

## THE POLITICAL ECONOMY OF INTERNATIONAL LENDING

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### The Issues in Review

The outstanding level of external debt of non-oil developing countries raises problems of collective action on the part of lenders. To begin with, there is the issue of the appropriate action to ensure the stability of the international banking system. For that we argue that the Federal Reserve System must be ready to extend the lender-of-last-resort service to *all* banks, domestic and non-domestic, transacting in U.S. dollars. But even without immediate danger of a global dollar liquidity crisis, what is the optimal response of lenders as a group? The international banking system can be likened to a club whose cohesiveness depends on one or a few members having the dominant share of benefits and costs. The United States remains the leader of this club, which faces three challenges: moral hazard, adverse selection, and free-riding. The existence of these problems gives lenders incentives to take collective action.

A significant part of the outstanding international debt should be classified as bad loans, for it is unlikely that dollar real interest rates will return to the low levels of the 1970s. On the other hand, since 1980 these real rates of interest have been unusually high and have prompted undue pessimism about the capacity of borrowers to repay their debts. International bankers will find it in their own self-interest to lend new funds to some debtor countries to ensure that they can ride out the period of unusually high real interest rates.

Finally, within each lending country the interests of different groups—banks, government agencies, and taxpayers—diverge on how

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to cope with the “insolvency” of some debtor countries. The high concentration of troubled loans among a small number of U.S. banks makes it likely that these banks will engage in collective action aimed at shifting their losses onto taxpayers.

## Measure of the Problem

While it is not our task to investigate the ultimate causes of the present size of the external debt of the non-oil developing countries (NODCs), we find it useful to start our study with their proximate causes. Table 1 reports the current-account balances for three groups of countries for the period 1973–83. The table highlights the large current-account deficits of NODCs and the pronounced negative correlation between OPEC countries and NODC balances. Industrial countries, on the other hand, adjusted rather well to the two oil shocks of the seventies. In sum, current-account deficits were and remain an important source of the growth of the external debt of the NODCs.<sup>1</sup>

A current-account deficit denotes an excess of spending over income. This excess need not be financed by more debt. Countries, like firms, can use more than one financial instrument to attract capital. Equity is a substitute for debt; decreases in international reserves are another substitute for more debt. The distribution of equity capital across countries is influenced by relative real rates of return adjusted for risk. In the inflationary environment of the 1970s, fiscal and monetary policies in some of the high-debt countries raised the rate of inflation above the worldwide average, thus inducing a flight of capital and hoarding of foreign monies. Consequently, debt became an increasingly important means to finance current-account deficits. Low and at times negative real rates of return on debt further encouraged countries to raise their outstanding debt relative to other sources of financing.

Table 2 bears on the considerations just made. Transfer payments and other capital flows that did not affect the net debt position of the NODCs augmented the size of the current-account deficits, but not proportionately. Monetary authorities, on the other hand, accumulated foreign reserve assets (see first row of Table 2). The bulk of the financing was met through external official and private borrowings. These amounted to 101 percent of the current-account deficits in

<sup>1</sup>The sizeable statistical discrepancy shown in the last row of Table 1 complicates the interpretation of current-account balances across countries. To the extent that a large portion of this discrepancy represents a reduction in the current-account deficits of the NODCs, the importance of these deficits in explaining the growth of debt is diminished.

TABLE I  
CURRENT-ACCOUNT BALANCES  
(Billions of U.S. Dollars)

	1973	1974-76	1977-78	1979-81	1983 <sup>a</sup>
Industrial Countries	20.3	9.5	30.5	- 45.1	16.0
OPEC Countries	6.7	144.0	32.4	247.9	-27.0
Non-Oil Developing Countries	-11.3	-115.9	-70.2	-257.7	-68.0
Statistical Discrepancy	15.7	37.6	-7.3	-54.9	-79.0

<sup>a</sup>Projected figures.

SOURCE: International Monetary Fund, *World Economic Outlook*, May 1983, Table B15.

TABLE 2  
CURRENT-ACCOUNT FINANCING OF NON-OIL DEVELOPING COUNTRIES  
(Billions of U.S. Dollars)<sup>a</sup>

	1973	1974-76	1977-78	1979-81	1983 <sup>b</sup>
Reduction in Reserves <sup>c</sup>	-10.4 (-.92)	-14.0 (-.12)	-29.9 (-.42)	-19.2 (-.07)	-7.2 (-.10)
Non-Debt-Creating Flows, Net	10.3 (.91)	39.0 (.34)	32.3 (.46)	76.0 (.29)	24.2 (.35)
Official Long-Term Capital, Net	4.9 (.43)	29.0 (.25)	25.2 (.36)	53.9 (.21)	23.8 (.35)
Private Long-Term Capital, Net	6.8 (.60)	44.2 (.38)	36.6 (.52)	92.5 (.36)	40.3 (.59)
Other Financing Flows, Net	-0.3 (-.02)	17.7 (.15)	6.0 (.08)	54.5 (.21)	-13.4 (-.19)

<sup>a</sup>Figures in parentheses represent share of total.

<sup>b</sup>Projected figures.

<sup>c</sup>The minus sign indicates an accumulation of reserves.

SOURCE: International Monetary Fund, *World Economic Outlook*, May 1983, Table B28.

1973, 78 percent in the period 1974–76, 96 percent in the period 1977–78, 78 percent in 1979–81, and (projected) 75 percent in 1983.

The external debt of the NODCs has grown much more rapidly than either their exports of goods and services or nominal GDP (first two rows of Table 3). As a proportion of GDP external debt has risen by 12 percentage points over the last 10 years. Much has been said about the increasing debt burden borne by NODCs following the rise in dollar interest rates of the last few years. To shed some light on this issue we have computed the average interest rate on NODC external debt (third row of Table 3) and compared it with short- and long-term U.S. interest rates (fourth and fifth rows). This comparison is justified by the fact that the bulk of foreign debt is denominated in dollars. It is clear that the NODCs enjoy a substantial average subsidy which is larger if measured in relation to long-term rates than short-term rates.<sup>2</sup> The conclusion we draw from these data is that, while the burden of debt has risen for the NODCs since 1979, the existence of a significant and rising subsidy has worked in the direction of keeping the average real cost of borrowing below or close to the growth rate of output (see Table 6).

### The Stability of the International Banking System

There has been a chorus of fears that defaults on the external debts of major NODCs would jeopardize the stability of the international banking system, leading to massive bank failures. These, in turn, would trigger deflationary forces reminiscent of those of the 1930s. In this section we evaluate the merit of those arguments, and ask the question whether any collective action is needed to ensure a stable international banking system.

Our starting point is to treat the international banking system as a club, and to assume that the interests of the countries and their banks coincide.<sup>3</sup> We later relax this assumption. The club exists because the total benefits to the members exceed the costs of joining and maintaining the arrangement. Countries benefit from membership by raising the cost of default to borrowers (for example, by cross-country default clauses). Benefits, however, being shared by all members, become diluted. Free-riding is an inherent aspect of clubs. As the membership increases individual benefits fall relative to the cost of maintaining the arrangement. Cost-sharing formulas have to be

<sup>2</sup>The access of the NODCs to concessional loans explains to a large degree the size of the subsidy.

<sup>3</sup>See Olson (1965) for an economic theory of clubs, and Fratianni and Pattison (1982) for an application to international organizations.

