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Understanding International Debt Crisis

by James R. Barth,*
Michael D. Bradley**
and Paul C. Panayotacos***

INTRODUCTION

It is not unusual for borrowing and lending to take place across national borders. But when Mexico declared a moratorium on foreign debt payments in August 1982 and subsequent debt servicing problems surfaced in countries such as Argentina, Brazil and Venezuela,¹ it became widely apparent that international debt is a mixed blessing.² Although borrowing funds from abroad enables a country to obtain investment goods needed for economic growth, the inefficient use of those funds or exogenous shocks³ causing real interest rates to rise abruptly, oil prices to fluctuate widely, and commodity prices to fall sharply⁴ can severely limit a debtor country's ability or willingness to repay its borrowings.⁵ Simi-

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¹ The only significant Latin American exception to debt-servicing disruption was Colombia. See Cline, *International Debt and Stability of the World Economy*, 4 INST. FOR INT'L ECON. 30 (Sept. 1983).

² Actually, the fact that international debt can create problems is not a recent realization. Indeed, a few short years ago it was reported that "The number-one danger confronting the United States today . . . is the viability of about \$25 billion in loans to less developed countries . . ." See Dorfman, *The Bottom Line - The Banks' Biggest Worry*, THE FEDERAL RESERVE SYSTEM 212, (Jan. 1977).

³ See P. NUNNENKAMP, THE INTERNATIONAL DEBT CRISIS OF THE THIRD WORLD, (1986).

⁴ Real interest rates charged to less developed countries (LDC's) jumped from 1% in 1980 to between 6.73 and 8.50% in 1981-84, oil prices decreased from \$35.01 per barrel in 1981 to \$28.72 per barrel in 1983 and substantially further since then, and the terms of trade deteriorated mainly due to falling commodity prices by 9% for non-oil LDC's between 1980 and 1983. Errunza & Ghalbouni, *Interest Rates and International Debt Crisis*, 157 BANCA NAZIONALE DEL LAVORO Q. REV., 225-45 (June 1986).

⁵ Optimal borrowing decisions are part of a country's overall resource allocation problem. This dynamic resource allocation problem is addressed formally in Cooper & Sachs, *Borrowing Abroad: The Debtor's Perspective*, in INTERNATIONAL DEBT AND THE DEVELOPING COUNTRIES, (G. Smith and J. Cuddington eds. 1985).

larly, although lending funds abroad enables a commercial bank to seek higher returns over a wider geographical area, anything that disrupts the fulfillment of the terms of the contract adversely affects the profitability and even the solvency of the creditor. In recent years it has become painfully clear that the nonfulfillment of the contractual terms of international debt as originally agreed upon can spread beyond the immediate debtors and creditors so as to disrupt international trade and the international banking system.⁶ It is therefore important to understand the fundamental role of international debt in improving welfare and the ways in which such debt can disrupt economic activity and international relations.

This paper assesses the importance of international debt in the world economy. This is done by first discussing the role of debt in facilitating economic growth as well as the potential problems that may arise due to debt. The magnitude of the current international debt problem will then be described. Lastly, potential solutions to the current problem will be analyzed and the prospects for avoiding future debt problems are assessed.

ECONOMIC RATIONALE FOR INTERNATIONAL DEBT

A basic assumption in economics is that individuals maximize intertemporal utility by choosing a fairly constant consumption path through time that does not exceed their lifetime income.⁷ Since income does not follow a perfectly smooth path through time, saving and borrowing serve as shock absorbers enabling individuals to smooth consumption.⁸ But the saving and borrowing that occur are based upon the expectation that sufficient income will be earned in the future to maintain consumption as well as to repay any past borrowings.⁹ This means that if income is temporarily low in one period, a chosen consumption path can be maintained through borrowing. However, the amount of borrowing that is undertaken in response to the fall in income depends on the extent to which future income is believed to be sufficient to cover the borrowing as well as

⁶ The widespread nature of the debt problem has been acknowledged by policymakers. For example, Treasury Secretary Baker has stated, "The international debt situation remains a challenge, not only for individual debtor nations but for the international community as a whole." Baker, *Statement Before the Meeting of the OECD Council at Ministerial Level*, TREASURY NEWS, April 17, 1986.

⁷ R.E. HALL & J.B. TAYLOR, *MACROECONOMICS*, 167-201 (1986).

