>

There is another case study worth mentioning that provides a partial view of the market's structure in a big Latin American country: Sánchez Aguilar's (1973) work on bank lending to Mexico in the 1960s. The data base is different from that of my study on Peru; while I directly collected data on the universe of banks with term lending to the public sector, Sánchez Aguilar surveyed a sample of 99 U.S. banks and covered their short- and medium-term lending to both public and private entities. Even though it is restricted to a sample of lenders, the study still suggests that even a big, and presumably attractive, market like Mexico confronted a concentrated financial market. The largest 25 U.S. lenders (ranked by assets) accounted for 80% of all lending in the sample. While the author does not provide a systematic disaggregation of this data, the study does reveal that just 9 of these 25 banks--not ordered in any special way, but including 2 of the 3 top lenders to Mexico--accounted for 40% of all the loans in the sample [Sánchez Aguilar (1973, pp. 38 and 100)].

While the two cases offer only a very limited view of the Latin American market, they are consistent with the notion that the periphery faced a concentrated financial market. The theory of concentration and oligopoly markets often stresses the characteristic of price stability as sellers avoid price competition in order to share the monopoly rents derived from their market power [Scherer (1980, pp. 226-29 and 349-74)]. We have seen that in domestic markets, where direct collusion is prohibited, communication among leading banks is facilitated by the Prime Rate mechanism. Internationally, there were no such barriers to communication--indeed with multibank agreements communication was overtly direct--so that price stability among the handful of lenders was even easier to coordinate.

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<sup>24</sup> Calculated from unpublished data provided by the MINFIN.

Another reason to expect price stability is related to what Okun (1981, pp. 134-222) refers to as the dynamics of customer markets. According to him, when markets exhibit high shopping costs there is a greater tendency for client relationships to develop, which in turn causes sellers to face demand curves with relatively low price elasticity. This provides an incentive for stable prices. In the periphery during the 1960s there was only a limited number of loan transactions undertaken by a reduced number of banks. Presumably informational costs for inexperienced and low volume borrowers like those in Latin America were high. This could have reduced random shopping and promoted Okun's customer relation. Peru's repeated visits to the same six banks is certainly suggestive of a country which did little shopping in the international market.

In any event, the two case studies are suggestive of a degree of price stability. In the case of Peru, a composite unweighted price index incorporating the spread and maturity of 15 variable rate loans in 1965-1970 gave a coefficient of variation of 14%.<sup>25</sup> This is pretty stable pricing considering that over the period Peru evolved from a relatively calm setting to financial crisis under a civilian government, which in turn was followed by a military coup and a new revolutionary regime.

In the case of Mexico it is not possible to make a similar calculation because Sánchez Aguilar's data mix short- and medium-term maturities, and public and private sector borrowers. But his sample of variable rate lending in Eurodollars for 1965-1970 suggests relatively stable spreads of 1.75-2.0%, although by 1970 it was clear that margins were starting to fall sharply. His data do not permit any generalization about

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<sup>25</sup> The coefficient of variation is  $s/x$  where  $s$  is the standard deviation and  $x$  is the unweighted average of price on 15 transactions. The price was calculated as  $M/A$ , where  $M$  is the margin and  $A$  is the period of amortization. Fixed rate loans showed a high degree of variation but many of these were not strictly commercial transactions; they were linked to home country export trade and some administrative bargaining related to the opening up of new branch offices in Lima. All data are unpublished and were secured from the MINFIN.

maturities except to say that in the 1960s they did not exceed 6 years [Sánchez Aguilar (1973, pp. 100 and 108)].

ii) The 1970s.

Financial markets in the 1970s were not conventionally conceived as clubby. There were many banks actively involved internationally, estimated in total at well over a thousand [Mentré (1984, p.6) and Page and Rodgers (1982, p.57)]. These institutions encountered little or no restraint on their behavior and prices and quantities appeared highly flexible and set competitively. LDCs contracted favorable terms as spreads could be below 1% and maturities of 10 years were quite common.<sup>26</sup> Loan volume was strong, with estimates of the expansion of bank lending to Latin America being on average around 30% per annum [French-Davis (1985, pp. 2-4)].

It was this free-wheeling and seemingly atomistic environment that brought the aforementioned applause from many economists and policy makers. I think many of those who readily employed the classic competitive model as a general frame of reference perhaps fell victim to the mystique of free markets. A more fruitful approach to understanding events during the 1970s is to extend the oligopolistic framework of the 1960s. In effect, what happened in the 1970s is that the relatively tight oligopolistic structure of the previous decade was destabilized by brash new entrants. A classic price war broke out in a structure that remained essentially oligopolistic. The market was in severe disequilibrium for more than a decade and this aggravated existing "distortions" stemming from the heightened uncertainty of a business which specializes in making exchanges in one period with payment in the distant future. Under the circumstances, it is difficult to presume that the market allocated resources efficiently, even with "efficiency" loosely defined.

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<sup>26</sup> Data on the conditions of borrowing, itemized by country, were published regularly in the now discontinued World Bank publication Borrowing in International Capital Markets.

The first step in clarifying this picture is to refer to the process of entry that destabilized the oligopolistic market. We mentioned earlier that the principal barriers to entry in banking are access to sufficient deposits and information, as well as the associated scale economies. At the international level these barriers declined dramatically in the 1970s.

On the side of liabilities, in the offshore Eurocurrency market there developed a large interbank market in dollars. The market is a fast and informal one where banks deposit funds with each other. Credit checking among the banks was not rigorous and most institutions could and did expect relatively automatic access to funds on a non-discriminatory basis. In effect, banks found that they could easily "purchase" deposits in this central market and thereby avoid the need to develop a costly international branching network and associated investments in deposit relationships. Indeed, net debtors in the interbank market were precisely those institutions that were excluded from international banking in the 1960s: small banks, institutions lacking international networks and those without a strong dollar deposit base [Bank for International Settlements (1983, pp.7-8 and 32-38)].<sup>27</sup>

On the asset side of the ledger, informational barriers were seemingly reduced by the appearance of the syndicated loan. Banks could enter international lending without major investments in information by hopping onto a syndicated credit organized by other banks that had invested resources in information. Moreover, since acceptable

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<sup>27</sup> The existence of this informal interbank market obviously in and of itself lowered barriers to entry. But it must not be overlooked that the easy access and informality of the market was related in part to macro-economic policies of the OECD economies, which promoted considerable growth of world liquidity. The preference of the OPEC countries for short-term liquidity also meant that a greater share of this liquidity was allocated to the banking system during the 1970s. These developments help explain why the interbank market grew from U.S. \$160 billion in 1973 to nearly U.S. \$700 billion by 1980 [Pecchioli (1983,p.30)]. If world liquidity had been tighter, this growth might not have been possible. Banks in turn might have been more discriminating in their redepositing and the bigger established banks would have had more ability to block entry.

participations could be as low as U.S. \$250,000, even provincial banks from small U.S. states could develop an international portfolio.

These two developments represented reductions in both costs and the minimum scale for international lending operations.<sup>28</sup> This gave banks the margin and incentive they needed to enter and compete with the more established lenders via loan availability and price. Market entry in the 1970s, of course, was also given further stimulus by the 1974 oil shock which shifted the LDC's demand curve to the right.

The reduction in barriers to entry on both the asset and liability side of the balance sheet, coupled with stagnation of domestic earnings, induced an incredible number of new entrants: estimates are that at a minimum there was an average of 66 new entrants per annum over 1973-80 [Page and Rodgers (1982, p.64)].<sup>29</sup> Table 2 breaks down new entrants by country of origin and divides them into a first phase (1973-75) and a second phase (1976-80). In the initial period the biggest burst of new entrants came from consortium (mixed capital) banks, U.S. institutions, and "other countries". Banks from France, the U.K., Germany, Spain/Portugal and "other Western Europe" also were active new entrants. In the second period the dynamic new entrants were from "other countries"--mostly oil-rich Arab banks, consortia, and smaller U.S. institutions.

With such a large and sustained number of new entrants, it is not surprising that vigorous price competition characterized the banking market in the 1970s. But as mentioned, the competition observed in the market did not reflect the efficient functioning of an atomistic market, but rather it was a cut-throat price war of an oligopolistic market unsettled by new participants. This becomes clear when one realizes that despite the large number of new entrants and large number of active participants in the Eurocurrency

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<sup>28</sup> Risks are also part of a bank's cost structure. Perceived risks of international lending apparently fell in the 1970s. This will be discussed in greater detail in the next section.

<sup>29</sup> The data represent only a partial count of participants in loan syndicates and therefore underestimate new entrants.

market, the essential features of the loan market were determined in a concentrated structure.

**TABLE 2**

**ANNUAL AVERAGE NUMBER OF NEW ENTRANTS TO THE  
INTERNATIONAL MARKET BY COUNTRY OF ORIGIN**

	1973-1975	1976-1980
Austria	1.7	2.4
Belgium	0.3	0.4
Luxembourg	0.7	2.2
Fed.Rep. of Germany	3.7	2.4
France	4.3	2.4
Italy	1.3	3.0
Netherland	1.3	1.0
Spain/Portugal	4.0	3.4
Switzerland	1.0	2.8
United Kingdom	4.0	0.6
Other, Western Europe	6.7	1.0
Canada	2.3	0.6
U.S.A.	10.7	7.0
Japan	1.7	1.8
Other Countries	11.0	24.0
Consortia <sup>a</sup>	13.3	9.4
<b>TOTAL</b>	<b>68.0</b>	<b>64.4</b>

Source: Calculated from data in Page and Rodgers (1982, p.64).

