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THE ACCESS OF DEVELOPING COUNTRIES
TO INTERNATIONAL CREDIT

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Introduction

Since 1974/75 the concern of those interested in the health of the international financial system -- government officials, managers of financial and nonfinancial enterprises, and academic analysts -- has increasingly focused on the so-called international debt problem. As innumerable articles and speeches show, the concern is based on the fact that in the aftermath of the drastic increase in oil prices by the members of OPEC (Organization of Oil Exporting Countries) in 1973/74, the financial surpluses accumulated by some of the oil exporters were not reflected proportionately among the oil importing countries, particularly in a whole range of less developed countries who are oil importers, usually referred to as "non-oil LDC's."

Apart from the rapid increase in the volume of such international capital flows, it was the transfer mechanism that worried observers. For the most part, the funds were not "recycled" directly by the surplus countries, or by the official international lending institutions, such as the IMF or the World Bank. The bulk of the borrowing and lending was undertaken by the private banks of a few developed countries, primarily by U.S., but also by Western European and Japanese institutions. This increase in exposure to "sovereign risk" is of concern to the banking regulators in the developed countries. They are, of course, worried about the soundness of the individual financial institution as well as the stability of the overall financial system for which, as regulators, they are responsible.

The borrowing countries are concerned, too. Undoubtedly, during the last three years conditions have been extremely favorable for them. Funds were available in abundance, and both terms and costs have been quite advantageous by historical standards. To wit, interest rates on loans in the international markets have been consistently at or below the rate of inflation in the country whose currency is used to denominate financial claims.

TABLE 1

Approximate Real Cost of Funds
(in percent)

Cur- rency	1974		1975		1976	
	Average interest rate	Rate of inflation	Average interest rate	Rate of inflation	Average interest rate	Rate of inflation
\$	12.66	11.1	9.22	9.13	8.08	5.77
DM	11.41	6.98	6.47	5.97	6.03	4.52
SFR	12.19	9.78	6.14	6.70	3.58	1.72
¥	14.86	22.65	10.19	12.11	8.08	9.63

Note: Rate unadjusted for exchange risk; premium over LIBOR 1.5%

Source: Inflation rate: International Financial Statistics, IMF, Washington, D.C. monthly.

LIBOR: Chemical Bank, currency report, weekly

These conditions were, of course, greatly influenced by the fact that an important group of traditional borrowers, namely, private corporations operating in developed countries, reduced their funding needs drastically, simply because the profit outlook appeared so dismal that many companies

not only stopped new investment but engaged in liquidation of inventories and fixed assets. Thus, they became suppliers of financial capital.

The banks, in turn, being inundated with funds from both OPEC surplus countries and corporations, were desperate for borrowers. And the increased borrowings by governments of the major developed countries did not fill the void. In the largest countries there was a pervasive feeling that countercyclical deficit financing had to be limited in order to combat strong inflationary pressures. Thus borrowers were able to obtain funds with relative ease and on very good terms. But the conditions that made this possible cannot be expected to continue forever, and this brings up a number of questions regarding the continued access of "non-oil LDC's" to the international financial markets in particular.

The purpose of this paper is to raise questions in a systematic way and to provide answers whenever possible. We shall begin by looking at the evolving structure of international financial markets, where funds must come from. After all, problems in the financial markets are the first potential barrier that might limit access to funds. Subsequently, we shall investigate some relevant factors pertaining to borrowers that will influence the success or failure of a country in obtaining funds on reasonable conditions from the international markets.

The emphasis throughout the following sections will be on presenting a clear conceptual scheme that may serve as the basis for analysis; data are presented for the purpose of illustration only.

The Evolving Structure of International Credit Markets

What precisely is the structure of international credit markets? How has it evolved, and what is the outlook for the future? Within the overall structural framework, such essential features of financial markets, as availability, cost, and the allocative mechanism must also be considered.

Essentially, the current structure of international credit markets offers a borrowing country six alternative sources of funds that are not directly tied to purchases of specific goods and services. They are outlined in Figure 1.

	International markets		
	Domestic Market	Foreign Market	External Market
"Direct" borrowing		Foreign bond mkt.	"Euro" bond Euro-CD
Intermediate funds		"International" bank loans	Eurocurrency markets

Fig. 1. Schematic presentation of world credit markets. (Adapted from G. Dufey and I.H. Giddy, *The International Money Market* [Englewood Cliffs, N.J.: Prentice-Hall, 1978], chap. 1.)

The scheme indicates that basically two decisions must be made. One is whether the borrower wants to reach financial investors (savers) directly through issuing such securities as debentures, notes, or

commercial paper, or whether better conditions can be obtained by getting funds indirectly, i.e., through financial intermediaries such as banks and other financial institutions. To a certain extent the decision depends on the desired interest period. If funds with fixed interest rates for five years or longer are required, the bond markets usually present the only alternative. Public markets are extremely sensitive to perceived default risk, however, and borrowers can often obtain better terms when dealing with sophisticated financial institutions who are more discriminating in assessing risk. It is for this reason that the volume of funds transferred internationally from savers (financial investors) to borrowers (real investors) through financial intermediaries is much greater than that transferred via the bond markets. To illustrate: while total bond issues in the external market amounted to approximately \$14.5 billions during 1976, \$311 billions credit was extended via the Eurocurrency market.^{1/} Thus the conditions associated with financial intermediaries--i.e., their policies, government control, competitive interaction--are of utmost significance in assessing the markets for such intermediated funds.