**TABLE 3**  
**EXTERNAL DEBT RATIOS AND INTEREST PAYMENTS OF**  
**NON-OIL DEVELOPING COUNTRIES (PERCENT)**

	1973	1974-76	1977-78	1979-81	1983 <sup>a</sup>
1. Ratio of External Debt to Exports of Goods and Services	115.4	117.5	128.3	119.0	144.4
2. Ratio of External Debt to GDP	22.4	23.8	28.0	28.7	34.7
3. Ratio of Interest Payments to Total Debt	5.3	5.3	5.3	8.5	8.3
4. Prime Rate Charged by U.S. Banks	8.0	8.5	7.9	15.6	11.0 <sup>b</sup>
5. Yield on U.S. Corporate Bonds, Moody's Aaa	7.4	8.6	8.4	11.9	12.0 <sup>b</sup>
6. Row 3 minus Row 4	-2.7	-3.2	-2.6	-7.1	-2.7
7. Row 3 minus Row 5	-2.1	-3.3	-3.1	-3.4	-3.7

<sup>a</sup>Projected figures.

<sup>b</sup>Monthly average for the first ten months of the year.

SOURCES: International Monetary Fund, *World Economic Outlook*, May 1983, Tables B32, B33, and B35 for the first three rows; *Economic Report of the President*, 1983, Table B-67; and *Economic Indicators*, October 1983, p. 30 for the fourth and fifth rows.

revised if the old members are not to lose interest in the arrangement. If no satisfactory formula can be found, the club is likely to disintegrate. The cohesiveness of the club is strengthened if there are dominant members who enjoy a large share of the total benefits. These members identify their individual interests with the interest of the club, and are willing to take voluntary actions (that is, to raise their share of the cost) to keep the club cohesive.

How can we apply these propositions to international banking? To begin, we must note that the latter deals primarily in dollar-denominated assets and liabilities. This is illustrated by Table 4, showing the currency breakdown of international banking activities.

TABLE 4  
CURRENCY BREAKDOWN OF INTERNATIONAL BANKING  
(Billions of U.S. Dollars)<sup>a</sup>

	U.S. Dollars		Other Currencies	
	Assets	Liabilities	Assets	Liabilities
1970	60.4	58.7	17.9	16.6
1982	866.1	970.6	283.6	278.0

<sup>a</sup>The figures for 1970 and 1982 are not fully comparable because definitions have changed.

SOURCE: Bank for International Settlements, *Annual Report*, various issues.

In 1982, 75 percent of international bank loans were denominated in dollars. The relative position of the dollar in international bank loans declined during the latter part of the 1970s but regained some of the lost ground in the last few years. In 1970, the corresponding figure was 77 percent.

The leading position of the U.S. dollar in the world banking system has important implications. First, it implies that the United States takes a relatively large share of the total benefits generated by the system. To be sure, the 75-percent figure mentioned above overstates the share of the benefits enjoyed by the United States, since part of the dollar bank loans is generated by non-U.S. banks. However, dollar loan business supplied by non-U.S. banks produces indirect benefits to the United States because it extends the size of the dollar standard worldwide. Consequently, U.S. residents can use their currency in international transactions, and thus avoid the exchange-rate

uncertainty associated with these transactions. More simply, the United States derives sizeable benefits from the present international banking arrangement.<sup>4</sup>

So much for the benefits. What about the costs to the United States? There are costs in the actual and potential U.S. decisions to extend its regulatory control to the international banking operations. It is now generally accepted by economists that an essential part of the regulatory apparatus is the lender-of-last-resort (LLR) service provided to U.S. banks. There is virtually no disagreement on the proposition that this service is essential to ensure stability to the banking system in times of crises. The problem facing the international banking club is that the cost of providing the LLR service cannot be easily shared. Indeed, the difficulty or inability to share costs is a prediction of the theory mentioned above. It follows that the United States must bear this cost completely.

The question then becomes whether or not the Federal Reserve is willing to extend the LLR service to the international dollar banking system. There is no doubt that the LLR service is implicitly extended to the foreign branches of U.S. banks.<sup>5</sup> More subtle problems arise concerning the LLR service to non-U.S. banks operating in the dollar banking market.<sup>6</sup>

The important insight gained from the economic theory of clubs is that, given the size of the benefits, the United States has a strong incentive to bear the cost of an extension of LLR service to non-U.S. banks operating in the dollar banking market. This implication may be puzzling since it is not obvious that the Fed is willing to supply LLR service to, say, a French bank in Paris which is outside the reach of its regulatory domain. All that is needed, however, is that the Fed extend its LLR service to foreign central banks.

To clarify why the extension of LLR service to foreign central banks is a substitute for LLR service to foreign private banks, consider the following example. A French bank located in Paris and doing business in dollars faces a dollar-liquidity crisis: Deposit owners want to convert their dollar deposits into deposits with U.S. banks or into U.S. currency. The French bank turns to the Banque de France to obtain the necessary dollar reserves. If the Banque de France has a sufficient stock of dollar reserves it will be able (and probably

<sup>4</sup>We disregard here the gains which accrue to the holders of deposits if the banking system is competitive.

<sup>5</sup>See Guttentag and Herring (1983a) on this point.

<sup>6</sup>See Johnson and Abrams (1983).



willing) to lend dollars to the domestic bank. If not, it will have to borrow dollars from the Fed. If the Fed agrees to the transaction, LLR service is extended to the Banque de France.

Our prediction is that the Fed will be willing to extend this kind of LLR service to foreign central banks, or at least to the central banks of the major industrialized countries. Therefore it can be said that the Fed's LLR service implicitly covers the major part of the international dollar banking system.<sup>7</sup>

Having disposed of the principle, let us investigate the amount of LLR service that will have to be provided by the Fed, should a financial crisis emerge. The fact that foreign central banks have dollar-denominated reserves reduces the potential amount of LLR service of the Fed. Table 5 bears on this issue.

The table shows the ratio of the central banks' foreign exchange reserves to the foreign liabilities of the domestic banks. A high ratio indicates that in periods of liquidity crises the central bank has substantial amounts of foreign exchange to lend to domestic banks faced with foreign exchange deposit withdrawals. Since the bulk of foreign exchange reserves and banks' foreign liabilities is denominated in U.S. dollars, a high ratio also means that the supply of LLR service by the Fed to other central banks is low. In contrast, a low ratio implies that the Fed's supply of LLR service is high. The evidence of Table 5 suggests that if a major international liquidity crisis were to arise, existing foreign exchange reserves (mostly dollars) would

*TABLE 5*  
RATIO OF CENTRAL BANKS' FOREIGN EXCHANGE RESERVES  
TO COMMERCIAL BANKS' FOREIGN LIABILITIES

Year	Japan	France	Germany	Italy	Switz.	Neth.	Belgium
1976	.48	.09	.84	.14	.21	.14	.06
1977	.70	.07	.80	.34	.18	.13	.08
1978	.74	.10	.73	.29	.25	.09	.06
1979	.32	.15	.62	.40	.18	.12	.07
1980	.27	.19	.61	.44	.14	.16	.09
1981	.25	.15	.59	.36	.10	.12	.05
1982	.19	.11	.61	.33	.11	.14	.04

SOURCE: International Monetary Fund, International Financial Statistics.

<sup>7</sup>Some technical problems remain, however, concerning those consortia banks that have no clear national origin. The importance of these banks in the international banking system is limited.

be inadequate to cope with the problem, with the possible exception of Germany. The Fed would be called upon to supply LLR service. Table 5 also suggests that the size of the potential LLR service has increased since the mid-1970s in connection with the decline in the reserve ratios of Germany, Japan, and Switzerland. With reference to the theory of clubs, these inferences can be construed as evidence that the responsibility, and therefore the cost, of maintaining the international banking system has increased for the United States, thus weakening its incentive to take action in times of crisis.

It is interesting to note here that in other areas of international cooperation the U.S. incentives to lead have deteriorated substantially (see Fratianni and Pattison 1982). This is especially the case in the field of international trade, where as a result of the declining relative position of the United States, its share of the total benefits from an open trade system has diminished.