⁸ See e.g., S.M. SHEFFRIN, *RATIONAL EXPECTATIONS*, 146 (1984), "[A]n individual maximizes expected intertemporal utility from consumption or can transfer purchasing power between periods by buying and selling a risky asset."

⁹ That is, individuals must choose a consumption path consistent with their lifetime budget constraint. For a discussion of the lifetime budget constraint, see H.R. VARIAN, *INTERMEDIATE MICROECONOMICS* 180 (1987).

any outstanding borrowings.¹⁰ One role for borrowing, then, is to enable individuals to smooth consumption streams in the face of irregular income streams.¹¹

Another role for borrowing is to facilitate investment so as to increase future income.¹² To illustrate this point, consider the situation of a student wanting to attend law school. Upon completion of the requirements for a degree, the student's lifetime income stream will undoubtedly be higher than if the student were not to pursue a professional degree. But at present the student cannot use the future income for current spending. Borrowing against the future income, however, solves the problem for the student with insufficient current resources. A lender will make such a loan, even without physical collateral, so long as the proceeds of the loan are used to increase the future income stream of the borrower. The size of the loan will be bounded by the present discounted expected value of the student's additional lifetime earnings resulting from earning the degree.¹³ Since the future is not known with certainty, the willingness of the lender to extend funds depends upon the lender's subjective evaluation of the willingness and ability of the student to repay the loan.¹⁴ One measure of the lender's subjective expectation of repayment is the interest rate charged on the loan. The less likely the repayment, the more risky the loan and, *ceteris paribus*, the higher the interest rate required by the lender to make the loan.¹⁵

Financial markets thus serve to channel funds from savers (lenders) to dissavers (borrowers) at an interest rate that provides an amount of lending that increases the utility or welfare of all parties involved.¹⁶ Of course, in a world of uncertainty, not all borrowings are repaid in full, if at all, due to an unforeseen reduced willingness and ability to repay. To protect against such contingencies, loans are typically made at rates of interest that incorporate any risks of default.¹⁷ Furthermore, without the

¹⁰ *Id.* at 182.

¹¹ *Id.* at 184.

¹² For a discussion of the investment decision, see T. PALM & A. QAYUM, *PRIVATE AND PUBLIC INVESTMENT ANALYSIS* (1985).

¹³ *Id.* at 64-79.

¹⁴ Complications arising from a potential unwillingness to repay debts are related to "moral hazard problems." See A. DEATON & J. MUELLBAUER, *ECONOMICS AND CONSUMER BEHAVIOR* 389 (1980).

¹⁵ The lender, in this situation, is charging a risk premium. For a discussion of risk-aversion and the associated premium charged for risk, see H.R. VARIAN, *supra* note 9, at 219.

¹⁶ T. CARGILL, *THE BASIC ELEMENTS OF THE FINANCIAL SYSTEM AND MONETARY POLICY* 27-58 (1968).

¹⁷ Default risk is sometimes reduced through the use of collateral, which then lowers the interest rate. A common example is the collateralized automobile loan. For foreign loans, however, collateral becomes a somewhat nebulous concept due to the general inability to press claims against foreign governments. For an analysis of how loan decisions are made under uncertainty, see Jaffee

expectation of income growth, borrowing is simply impossible. The reason is that if current income is insufficient to finance current consumption, that same level of income, in the future, certainly cannot be sufficient to maintain consumption as well as generate the saving necessary to repay any debt. If income is therefore not expected to grow, it is reasonable to expect any debt to be defaulted upon and thus lenders will not voluntarily extend a loan at any interest rate.¹⁸

The basic situation just described is no different for international debt.¹⁹ Countries borrow to finance consumption in the presence of current negative income shocks and borrow to finance future income growth. But systematic and repeated borrowing should be associated with the latter type of borrowing, because persistent declines in income are, by definition, not temporary shocks and hence the required lender expectation that income will rapidly return to its "normal" level must be abandoned.²⁰ In this regard, most recent international borrowing is clearly not temporary and should therefore have been undertaken to finance investment so as to promote future income growth.²¹ When external funds are used for this purpose, borrowing is welfare enhancing because the present discounted expected value of the projects financed by loans exceeds the size of the loans which means that the borrowing country anticipates income growth and thus greater consumption growth as well as the ability to repay its loans.²² In this situation, even a temporary negative shock to income is unlikely to affect the present discounted expected value of investment so that additional short term loans from abroad are appropriate to maintain consumption.²³ A problem arises, however, when the external funds are not used for income enhancing investments. For without additional income growth a country's ability to repay its loans significantly diminishes and thus the likelihood of de-

and Russel, *Imperfect Information, Uncertainty, and Credit Rationing*, 90 Q.J. OF ECON. 651-66 (1976).