The other decision is a bit more complex. Essentially, it is a question which market mechanism to use: that of the domestic market, the domestic market of another country (i.e., a national market for foreign borrowers), or the external markets?

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Data from Morgan Guaranty Trust Co., World Financial Markets (monthly) and Bank for International Settlements, Quarterly Press Release, Data net of inter-Eurobank credit.

Quite clearly, the domestic market of a country provides the bulk of all funds needed by borrowers, both public and private. But it is also clear that cost, availability, and borrowing conditions are those prevailing at any point in time in the domestic market. Thus, the range of choices is quite circumscribed, especially when the domestic market is "thin," as is the case in many developing countries. There is also no choice in terms of currency denomination of borrowing; with few exceptions all credit claims are expressed in the respective local currency that is legal tender.

From time to time, borrowers find it advantageous to supplement domestic sources of funds with credit obtained abroad. In the past, such funds had to be raised in the market of another country. Traditionally, these markets were in countries where (a) savings rates were large relative to investment demands and (b) financial markets were well developed with the appropriate institutional framework of diverse financial institutions, well-organized secondary markets for securities, good underwriting and placement facilities, and enlightened regulation: tight enough to prevent fraud and abuse, yet sufficiently liberal to allow financial entrepreneurs the necessary freedom of action. Often, such national markets serve not only foreign borrowers, but also foreign savers. Still, borrowing conditions and terms are determined by those prevailing in that market for foreign borrowers, and borrowers have little choice. Credits are denominated in the currency of the country whose financial center is used, and -- most important -- all borrowings are subject to the rules and regulations of the local government, or to

the private institutions to whom such regulatory powers are entrusted. Ultimately, the foreign borrowers enter the market at the discretion of the domestic government.

The U.S. financial markets serve as an excellent illustration. Foreign borrowers are subject to the disclosure regulations of the Securities Exchange Commission (SEC), the listing requirements of the trade associations governing organized securities markets, and the established procedures, rules and usances of the U.S. banks. Borrowings are invariably denominated in U.S. dollars, and the demands of domestic borrowers are always served first, other things being equal. Such discrimination is often hidden. For instance, many institutional investors are effectively prevented by state laws or ambiguous legal interpretations (e.g., "prudent man rule" in the United States) from purchasing foreign securities, and the banks can be influenced by the attitudes of the examiners toward foreign loans. Finally, from 1965 to 1974, U.S. markets were virtually closed to foreign borrowers by the so-called Capital Control Programs, designed to alleviate U.S. balance of payments difficulties.

The illustration of the U.S. market is especially significant because it is still the single most open national market where foreign borrowers can raise funds. Aside from the United States only a handful of countries (Germany, Switzerland, Japan, The Netherlands) allow non-residents to raise funds at all, and usually at a pace that is dictated by domestic factors: balance of payments considerations and the requirements of domestic borrowers tend to close national markets to foreign borrowers at least occasionally.

This discussion can be summarized by pointing out that the traditional alternative to domestic borrowing, the markets of other countries, offers only limited alternatives. Terms, costs, and currency of denomination are set by the respective foreign markets. And most important, access to foreign markets is often closed by the nationalistic policies of authorities who not only tend to favor domestic borrowers vis à vis those from abroad, but who also tend to favor those who invest relative to their own savers.

In a fundamental sense, it is these distortions which have given rise to the so-called "Euro" markets, that is, parallel markets where funds are passed-on from savers to investors outside of the traditional channels, (i.e., "national" markets for foreign borrowers). In these external markets borrowers from all countries have found the best conditions in terms of availability, cost, terms, and choice of currency denomination. Thus, a thorough understanding of these markets is necessary for an assessment of the future of international markets where countries can raise funds for economic growth.

National vs. External Markets

Until the late 1950s the only source of funds outside the domestic markets were the national markets of other countries. Since that time, external markets have grown which offer an additional set of alternatives. The growth rate of these markets is substantial, far exceeding the growth rate of domestic markets and of the traditional foreign sectors, where funds were made available for borrowers from abroad. What, precisely, caused the growth of these external markets

and what is the outlook for their future? These essential questions must be answered if one is to assess the outlook for developing countries continued access to funds.

We have already alluded to the fundamental reason for the existence and growth of the external markets: government policies which in some manner restrain the transfer of funds from savers to (foreign) investors in the national market. As this general principle applies in practice in slightly different ways to direct markets versus markets for intermediated funds, each sector shall be discussed separately.