The recent increase in the club cost borne by the United States notwithstanding, we believe that the U.S. benefits still exceed the costs by a substantial margin. The United States still retains a strong incentive to take action, should a crisis emerge.

The arguments of this section can be summarized as follows. The international banking system can be likened to a club. The total benefits of the club exceed the costs of maintaining the club. These club benefits are diluted among the members. For the club to remain attractive, cost-sharing formulas must be devised. A characteristic of the international banking club is that a substantial component of the cost of maintaining the club cannot easily be shared. This is the cost resulting from providing LLR service to banks. At present the United States bears the cost virtually alone. The issue at stake is whether or not the United States has the incentive to bear this cost, and in so doing to take the responsibility to buttress the international banking system should a crisis arise. Our qualitative answer to this question is that the United States is still a net beneficiary from an open and efficient international banking system and, therefore, is willing to provide the LLR service to banks transacting in U.S. dollars.

## International Lending and Collective Action

The economic theory of credit markets has identified a number of potential sources of inefficiency, arising principally from the way risk is assessed and "priced." In this section we analyze three aspects that have a particular bearing on international lending: the so-called moral hazard, "lemon," and free-rider problems. The existence of

these phenomena provide lenders with incentives to take collective action.

### *Moral Hazard*

There is moral hazard when the borrower increases the riskiness of the project upon receiving funds from the lender. By raising the variability of the returns of the project or projects the borrower reduces the value of the lender's claim. In anticipation of such behavior the rational lender charges a risk premium. But a higher interest rate induces the borrower to further increase the riskiness of the investment project, in turn raising default risk. There is an interest rate high enough to discourage the lender from committing his funds because the default risk is perceived to be too high. This phenomenon leads to a backward-bending load supply curve.<sup>8</sup>

The existence of moral hazard induces lenders to set credit ceilings, closely monitor the activities of the borrower, and prescribe penalties on undesirable (for the lender) behavior. These considerations, however, do not apply to international loans because contracts cannot be enforced across national boundaries; that is, the so-called sovereign risk. Unlike domestic borrowers, foreign borrowers can default even though solvent. Stated more bluntly, the borrower's dishonesty has a higher payoff with international loans than domestic loans.

In the absence of a generally accepted world legal system, rational lenders seek ways to induce borrowers not to raise the riskiness of their investment projects (including consumption) or to repudiate their debts. The most effective tool in the hands of lenders is the cohesiveness of the international banking system which shuts out those who repudiate debt from future borrowings. With this knowledge individual lenders set credit ceilings when total benefits of default to the borrower are equal to the costs of default to the borrower.<sup>9</sup> The benefits of default are proportional to the size of the loan; the costs are proportional to the size of future borrowings. The more variable is the borrower's output, the more valuable it is to retain access to international credit markets. Lenders should perceive high-income-variability countries to be less prone to default than low-income-variability countries. It also follows that lenders will have stronger incentives to reschedule when the future is more

<sup>8</sup>This problem has been analyzed extensively in the finance literature. See Jensen and Meckling (1976) and Myers (1977).

<sup>9</sup>Cf. Eaton and Gersovitz (1981a, 1981b).

output-uncertain than the present, for the cost of default to the borrower will rise.

Defaults need not be complete. Borrowers can partially default, or debase the value of the loan, by lowering the negotiated interest rate. Indeed, this is the most relevant case for today's experience. The ability of borrowers to renegotiate better terms—either lower interest rates and/or longer maturities—is greater the larger the size of the loan as a proportion of the lender's net worth. A small borrower (in relation to the lender's net worth) who omits a few interest payments can be declared in default by the lender, with all the attendant consequences.<sup>10</sup> A large borrower, on the other hand, can omit interest payments with impunity because the lending institution, by declaring the borrower in default, makes itself insolvent.<sup>11</sup> Large borrowers would be expected to renegotiate loan terms more successfully and more frequently than small borrowers. In turn, rational lenders would protect themselves against this outcome by forming syndications whereby an overexposed bank can sell loans to an underexposed bank.

The history of international lending provides some evidence about the relevance of the outlined theory. Before 1930 the bulk of international borrowing took the form of publicly issued bonds. The costs of collective decisions were high. Bondholders had no choice but to declare a country in default when payments were in arrears. These collective costs were reduced in the second half of the 19th century when major Western powers used gunboat diplomacy to prevent debt repudiation.<sup>12</sup> We can think of Western governments providing the public good of contract enforcement. Risk premiums on international borrowings were reduced and borrowers as well benefited from the imperialistic behavior of Western powers in the form of lower interest rates.

During the 20th century the scope for gunboat diplomacy diminished and the international bond market turned out to be an organizational structure unable to cope with the moral hazard problem. The absence of an effective military umbrella able to enforce loan contracts left bondholders powerless if the borrowing countries decided to repudiate their debt. The costs of collective decisions were too high for this form of lending to persist.

<sup>10</sup>In the present arrangement, countries declared in default are subject to cross-country default clauses.

<sup>11</sup>See Pandit and Rai (1983) for a model based on this principle.

<sup>12</sup>The Western powers did not send their gunboats with each foreign debt repudiation. In fact, most often they did not. However, the threat of sending gunboats was sufficient to affect borrowing countries' behavior.

The answer to this problem came through the transformation of the international credit market into the form known to us today. As theory predicts, the international banking system could cope more effectively than bondholders with moral hazard in the absence of gunboat diplomacy. The small number of banks involved, compared to the number of bondholders, reduced the cost of collective action. The lenders now could more easily engage in group action and threaten the borrower with penalties if he decided to repudiate his debt. As long as the international banking system maintained its cohesiveness, the threat of exclusion from the international credit system was a very effective constraint on the borrower's proclivity to default. This cohesiveness now is beginning to break down, a theme to which we return below.

Guttentag and Herring (1983b; 1984) have proposed that part or the whole of the international debt of the NODCs be converted into long-term bonds and "marked to market." In terms of our club theory, such an outcome would further weaken the international bank cartel and its resolve to apply penalties if repudiation were to occur. By the same token it would increase the incentive of borrowers to default. In this connection, there has been some discussion as to whether the IMF, or the World Bank, could not take over the role of the international banking system in monitoring the behavior of the borrowing countries, thereby reducing risk in the international credit markets. In fact, the IMF has been doing just that for years. Many of the proposals advanced to solve the current international debt crisis envision a larger role of the IMF in this area.<sup>13</sup> But how effective has the IMF been in reducing the moral hazard problem in international loans? Vaubel (1983) argues that this institution, by lending at subsidized interest rates, has increased the NODCs' incentives to postpone debt service payments to obtain relatively cheap IMF loans. Although one may disagree about the empirical significance of this phenomenon, the question remains whether the IMF, or any other international organization, would be able to cope effectively with moral hazard.

#### *The "Lemon" Problem*

The "lemon" problem in the international loan markets arises because of the asymmetry of information available to lenders and borrowers. Each borrower represents a different risk. In addition, the borrower may not be forthcoming in revealing the true nature of the risk he represents to the lender. If the information needed to

<sup>13</sup>Cline (1983) offers a survey of these proposals.

evaluate the risks of the different borrowers is too costly to collect, lenders set a uniform interest rate reflecting the average risk of the loans. This will then tend to drive out from the loan market the low-risk borrowers who find the market interest rate too high. Lenders have to further increase the interest rate to reflect the higher average risk of the pool of borrowers. An adverse selection process occurs whereby low-risk borrowers are driven out of the market and the lenders are stuck with the "lemons."<sup>14</sup>

The "lemon" problem is resolved in domestic credit markets by firms specializing in the collection of information about individual borrowers. As a result, borrowers are rated according to risk and lenders set interest rates to reflect these risks. Thus adverse selection ceases to be a problem.