<sup>a</sup> Banks which are owned by 2 or more other banks.

The nature of concentration: the lenders. Table 1 shows that there was a high and remarkably stable concentration of banking assets at the world level throughout the 1970s. The competition observed internationally was basically among giants as they pushed and shoved for growth and dominance. The basic pattern of the 1970s was that the big U.S. banks were challenged by the Europeans and Japanese. The struggle is displayed in the ranking of the top 10 banks world-wide in Table 3: while in 1970 six of the top 10 banks were from the U.S., in 1975 there were only three U.S. institutions, and in

TABLE 3

## TOP 10 IN WORLD BANKING

(ranked by total assets)

	1970		1975 <sup>a</sup>		1980 <sup>a</sup>	
1	Bank of America	USA	Bank of America	USA	Citicorp	USA
2	Citicorp	USA	Citicorp	USA	Bank of America	USA
3	Chase Manhattan	USA	Crédit Agricole	France	Crédit Agricole	France
4	Barclays Bank	U.K.	Chase Manhattan	USA	Group BNP	France
5	National Westminster	U.K.	Group BNP	France	Crédit Lyonnais	France
6	Manufacturers Hanover	USA	Deutsche Bank	Germany	Société Générale	France
7	Banco Nazionale del Lavoro	Italy	Crédit Lyonnais	France	Barclays Bank	U.K.
8	Morgan Guaranty	USA	Société Générale	France	Deutsche Bank	Germany
9	Western Bancorp	USA	Barclays Bank	U.K.	National Westminster	U.K.
10	Royal Bank of Canada	Canada	Dai-Ichi Kangyo	Japan	Dai-Ichi-Kangyo	Japan

Source: The Banker, June 1971, pp. 663-689; June 1976, pp. 653-697; and June 1981, pp. 153-181.

<sup>a</sup> Excludes contra accounts.

1980, only two. More generally, only 4 of 1970's top 10 banks remained on the list in 1980.

Focusing on total assets has its limitations, however, because it includes domestic lending; for example, *Crédit Agricole*, the third largest bank in the world in 1980, has little or no international exposure. The asset data is also distorted by the transitory depreciation of the U.S. dollar during the 1970s: it inflated the value of the European and Japanese banks' domestic assets, which are expressed in U.S. currency in the rankings. Nevertheless, the limited data available on international exposure confirms concentration in the market: *Mentré (1984, p.6)* estimates that 20 large banks with international assets of more than U.S. \$20 billion have accounted for 50% of the value of all bank international lending. For U.S. banks, where more data are published, it can be found that just prior to the Mexican crisis of August 1982 the 9 largest banks controlled 60% of international lending and the top 24 accounted for 80% (Table 4). The average international exposure of the 9 largest was more than 10 times larger than the overall average and 40 times larger than the bottom 143 banks which represented 85% of the institutions surveyed. This is certainly not an atomistic market.

But the picture on concentration is not complete. The dynamics of market lending revolved around the syndicated credit. There was only a small number of institutions capable of consistently organizing these loans. The core group that formed the lifeblood of the system was only about 25 OECD area banks [*Mentré (1984, p.6)*]. These lead banks searched for new markets, evaluated borrowers, negotiated terms and invited other banks to participate in the syndicate. They also had a double funding role. It was these banks that attracted deposits from the major surplus countries; thus they supported loan syndication not only by their direct participation, but also by their redepositing in the interbank market which supplied funding to peripheral institutions entering into syndicated loans. The successful lead bank tended to be large because to



**TABLE 4**  
**INTERNATIONAL EXPOSURE OF U.S. BANKS RANKED BY SIZE**  
 (June 1982)

	World <sup>a</sup>	Developing Countries	Latin America
	(Exposure as % of total)		
Top 9	59.1	62.2	59.4
Next 15	19.4	19.5	19.8
Next 143	21.5	18.3	20.8
Total 167	100.0	100.0	100.0
	(Average exposure in billions of dollars)		
Top 9	21.5	8.6	5.3
Next 15	4.3	1.6	1.1
Next 143	0.5	0.2	0.1
Total 167	2.0	0.8	0.5

Source: Calculated from data in the United States Federal Financial Institutions Examination Council (1982).

<sup>a</sup> Excludes offshore centers and lending to international organizations.

compete it had to be able to directly or indirectly underwrite loans of huge value, and it needed broad international prestige, contacts, and informational networks to attract participants. Thus while any bank could lend internationally through participation in a syndicated loan, the traditional barriers of informational costs and scale economies confronted institutions wishing to gain the prestige and extra income that lead banks derive from syndication.<sup>30</sup>

<sup>30</sup> The extra income came from fees paid to lead banks. These fees were attractive; they were paid up front, were riskless, and could represent up to a fifth of the yield on a loan [Pecchioli (1983, p.48); Basagni (1981, p.101) and Euromoney (1978, pp.10-15)].

Added to the core group were another two dozen banks that had pretensions of taking on a role as an important lead bank. But what is important is that concentration of power in this vital aspect of international lending was strong. Table 5 shows that in 1978-81 the top 10 lead banks mobilized roughly one-half of the publicized syndicated credit. (In the tighter credit environment of 1975-77 the top 10 mobilized 80-90%.) In the oligopolistic struggle banks displaced each other in the rankings. But Table 6 demonstrates that there was a core of 8-10 institutions that kept a high profile in the group of top 10 lead banks in syndication. Moreover, it is here where one can appreciate that the U.S. banks lost less of their market power than appeared to be the case when examining data on assets: the institutions with the greatest frequency of appearance in the top 10 were 5 U.S. lenders.<sup>31</sup>

A stylized description of the competition among the lead banks in the syndicated loan market would be as follows. At the beginning of the 1970s the syndicated loan market was a domain of the big, traditionally international U.S. banks.<sup>32</sup> In the early 1970s their international markets were challenged by the big regional banks in the U.S. that had not previously been interested in overseas lending, and by European institutions. The newcomers gained an international foothold by: (i) offering to organize syndicated credits in new (and more risky) markets where the traditional lead banks had a weaker presence; (ii) price cutting in crowded markets; and (iii) inducing small banks interested in going international to participate in their syndicates. The big traditional lead banks reacted in a conventionally oligopolistic way: they did not give ground and competed with the newcomers by matching them on quantity and price in their established markets, and by usually pursuing them into frontier markets, all with market shares in mind. The competition between the established and new lead banks in syndication contributed to

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<sup>31</sup> Moreover, the big U.S. banks have been shown to be linked through interlocking directorates and reciprocal participation in each others' capital [U.S. Congress (1974 and 1978)].

<sup>32</sup> The first syndicate was organized by Bankers Trust in 1968 [*Financial Times* (1979)].

**TABLE 5**  
**CUMULATIVE DISTRIBUTION OF THE VALUE OF LOAN SYNDICATIONS**  
**AMONG THE TOP LEAD BANKS**

(percent)

	1975	1976	1977	1978	1979 <sup>a</sup>	1980	1981
Top 5	65	60	25	33	28	28	49
Top 10	86	90	79	44	50	47	64
Total	100	100	100	100	100	100	100
Memo item:							
Number of banks listed	15	20	20	50	50	50	40

Source: Calculated from data in:

- 1975: International Herald Tribune, November 8, 1976, p. 21.  
 1976-77: Euromoney, April, 1978, p. 85.  
 1978: Euromoney, February 1979, pp. 29-30.  
 1979-1980: Euromoney, November, 1980, pp. 54-55.  
 1981: Euromoney, February, 1982, pp. 65-67.

<sup>a</sup> January - September.

the dramatic lowering of spreads, lengthening of maturities, and high volume of lending in Latin America in the early 1970s.

The Herstatt and Franklin National bankruptcies in 1974 served to temporarily concentrate power once again in the big, traditional lead banks. The financial collapse rippled through the interbank market and stirred a crisis of confidence. Many newcomers dropped out of the market and those that stayed had trouble obtaining deposits.<sup>33</sup> The banks that had been seeking to establish themselves as leaders found their position undermined, leaving the market in the hands of the big banks with an established

<sup>33</sup> It has been estimated that more than 160 institutions withdrew [Gisselquist (1981, p. 165)].