The external bond market, popularly known as the Eurobond market, owes its existence to a specific discrepancy in regulation. While virtually all governments make it difficult for foreign borrowers to raise funds by selling their securities to domestic investors, comparable constraints on domestic savers who wish to purchase securities abroad are less stringent, or at least less effective. Controls over foreign issues of securities are politically appealing ("domestic resources for national purposes") and they can be enforced with ease: in all countries securities issues are subject to an explicit licensing procedure and can either be made difficult or be completely denied as is the case, indeed, in all but a few countries. On the other hand, preventing domestic financial investors from purchasing foreign securities is much less popular, and it is much more difficult to accomplish. Money is, after all, fungible and there are many ways in which determined, or scared, savers can squirrel funds out of a country. This is made easier by the existence of a number of jurisdictions who either do not impose exchange controls at all (Switzerland,

Luxembourg, Hong Kong, etc.), or refrain wisely from imposing any controls on funds owned by non-residents while restricting their own resident financial investors to varying degrees (London, Singapore, The Netherlands).

It is this discrepancy in controls -- relatively stringent controls on foreign issues of securities in national markets versus more liberal or ineffective restrictions on domestic owners of investible funds -- that has led inventive investment bankers to develop underwriting and placement techniques by which obstacles such as official authorization, queuing arrangements, formalistic disclosure and registration requirements can be avoided. The key features of the issuing techniques are (1) that the issues are given the legal form of private placements and (2) that they are sold to investors who have non-resident investment accounts or to investors in countries where exchange restrictions are sufficiently liberal.

The resulting Eurobond market has become a viable source of medium- and long-term funds at fixed rates, a market that is exceeded in size by only the domestic bond markets of the largest countries. While the market is not without weaknesses -- it tends to "close" sometimes because of its relative lack of support from institutional investors who invest funds continually, and in the past it has been plagued by technical problems -- great strides have been made to overcome these difficulties. The secondary market has been very much strengthened,^{2/} and two centralized clearing systems minimize delivery problems, an important prerequisite for a market based on widely dispersed institutions and investors. Most significantly,

^{2/} See a series of articles in Euromoney, Feb. 1977.

the market in general offers a borrowing entity more options so far as terms,^{3/} currency denomination, and often costs are concerned than any other market. And there exists no discrimination that is not based on international investors' perceptions of yield and risk.

In respect to the much larger segment of the external markets for intermediated funds, the rationale for the existence and growth of the market requires that the analysis should focus on the operating conditions of the financial intermediaries that carry out the credit transactions. These "Eurobanks," as they are called, operate outside of the respective country whose currency is used to denominate the loans and deposits. Thus, when financial institutions located outside the United States compete for dollar-denominated time deposits and extend dollar-denominated loans, their conditions of doing business differ from those of institutions operating inside the United States. It must be noted in this respect that the ultimate ownership of the institution makes little difference; the point that matters is that such Eurobanks (which are usually the affiliates of banks that play a substantial role in their national markets) systematically best their competitors operating in the domestic market by paying more on time deposits and lending funds at a lower cost. How is this possible? With deposit rates in the external market higher and lending rates lower, the "spread" from which a financial institution covers its administrative expenses and required

^{3/} It is only on dollar issues that the U.S. market offers consistently longer maturities, largely because the U.S. market is dominated by institutional investors.

rate of profit is smaller. There are a number of reasons for this, all of which lower the cost of financial intermediation relative to the particular domestic market.

- (1) Eurobanks are not required to maintain obligatory reserves against their time deposit liabilities.
- (2) They are not subject to regulatory expenses.
- (3) They can take advantage of low tax locations and maintain low overheads by making large, standardized loans in a wholesale market.
- (4) Unlike many domestic banks, Eurobanks are not forced to allocate credit to low yield/high risk loans.
- (5) They are not subject to interest ceilings, lending rate limits, or quantitative credit restrictions.

Last, but not least, margins in the Euromarket are kept low by the threat of competition from many other Eurobanks seeking to attract depositors and borrowers. Most jurisdictions in which this external financial intermediation takes place do not restrict entry into the market. Thus, banks from many countries compete head-on.

For the borrower, these operating conditions have some very important implications. First and foremost, the Eurocurrency markets usually offer funds at the lowest cost available at a given time. While this does not imply that the market is an inexhaustible well of inexpensive funds in an absolute sense, it means that, among the alternative markets, the Eurocurrency market tends to offer the best deal.

Secondly, since the market is carried by institutions whose parents are based in many different countries, borrowing terms and conditions do not follow patterns that are pre-set in national markets. Instead, there have evolved lending practices which are flexible, accommodating the needs

of both the borrowers and lenders. The systematic separation of interest period from the contractual availability of funds -- protecting lenders from the risk of unanticipated interest fluctuations while providing borrowers with the assured availability of funds for a longer time -- has been used with particular success in the Euromarkets. Also, the technique of syndicated bank credits allows borrowers to raise rather large amounts in one swoop from a relatively large number of institutions with a minimum of negotiating effort. And the fact that the credit is placed on the books of many banks contributes to the dispersion of risk.