The collection of information about risk characteristics of individual borrowers is more costly in the international loan market than in the domestic markets, making it relatively difficult to establish reliable credit ratings for individual countries. The IMF has emerged as one of the most important information-gathering institutions in the international credit markets. It has thereby provided a useful service to borrowers and lenders alike. However, in refusing to establish credit ratings for individual countries, and in charging uniform interest rates on all its loans, it has been saddled itself with a "lemon" problem. The largest part of the loan portfolio of the IMF now consists of high-risk countries.<sup>15</sup> This is the inevitable result of the uniform interest rate policy of the IMF: The low-risk countries find the IMF loans unattractive and do not apply for these loans.<sup>16</sup> The IMF is left with the "lemons." This situation forces this organization to either increase interest rates or to tighten the conditionality of its loans. In the end this situation reduces the effectiveness of the IMF in helping to resolve the international debt crisis.

### *The Free-Rider Problem*

Like so many economic activities, the extension of international loans creates externalities. These, in turn, give rise to free-riding. When a bank with a high reputation extends a loan to a country a signal is sent to other banks that the borrowing country is a "safe investment." These other banks are in effect free-riders because they

<sup>14</sup>Akerlof (1970) is the *locus classicus* of adverse selection and "lemons."

<sup>15</sup>Vaubel (1983) calculates that "30 out of 114 IMF members accounted for all cases of debt rescheduling in 1960-82, and that 14 member countries accounted for more than 80 percent of the (country) years for which debt was rescheduled."

<sup>16</sup>The effective rate borne by borrowing countries is the actual rate charged plus the implied costs of the conditions imposed by the IMF.

gain from the expense incurred by the first bank in assessing the credit risk involved. If additional loans are made to the same country the first bank finds that its exposure has become riskier. The actions of the "free-riding" banks have devalued the claims of the first bank on the borrowing country.

It is alleged that this market failure has led to an excessive expansion of loans in recent years. We question the validity of this conclusion. For we know that, in the presence of free-riding, banks have an incentive to take collective action. Syndication, for example, has allowed them to spread the cost of setting up and organizing the loans more evenly over large groups of banks. Loan syndication is the market answer to free-riding. Whether it has allowed banks to eliminate this problem altogether is difficult to say.

Recently, free-riding has reemerged in reverse form. As banks felt compelled to reschedule loans to troubled countries, smaller banks dropped out of the syndication to reduce their exposure to risky countries, thus raising the riskiness of the claims held by the remaining banks. Without some form of collective actions, this process would induce more banks to discontinue lending and would eventually lead to a financial crisis and debt repudiation.<sup>17</sup>

Next, we analyze how the international banking system has met the challenge of free-riding in reverse; and explore the policy issue of whether additional collective actions, including those by international organizations, may be required to avert an undue contraction of international debt.

### Free-Riding in Reverse and International Credit

The banking system has reacted to free-riding in reverse in several ways. One reaction has tended to aggravate the problem; another reaction has tended to alleviate it. To protect themselves against a financial panic, banks have shortened the maturity of their loans. While shorter maturities allow an individual bank to "get out" more quickly during a crisis, it does not work for the system as a whole. When all banks shorten maturities, nobody can "get out" more quickly. In fact, the probability of a financial crisis increases because as debt service by borrowing countries rises, so does the benefit of default.

The second reaction of the international banking system has been to strengthen the cohesiveness of loan syndicates. This has been achieved in two ways. First, the larger banks have generally agreed

<sup>17</sup>See Eaton and Gersovitz (1981a) and Sachs (1983) for a rigorous treatment of this process.

to take a larger share of new loans in rescheduling agreements.<sup>18</sup> Second, the IMF has played a leading role in ensuring a minimal amount of new lending to the NODCs. It has achieved this mainly by increasing its own lending and by attaching its own reputation to these loans. In a sense it is proper to say that banks have continued to lend by free-riding on the IMF-quality label. Thus, the problem posed by free-riding in reverse has been temporarily solved by the major banks and the IMF rescheduling loans.

The natural question to ask is whether this collective action may not have gone too far. This is important not only for the banks, but also for the IMF, which has committed its reputation, and thus stands to lose it should part of the new loans be repudiated. To this issue we now turn.

We begin with the distinction of whether the debtor countries should be considered illiquid or insolvent. Illiquidity implies that debtor countries have a positive net worth, but are unable to repay their debt today as a result of insufficient liquid assets. Insolvency means that the debtor countries have a negative net worth.

The wealth of a nation consists of natural resources, reproducible physical assets, and monetary balances (if the country's money is convertible into foreign monies). In the absence of sovereign risks, international loans could be collateralized by the wealth of the nation. With sovereign risks, much of the wealth of the nation has no bearing as to whether a loan will be repaid or not. To capture this feature, we define country's solvency by the following equation:

$$NW_0 = \sum_{t=0}^{\infty} \frac{1}{(1+r)^t} CA_t - L_0, \quad (1)$$

where  $NW_0$  is the sovereign-risk adjusted net worth of the country,  $CA_t$  is its expected current-account balance in period  $t$  in today's prices,  $r$  is the real interest rate, and  $L_0$  is its foreign debt today.<sup>19</sup> Equation (1) can be interpreted as follows. When  $NW_0$  is positive the present value of the country's future current-account balance exceeds its current level of external debt. In other words, the country in question will be able to generate enough foreign exchange revenues in the future to repay its outstanding foreign debt. However, when  $NW_0$  is negative the country's external debt exceeds its capacity to

<sup>18</sup>For evidence see Sachs (1983, p. 43).

<sup>19</sup>See Sachs (1983) for a similar analysis.



generate foreign exchange revenues in the future. Such a country is defined as being insolvent in our sense.<sup>20</sup>

It is clear that it matters a great deal whether a borrowing country is illiquid or insolvent. In the former case it makes sense to ensure that countries have continued access to foreign credit; and it makes sense to prod creditors to maintain a sufficiently high level of loans so that the illiquidity of the borrowing country does not degenerate into insolvency. On the contrary, if a country is perceived to be insolvent it makes no sense for creditors to reschedule; and it makes no sense for the IMF to lead banks into new commitments. Under these circumstances the appropriate strategy is to implement a prudent amortization schedule of the "troubled" loans in the books of the banks.

### Are the NODCs Illiquid or Insolvent?

The issue of whether the large debtor countries are illiquid or insolvent is an empirical matter. Equation (1) cannot be easily quantified, for it deals with potentially many unknown events which can affect the future values of  $CA$ . Our discussion, by necessity, will be qualitative and will try to isolate general trends and behavioral patterns that will influence the creditor's judgment on whether  $NW_0$  is positive or negative. We rewrite the equation (1) using the following definition of the current account:

$$CA_t = Q_t - A_t, \quad (2)$$

where  $Q$  is domestic output and  $A$  is the level of domestic absorption or spending on goods and services. Substituting (2) in (1), we obtain:

$$NW_0 = \sum_{t=0}^{\infty} \frac{1}{(1+r)^t} (Q_t - A_t) - L_0. \quad (3)$$

The net worth of a country depends positively on the prospective growth rate of its domestic output ( $Q$ ) and negatively on the prospective growth rate of its domestic spending ( $A$ ) and the real interest rate ( $r$ ). An increase in the real interest rate reduces  $NW_0$  by reducing the weights given to periods in the distant future when the country is expected to have current-account surpluses.