TABLE 6

**BANKS RANKED BY FREQUENCY OF APPEARANCE IN THE GROUP OF  
TOP 10 LEAD BANKS IN LOAN SYNDICATION**

	1975	1976	1977	1978	1979	1980	1981
Citicorp	X	X	X	X	X	X	X
Chase Manhattan	X	X	X	X	X	X	X
Bank of America	X	X	X	X	X	X	X
Morgan Guaranty	X	X	X	X	X	X	X
Manufacturer Hanover	X	X	X	X	X	X	X
Lloyds Bank	X			X	X	X	X
Crédit Lyonnais	X	X			X	X	X
Bank of Montreal				X	X	X	X
Deutsche Bank			X	X	X		
Wells Fargo Bank	X		X				
Dresdner Bank		X	X				
Bank of Tokyo				X	X		
National Westminster						X	X
U B A F	X						
Creditanstalt	X						
Bankers Trust		X					
Iran Overseas Investment Bank		X					
First Chicago			X				
Morgan Grenfell			X				
Westdeutsche Landesbank				X			
Société Générale						X	
Crédit Suisse/First Boston						X	
Midland/Crocker National Bank							X
Royal Bank of Canada/Orion Royal							X

Source: Calculated from the same source as Table 5.

international presence. The concentrated power is well reflected in Table 5 for the years 1975-77; only 10 banks did most of the loan syndication. With a tighter oligopolistic structure, LDCs confronted a marked increase in spreads and shorter maturities.<sup>34</sup>

As the crisis environment eased, banks began to return to the market in late 1977. Some institutions, such as those from Japan and Germany, returned with a full commitment to establish themselves as international leaders.<sup>35</sup> Their price cutting was so aggressive that the big, established U.S. banks--in a classic bid for communication and price leadership--publicly expressed their irritation and vowed to resist the fall in spreads.<sup>36</sup> They could not, although there is evidence that the bigger lenders this time gave ground to the newcomers by slowing down the pace of their own lending. This helps explain why the U.S. share of LDC lending fell from 53% in 1974 to about a third in the early 1980s [Mills (1980) and Moffit (1984, p. 104)]. But the developing countries and Latin America did not notice the difference as aggressive lending by Europeans, Japanese and U.S. regionals more than filled the gap. The displacement is exhibited in Table 7: notwithstanding a truly dramatic drop in the rate of expansion of lending to LDCs by U.S. banks in 1978, the overall rate of growth of loans to these countries remained practically identical to the high average of 29% per annum recorded in 1975-'77. The market, then, was certainly being deceptive, or at least not very transparent, from the borrower's perspective. In effect, even though the kingpins of the system went into retrenchment, loan volume continued to be extraordinarily high and spreads fell to levels similar to 1973. It was as if nothing important had happened, when in fact the U.S. slowdown reflected the beginning of exposure problems in the financial system.

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<sup>34</sup> According to French-Davis (1984, pp. 142-43), the average spread and maturity for a large sample of non-oil LDCs was 1.85% and 4.7 years, respectively, in 1976 compared to the corresponding figures of 1.24% and 9.8 years in 1973.

<sup>35</sup> A good exposé on the Japanese expansion is found in Peck Lim (1978).

<sup>36</sup> In 1977 Citibank made public its intention not to lend below 1%. Big U.S. banks later publicly set 3/4% as a floor. However, the Europeans and Japanese would not go along [Euromoney (1978) and Clarke and Field (1978)].

TABLE 7

**GROWTH OF CLAIMS OF U.S. AND NON-U.S. BANKS  
ON DEVELOPING COUNTRIES<sup>a</sup>**

	1975-1977	1978
U.S. banks	27.8	7.5
Non-U.S. banks	30.1	50.7
Total	28.9	29.7

Source: Calculated from Mills (1980), Table 1.

<sup>a</sup> Oil and non-oil exporting.

A country level interlude: the cases of Peru and Bolivia. Our stylized picture can be given greater focus by referring briefly to case studies on Peru and Bolivia that helped me discover the overall dynamic [Devlin (1985) and Devlin and Mortimore (1983)].

It was noted earlier that in the 1960s the Peruvian market was divided up by a handful of large U.S. banks. During the early 1970s these institutions were boycotting the country in support of the Nixon Administration's financial sanctions against the revolutionary regime of General Juan Velasco Alvarado. But there were rumors of large oil deposits in Peru. Banks then attempting to gain a foothold in medium-term Eurocurrency lending perceived the country as a new market opportunity. In particular, Wells Fargo and Dresdner Bank disregarded the boycott and began to organize syndicates for the government on rather lucrative terms (spreads were 2.25%). Other banks became interested in organizing syndicates and competition rose. Furthermore, most of the big U.S. banks that had been cooperating with the Nixon boycott broke ranks to protect their market share. The struggle for market position was fierce and Peru's terms reflected the

price war: the average spread/maturity went from 2.08%/6.2 years in 1972 to 1.14%/9.5 years in 1974, while annual gross lending over the same period rose from U.S. \$213 million to U.S. \$430 million.

It is also interesting to note that the newcomers who acted as a lead bank for Peru relied heavily on Japanese and smaller scale U.S. regional banks--both having little international experience--to form their syndicated loans. Meanwhile, the big, established U.S. lead banks that competed to preserve their place in the market were most eclectic in their choice of partners for syndication and, to the extent that they established a relation, it was among themselves.

Finally, the syndicated loan market for Peru during its credit cycle of 1972-'76 was highly concentrated. While Peru had 167 creditor banks, just 5--Citicorp, Wells Fargo, Manufacturers Hanover, Dresdner Bank and Bank of Tokyo--in their capacity as leaders of syndication, mobilized 75% of all loans [Devlin (1985, pp. 133-141 and 156-159)].

As for Bolivia, it became an attractive market for the banks in the second half of the 1970s, in part because of rumors about oil and gas. Reflecting the fact that the Bolivian market came under scrutiny during the aforementioned crisis of confidence in the interbank market, it is not surprising that the pioneers were two internationally established banks--Bank of America and Citicorp--and only one relative newcomer--Dresdner Bank. When banks began to return to the Eurocurrency market in late 1976, competition around this country market rose. By 1977 Bolivia, one of the poorest countries in the Western Hemisphere, was paying risk premia similar to those charged to Mexico and Brazil. Nevertheless, the syndicated market was highly concentrated: the country had over 100 creditor banks, but the 3 above-mentioned institutions organized nearly two-thirds of all syndicated loans [Devlin and Mortimore (1983, pp. 55-109)].

The nature of concentration: the borrowers. Not only were lenders concentrated, but so were the countries that banks selected to lend to. Table 8 breaks up the banks' exposure in the Third World by region and also by the ten top borrowers for 1975 and 1981. Here it can be seen that Latin America has absorbed almost two-thirds of the loans extended by private banks. Concentration is also found when one examines the individual borrowers. In 1975 and 1981 the top 5 country borrowers absorbed 49% and 57% respectively of all LDC exposure, while the top 10 accounted for 62% and 69%. Moreover, there is practically no displacement as 8 of the ten countries appear in the top 10 for both years.

After examining the two sides of a credit transaction, even a loose notion of an arm's length auction market falls apart. Borrowing from an observation made by Jane D'Arista a number of years ago, one could say that the existing international private bank market in the Periphery resembles more of a "poker game" than textbook atomistic competition [D'Arista (1979, p. 80)]. In such an oligopolistic structure there is no reason to believe that unregulated activity will lead to an efficient allocation of resources. On the contrary, a priori notions would lead one to suspect that when the market is stable underlending is occurring and the banks are using their market power to gain monopoly rents. When the structure is destabilized by new entrants, one can expect price wars and overlending which will only be stopped by a crisis of some sort.

#### **4. The Institutional Dynamics of Risk Evaluation**

The conventional assumption of an upward sloping supply curve for credit rests on the general theory of a cautious portfolio manager and the notion that bankers rationally evaluate default risk at the margin. Furthermore, it means that the marginal cost of credit is rising and the market therefore imposes discipline on the borrower through appropriate price signals. As Harberger (1981, p. 187) once pointed out while discussing



bank lending to LDCs, the upward sloping curve is "more plausible, more logical and more attractive" than a flat curve because this is the only way countries have an incentive to save internally and because it is consistent with a cautious international financial community that is continuously evaluating risks.

**TABLE 8**

**PRIVATE BANK EXPOSURE TO LDCs BY REGION<sup>a</sup>**

(percentages, end of period)

	1975	1981
Latin America	65	63
Middle East	9	11
Africa	7	10
Asia	19	16
LDC Total	100	100

Memorandum Item:

Cumulative participation of top LDC borrowers in total LDC lending for 1975 and 1981

1. Brazil	19.1	1. Mexico	18.9
2. Mexico	36.5	2. Brazil	35.9
3. South Korea	40.8	3. Argentina	43.8
4. Argentina	44.9	4. Venezuela	51.3
5. Venezuela	48.7	5. South Korea	57.1
6. Indonesia	51.9	6. Chile	60.4
7. Peru	54.9	7. Philippines	62.8
8. Taiwan	57.5	8. Algeria	65.2
9. Philippines	60.1	9. Taiwan	67.1
10. Colombia	62.1	10. Colombia	68.7

Source: Calculated from the tables in Bank for International Settlements (1984).

<sup>a</sup> Excludes countries with offshore banking facilities. Also excludes Israel.

However, a closer examination of the institutional dynamics of the transnational bank in the 1970s suggests that a flat curve was in fact plausible over at least part of a country's credit cycle. And in these circumstances a borrower would not encounter market discipline, but rather permissiveness. It is here where we find the active link between bank overlending and its necessary counterpart of country overborrowing.