¹⁸ Difficulties in making this determination due to the moral hazard problem may lead lenders to a system of credit rationing. *Id.* at 657.

¹⁹ LDC's may face some additional problems in valuing the expected real output growth generated by the investment. These difficulties generally come from a lack of developed markets. See T. PALM & A. QAYUM, *supra* note 12, at ch. 9.

²⁰ Systematic and repeated borrowing without income growth would violate the borrower's intertemporal budget constraint. See A. DEATON & J. MUELLBAUER, *supra* note 14, at 309-44.

²¹ See Tables 1 and 2.

²² See T. CARGILL, *supra* note 16, at 267: "The non-oil developing countries during the 1970s embarked on an ambitious program to build an infrastructure of roads, water projects, communications, and so on to provide a firm base for economic growth. External financing from both private and official sources was extensively relied upon to achieve economic growth objectives. The funds to service and eventually repay the external debt incurred was designed to improve domestic economic growth and improve the ability to compete in world markets. Both would generate the funds required to service and eventually repay the debt over time."

²³ See R.E. HALL & J.B. TAYLOR, *supra* note 7, at 182-184.

fault increases. It is therefore situations in which funds are not used to promote income growth that lead to international debt crises.²⁴ Of course, even if funds are used to promote growth, an unwillingness to repay all borrowings leads to a similar outcome.

In the next section, we assess the magnitude of current international debt. The economic framework just outlined will be used in analyzing the data presented as well as in subsequent sections discussing proposed remedies to deal with the debt problem.

BURDEN OF INTERNATIONAL DEBT

The current international debt problem can be most easily appreciated with some numbers.²⁵ As Table 1 shows, the total external debt of less developed countries (LDC's) was nearly \$800 billion at the end of 1985.²⁶ By itself this figure provides relatively little information. When compared to the exports of goods and services or to the gross domestic product of LDC's, however, one finds that both ratios reversed their downward movement from 1978 to 1980. Indeed, these ratios jumped abruptly in 1982—the beginning of the current international debt problem—and have continued to increase, but at a somewhat more moderate rate since then.²⁷ The alarming aspect of these ratios is that they indicate that corrective action must be taken; external debt cannot forever grow more rapidly than exports and gross domestic product. This is illustrated by observing that the ratio of the debt service payment (interest plus principal repayment) to exports jumped nearly five full percentage points from 1978 to 1982.²⁸ As a result, almost one-fourth of all exports have been needed simply to service current debt obligations.²⁹ The crucial role played by exports is more fully appreciated when one realizes that most international debt is denominated in dollars.³⁰ This means that debt service must be made in dollars, not the debtor country's currency. Debtor countries are thus required to obtain dollars to service their debt,

²⁴ See T. CARGILL, *supra* note 16, at 268.

²⁵ For additional data and discussion, see Barth, Bradley and Manage, *The International Debt Crisis: Rhetoric vs. Reality*, 1084 J. SOC. POL. & ECON. STUDIES, 453-82 (1984); Barth and Pelzman, *International Debt: Conflict and Resolution*, CONTEMPORARY INTERNATIONAL ECONOMY: A READER 358-91 (John Adams, ed. 1985).

²⁶ The International Monetary Fund projection for total external debt is \$836.3 billion for 1986. See I.M.F. WORLD ECONOMIC OUTLOOK, 247 (Apr. 1986).

²⁷ The average annual growth of the ratios of debt to exports and debt to GDP are, respectively, -0.8% and 5.44% (1979-1981), and 2.8% and 4.6% (1983-1985); during 1982, the ratios were 19.2% and 15.9%, respectively. See Table 1.

²⁸ Debt service payments increased from \$19.3 billion to \$24.1 billion in the aforementioned years, subsequently dropping to \$22.7 by 1985. *Id.*

²⁹ For recent trends in debt service payments, see OECD, FINANCING AND EXTERNAL DEBT OF DEVELOPING COUNTRIES, 49-52 (1986).

³⁰ For a discussion of the denomination of debt, see P. NUNNENKAMP, *supra* note 3, at 4, 49.