The 1970s were characterized by high growth rates of output, low ex ante real rates of interest, and high spending growth rates. Table

<sup>20</sup>One should add here that a decline in  $NW_0$  may increase the borrowing country's incentive to default even before  $NW_0$  becomes negative. Thus, although a country may have the capacity to service its debt, its willingness may be lacking. This is the moral hazard problem discussed earlier.

6 shows the average annual rate of growth of  $Q$  and of the inflation rate of the NODCs, as well as the inflation rate differential between NODCs and the industrial countries. The latter is taken as a proxy of the growth of domestic spending in the NODCs. The data suggest that an abrupt change took place in the period 1979–81: Growth rates of  $Q$  fell, while growth rates of  $A$  increased. Both occurrences worked in the direction of lowering the  $NW$  of the NODCs.

Furthermore, during the 1970s the real interest rates in the United States were very low compared to the preceding period. Both the *ex ante* and the *ex post* real interest rates were close to zero on the average during the seventies.<sup>21</sup> This can certainly be called an unusual situation, which is not likely to persist. The low real interest rates of the seventies may have given the lenders false signals about the long-run capacity of the NODC borrowers to repay their debt. Likewise, the lending banks may have overestimated the net worth of these countries during the seventies, and lent too much to them. It is likely that the lenders may have done the opposite since 1980, when the real interest rates in the United States were unusually high.

Two conclusions can be drawn from our analysis. First, a significant part of the existing NODC debt should be classified as bad loans. For it is unlikely that dollar real interest rates will return to the low levels of the seventies. Second, since 1980 dollar real interest rates have been unusually high, leading to excessive pessimism about the capacity of borrowers to repay their debt. It follows that the current crisis is part illiquidity and part insolvency. The response of the international banking system, therefore, has to include measures aimed at keeping a minimal level of new loans to NODCs to ensure that these countries can ride out the present period of unusually high real interest rates. There is also a need for measures aimed at amortizing a fraction of the loans which in a world of permanently higher real interest rates cannot be repaid.

Our analysis also sheds light on the merit of some proposals that have been advanced recently to solve the international debt crisis. We discuss two of these as they are representative of a large class of similar proposals. In one class of proposals—see for example Cline (1983)—the argument is made that NODC borrowers face today illiquidity, and that insolvency is secondary.<sup>22</sup> According to this view,

<sup>21</sup>The *ex ante* real interest rate is the nominal interest rate minus the expected rate of inflation. The *ex post* real interest rate is the nominal interest rate minus the realized rate of inflation. Huizinga and Mishkin (1983) estimate the *ex ante* real rates for a six-month T-Bill to be 2.0 percent during the sixties and 0.1 percent during the seventies.

<sup>22</sup>See also Morgan Guaranty (1983).

*TABLE 6*  
**OUTPUT GROWTH AND INFLATION RATES OF NON-OIL DEVELOPING COUNTRIES**

	1973	1974-76	1977-78	1979-81	1983 <sup>a</sup>
1. Annual Percentage Change of Real GDP, Weighted Average excluding People's Republic of China	6.1	4.9	5.3	3.8	1.9
2. Annual Percentage Change in Consumer Prices, Weighted Average excluding People's Republic of China	21.9	27.8	25.0	33.9	39.6
3. Row 2 minus Annual Percentage Change in Consumer Prices of Industrial Countries	14.2	17.0	17.2	23.7	34.1

<sup>a</sup>Projected figures.

SOURCE: International Monetary Fund, *World Economic Outlook*, May 1983, Tables B2, B3, and B7.

steps must be undertaken to ensure a continuing flow of credit to the NODCs. In particular, the major industrialized countries must follow a more expansionary monetary policy. The United States is urged to reduce its budget deficit to permit, in conjunction with a less tight monetary policy, dollar real interest rates to decline. In brief, the main message of this class of proposals is that stimulative monetary policies in the major industrialized countries, especially in the United States, can solve the present international debt crisis.

We doubt the validity of this conclusion. First, as we have pointed out, the international debt crisis is also a problem of NODC insolvency. Stimulative monetary policies cannot overcome this state of affairs, except temporarily. The experience of the seventies points to the dangers of monetary stimulus. The excessive monetary expansion of the seventies is one of the ultimate causes of the present international debt crisis. For, by leading to a temporary reduction of real interest rates, it helped to fuel the explosion of bank lending to the NODCs.

Another class of proposals—see for example Kenen (1983)—recognizes that NODCs are insolvent in the sense of equation (1). It advocates the establishment of a new international organization that would buy troubled loans to NODCs in exchange for newly created long-term bonds. The purchase would occur at a price below the face value of the loans. Although the discount would reflect the insolvency of some NODC borrowers, the recommended size (10 percent in Kenen's proposal) is kept so low that inevitably the international organization purchasing NODC debt would have to be subsidized by national treasuries.<sup>23</sup> For some reason many academic economists have been convinced that the insolvency of the NODC borrowers can only be dealt with by the taxpayers of the industrial countries bearing the bulk of the losses.<sup>24</sup>

## Bank Losses and Domestic Collective Action

We have argued in the previous section that part of the NODC debt owned by banks cannot be repaid. Therefore, it seems to be inevitable that banks, and their shareholders, will incur significant losses. The size of the problem for the U.S. banking system is illustrated in Table 7.

There is no doubt that the exposure of the U.S. banking system to NODCs is substantial. In 1982 total loans to NODCs represented

<sup>23</sup>See also Rohatyn (1983) and Weiner (1983). Many of these proposals combine debt conversion with money creation by central banks.

<sup>24</sup>A notable exception is Brunner et al. (1983).

*TABLE 7*  
EXPOSURE OF U.S. BANKS TO NODCs IN 1982

	Bank Capital <sup>a</sup>	NODC Loans <sup>a</sup>	Exposure <sup>b</sup>	Loans to Brazil and Mexico <sup>a</sup>	Exposure <sup>b</sup>
All U.S. Banks	70,624	103,181	146.1	44,815	63.5
Nine Largest U.S. Banks	29,014	64,149	221.2	25,558	88.1
Other U.S. Banks	41,610	39,032	93.8	19,257	46.3

<sup>a</sup>Millions of U.S. Dollars.

<sup>b</sup>Percent

146 percent of the capital of U.S. banks. A disaggregation of the data, however, reveals that the problem is highly concentrated among the largest U.S. banks. The nine largest banks had loans to NODCs amounting to 221.2 percent of their capital; for the rest of the U.S. banking system relative exposure was 93.8 percent. Thus, although many U.S. banks would suffer important losses if some NODCs were to default on their debt, only a few of the largest banks would be risking bankruptcy.

The concentration of the likely losses on NODC loans has important implications for the kind of collective action that takes place domestically. We know that collective action is costly. However, if successful, the benefits to the whole industry are likely to be a large multiple of the cost. Individual members will only engage in collective action if their share of the benefits exceeds the cost of the action. The high concentration of troubled loans among a small number of U.S. banks makes it likely that these banks will engage in collective action aimed at shifting their losses onto the rest of society.

The collective action undertaken by banks follows the traditional pattern. It consists of direct political lobbying and dissemination of information about the special character of the banking system. Opinion makers are told that without some form of socialization of bank losses the whole U.S. banking system will collapse. Since this would have dire consequences for the whole economy, the cost for the taxpayer is only a small price for ensuring a stable and prosperous economy.

## Conclusion

Our analysis of the political economy of international lending leads us to the conclusion that the few large U.S. banks that would be most affected by Third World debt repudiation will have a strong incentive to socialize their losses via collective action. But we have argued that the existing U.S. banking system has sufficient safeguards to provide for overall stability in the banking system.

Thus, even if the shareholders of large U.S. banks were forced to bear the losses on bad NODC loans, the U.S. banking system would continue to function properly. The pressing question that remains, however, is: How can the U.S. taxpayer counteract the collective action of banks?