**a) Risk, Prices and Quantities**

There is evidence that banks do in fact assess risk [Blask (1977)]. But it is interesting that when one surveys the literature on risk evaluation there is virtually no word of loan pricing [Friedman (1983, pp. 204-82); Mentré (1984, pp. 7-11); Anderson (1977); Asian Finance (1977); Brackenridge (1977); Goodman (1977); Group of Thirty (1982); Donaldson (1979, pp. 37-52); and García and Sutin (1980)]. Studies of what bankers actually do in practice confirm that pricing is not part of the process: the Blask (1977, p. 82) survey of 37 U.S. institutions found that "none of the banks in the survey use the country evaluation results in determining interest rates or fees." This is a curious situation since risks are an important component of a bank's cost structure. In effect, the evidence suggests that risk evaluation only translates itself actively into quantitative country limits, or rationing points. A bank establishes a credit ceiling for a country and then seeks to place loans within that limit.

But what about price? We have seen that modern banks actively sell loans in customer markets, so they are in principle price makers, not price takers. Since banks do assess risks in order to establish country limits, they have some basis on which to rank potential borrowers. Logic and commercial common sense would demand that higher ranked customers have their loans tagged with a lower price than that of inferior ranked clients. Since in a world of uncertainty the drawing of fine lines among borrowers would require extraordinarily costly and time-consuming analysis of dubious accuracy, it can be

expected that categories are broadly defined--formally or informally--into a few easily identifiable groups, e.g., A, B, C, D and E, in which A would be mostly OECD countries, B the relatively industrialized LDCs, C upper income LDCs, D the poorer LDCs, and E the countries for which credit limits are zero and there are no loans to tag.

The groups are sufficiently broad and obvious for there to be a considerable degree of symmetry in the implicit or explicit credit categories of different banks even if there was no communication among them. For instance, unless it had inside information, it could be reasonably expected that during the late 1970s a bank would have put Germany in A, Mexico in B, Chile in C, Haiti in D and Grenada in E. This common sense situation provides for a natural tiering of loan prices in the market and it is therefore not at all surprising that empirical studies have found some correlation between country interest rate spreads and default risk, the latter defined in terms of proxy variables related to debt servicing capacity [Feder and Just (1977); Haegele (1980); Goodman (1980) and Edwards (1984)]. Nevertheless, the notion of price is clearly weak and only passively linked to risk evaluation. The active link is found in credit ceilings and portfolio diversification.

In any event, a bank must tag its credit limit with an explicit or implicit reservation price. The price is unlikely to be written independently of what the competition is doing because most borrowers will shop and compare tags on loans. The tighter the oligopolistic structure around the country's market, the more likely the bank will collude and price loans well above marginal costs (which include risk). If communication among the banks breaks down, or if new entrants destabilize the market, the banks' pricing decision becomes more complicated.

Assume we are in late 1973 and there are 7 banks (denominated f through l) that have a willingness to establish exposure in a politically stable developing country with prospects of exporting oil and no previous borrowing experience in the Eurocurrency

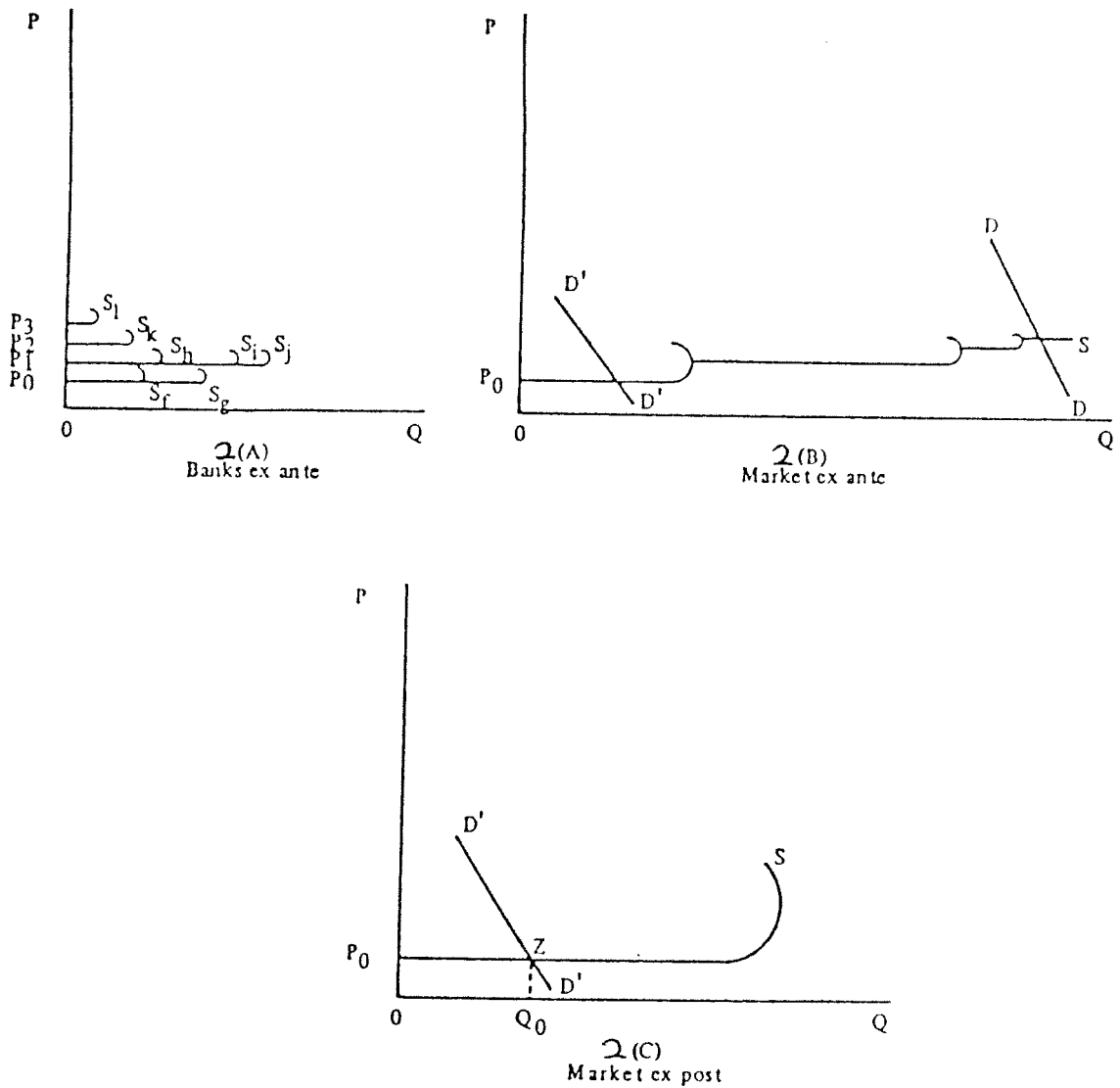
market. In their risk evaluation the banks will actively derive their credit limits. Price is passively determined. The country is easily identifiable as a category C case which includes other borrowers that have established spreads in the market. Our new country borrower will be offered a spread that is somewhere between the highest charged for category B countries and the lowest charged for category D countries. Even though all the banks easily identify the new borrower as a member of category C, in the absence of communication there is no reason why their ex ante reservation price should be identical. But the commonsense tiering of risk across countries means that the price should not be too different either. This would hold true even if some banks had put the country into an adjacent category, because spreads in the market are notoriously thin: e.g., during 1974-1981 the difference in average spreads between public borrowers in industrialized and non-oil exporting developing countries was rarely above 1/2%.<sup>37</sup>

The above situation is depicted in Figure 2 (A) where the 7 banks establish the ex ante reservation price for their new credit limits. Although the banks do not entirely coincide, there is considerable bunching of prices  $P_0 - P_3$ . Assuming that the banks are not fully aware of their competitor's credit limits, or of lending externalities,<sup>38</sup> the ex ante market supply curve will be the sum of the individual curves and form a step function that is relatively flat (Figure 2(B)).

<sup>37</sup> From data in Table 4 of Folkerts-Landau (1984).

<sup>38</sup> The assumption that the bank is unaware of lending externalities is reasonable. First, the data on external debt in developing countries suffered from many deficiencies during much of the 1970s. Data on public debt appeared with a one-or two year lag. Little or no information was available on external debt in the private sector and nobody knew what the accumulation of short-term debt was. Moreover, publicized Eurocredit syndication did not cover all bank transactions. In my study on Peru I found that the World Bank's tapes on publicized credits missed 20% of the medium-term loans. Ricardo French-Davis has commented to me that in his study of bank lending to 14 LDCs, World Bank tapes on publicized Eurocredits captured only 30% of total lending (including short-term) in the late 1970s. Second, even as data improved in the late 1970s, the banks' credit decisions did not react quickly to evident debt build ups. A. Lamfalussy (1985) of the Bank for International Settlements attributes the bank's insulation from the data in part to competition and marketing considerations. We will examine this faulty transmission of data into credit decisions in the next section of the paper.

Figure 2<sup>a</sup> (A), (B), (C)  
 THE MARKET'S FORMATION AROUND A BORROWER



\*The three graphs are not drawn on the same scale for reasons of space.

- Symbols: S : Supply schedule.  
 D : Demand schedule.  
 P : Price.  
 Q : Quantity.