TABLE 1. Capital Importing Non-Oil Developing Countries External Debt (1) (billions of U.S. dollars)

	1978	1979	1980	1981	1982	1983	1984	1985
Total Debt	343.4	409.2	490.5	578.5	662.0	703.5	744.2	789.5
Short-term debt	61.6	68.2	94.3	115.5	135.9	117.3	116.4	103.7
Long-term debt	282.3	340.9	396.3	463.0	542.1	586.2	628.0	685.8
Official creditors	118.4	136.9	159.7	181.8	205.0	228.5	250.2	273.1
Financial institutions (2)	82.9	109.9	128.6	153.9	178.9	219.6	242.7	276.6
Other private creditors (3)	80.9	94.1	107.9	127.3	142.2	138.0	135.2	136.1
Debt service payment on short-term and long-term debt (4)	19.3	19.6	17.7	21.2	24.1	21.1	22.0	22.7
Interest payments ratio	7.1	8.0	8.8	11.6	14.0	18.0	18.1	18.2
Amortization ratio (5)	12.2	11.7	8.8	9.6	10.1	8.1	8.9	9.6
Ratio of external debt to exports of goods and services	131.6	122.1	114.7	127.2	151.6	159.6	154.2	164.4
Ratio of external debt to G.D.P.	24.7	24.7	25.2	28.8	33.4	35.7	36.8	38.2

NOTES:

- (1) This category includes 120 countries. Figures may not add to totals due to rounding.
- (2) Covers only public and publicly guaranteed debt.
- (3) Includes all unguaranteed debt on the presumption that this is owed mainly to private creditors.
- (4) Payments (interest, amortization, or both) as a percentage of exports of goods and services.
- (5) On long-term debt only. Estimates for period up to 1984 reflect actual amortization payments. The estimates for 1985 reflect scheduled payments, modified to take account of actual or pending rescheduling agreements.

SOURCE: *World Economic Outlook*, I.M.F., 1986

and the primary way that dollars are obtained is through exports—the debtor countries sell their goods for dollars. Clearly, external debt cannot be repaid if the size of that debt is growing faster than the pool of dollars earned by the debtor country. But even exports growing faster than the size of the debt is not sufficient to assure that debtor countries will have the capacity over time to repay their debts. The reason is that a country's output is divided among several uses: consumption, investment, government spending and exports. If exports are increasing but aggregate production is not, the other uses of output must be declining. But if investment declines the productive capacity of the economy diminishes and hence the ability of the country to produce goods to be exported in the future also correspondingly diminishes. Consequently, a country's income growth as well as its export growth must exceed debt growth.³¹ Otherwise, the dollar earnings from exports can only temporarily satisfy the required debt service payments — with partial or complete default the eventual outcome. Unfortunately, the data in Tables 1 and 2 suggest that even this short-run condition has not been fulfilled. Moreover, in recent years more than half of the debt service payments have been devoted to simply meeting the interest due on the debt,³² which reflects the abrupt rise in interest rates in the early 1980's and the fact that significant portions of the international debt is short-term and based on variable rather than fixed interest rates. Since 1982, however, this situation has improved as the mix of short and long-term debt has shifted toward long-term.³³ In 1982 short-term debt represented 20% of all debt, whereas by 1985 it had declined to 13%.³⁴ This has helped ease the frequency of debt negotiations as well as provided the debtor countries with more certainty regarding sources of funds needed for economic growth.³⁵

Table 1 also provides useful information about the type and exposure of creditors. As may be seen, financial institutions have steadily increased their exposure to 35% of the total debt in 1985 from 24% in 1978.³⁶ This relatively large exposure of international banks is what

³¹ The importance of income and export growth is also stressed by Paul A. Volcker. See *Statement Before the Committee on Foreign Affairs of the House*, 99th Cong., June 18, 1986.

³² Interest payments as a percentage of total debt service payments increased to an annual rate of 58% in 1982, from 37% in 1982; the ratio jumped to 85% in 1983, and declined to 80% by 1985. See Table 1.

³³ On average, short-term debt as a percentage of total debt was 20% during the period 1979-1982; this figure dropped to 15% during the period 1983-1985. *Id.*

³⁴ See *Id.*

³⁵ For a discussion on debt negotiations, see K. Burke Dillon *et al.*, *Recent Developments in External Debt Restructuring*, in 40 I.M.F. OCCASIONAL PAPER (1986).