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# REFLECTIONS ON THE INTERNATIONAL DEBT CRISIS

*Larry A. Sjaastad*

## The Theory of Clubs

The chief novelty of the interesting paper by De Grauwe and Fratianni (1984) is their application of the theory of clubs to the international banking community. Within that context, various issues are analyzed, such as the free-rider problem, moral hazard, and the "lemon" problem. One thing that is not clear, however, is the membership of the club. In parts of the paper, it seems that the club is constituted by the commercial banks engaged in international lending; at other points in the paper, one gets the impression that the club also includes the central banks of the major creditor nations. At yet other points, the club seems to involve the major international financial institutions as well. It would be useful if De Grauwe and Fratianni would be a bit more precise in defining their "clubs."

One aspect of the international debt issue that would appear to be amenable to analysis within the context of the theory of clubs (but which is not taken up in the paper) is the degree to which the larger loans were syndicated; in some cases more than one hundred banks contributed to a single loan, some of those contributions being quite trivial. That this feature is a potential source of serious difficulty for the major lending banks is obvious—any member of the syndicate can, if circumstances permit, declare a default, even though it might cause serious difficulties for the major lenders. Certainly the larger banks must have perceived some benefit in return for the increase in risk associated with incorporating a large number of minor lenders. Perhaps the expected return was political in nature. Several major U.S. banks have exposures in a single country that amount to an

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appreciable percentage of their capital; if that country were to default, those banks would either require massive assistance or would face a massive contraction. The probability of getting that assistance through the political system surely must increase with the number of congressional districts in which lending banks exist, and hence the number of congressmen to whom appeals can be made.

### Should the Fed Be Involved?

Another topic treated at length in the paper is the lender-of-last-resort facility. De Grauwe and Fratianni argue that it might well be in the interest of the Federal Reserve, for example, to be the lender of last resort to foreign commercial banks that have dollar-denominated liabilities. I find the case less than a convincing one. First, there is a serious moral hazard issue involved in having the central bank of one country essentially guarantee liabilities of a bank in another, given that the former has no regulatory authority over the latter. Second, such a policy would enhance the attractiveness of dollar-denominated deposits—and loans—all over the world, thereby magnifying the responsibilities of the Fed while at the same time complicating its ability to control the money supply. Finally, what problem does the proposal intend to solve? If a French commercial bank gets into trouble because it has dollar-denominated deposits but no dollars, it obviously can get the dollars in the exchange market *if* it has the francs with which to buy them. As it is a clearly defined responsibility of the Bank of France to do the necessary rediscounting to provide the francs, there would appear to be no compelling case for the Fed to be involved.

### The External Debt Service Choice

Fratianni and De Grauwe argue at the outset that many existing international loans should be classified as “bad” loans. Subsequently, when the authors take up the insolvency versus illiquidity issue, the meaning of a bad international loan seems to be a situation in which the present value of “expected” future current account balances fall short of present indebtedness. This analysis does not seem to recognize that current account balances, which reflect the difference between output and expenditure, are endogenous; obviously countries that make no effort to service their external debt (by failing to contract domestic expenditure) will be insolvent by the De Grauwe–Fratianni criterion, while those that do make an effort will be solvent.

The issue is not whether a country is solvent or insolvent—that is a phony issue. The frequently heard phrase that “countries don’t go broke” is obviously true—but irrelevant. The issue is whether or not countries will *choose* not to service their external debt because they find that debt service too onerous. Moreover, the De Grauwe–Fratianni solvency criterion ignores the fact, frequently pointed out by Allan Meltzer<sup>1</sup> among others, that countries have the clear possibility of servicing—indeed, canceling—their external debt with equity transfers rather than trade surpluses. That such equity transfers are technically feasible is witnessed by the facts that the public sectors of virtually all major debtor nations are huge and the substantial number of public sector enterprises have considerable assets. Couple this observation with the fact that most of the international debt is owed by (or guaranteed by) governments, and the simplicity of the solution is remarkable. It is quite safe to assert that currently there is not a single case of country insolvency by any reasonable definition of the term.

But one is compelled to agree with De Grauwe and Fratianni (p. 166) that “it seems to be inevitable that banks, and their shareholders, will incur significant losses” (although the stock market seems to be saying the opposite). What this means is that, despite their solvency, countries will *effectively* default. This will occur when the political will to contract domestic expenditure and/or sell public-sector enterprises is weaker than the political will to face the (not inconsiderable) consequences of default. As the banks cannot be excused from having been unaware that sovereign loans have this special and additional risk, one is less than eager to make haste in bailing them out.

Another aspect of the situation given too little emphasis in the paper in question is the bald fact that the debt service problem is fundamentally a fiscal issue—the government of Brazil, for example, can never obtain the dollars it needs for debt service until it has first acquired the cruzeiros. To get the necessary cruzeiros, it must either run a fiscal surplus or increase its domestic debt. In fact, that government shows every sort of obstinancy in taking the necessary steps to produce that surplus (its willingness to sign IMF documents notwithstanding), and currently the Brazilian bond market is saturated with government paper being issued to finance an enormous fiscal *deficit*. There is no hope that Brazil can begin to service her external debt until her government is willing to face the fiscal issue, and that is clearly a political decision.

<sup>1</sup>See Meltzer (1983, and 1984, pp. 67–68).

## Proposals for Reform

The final part of this comment is devoted to some discussion of the various proposals to solve the international debt problem. These fall into three categories. The first has already been discussed—essentially the Meltzer proposal to settle the debts with equity transfers. The merit of this proposal lies in its simplicity and equity. The problems are all in execution. Unusual political courage would be required for the government of Mexico, for example, to sell PEMEX to a group of New York banks. Second, there is no assurance whatsoever that ownership of PEMEX by foreign interests would result in control of PEMEX by those interests. Presumably, of course, goodwill could solve the latter problem.

A second proposal is equally *laissez faire*. It would simply require that the banks and the debtor nations sort out their problems, a process that presumably would result in losses on the part of the banks and some discomfort, at least in the short run, for the countries.<sup>2</sup> The current market value of negotiable bonds issued by Argentina and Mexico suggests the market's judgment is that a significant part of the debt will not be repaid and, if that also applied to non-negotiable debt, the capital of the lending banks would have to be written down rather drastically. Indeed, a number of banks might not survive, including some very large banks. Orderly liquidation of banks is, fortunately, an activity in which we have accumulated a lot of experience, so the fact that the size of the operation might be unprecedented is not a credible objection to this solution. This, of course, is the solution that bank managers fear most but the one that the debtor countries should prefer. The former would become unemployed, but the latter would escape the penalties arising from unilateral default while still seeing at least part of their external debt washed away at the expense of the banks.

The third set of solutions emphasizes that the problem is "public" in the sense that large externalities exist. These range from direct bailouts of the countries (and hence the banks) to indirect bailouts either by laundering the funds through the IMF *cum* World Bank or by depreciating the debt by world inflation. Proposals such as William Cline's for expansionary policies in the OECD countries also fall into this set, as they argue that "we are all in this together" so we are really doing ourselves a favor by making it easier for the debtor countries to pay.<sup>3</sup> The point is that *we* are not all in this

<sup>2</sup>For a further discussion of this point, see Sjaastad (1983).

<sup>3</sup>See Cline (1983).

together; so far, only the banks and the debtor-country governments are in it together. Ironically (or perhaps not so ironically), the effect of these proposals would be to "put us all together"; if we opt for economic expansion and hence for inflation, all innocent money holders pay. If we opt for transfers by non-inflationary means, innocent taxpayers will pay. No one has made a case that suggests that these quasi-populist "collective action" proposals will have fewer costs or more benefits than will the laissez-faire proposals.