The ex ante market supply curve would be the ex post market supply curve if all the banks stuck to their ex ante reservation price. This could be the outcome if demand were large enough to absorb the banks' credit limits as in DD of figure 2(B). But if supply were constrained by demand, as in the case of D'D', sticking to an ex ante reservation price above  $P_0$  would preclude a bank from occupying its credit limits. Thus, unless the country was badly informed, or a bank had a rock-solid client relationship, institutions through I would have to compete and lower their price to  $P_0$ , or confront open credit limits and no loans.

During the 1970s, most banks would have been highly tempted to reduce their price to  $P_0$ . First, since the ex ante reservation price is not actively derived from risk evaluation, the whole notion of the "correct price" is somewhat vague to the lending institutions. Second, the difference between  $P_0$  and  $P_{1-3}$  is not large. Third, in the case of new virgin borrowers like our oil exporter the risk of lending for the bank is perceived as minimal and the full burden of risk can easily be placed on the credit limit itself. Fourth, lack of definition about the correct price is fertile ground for marketing instincts to take over; it is well known that many banks during the 1970s had a tendency to see a country loan not as a financial instrument with a yield, but a market share [Wallich (1985, p.4)]. Fifth, a bank could hardly rely on bad information, or client loyalty, to cement a deal. On the one hand, banks were aggressively soliciting loans so that shopping costs fell drastically for borrowers. On the other, countries did not display strong loyalty in the 1970s and were known to go for the cheapest deal [Euromoney (1978)].

If the banks did decide to compete, and match the price of banks f and g at  $P_0$ , our potential oil exporter would face a flat supply curve over the relevant range of borrowing as depicted in Figure 2(C). Thus, when one moves away from an ahistorical general theory to a more institutional focus, it is clear that a flat supply curve may in fact be a more logical, plausible and attractive depiction of the transnational credit market of the 1970s.

It is also interesting to note that our equilibrium price  $P_0$  may not be stable. Even if banks h through l match f and g's price  $P_0$ , the market remains constrained by demand. If the banks are concerned about market shares, they will struggle to get a piece of terrain in  $OQ_0$ . Moreover, soliciting by the banks will lower the borrower's shopping costs and make the country's demand curve more elastic. The incentive to cut price is very strong and the supply curve shifts downward, causing price to fall, while loan volume rises.

This is a plausible explanation of what happened to many LDCs during the 1970s when they entered the Eurocurrency market for the first time as virgin borrowers. The framework is particularly suitable for small and medium-sized countries. This is because in the 1970s banks f - l were loan syndicates instead of individual institutions. It is clear that in an aggressive market the amount of resources that could be mobilized for a country via this mechanism was enormous compared to its absorptive capacity. With potential supply well in excess of its immediate needs, a country could receive deceptive price signals as the marginal cost of borrowing would be constant, or falling. And as Henry Wallich (1985, p. 3) of the U.S. Federal Reserve has pointed out, when countries receive money easily, they can't help but think that their economic policies are "not all that bad."

Thus, through much of the country's credit cycle the market's signals could be permissive, or at best ambivalent. Moreover, if a bank began to perceive problems in the debtor country it had no incentive to "blow the whistle." To the contrary, individual rationality would dictate that it remain quiet; this is because the bank's exposure reduction is facilitated if less informed new entrants come into the country market to take its place.<sup>39</sup> The market then seems to have been capable of giving clear warnings and imposing discipline only when the borrower approached the credit limits of the banking system as a whole (the positive sloped portion of the supply curve in Figure 2(C)). But by this time the credit cycle would be mature and dependence on debt could be considerable; the

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<sup>39</sup> A concrete example of this is documented in the Bolivian case [Devlin and Mortimore (1983, p. 99)].

sudden, unexpected rise of prices and restriction of loan volume could thus set off a debt crisis and a socially inefficient forced adjustment.<sup>40</sup>

Our framework is strongly underpinned by the notion that when Latin American countries initiated their credit cycle with private banks they were not rationed. In other words, credit markets were constrained by demand rather than supply. All evidence points in this direction. We will briefly review some of this.

Rationing cannot be measured directly because it requires information about ex ante demand functions. But Jaffee (1971, pp. 83-88) has suggested a proxy which we can modify and use for our analysis. According to him there is a positive relation between the degree of credit rationing and the proportion of total credit granted to risk-free prime customers. For our purposes developed countries can be considered to be prime borrowers. According to Table 9 there was a generalized trend of sharply declining shares for industrialized countries in total bank lending during the 1970s. This indicates that market dynamics were generally not in the direction of rationing.

Second, rationing generally means that the price charged for credit should be relatively high and stable; i.e., it won't fall because demand is pushing against credit limits and it won't rise much to clear the market in order to protect against adverse selection.<sup>41</sup> In contrast, French-Davis's (1984, pp. 142-43) analysis of a sample of 14 LDC borrowers of diverse size and resource endowments (oil and non-oil) showed great movement of spreads (and maturities) over the period 1972-1980. In the borrower's market of 1972-1974 average spreads evolved from 1.43% to 1.17%. They then rose to as high as 1.72% in the lender's market of 1975-1976, only to dip to under 1% in the borrower's market of 1977-1980. Maturities showed similar movement, reaching highs of nearly 10 years in the borrower's market and lows of 5 years in the lender's market.

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<sup>40</sup> For a more formal treatment of this phenomenon, see Devlin (1983a). Also see Devlin (1983b).

<sup>41</sup> This cannot be pushed too far however. Spreads also move with the level of base interest rates and their variation [Goodman (1980, p. 46)].



TABLE 9  
DISTRIBUTION OF EUROCURRENCY LOANS BY ECONOMIC REGION  
(Millions of Dollars)

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
Industrial- ized Countries	4246	2601	4097	13783	20683	7231	11254	17201	28952	27248	39100	86022	42571
Developing Countries	446	1286	2414	7288	7318	11098	15017	20852	37290	47964	35054	45264	41519
Other Coun- tries and International Organizations	38	76	285	779	1262	2662	2577	3584	3927	7600	3238	2093	925
TOTAL	4730	3963	6797	21851	29263	20992	28849	41637	70169	82812	77392	133379	85015
<u>Memorandum Item</u>													
Industrial- ized/Total	90	66	60	63	71	34	39	41	41	33	51	65	50
Developing/ Total	9	32	36	33	25	53	52	50	53	58	45	34	49

Source: Morgan Guaranty Trust, World Financial Markets, 1970-1978: March 1978, p. 4  
1978-1980: July 1981, p. 12; and 1981-1982: January 1985, p. 15.

It is also revealing to note that spreads and maturities showed practically no tightening in the face of the historic rise of oil prices in late 1973 that initiated petrodollar recycling [Goodman (1980, p. 44)]. Moreover, the dramatic tightening of terms and shift to a lender's market in mid-1974 was set off not by reduced global liquidity, nor by problems in developing countries, but rather by the aforementioned crisis in the interbank market related to the poor foreign exchange speculation and consequent bankruptcy of Bankhaus Herstatt of Germany and Franklin National of the U.S.

Another sign that rationing is not taking place in markets is when banks begin to do things that they traditionally do not like to do. The traditional preferences have been well-summarized by Aronson (1977, p. 177).<sup>42</sup>

Banks prefer lending for cash flow-generating projects which will allow borrowers to meet their obligations. They prefer not to finance consumption and infrastructure, are uneasy about financing payments deficits, and would rather not refinance previous loans.

It is difficult to examine this dictum carefully because there is very little disaggregated data available on bank lending to LDCs. But my case study work on Peru and Bolivia is suggestive. Neither country, but especially Bolivia, was a premier LDC borrower. Yet in their respective credit cycles in the 1970s a high proportion of credits went into types of lending that banks traditionally profess to dislike. In the case of Peru, 47% of the lending was to refinance old loans, 28% was of free disposition (totally untied) and only 17% was linked to projects or capital goods imports. In the case of Bolivia, 18% of lending went to refinance previous loans, 43% were of free disposition and 37% were linked to projects or capital goods imports [Devlin (1985, Table 28) and Devlin and Mortimore (1983, Table 35)].

The free disposition loans (and also the refinance credits) are exceptionally illustrative of abundant supply. Banks were attempting to break into demand constrained

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<sup>42</sup> A commercial banker makes a similar observation [Donaldson (1979, p. 45)].

credit markets. If all lending were tied to real activity, the constraint would have been nearly binding. However, banks cleverly offered borrowers free disposition loans (and refinance credits), which instantly made demand curves more elastic and reduced the constraint on market penetration.<sup>43</sup> A very poor country like Bolivia, with a notoriously low ability to absorb resources, could be accommodated to market supply only by offering it all-purpose loans. This, of course, raised the risk of the resources ending up in unproductive uses--which in fact happened<sup>44</sup>--but it apparently was not a major concern of the banks at the time.