Last, but not least, the Eurocurrency markets have provided a huge pool of funds that is allocated not by political preferences but by risk and return considerations as perceived by relatively sophisticated, profit-seeking, and fiercely competitive bankers. In contrast, access to national credit markets is almost always subject to pre-conditions of one sort or another, especially when it offers better terms than the external markets.

It is not surprising, then, that borrowers, including developing countries, have benefited from this evolving structure of international financial markets which offer opportunities in terms of choice and flexibility. For example, the borrowing pattern of the Republic of Korea shows clearly how that country took advantage of these opportunities offered by the current structure of the international financial markets. (See Table 2.)

TABLE 2

The Use of International Credit Market
By Korea during 1976

In millions of U.S. \$

(Percentages of Total Borrowing in Parentheses)

Borrowing Institution	Eurobond Market	Eurocurrency Market	National Markets for Foreign Borrowers	Subtotal
Korean Development Bank	74.3 (9.0)	80.0 (9.7)	17.3 (2.1)	171.6 (20.8)
Korean Foreign Exchange Bank	- -	35.0 (4.2)	- -	35.0 (4.2)
Corporations	- -	607.5 (73.6)	11.0 (1.3)	618.5 (75.0)
Subtotal	74.3 (9.0)	722.5 (87.6)	28.3 (3.4)	825.1 (100)

Source: Ministry of Finance
Republic of Korea

Given that the current structure has been so beneficial to borrowers, what does the future hold? Particularly, what is the outlook for continued growth of the external markets? About one condition we are quite certain; the fundamental factor that brought these markets into existence, will continue. Specifically, so far as the Eurobond market is concerned, it is obvious that governments will continue to limit the access of foreign borrowers to their markets. Apart from outright restrictions, regulations and institutional arrangements designed for purely domestic reasons will contribute to this effect. On the other hand, increased communication and economic ties between countries create powerful incentives for savers to diversify their investments internationally, by country, borrower and currency. By the same token, the increased economic linkages make it more difficult for governments to prevent international diversification of portfolios. The adoption of flexible exchange rates by a number of countries has further contributed to the easing of exchange controls, and growth of the Eurobond market has resulted. All these conditions are likely to continue.

As for the much larger Eurocurrency market, this observation holds even more firmly. Essentially, three conditions determine that credit can be intermediated competitively in the external markets. First, banks operating outside the country, where the currency that is used for the denomination of credit claims is legal tender, must be able to perform financial intermediation at a lower cost than domestic banks can.

It is pretty clear that in general the factors that give Eurobanks cost advantages over domestic institutions will continue to be effective. And the jurisdictions in which Eurobanks operate have neither an interest nor the will to make such credit transactions more costly -- for example, by excessive taxation or the imposition of reserve requirements on foreign currency liabilities or assets. In any case, such actions would have to be undertaken by all these countries; otherwise the market would simply shift toward more hospitable locations.

Secondly, borrowers and depositors must be able to transfer funds internationally. All Eurocurrency transactions involve international financial transactions, at least in a legal sense. Thus, general worldwide and comprehensive exchange controls would do grave damage to the market's future growth, if not its existence. Fortunately, the increased international economic ties among countries make such controls very costly and therefore less likely.

Thirdly, since each deposit and every loan requires a transfer of funds (payment) on the books of the banking system of the country whose currency is used to denominate the claim, the maintenance of non-resident convertibility for major currencies is necessary.

Again, the history of the past 20 years supports the expectation that little will change in this respect. Indeed, there are indications that the circle of countries who have made their currency convertible without limitations for non-residents may be enlarged. While currently most of the Eurocurrency transactions are denominated in U.S. dollars (approx. 70%), German marks (15%), Swiss francs (8%) and other European currency, current moves to make the Japanese Yen fully convertible

for non-residents hold the promise that another important segment may be added to the external markets for intermediate funds.

In summary, the individual segments of the Eurocurrency market will continue to grow from two sources. They will share proportionately in the growth of each credit market, and an ever larger proportion of total credit will be intermediated externally, as savers and investors gain in sophistication, and as political pressures force more and more burdens on the domestic markets. Figure 2 depicts these effects.