Of course, the problem may be resolved by a miracle. The international debt crisis is very much a consequence of the very strong appreciation of the U.S. dollar beginning in late 1980. A sustained collapse of the dollar would go a long way towards its resolution. But that would require a genuine miracle in that European economic policy would cease to be worse than that of the United States.

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# KEY ISSUES IN THE WORLD DEBT PROBLEM

*Rimmer de Vries*

## Introduction

The paper by De Grauwe and Fratianni (1984) offers an extraordinarily lucid analysis of the risks in international lending from the perspectives of both central banks and commercial banks. The basic contention of their paper is that the debt crisis of the less developed countries (LDCs) encompasses significant long-run solvency problems as well as short-term liquidity problems. In dealing with the debt crisis, the authors argue that the Federal Reserve System must be ready to extend lender-of-last-resort (LLR) provisions to all international banks, not just U.S.-owned banks. The reason is that a large percentage of loans to LDCs (at least 75 percent) are dollar-denominated, and the ability of foreign central banks to come to the assistance of non-U.S. banks is limited by the central banks' holdings of dollar claims. According to De Grauwe and Fratianni, the willingness of the Fed to supply LLR service increases the cost of maintaining the international banking system for the United States, but the price—although rising—is worth it.

The remainder of the authors' paper is concerned with potential sources of inefficiency in international lending: the so-called moral hazard, "lemon," and free-rider problems. De Grauwe and Fratianni contend that each of these phenomena provides lenders with incentives to take collective action, such that banks will find it in their own interest to continue lending to LDCs so they can ride out the period of unusually high real interest rates. In the authors' opinion, however, "A significant part of the outstanding international [LDC]

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debt should be classified as bad loans” (p. 147), and “it seems to be inevitable that banks, and their shareholders, will incur significant losses” (p. 166). De Grauwe and Fratianni are worried that banks will respond by trying to pass along the losses to taxpayers.

There are three basic issues I wish to discuss:

1. The costs to the United States of the Federal Reserve serving as LLR.
2. The extent of “bad” LDC loans, their impact on the banks, and the response of banks to the debt crisis.
3. The long-run reforms of the international lending system that are needed to prevent a recurrence of the LDC debt problem.

### The Fed’s LLR Function

On the first issue, I agree with the authors that it is, and remains, in the United States’ own interest for the Fed to serve as ultimate LLR. Clearly, the United States and the entire Free World stand to lose considerably from a disruption of the international trade and payments system. De Grauwe and Fratianni, however, understate the extent to which foreign central banks can assist non-U.S. banks. The authors’ calculations in Table 5 (p. 155), which express the ratio of central banks’ foreign exchange reserves to commercial banks’ foreign liabilities, exclude an important asset that central banks can utilize in the event of a crisis situation—namely, gold holdings. During the 1960s and 1970s foreign central banks, especially in Europe, augmented their gold holdings substantially. Excluding the United States, the market value of the gold reserves of the Group of Ten (G-10) countries and Switzerland currently stands at about \$180 billion, or approximately 50 percent more than their foreign exchange reserves of just over \$120 billion. The accompanying table demonstrates that if foreign central banks are prepared to use their extensive gold holdings and can sell or swap gold at market rates, they have considerably greater means for handling a potential liquidity shortage than is implied in the De Grauwe and Fratianni calculations.

Aside from central bank gold sales, other steps can be taken to reduce the potential burden on the Federal Reserve. One proposal calls for greater foreign-currency diversification in international lending, with the aim of reducing the proportion of dollar-denominated LDC loans from the present 75 percent to a level more nearly consonant with the share of the dollar in LDC international transactions—for example, closer to 50 percent. The Federal Reserve

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RATIO OF CENTRAL BANK'S RESERVES TO COMMERCIAL BANKS'  
FOREIGN LIABILITIES IN 1982 (PERCENT)

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	Excluding Gold	Including Gold <sup>a</sup>
Japan	19	29
France	11	34
West Germany	61	120
Italy	31	96
Switzerland	27	86
Netherlands	14	42
Belgium	4	21

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<sup>a</sup>Valued at \$400 per ounce.

SOURCE: International Economics Department, Morgan Guaranty Trust Company.

Bank of New York, in fact, has pushed the idea for the very reason cited in the De Grauwe/Fratianni paper. Some European central banks also are more comfortable with their banks lending in their domestic currencies for the same reason.

To present this idea as beneficial to the LDCs, however, is another matter. Had the LDCs diversified several years ago and borrowed more heavily in foreign currencies, they would have saved both interest and exchange rate costs. For example, a recent Federal Reserve Bank of New York study (1983) concludes that, had the non-oil LDCs diversified their new and maturing bank debt between 1979 and 1982, the LDCs would have saved over \$30 billion, with 80 percent coming through exchange rate gains. But to start now with currency diversification is another matter, especially in light of the exceptional strength of the dollar. Thus, in the event interest rate differentials were to narrow and the dollar weakened substantially, currency diversification could actually raise the LDC debt-servicing costs. From the LDC perspective, therefore, timing is of the essence.

One issue that the De Grauwe/Fratianni paper does not delve into but that should be raised is the role that the Bank for International Settlements and the International Monetary Fund can play in assisting central banks in coping with systemic risks in international lending. To the extent these institutions are prepared to play a greater role, the LLR burden on the Federal Reserve could be reduced accordingly. In the event European central banks do not want to sell gold, for example, arrangements could be worked out with these institutions for swapping it. Also, I would not rule out the use of U.S. commercial banks providing temporary liquidity (for example, through gold swaps) to foreign central banks in case of a liquidity crisis.



## The Solvency Question

A second issue that merits comment is the assertion by De Grauwe and Fratianni that a significant part of LDC debt should be treated as bad loans and that U.S. banks (especially several of the largest banks) will incur significant losses on these loans. This goes to the heart of the matter of whether the debt crisis is predominantly a liquidity crisis or to some extent also a solvency problem. The crucial question is how to quantify the solvency aspect of the debt issue.

At the onset of the crisis in mid-1982, it is fair to say that the banking community initially approached the difficulties of Mexico and Argentina as short-term liquidity problems that were triggered by external factors such as high real interest rates, world recession, and political upsets such as the Malvinas dispute and the Mexican elections. As the crisis spread and the facts became better known and the underlying performance of the major borrowing countries was better understood, it became apparent that external borrowing by several major LDCs far exceeded their ability to service debts out of actual or near-term export proceeds. It is now recognized that a proper relationship between external debt and debt-servicing capacity has to be restored.

Suppose we define a country that has a debt-to-export ratio of 2 to 1 as having the potential of creating solvency problems. At the end of 1983, the 21 major developing countries had nearly \$130 billion of "excess" debt (as defined), or 23 percent of their total outstanding external debt. The excess is heavily concentrated in Latin America, where it amounted to 33 percent of outstanding external debt. However, under a scenario of modest OECD growth, flat oil prices, stable interest rates, and partial restoration of the terms of trade, this excess will be whittled down to much smaller numbers. By the end of the decade, the excess debt will be only 8 percent for Latin America, with most of the debt concentrated in Brazil and Argentina. In Argentina the excess could be reduced even further if confidence is restored and some of the capital flight is reversed. These projections tend to point out that what may appear today as a solvency problem is essentially a long-term liquidity problem. With sustained recovery and adjustment, the debt problem will be confined to a steadily declining number of countries.