The two cases also provide other evidence of unrationed markets. In 1973-74 Peru's loan syndications were often oversubscribed, meaning that the banks offered more money than the government and its lead banks had solicited.<sup>45</sup> A good sign of oversupply was the banks' subscription to a loan in 1974, which was part of the financial package for a highly controversial and evidently overscaled U.S. \$1 billion trans-Andean pipeline [Devlin (1985, pp. 147-200)].<sup>46</sup> There also were oversubscriptions in Bolivian syndicates beginning in 1976. Particularly revealing is an incident in which Chase Manhattan was so eager to lend to the country that it broke ranks with the tradition of creditor solidarity and entered a syndicate even though the government was in default on some turn-of-the-century bonds that had been underwritten by Chase. The bank's legal

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<sup>43</sup> In Devlin (1983a) I have developed an analytical framework to illustrate this phenomenon.

<sup>44</sup> For a detailed micro-level analysis of the tragic allocation of bank credits by the Banzer regime see Chapter 7 of Devlin and Mortimore (1983).

<sup>45</sup> A possible definition of loan pushing is that borrowers receive more than they themselves conceived as feasible or necessary at the outset. Oversubscriptions on syndicates are an indicator of this phenomenon. Unfortunately, it is impossible to precisely document oversubscriptions since there is no systematic (or public) record keeping of this particular aspect of borrowing. For more on loan pushing see Darity (1985).

<sup>46</sup> The technical merits of the pipeline were apparently quite weak. The U.S. Export-Import Bank refused to finance the project on the grounds that studies on proven reserves were dubious and did not justify such a massive investment. The refusal was not an easy one since at this time the U.S. administration was actively attempting to improve its image in Peru after having settled a 6-year investment dispute which had involved a financial boycott of the country. The Bank's evaluation subsequently proved correct as the level of reserves could not justify the scale of the pipeline.

advisors were horrified by the marketing department's lack of discretion. The legal department eventually won the battle, but as Chase withdrew it was replaced by another institution [Devlin and Mortimore (1983, p. 95)].

There is additional evidence of an absence of rationing. In contrast to the 1960s, neither country's public sector confronted demands for collateral or escrow accounts. Nor were loans conditioned by the presence of the IMF; indeed, in the crisis of 1976 Peru negotiated a major refinancing/rescheduling package even though it refused to submit itself to Fund scrutiny [Devlin (1985, chapter 10)].

Finally, we will turn to one piece of anecdotal evidence that nevertheless pretty much summarizes the situation. Questioned on the environment in Lima during the expansion of the credit cycle in the mid-1970s, one local banker remarked "foreign bankers wanted to give us the money before we asked for it" [Martin (1977)]. But even a huge country market in Latin America apparently could transitorily encounter unlimited supply. Angel Gurría, the long-time head of Mexico's Office of Public Credit, recently observed:

The banks were hot to get in. All the banks in the U.S. and Europe and Japan stepped forward. They showed no foresight. They didn't do any credit analysis. It was wild. In August 1979, for instance, Bank of America planned a loan of \$1 billion. They figured they would put up \$350 million themselves, and sell off the rest. As it turned out they only had to put up \$100 million themselves. They raised \$2.5 billion on the loan in total [Kraft (1984, pp. 19-20)].

The general observation in Gurría's statement has been echoed much too often by other Latin American authorities linked to negotiations to be dismissed.<sup>47</sup> In effect, whether it was big or small, rich or poor, once a country attracted the attention of the bankers it could become overwhelmed with offers of credit. A detailed examination of country experiences could reveal that in a significant number of cases an upward sloping

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<sup>47</sup> Several interesting quotes can be found in Latin American Weekly Report (1981).

supply curve was not found until it was too late; the market was capable of imposing discipline only when the situation had already become critical.<sup>48</sup>

Some general indication of the problem can be observed in Table 10, which displays the positions of Latin American countries in the creditworthiness rankings of Euromoney. The rankings are based on the price (spread and amortization period) charged by the banks to borrowers for loans in the Eurocurrency market. It can be seen that just before the explosion of the debt crisis only three countries (Brazil, Panama and Venezuela) had been receiving clear and unambiguous price signals concerning deterioration in their image of creditworthiness; most of the countries had been encountering signals indicative of enhanced creditworthiness in the market.

#### **b) The Quality of Risk Assessment**

We saw that the only active link with risk evaluation was found in the development of credit limits. But even this link was weak, making loan volume very elastic.

One general problem was that the banks' willingness to lend often exceeded their actual capacity to evaluate risks. Lending to developing countries had taken off long before country risk evaluation became a household word in banking. Indeed, country risk evaluation only came into vogue in the mid-'70s as a response to congressmen's and bank shareholders' concern about LDC debt. Thus, while loan volume was already soaring most banks were still groping to find the fundamentals of the art of country creditworthiness analysis.

The problem was exacerbated by the fact that so many lenders were internationally inexperienced new entrants. Many of these banks felt compelled by

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<sup>48</sup> McKinnon (1984, p. 478) now argues that this was the case in the Southern Cone and he terms it a market failure which contributed to overindebtedness. Unfortunately he attributes the flat curve only to public guarantees on debt contraction, i.e. the moral hazard problem.

TABLE 10

**EUROMONEY COUNTRY RISK RATINGS <sup>a</sup>**  
(Ranks)

	1979	1980	1981	Change in Creditworthiness 1981/1979 (%)
Argentina	37	24	38	-2.7
Bolivia	-	-	63	-
Brazil	47	53	62	-31.9
Colombia	40	21	26	35.0
Costa Rica	48	55	-	-
Cuba	-	-	45	-
Chile	41	38	34	17.1
Ecuador	50	42	39	22.0
Mexico	34	13	27	20.6
Panama	43	52	56	-30.2
Peru	64	55	47	26.6
Uruguay	53	36	33	37.7
Venezuela	22	51	61	-177.3
TOTAL NUMBER OF COUNTRIES IN THE SURVEY	58	69	69	

Source: Euromoney, February 1981, pp. 66-79 and February 1982, pp. 46-51.

<sup>a</sup> Euromoney rates countries on the basis of spreads and maturities contracted in international loan syndication. The lower the rank, the higher the evaluation of creditworthiness; thus a rank of 1 is the highest score.

competition to lend abroad, yet were in no position to invest in information and therefore were thinly staffed.<sup>49</sup> Indeed, they often lent to countries they had never seen or visited.<sup>50</sup> The inexperienced tried to avoid these bottlenecks by relying on the information provided by the lead banks of loan syndicates, which had invested in information. But the "placement memorandum" prepared by the lead banks for potential participants was little more than a sophisticated tourist guide prepared as a sales document rather than a serious analytical statement on the country [Bogdanowicz-Bindert and Sacks (1984, p. 71)]. Most participants in fact joined the syndicate basically on the good name and prestige of the lead bank which they presumed had done its own in-house confidential analysis.

This might seem like an efficient arrangement involving specialization: a big bank invests in information and for a fee organizes a syndicate that other banks of less international stature can join. One obvious drawback, however, is that independence of decision making--a fundamental requisite for efficient resource allocation--breaks down and there is greater likelihood of herd instincts developing. The problem of "following the crowd" was further enhanced by the concentration in the market of lead banks. As Sampson (1983, p. 45) has pointed out, syndication depends on about 100 people in London who all know each other and hate to be left out.

Another drawback related to specialization is that the lead bank's own decision to lend could often be a muddled one. First, in the 1970s data on country debt, the balance of payments, etc., came with lag times of a year or two. As Guttentag and Herring (1985, p. 134) have pointed out, in the absence of reliable information, there was a tendency to

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<sup>49</sup> For instance, one relatively large U.S. East Coast regional bank has a significant exposure in Latin America, but only one economist is responsible for analyzing borrowers. It is frequent even in big, internationally-oriented banks to have one economist covering several of the institution's country clients. This thin coverage contrasts with an international organization such as the World Bank, which assigns one economist to each country with which it does business.

<sup>50</sup> Gwynne (1983) provides good documentation of just how awkward a small bank's insertion into the international arena could be.

look to what one's peers were doing. "Staying in the pack" also protected a bank from criticism by their bank supervisors because in the 1970s few ever dared to question the "judgement of the market" [Brainard (1984, p. 35)]. Moreover, if something bad should happen to a bank it would have lots of company and this would likely induce bail out measures by public authorities. Mexico is a good example of where this strategy paid off.<sup>51</sup>

Second, the banks could have been excessively cavalier about the risks of lending due to a fashionable argument during the 1970s to the effect that unlike corporations, sovereign governments cannot legally go bankrupt and therefore are always around to pay their debts. But as Kuczynski (1982/83, p. 352) has correctly observed, while countries are always around to pay, there is no guarantee that they will pay, a lesson the banks are learning today.

Third, as we have pointed out, a large transnational bank's decision about where to lend and how much goes beyond a narrow default risk-return calculus on that transaction. Market shares are an important decision variable for a bank and the certain loss of a market today may outweigh the uncertain loss by default tomorrow. Also, a medium-term loan is only one facet of the bank's business in a specific country market and therefore can be treated as a "loss leader"<sup>52</sup> [Pecchioli (1983, pp. 49-50); Korth (1983, p. 32)]. The big banks' credit allocation is also influenced by home government foreign policy.<sup>53</sup> This latter dimension was seen in Peru when the big U.S. banks cooperated with the Nixon administration's boycott of the Velasco regime. Later, when the U.S. administration made peace with Velasco in 1974, it was these same banks that organized syndicated loans for Peru to help it finance the compensation of nationalized U.S. firms

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<sup>51</sup> For details of the rescue see the study by Kraft (1984).