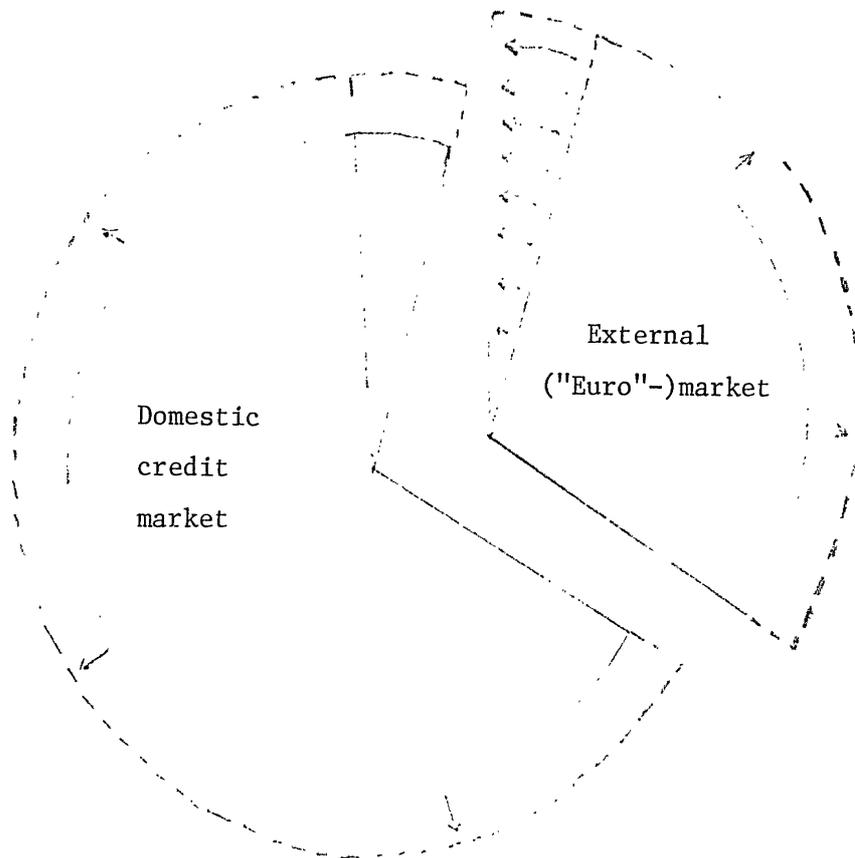


Fig. 2. The External Market - "a growing slice of an expanding pie."*

* Adapted from Gunter Dufey and Ian H. Giddy, The International Money Market, (Englewood Cliffs, N.J.: Prentice-Hall, 1978).

The Constraint: Borrower's Creditworthiness

Our analysis of the structure of international markets leads to the conclusion that there are ample opportunities for borrowers. This observation holds especially in respect to the external markets. And these "Euromarkets" will continue to grow faster than nationally based markets -- barring the imposition of restrictions on non-resident convertibility by major countries or the adoption of comprehensive exchange controls on a world-wide basis.

The mere existence of opportunities, however, does not guarantee that they can be utilized successfully. Thus, we shall have to turn to the borrowers, i.e., the developing countries, and see whether they will be able to capitalize on the opportunities that the international credit markets offer.

In the introduction we referred to the widespread concern about "excessive" borrowing by developing countries. We have also pointed out that the fundamental supply and demand conditions in international credit markets during 1975-77 have been somewhat exceptional. One cannot expect that traditional borrowers, i.e., private corporations based in developed countries, will continue to refrain from investing. Thus, the competition for funds can be expected to become much more keen in the future.

For the developing countries this means that the market will discriminate much more carefully between those that are considered good credit risks and those to whom loans are granted only under the most exceptional circumstances. Considerations such as these lead to a number of inter-related questions which are important for lenders and borrowing countries alike.

First and foremost is the question of optimal borrowing volume. This issue is, of course, intimately related to creditworthiness: a country that borrows "too much" will have difficulties in servicing its debt. Second is the question of how a country should borrow. Any comparative survey of countries who are net importers of capital will show that funds enter from abroad in very different ways. Is it better for government to borrow abroad, or should the enterprises that need the funds approach the international markets directly? Is there an optimal borrowing strategy, and what are its determinants?

Finally, the very existence of alternative forms of borrowing available in international markets raises a host of important questions about borrowing tactics to be answered by those responsible for a country's external debt policy: In which currency should the external debt of a country be denominated? What are the risks involved in raising funds with floating interest rates? How important is the length of the renewal period (maturity)?

We do not claim to have ready answers to these issues and questions. The main purpose of the remainder of this paper is to identify some of their more important parameters and thereby point to the areas toward which future research might be directed.

A survey of the extensive literature on the subject of evaluating a country's creditworthiness^{4/} shows that (a) there is widespread dissatisfaction with standard evaluation methods, and that (b) there are no simple

^{4/} See for example: A. Bruce Brackenridge, "Evaluating Country Credits," Institutional Investor (International Edition), June 1977, pp. 13, 14.

solutions. Most commentators complain about the inadequacy of data: there are public loans, private loans, guaranteed loans, syndicated credits, export credits, loans between international corporations and their local affiliates, and many more. And the precise volumes, terms, and conditions often are not even known to the government involved. But all too frequently, the call for more data simply reflects the lack of a sound conceptual basis from which to answer the essential questions: how much external debt should a country borrow? Is there something like an "optimal" volume of debt?