Thus, while I recognize that there is a sizeable long-term liquidity aspect to the debt problem, I am less pessimistic than De Grauwe and Fratianni about the need for the banks to incur significant losses on their international loans. One reason is that I believe a workable strategy is in place to resolve the debt problem over time. Certainly, the LDC debt situation today appears more manageable than when

the crisis surfaced. U.S. interest rates are down sharply from their 1982 peaks, a broad-based U.S. recovery is under way, and commodity prices have begun to turn around. LDC external adjustment has also far exceeded expectations as reflected in the stunning turnaround in Latin America's trade performance, with the seven major borrowers running a combined trade surplus of \$30 billion in 1983. *Equally significant is the fact that Latin American policy makers have realistically assessed the costs entailed in debt repudiation. Instead of threatening banks with default, LDCs have been pressing for temporary interest-rate relief and longer stretchouts.*

Banks, for their part, have responded quite constructively to the debt situation. They have been prepared to extend new credits to LDCs (about \$15 to \$20 billion in 1983), and to rollover existing obligations pending implementation and adherence to IMF stabilization programs. Banks have also recently begun to lower their spreads where lending risks have been reduced as a result of IMF-backed stabilization programs. Reverse free-riding or dropouts have been kept to a minimum because of the banks' own interests. At the same time, some banks have been setting aside reserves against potential loan losses. *Swiss banks reportedly have made reserve provisions covering 20 percent of their LDC loans on average, while Dutch, Scandinavian, and Japanese banks apparently have acted similarly. Loan-loss provisions by U.S. banks have not been as extensive as those of European banks, partly because of differences in regulatory and tax treatment. Nevertheless, these provisions are substantial. Morgan Guaranty Trust, for example, has set aside approximately \$475 million for loan-loss reserves, with a good part covering LDC loans. Although no figures have been compiled, I would venture a guess that the major international banks in the world have allocated somewhere between \$5 and \$7 billion in loan-loss or special reserves against sovereign risks in addition to having written off perhaps \$3 to \$5 billion of international loans. It should be emphasized that despite this, some major banks have been able to report significant increases in overall earnings.*

Another reason that my own views are less pessimistic than those of De Grauwe and Fratianni is that they have defined the issue of solvency in terms of the ability of developing countries to *repay* their debt over time. Repayment, however, is not the issue that concerns the banks: Countries, like companies, can be expected to add to their debt over time. What is relevant from a credit-worthiness standpoint is the ability of countries to *service* their external debt. As indicated earlier, the solution to the LDC debt problem essentially requires that countries bring their external debt more in line with their export

earnings. Banks have been willing to continue lending to LDCs, instead of pulling out, mainly because they believe that a combination of a more favorable global environment, better domestic economic policies in the LDCs, interest-rate relief for some countries, and long-term development assistance offers a reasonable prospect for sustained reductions in LDC debt/export ratios. In this respect, the relevant condition for assessing the solvency issue is whether the rate of growth of export earnings exceeds the interest rate on LDC debt. If this, indeed, is the case—provided only that the current account less interest payments is in balance—LDC debt/export ratios will decline over time and credit-worthiness and access to credit markets will be restored eventually.

I hasten to say that there are still major challenges ahead. One is the need for LDCs, especially in Latin America, to sustain large trade surpluses in order to service their external debt. So far, the surpluses have been attained through radical import contraction, which in some cases has led to reductions in consumption and living standards rivaling those of the 1930s. The only viable solution over the long run calls for Latin American countries to increase their export capacity so that debt-servicing capabilities are enhanced and economic growth is restored. This will require a fundamental change in development strategies pursued since the 1950s. Priorities will have to be reordered away from import substitution toward more active export promotion, and the development role of the state will have to be reassessed in order to free resources for the private sector. Clearly, reversing such long-term trends is not an easy matter.

It must also be acknowledged that the global scenario sketched earlier is based on a stable international economic order. Considering the amount of time it takes to bring debt/export ratios of certain LDCs down to more manageable levels (for example, under 200 percent), allowance should be made for fluctuations in oil prices, interest rates, or exchange rates that are difficult to forecast, as well as for unforeseen but inevitable political disruptions—each of which could delay progress in restoring credit-worthiness. Moreover, considering the sharp erosion of confidence over the past two years, it is unrealistic to expect that restoration of voluntary lending to the LDCs will occur quickly once debt/export ratios fall below a critical threshold range. Rather, the transition from organized lending to strictly voluntary lending is likely to occur in stages as confidence is rebuilt gradually. My guess is that “managed” lending, whereby banks condition roll-overs of existing obligations and extensions of new credits on IMF performance criteria, will remain with us for the remainder of this

decade for most, although perhaps a declining number, of key LDC borrowers.

### Long-Run Reforms

The third issue involves long-run reforms that can be taken to prevent a recurrence of the LDC debt problems. De Grauwe and Fratianni have correctly emphasized a major source of risk in international lending; namely, the moral hazard problem. Commercial banks have no means of enforcing limits on the overall indebtedness of sovereign borrowers. Even if an individual bank acts prudently in assessing LDC debt capacity and refrains from participating in a new loan to the country, its existing credits to the country can be jeopardized by the LDC's ability to obtain financing from other sources. De Grauwe and Fratianni acknowledge that one way of handling this problem is for the IMF to exert leverage to limit the country's overall indebtedness. The authors point out, however, that in the past the IMF has been unable to prevent LDCs from accumulating excessive debts. Instead, the IMF ultimately has had to extend credits to these countries *once their foreign-exchange reserves have been depleted*, so that the IMF has wound up holding "lemons."

I share these concerns and would agree that these are major issues that must be tackled. In view of the costs that banks have incurred and will incur from past LDC loans, as well as the pressure for greater regulatory oversight of international lending, I would be very disappointed to see a return to business as usual once LDC creditworthiness is restored. It is clearly in the banks' interests to develop a specific set of yardsticks and guidelines for assessing debt-service capacity so they are less vulnerable to unforeseen developments. While debt-service capacity has proved to be an elusive concept, experience has shown that banks cannot rely primarily on current market views in making their lending decisions.

*It must be recognized, nonetheless, that even if an individual bank or group of banks based lending decisions on careful assessments of debt-servicing capabilities, sound lending decisions could still be upset if the rest of the market did not follow suit. It is imperative, therefore, to have a mechanism in place to lessen the risks that De Grauwe and Fratianni have described.*

There are essentially two ways in which problems of overlending or overborrowing can be avoided. One entails greater control over the *lender*, while the other involves increased leverage over the *borrowers*. Future reforms are likely to entail both of these elements. However, the most practical and efficient route would be to influence

the decisions of individual borrowers rather than the collective actions of the lenders. In particular, it is vital to expand the surveillance role of the IMF and World Bank and to increase their leverage with their member countries. This expanded role would entail these institutions compiling more timely and comprehensive information on external debt, developing suitable measures and yardsticks to assess debt-servicing capacity for individual countries, and assisting countries in their external debt management. The IMF's Executive Directors already have agreed that the Fund should be more active in counseling countries in these areas, and that the annual surveillance exercise should include a much more systematic and in-depth analysis of the external debt situation and prospects of individual countries than in the past. The ability of the Fund and the Bank to work closely with their member countries and guide them about appropriate debt levels and structures offers the surest way of providing for the financial stability and long-term economic growth of these countries.

To enhance the Fund's leverage over borrowing countries, it is also essential that the close working relationship between the Fund, the commercial banks, and central banks over the past year and a half continues to evolve. In the event that countries do not follow the advice of the Fund, it must be prepared to make its views known to the financial community, either directly to commercial banks or indirectly through the various central banks and regulatory agencies. Once the Fund's views have been conveyed, central banks and commercial banks must cooperate closely. Clearly, a major lesson of the international debt crisis is that we cannot afford to return to a situation where the commercial banks and the Fund go separate ways.

## References

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