<sup>52</sup> Concretely, in my study of Peru I found that some foreign currency bank loans to the government at low rates were linked to the opening up of new branch office networks in Lima [Devlin (1985, pp. 178-84)].

<sup>53</sup> See Spindler (1984) for the case of Japanese and German banks.



that was stipulated in the bilateral agreement between the two governments [Devlin (1985, pp. 113-114)]. Finally, a bank also may help organize/participate in a syndicate simply to maintain on-going relationships with other friendly banks [Group of Thirty (1982, pp. 8-9)].

Fourth, the big banks often were not structured in a way to effectively translate risk evaluation (however deficient) into their credit decisions. For instance, the Blask (1977, p. 80) survey found that banks did not check their country risk evaluation against actual experience and tended not to subject on-going creditworthiness analysis to independent evaluation within or outside the institution.

This lack of follow-up reinforced internal incentive systems geared towards management's preoccupation about growth, in which successful loan placement was rewarded more than successful prediction of loan repayment. High mobility in a fast growing industry where product exchange and payment are not simultaneous also allowed bankers to avoid accountability: by the time a loan went bad the individual would be a manager in another institution.<sup>54</sup> Accountability was further defused by most banks' efforts to decentralize in order to make fast credit decisions and thereby not lose a deal [Donaldson (1979, p. 90)]. The general institutional inability to translate risk evaluation into credit exposure and prices is well captured by Alexander's observation (1984) that "some bankers were so afraid of missing out that during lunch hours they even empowered their secretaries to promise \$5 million or \$10 million as part of any billion-dollar loan package for Brazil or Mexico."<sup>55</sup>

Fifth, a lead bank's motives for promoting a syndicate were not necessarily symmetric with those of the participants, who relied on the leader's assessment. As noted earlier, at least one-fifth of a lead bank's return on a loan came from fees which were

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<sup>54</sup> Gwynne's analysis (1983, pp. 25-26) lends credibility to these points.

<sup>55</sup> Dalamaide (1984, pp. 44-45) discovered the same phenomenon, which is called "receptionist banking."

paid up-front and were risk free. This provided an incentive to churn loan volume.<sup>56</sup> Furthermore, the lead bank's ability to negotiate fee income was strongest in the less attractive markets. While the greater fee income could have covered the greater risk for the lead bank, the participants in the syndicated loan assumed the same risk without the benefit of the fee. Another consideration is that the big lead banks often were heavily committed in their markets; thus new loans generated positive externalities for them that were not enjoyed by the less committed banks which were invited to participate in the syndicate.

Sixth, should the loans turn bad, the big banks enjoyed certain advantages not available to their smaller counterparts. On the one hand, they had the implicit security of the lender of last resort facilities. On the other, they could buy the smaller banks' loans at large discounts; this could come about either through purchases in secondary markets or takeover bids in the event that the smaller institution encountered financial difficulties [Darity (1985, p. 48)].

Finally, it is possible that the market's whole perception of risk during the 1970s was miscalculated. This is what Guttentag and Herring (1984, pp. 1360-64 and 1985, pp. 132-34) have called "disaster myopia." They argue that defaults are low frequency events and can be assessed at best by subjective probabilities. Borrowing from psychology, they point out that individuals tend to formulate their subjective probabilities from the events easiest to recall, giving their expectations an "availability bias."<sup>57</sup> In times of pro-

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<sup>56</sup> When spreads are falling, all banks have an additional incentive to raise volume in order to maintain the growth of earnings.

<sup>57</sup> A good example of this bias is the recent news of Ronald Reagan's unfortunate cancer operation. Prior to this operation, most individuals probably did not give a high probability to a colon cancer. With Mr. Reagan's sickness many raised their subjective probability, giving rise to informative articles and medical checkups. But over time people will once again become less cautious and renew their old habits.

longed prosperity banks can thus sharply lower their subjective probabilities of problems, or default. Likewise, when defaults do appear they can overreact.<sup>58</sup>

The problem is further complicated by the tendency of individuals to establish thresholds in which in practice they at some time give a low frequency event a probability of zero. This can cause neglect of potential hazards that in fact can be identified. Moreover, even when these hazards become so obvious that they cannot be neglected, an individual may effectively ignore them because they show that past decisions were incorrect. (Technically this is termed "cognitive dissonance.")

While only an hypothesis, there is enough circumstantial evidence to make Guttentag and Herring's arguments plausible. There was a long post-war economic expansion in which economic recession and defaults dropped into the background. The potential availability bias in the assessment of risk was enhanced by the retirement of managers who had lived through the Great Depression and their replacement by young executives who had grown up in prosperity. At the macro-level bankers overlooked the arguments of a number of analysts [for example, Mandel (1980); Bank for International Settlements (1978) and Lewis (1980)] that pointed to a structural slowdown in world economic growth in the 1970s, which simultaneously contributed to debt accumulation and undermined the prospect of it ever being repaid. At the micro-level I have found evidence that suggests that bankers may have overlooked a deterioration in key economic performance indicators of their country clients, lending eagerly until a crisis of major proportions was inevitable [Devlin (1983a)]. Bankers also overlooked the fact that much of the finance in Latin America was to some extent similar to that of a speculative Ponzi unit: many countries depended on new loans to pay interest. If the rollover of debt service were broken by a crisis of confidence, payments would depend on the political feasibility of imposing a deep recession on the debtor countries. When criticized about

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<sup>58</sup> Keynes (1964, p. 45) also has referred to the availability bias without calling it that, in his analysis of firms' investment decisions.

their lending patterns in LDCs, bankers invariably pointed to the relatively small loan losses on international lending [Friedman (1977, p. 55) and Costanzo (1977, p. 7)]. This, of course, was not a very good argument given that lending to LDCs was a relatively new phenomenon and there are long time lags between disbursement and repayment of debt.

Some have argued contrary to the availability bias hypothesis and insisted on the existence of rational markets. Folkerts-Landau (1984, pp. 7-10) has recently posited that banks did lower their perceptions of risk in the 1970s, but this was a rational response to developments in the market that made reschedulings rather than default the likely outcome of repayment problems. There is some truth in Folkerts-Landau's argument, but it cannot explain the remarkable compression of spreads between countries and their overall fall to levels which sometimes put into doubt the coverage of administrative costs not to mention risk. In effect, countries today rarely default on loans, but the ability to reschedule doesn't mean that banks will be necessarily repaid.

### III. CONCLUSIONS

There are many ways to interpret the developments on the supply side of the international banking market during the 1970s, and they are not all necessarily incompatible with each other. One can, in fact, turn to traditional portfolio theory for a partial understanding of events: banks pursued higher differential profit rates on overseas lending as compared to their domestic markets. The differential arose out of many developments such as:

- (i) the rise of the unregulated Euromarkets, where there were no required reserves, lower tax rates, wholesale scale economies, etc.;
- (ii) lower perceived risks due to technical innovations such as floating rate loans, which passed interest risks onto the borrower; syndicated credits, which allowed banks to freely communicate with each other and lend en

bloc; cross default clauses, which prevented selective default on the part of the borrowers; and improved communication and computation systems;

(iii) strong post-war expansions of world trade and investments;

(iv) crisis in the Center which lowered rates of return in domestic markets and contributed to growing world liquidity through the response of anti-cyclical fiscal and monetary policy; and

(v) OPEC policy which increased the demand and supply of finance for borrowing countries.

All these points are important and relevant. But they abstract from market structures and institutional considerations. Examination of these latter factors can enrich the analysis and also aid policy prescriptions.

We found that portfolio theory could not capture all the dimensions of lending in the 1970s. In particular, it focuses on the short-term default risk-return calculus of a cold and standoffish investor. It can explain the phenomenon of overlending only by faulty risk perception on the part of an individual investor.

However, the modern bank does not fit comfortably into the traditional mold of a portfolio investor. A bank is much more of a "firm" than an investor. Banks are not arm's length price takers, but rather price makers as most of their business is done in customer markets where the client relationship is important. In effect, the banking firm actively markets financial services at the retail and wholesale level; in contrast to the distant portfolio investor, personal salesmanship and marketing expertise are key components of modern banking. The traditional vision of a reserved banker sitting in his/her office awaiting loan applications for his/her assessment is simply not an accurate reflection of the post-war banking ethos.

The idea of an arm's length portfolio investor also does not properly capture the dynamic of the client relationship. Customer markets thrive on the client relationship. And the banker's client relationship is probably the most intimate of any economic agent because the loan is an unusual product for which exchange takes place long before

payment is realized. Thus first hand knowledge about, and trust of, the borrower is paramount. Looked at from another angle, a client relationship is an investment that enters into the profit equation of a bank. Therefore not lending to an established client may often in fact have costs which meet or exceed the costs of default risk should the loan be made. In all but a very mature credit cycle the bank is inclined to lend because the certain loss of a known client will probably outweigh the possible and uncertain costs of default in the distant future. In essence, for valued customers, banks are inherently forthcoming.