We shall resist the temptation to fall back on one of the fancy macroeconomic growth models in order to approach an answer. For the most part these are designed for different purposes and fail to focus attention on the essential points. Another pitfall to be avoided is the cashflow approach that is so popular with bankers. This approach compares exports plus new borrowings to payments for interest and amortization of previously incurred debt, after adding imports and adjusting for possible changes in reserve holdings. What this kind of analysis omits is consideration of the economic and political determinants of the export/import balance, and thus it is really not much better than the popular, but meaningless debt-service ratio.^{5/}

All these analyses based on cash flow incorporate a misconception, popular in the development literature, that new loans are to pay for the repayment of old ones plus interest and that, accordingly, countries face

^{5/}"The Debt Service Ratio--How Useful A Tool?" Banker, April 1976.

exponentially growing needs for external funds. This "cumulative lending" hypothesis^{6/} has been thoroughly discredited, because it is based on the implicit assumption that the marginal returns on the projects for which resources have been acquired with the borrowed funds are systematically lower than the interest rate promised to foreign lenders. Whereas, as Charles P. Kindleberger states so succinctly^{7/} "...when loans are contracted for productive purposes, each loan should pay its own way, producing new exports or saving on old imports, sufficient to pay its debt service."

To pursue this idea a bit further, it is worthwhile to recall the fundamental balance of payments relationship: A country's economy produces a certain amount of goods and services during a given period; during the same time span, goods and services are being used, both for consumption and for investment. To the extent that the use of resources exceeds output, the difference must come from abroad: hence the current account is in deficit during such periods. And this difference must be financed, either through various types of private capital flows, or via equivalent government transactions.

From the simple balance of payments tautology it follows that the magnitude of current account deficit per se -- or its mirror image, capital flows -- tells very little. Instead, the analysis must focus on the use of funds. In this respect, traditional economic analysis has

^{6/} See references to articles by R. Hinshaw and E.D. Domar reviewed in Charles P. Kindleberger, International Economics (5th edition) (Homewood, Ill.: Richard D. Irwin, 1973), p. 240.

^{7/} Ibid.

always shown that it is advantageous to borrow as long as the marginal cost of funds is less than the marginal increase in output that can be achieved by investing these funds in productive assets.

One of the reasons why this simple microeconomic principle has been found so difficult to apply to today's LDC borrowing dilemma is that the role of government in those economies has changed quite a bit. Traditionally, the role of government as a borrower used to be limited. Whether funds were raised at home or abroad, the proceeds were used for public overhead investment, and -- on occasion -- to pay for the costs of cleaning up after natural or man-made disasters. It was private enterprise that borrowed abroad whenever considerations of cost or availability favored foreign over domestic markets. Most important, these enterprises borrowed only when they -- and their lenders -- were convinced that the projects to be funded promised a return that exceeded the cost of funds by a sufficient margin. And while these expectations were not always realized, over time and on the average they held quite well. It is true, the government of the country where the borrowing enterprise was located sometimes created difficulties: there were wars and insurrections, the confiscation of assets, and bad economic management, including exchange controls -- all of which made it difficult for the borrower to comply with the obligation from the loan. Hence, foreign lenders were concerned about "country risk," in addition to the commercial credit risk.

In the postwar period particularly, all this changed. A combination of changing ideas about the proper role of government in economic

development, and public ownership of productive assets brought about the situation that the borrowing enterprises were government owned, or that governments borrowed directly through their agencies to pass the funds on to local entities and firms for various purposes.

One of the problems inherent in the extensive involvement of government in raising funds from abroad is that it short circuits the quasi-automatic regulatory mechanism governing the volume of such borrowings. While private firms can obtain only a volume of funds that is expected to create additional output -- sufficient to cover debt service plus local taxes and a compensation for local factors of production -- when government is the borrower this is not always true. First, the political process tends to cause the proceeds from foreign loans to be used for public consumption. And, as most individuals learn at some point in life, borrowing for consumption is bound to cause difficulties, unless it is strictly used to smooth out predictable, temporary fluctuations in income. Second, foreign lenders, too, become less interested in assuring that funds are used only for profitable investments; in lending to private firms, repayment of the loans depends on it. With loans to government or its agencies, lenders know that they are much less affected by the outcome of the projects for which the funds are used; instead they focus on "sovereign risk."

The simple economic rationale for foreign borrowing, with its focus on the use of international funds, is also useful to identify the political dimension of the problem. Ultimately, debt service capacity depends on the ability of government to restrain domestic consumption

and to create an environment that is conducive to investment in productive assets. To wit, even if foreign borrowings are channelled into profitable investment, when public and private consumption is allowed to rise at a rate that exceeds the growth of additional output (after debt service), there is bound to be trouble.^{8/} But this process also works the other way around: a strong government may be able to squeeze domestic consumption to such an extent that debt service poses no problem even if the foreign funds wind up on investments that do not create sufficient additional output. Obviously, this is an extreme case that can not be sustained forever, but it can continue for sufficiently long periods so that lenders disregard the use of funds.^{9/}

In summary, one can say that the optimal volume of foreign borrowings is determined by the availability of investment projects which can not be financed with domestic savings and whose return exceeds the cost of foreign funds. If these conditions hold, the political problem of creditworthiness can be expected to be manageable: output is created which not only pays for the debt service costs but also allows for increased consumption. But there is nothing in this concept that assures that consumption will not rise even faster, and it is at this point where the political dimensions of creditworthiness issue are independent from the economics of the situation.

^{8/} In the development literature this situation is sometimes referred to as the inability of the economy to transfer resources (output) into exports (or import substitutes), creating a foreign exchange constraint - as opposed to a savings constraint - but the condition where "excess" output exists without leading to additional foreign exchange receipts must assume market failures that would be extreme even for developing economies.

^{9/} See to this point Gunter Dufey, "Financing East-West Business," Columbia Journal of World Business, Spring, 1974.

Unfortunately, the usual macroeconomic data -- even when available, reasonably current, and reliable -- provide little insight into the relationships that really matter. Economic growth rates and savings rates are very poor proxies for the supply of profitable investment projects and domestic financing capacity. Current account deficits may reflect a rapidly growing economy with good investment potential, or excessive consumption, or both. The usual cash flow data, finally, indicate very little about the ability of a government to influence the balance between the use and the output of resources, or between investment and consumption.

Some Tactical Questions

So far, we have assumed that funds obtained from abroad are invested in profitable projects, i.e., real assets that create sufficiently higher output, or use fewer inputs, or both, so that debt service is covered, taxes can be paid, and local factors can be remunerated. Everyone knows that this assumption does not always hold. Government investments tend to be made on the basis of criteria other than purely economic profitability. This is true for both "traditional" government investments in infrastructure, commercial enterprises owned by government, and private companies benefitting from the financial intermediation carried on by government institutions. Experience has also demonstrated that the combination of (a) a lack of reliable data on prices and costs in administered economies^{10/} and (b) the impact of political decision criteria tend to

^{10/} See to this point R.W. Adams and Ku-Hyun Jung, "A Sensitivity Analysis of Investment Incentive Values in Foreign Investment Projects," Working Paper No. 142, Division of Research, Graduate School of Business Administration, University of Michigan, January 1977.

give the expected returns of such investments a downward bias beyond the miscalculations and random accidents that occur also in the private sector. Thus, it is much more likely that the optimal volume of foreign borrowings will be exceeded when government does the bulk of international borrowing. And unless there are sufficiently large productive sectors in the economy, the debt must be serviced by reducing consumption.

For rapidly advancing developing countries, this situation poses a dilemma, because foreign lenders do prefer to make loans to government, or agencies of government, of a given country. They believe that the elimination of credit risk is not completely nullified by the higher country (sovereign) risk caused by the higher indebtedness of the public sector. Therefore, countries with a relatively weak private enterprise sector find international funds at a lower cost and greater volume than if the private firms were to deal with the international markets directly. But these advantages are offset by the introduction of inefficiencies in the channelling process, whereby funds are allocated by the government agencies that borrow to the enterprises that invest in real assets. And the costs of these inefficiencies become much greater as the economy grows in complexity and diversity. When investment priorities become less obvious, the incidence of misallocation of resources increases.

We can only identify the trade-off point conceptually, but undoubtedly there comes a time in the economic development of a country when indirect borrowing via government agencies (proxy borrowing) should be replaced by direct borrowing; that is, the enterprises that invest in real assets obtain loans directly from the international markets. This

idea of direct access goes far beyond the acquisition of funds in foreign markets; it also comprises policies toward foreign banks who wish to establish branches in the borrowing country, it affects the access of foreign portfolio investors to its domestic securities markets, and concerns such fundamental issues as currency convertibility and foreign exchange control policies.

It is a difficult empirical problem to determine precisely when it becomes advantageous for a country to implement the changeover from "proxy" borrowing to direct borrowing. In addition, a policy shift is made even more difficult because the institutional structures (national development banks and similar institutions) and the specific enterprises favored by them will be reluctant to accept change. Finally, international lenders have become comfortable with the existing institutional structures, and change may be perceived as contributing to uncertainty, thus involving a (one-time) cost. Worst, the cost of continuing the inefficiencies of proxy borrowing are opportunity costs, and therefore, not visible. Nevertheless, they are very real. Given these obstacles, it is imperative that the transition from a strategy of proxy borrowing to direct borrowing be carefully planned and publicized at an early stage, if only to allow decision makers in financial markets to adjust their expectations.

The role of government as the borrower in the international markets in combination with the diversity of borrowing options that particularly the external markets offer, raises certain tactical questions about the appropriate borrowing terms: currency of denomination of external debt, interest rate adjustment period, and maturity.

From a given country's point of view, these issues are solved automatically when the private and public enterprises approach the international markets directly. The case of Canada, a country that is a heavy importer of capital, may serve as an illustration: Canadian borrowers raise funds denominated in Canadian dollars from abroad when foreign portfolio investors purchase securities issued by the firms and public entities. On occasion, foreign banks make loans denominated in Canadian dollars. However, a large portion of Canada's external debt is denominated in foreign currencies, primarily U.S. dollars, but also pound sterling, Deutsche marks, Swiss francs, and even Japanese Yen. The Canadian Government worries very little about foreign exchange risk, because -- with each borrower carefully weighing cost and risk -- the outcome in the aggregate denomination of Canada's external debt is unlikely to differ from what must be considered optimal. When a country is still at the stage where "proxy" borrowing is advantageous, however, these decisions must be made deliberately by those responsible for a country's external borrowing policy.