But information gathering also enjoys externalities and economies of scale. The value of a client relation goes beyond that relation itself and extends into a system-wide network designed to assess profit opportunities. Thus banks are interested in maintaining a market presence, or share. Through much of a credit cycle, then, a concern for market presence can override the costs of default risk.

In sum, it may be that the modern bank cannot afford to behave like a classical portfolio manager guided primarily by concern for default risk. Except in a mature part of the credit cycle default risk is usually not an immediate threat. The more immediate threat may be another: if the bank does not grow in response to its clients' needs and external economies of scale it may find its commercial viability in jeopardy because of a takeover by a more aggressive competitor. Slow growth also may eliminate it from eligibility for lender-of-last-resort facilities.

The popular view of the bank as portfolio investor also was often accompanied by the notion that unregulated international banking approached the classic efficiency of textbook atomistic markets. But the modern bank is not an atomistic specialized institution. Rather it is a global firm that is highly diversified around the world with multiple products and objectives. A loan placement in any given market at any given time does not necessarily conform to economically efficient credit allocation, but rather is tied up in the global business strategy of a transnational bank. A credit in and of itself may be a loss

leader, protecting other interests in the market concerned, or interests even outside that market. Nor is there even conclusive evidence that banks are global profit maximizers, as competing theories related to alternative goals of market stability, bureaucratization, sales maximization, etc. could be employed to explain lending strategies in the 1970s.

The frequent notion of the 1970s that unregulated international banking markets approached textbook efficiency was indeed seriously misplaced. The economies of scale in banking reward size, and market dynamics--notwithstanding the hundreds of lenders in the international market of the 1970s--were determined in a relatively concentrated industry. Oligopoly is in fact the market structure of international banking and the expansion of the 1970s must be viewed through this optic and not that of atomistic economic agents.

The industry was concentrated in the 1960s with a handful of big U.S. money-center banks dominating international credit flows. During the 1970s the rapid growth of liquidity fueled the expansion of the Eurocurrency market's interbank market. Access to this informal submarket became very easy and helped banks overcome one of the major barriers to entry into the international market: access to dollar deposits to support asset growth. The advent of the syndicated credit reduced another barrier: investments in information. In effect, smaller and/or inexperienced banks found that they "could avoid" this investment by relying on lead institutions to provide what they felt to be the necessary information for lending decisions. Syndication, cross default clauses, floating rate loans, etc. also lowered perceived risks and hence the costs of international operations. In effect, the average cost curve of the industry fell sharply, permitting the entry of new lenders who competed with the club of U.S. banks which had controlled the international market in the 1950s and 1960s. But even with the new entrants the basic features of the market remained concentrated and oligopolistic.

In this perspective, one would evaluate the 1970s phenomenon of rising credit volume and falling credit prices not as the reflection of healthy competition in an atomistic market, but rather as the outcome of an oligopolistic price war between the giant established international banks and newcomers from the U.S., Japan, Europe, and the Arab world. In a destabilized oligopolistic market, there is no reason to presume a priori that credit was being allocated efficiently. This, of course, is aside from the other considerations outlined above.

What difference does it make whether the international banking market was atomistic or oligopolistic? In equilibrium, the major difference is that price is higher than marginal costs. But given the economies of scale in banking, a dynamic assessment may make oligopoly a more socially desirable outcome in any event. In other words, overall welfare may be improved with some degree of concentration in banking.

Both atomistic and oligopolistic markets are subject to crisis and overlending. But the magnitude of crisis may be larger in the latter structure. On the one hand, there is more interdependence of decision-making in oligopoly, which can make the industry more prone to herd instincts and concentration in certain credit markets which are considered "safe" by the industry leaders. On the other, given the size and diversification of the multinational bank, "mistakes" can perpetuate themselves for a longer period of time because the big bank is more capable of covering losses in one activity with profits from another activity and because the big institutions can count on bailouts from their governments should the losses become unmanageable. In sum, when the market is destabilized by price competition among established leaders, or by new entrants, both the magnitude and temporal length of a disequilibrium can be enormous.

In contrast, in an atomistic market banks would be more accountable for their short-run decisions and mistakes would be manifest sooner, bringing more timely corrective responses in the market. It is unlikely that an atomistic market would have



generated the concentration ratios that we have today, where loans outstanding to some individual Latin American countries are 20-60% of the capital of major lending institutions. However, once a crisis appears, an atomistic market would be much less able to manage it. Comparing the 1980s with the 1930s shows that an oligopolistic market is more adroit at creditor coordination, which helps to avoid, or at least postpone, technical defaults and open capital losses. But at the same time, in rescuing their situation, the big banks pass a disproportionate amount of the cost of the problem onto the debtors and the international public sector.<sup>59</sup>

On balance, it would seem that the problem of the 1970s was not the oligopolistic structure per se, but excess liquidity, coupled with the lack of banking regulation that permitted uncontrolled entry and cut throat competition on pricing and volume. It may be that international markets should be modeled more after regulated domestic markets and not vice-versa.<sup>60</sup>

We have seen that the modern transnational bank has many concerns, of which default risk is only one. Evidence suggests that through much of the 1970s default risk and its assessment was only a latent input in credit decisions, as other objectives held more sway within the institutional hierarchy of the banks. It therefore would be less than a surprise if the market failed to give borrowers clear signals and did not impose discipline on them. The technical literature stresses that markets are rationed. When markets are rationed there is systematic underlending, at least to some borrowers. The literature does

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<sup>59</sup> This is detailed in Bianchi, Devlin and Ramos (1985).

<sup>60</sup> It could be argued that unregulated markets and international banks allocate resources efficiently only over the long term. This is certainly plausible. But it also begs the issue of the costs of the market's short-term mistakes and who is to bear them. Indeed, the market's supposed long-term efficiency is small consolation to Latin American debtors, or Northern taxpayers who are gradually being forced to assume more of the costs of the problem. The whole purpose of modern public policy and regulation is to assuage the inherent tendency of private markets to push themselves to extreme limits and crisis.

not give much attention to what happens to unrationed borrowers, but if some borrowers are underlent to, then one may suspect that others might be overlent to.

Indeed, by examining how banks institutionally examine risk and price loans, we found that unrationed borrowers may face a flat rather than the conventionally assumed upward rising supply curve. In these circumstances, a borrower encounters constant marginal costs for loans and has less incentive to save internally. Moreover, in a demand constrained market with an unstable oligopolistic structure, equilibrium is hard to obtain as the banks compete for shares in the constrained market. Thus, through much of the credit cycle a country can encounter falling marginal costs and rising credit volume. It is only when the credit cycle is well advanced that default risk becomes an active ingredient in credit decisions and an upward sloping supply curve is unambiguously experienced; but by then the country can be highly dependent on debt and the sudden rise in price and restricted loan volume can generate crisis.

Evidence suggests that Latin America was not rationed in the 1970s and therefore during part of the credit cycle some countries could have faced flat supply curves that were shifting downwards. In these circumstances the debt build-up for the countries would have been entirely too easy. Moreover, credit prices/volume would have signaled that their macro-economic policies were being viewed well by the market, even if the countries pursued development strategies that were inconsistent with sustained access to private bank loans. Indeed, the market generally would not be capable of signaling problems until a crisis was nearly inevitable.<sup>61</sup>

We also found that the banks' risk evaluation itself left much to be desired. Sovereign risk evaluation was new to the banks and most of the lending to LDCs was undertaken when these institutions were still groping for the fundamentals of assessment. Banks also could have suffered from "disaster myopia," which induced them to

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<sup>61</sup> The exact extent and magnitude of the problem can be determined only by detailed case studies which focus on the creditor-borrower relation.

systematically underestimate the risks of international lending. Even when the internal risk evaluation was effective, many banks were not structured internally to absorb the assessment into their credit decisions.

All the preceding analysis points to a credit system in the 1970s that was prone to lend too much to Latin America from the standpoint of traditional criteria of economic efficiency.<sup>62</sup> This does not mean that banks were irrational; indeed their international lending has proven to be highly profitable for them. But for society as a whole, and for Latin America in particular, it is not clear that welfare was raised by the banking expansion of the 1970s. A manifestly positive event--the revitalization of private capital markets and their incorporation of Latin American countries--apparently was abused by the lenders, their governments, and the borrowers, so that the whole system became overextended.

Our analysis can also perhaps be the beginning of a technical foundation for the Latin Americans' intuitively correct argument for coresponsibility in the debt crisis. To the extent that coresponsibility can be demonstrated, there is even less justification for the orthodox strategy of managing the crisis, which has passed the bulk of the costs of the problem onto the debtor countries.<sup>63</sup>

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<sup>62</sup> More generally, the financial vulnerability related to bank lending is partially reflected in the growing frequency of reschedulings, worldwide. In the 19-year period between 1956 and 1974 there were 30 debt renegotiations involving 11 countries for a total amount of U.S. \$7 billion. In the 6-year period 1975-1980, there were 16 reschedulings in 9 countries for a total amount of U.S. \$15 billion. In the 3-year period 1981-1983 there were 30 renegotiations involving 23 countries (including Cuba) in excess of U.S. \$60 billion [Mentré (1984 p. 28)].

<sup>63</sup> The one-sided nature of the adjustment to the debt problem has been analyzed in Bianchi, Devlin and Ramos (1985).

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