Unfortunately, answers to these questions do not come easily. Looking at the denomination issue first, we can state that the effective cost of funds denominated in foreign currencies is lower even after adjustment for expected currency changes have been made. Otherwise, the demand for funds would not spill over into the international markets. But which combination of foreign currency denominations should the officials responsible for external debt management choose?

At this point there arises a temptation for public-spirited bureaucrats to try to outguess the markets. When the external markets offer the same loans denominated, say, in U.S. dollars, Swiss francs, Deutsche marks, and French francs, at various interest rates, the ability to forecast exchange rates better than the market -- as reflected by the interest rate differentials -- would provide for an opportunity to minimize the cost of foreign funds to the country. However, as the Euro-markets are quite efficient, in the sense that the interest differentials reflect "fairly" all that is publically known to have an impact on exchange rate changes, the chances of succeeding are nil. What alternative approaches can be used to solve the problem of denominating foreign debt?

Again, consideration of the ultimate use of funds may be appropriate in order to analyze the problem. Government entities essentially borrow abroad for two purposes: one is to raise funds which are ultimately passed on to producing enterprises, the other purpose is to raise funds for public expenditures.

With respect to the first purpose the answer is reasonably straightforward, at least in theory. Since the government, or one of its agencies, raises the foreign funds in lieu of the ultimate recipient, it is the situation of the receiving enterprise that should determine the denomination of funds. While the details of an international finance policy of enterprise are beyond the scope of this paper, the principle of corporate debt denomination can be summarized as follows: Debt should be denominated in such a way that any unexpected change in exchange rates affecting operating earnings is offset by decreasing or increasing debt service

costs.^{11/} Of course, the separation between the borrower, a government agency, and the ultimate recipient of funds, the producing enterprise, will not make the implementation of this principle any easier: ergo another cost of proxy borrowing that is rarely recognized.

As far as foreign borrowing for public overhead is concerned, no principle of optimality is recognizable: the cost savings of foreign funds are partially offset by exchange risk. However, it must be clearly recognized that the government's position in this respect is unlike that of an enterprise. For the latter, unexpected fluctuations between the local currency and foreign currencies used to denominate foreign borrowings are random events over which the firm has no control. Government is different; its economic policies essentially determine exchange-rate changes. Thus, all that the foreign currency denomination of public debt accomplishes is to force government to pay for the true cost of economic resources without the ability to decrease its obligations by printing excessive amounts of money.

This leaves us with the question of which foreign currencies to borrow for public purposes, given that the interest differentials reflect future exchange-rate changes fairly. In order to minimize the effect of short-term random fluctuations of exchange rates on the debt service burden, some sort of a portfolio approach is probably the right solution. However, a number of unsolved theoretical questions that remain to be answered, especially in applying these diversification techniques to the

^{11/} See Gunter Dufey, "International Financial Management," in The International Firm, ed. by M.Z. Brooke (London: Pittman Publishers, 1977), Chapt. 7.

situation of a borrowing government.^{12/}

Conceptually, the maturity problem is very similar to the exchange-rate problem. New banking techniques, particularly those prevailing in the Eurocurrency market make it necessary to distinguish strictly between availability and interest period. A rollover loan may involve the commitment of funds for several years, but the interest rate is adjusted every three or six months. The commitment period determines how often the country must negotiate with foreign lenders the renewal of the loan, and proper spacing of renegotiation periods is probably a useful exercise to minimize the availability problems that occur when lenders begin to ration funds instead of adjusting price, which can happen even in the efficient external markets. With respect to the interest rate renewal period, the principles outlined for the currency denomination problem apply analogously: (1) if long-term rates are fair predictors of short-term rates, the term aspect of the borrowing decision ceases to be independent and instead becomes a function of the ultimate uses of funds; (2) insofar as the government borrows funds in order to pass them on to enterprises, it is their needs that ought to determine borrowing policy; (3) as far as public investment funding is concerned, diversification principles might govern in order to avoid the impact of random fluctuations of both short-term and long-term rates. Very little work has been done on this subject as is true with the whole area of government borrowing in international markets.

^{12/}For a general solution to the problem, see: J.V. Jucker and C. de Faro, "The Selection of International Borrowing Sources," Journal of Financial and Quantitative Analysis, Sept. 1975, pp. 381-408.

Summary

In this paper we have outlined the emerging structure of international financial markets and have identified the market mechanisms through which international credit is channelled to borrowers. We have also tried to identify carefully the important assumptions behind the growth of the external markets in particular.

Having set the stage by stressing the opportunities that the new structure of international markets offers to developing countries as borrowers, we turned to some important issues that influence the extent to which countries can utilize the opportunities offered. We discussed in general terms the determinants of the optimal borrowing volume and showed the interrelationship of this concept with creditworthiness. Subsequently, the paper raised some issues of borrowing tactics which have not been treated in the literature and suggested some possible approaches that may be useful in dealing with the issues. But these are tentative suggestions only and they should be understood more as an agenda for further research rather than as answers to the questions raised by government borrowing in international credit markets.