³⁶ In terms of long-term debt, the figures are even more striking: financial institutions almost doubled their exposure to 40% in 1985, from 21% in 1978. See Table 1.

leads to concerns over the stability of the international banking system.³⁷ More specifically, if debt is repudiated or defaulted upon there exists the possibility of large bank failures and even the collapse of the financial system. Moreover, as debtor countries attempt to stimulate their exports and to curtail their imports to generate the needed surpluses in their trade accounts to service their debts, trade is clearly effected for both debtor and creditor countries.³⁸ These trade effects set in motion calls for protectionism and charges of unfair trade practices as countries intensify their competition with one another under the burden of trying to honor heavy debt obligations.³⁹

The figures in Table 1, of course, refer to all LDC's. For this reason, it is important to emphasize that not all LDC's are currently experiencing debt problems.⁴⁰ The burden of international debt, in other words, is unevenly distributed among the LDC's. Indeed, the vast majority of these countries are not experiencing a "crisis" in meeting their international contractual obligations. The problems instead are concentrated in seventeen countries, most of which are located in Latin America, and certainly it is these debtor countries that most directly concern the United States. Table 2 presents data on the external debt for these seventeen borrowers. As may be seen, the top five heavily indebted Latin American countries accounted for more than two-thirds of the total external debt of all the LDC's in 1985.⁴¹ Despite its seriousness, the debt problem is therefore currently confined to a relatively small number of countries.⁴²

Examining the data in Table 2 one notices that the ratio of debt to exports doubled between 1980 and 1984. Specifically, each and every one of the seventeen countries experienced a dramatic increase in this crucial ratio.⁴³ This means that the burden of fulfilling debt obligations was 200% greater in 1985 than in 1980. This situation also means that the amount of export earnings required for debt service rose significantly, which in turn means that the growth in exports required to simply ser-

³⁷ See OECD, *supra* note 29, at 55-57.

³⁸ According to I.M.F. estimates, a 1% increase in industrial countries' real GNP would induce a 35% increase in the export earnings of developing countries. See I.M.F. Release, July 4, 1986.

³⁹ Analogous concerns are expressed by de Larosiere, *The Debt Problem and Challenges Facing the World Economy*, I.M.F. Release, Nov. 15, 1985, at 6.

⁴⁰ For a descriptive synopsis of all indebted countries, see THE WORLD BANK, *WORLD DEVELOPMENT REPORT*, 44 (1985).

⁴¹ Brazil, Mexico, Argentina, Venezuela and Chile accounted for 24.1, 22.2, 11.4, 7.5 and 4.7% of total external debt (for all LDC's), respectively. See Table 2.

⁴² Debt is also developing into a serious problem in Sub-Saharan Africa. For a discussion, see Krumm, *The External Debt of Sub-Saharan Africa*, in *WORLD BANK WORKING PAPER* 741, (1985).

⁴³ The most dramatic increase was exhibited by Nigeria (507.6%) followed by Argentina (222.4%) Chile (198.1%) Uruguay (161.4%) and Colombia (115.4%). See Table 2.

TABLE 2. Seventeen Heavily Indebted Developing Countries.

Country	Total Debt Outstanding (1)		Ratio of Debt to Exports (%)	GDP	Average Annual Growth Rates 1980-84 (%) (3)			Per Capita Consumption	
	1985	1985-87			1980	1984	Exports		Imports
Argentina	50.8	20.4	90.0	290.2	-1.6	3.6	-14.7	-16.8	-2.7
Bolivia	4.0	1.6	210.4	382.7	-4.7	-1.7	-15.8	-22.1	-7.8
Brazil	107.3	39.7	171.3	219.8	0.1	10.8	-7.3	-8.6	-1.2
Chile	21.0	9.2	75.5	225.1	-1.4	0.7	-4.2	-11.6	-2.1
Colombia	11.3	6.4	69.7	150.1	1.8	0.8	2.4	2.4	-0.1
Costa Rica	4.2	2.4	139.5	270.8	-0.4	1.1	-9.1	-9.4	-4.8
Ecuador	8.5	3.4	110.9	223.1	1.1	2.6	-13.7	-16.9	-2.3
Ivory Coast	8.0	4.0	119.4	160.5	-2.3	1.3	-8.8	-19.5	-6.6
Jamaica	3.4	1.3	98.2	159.9	1.3	-2.5	-2.1	9.5	-1.4
Mexico	99.0	44.4	136.7	213.5	1.3	10.5	-14.5	-10.1	-1.4
Morocco	14.0	6.0	217.3	337.2	2.5	4.1	-1.0	-2.7	-0.2
Nigeria	19.3	9.1	15.7	95.4	-4.7	-13.3	-12.1	-19.3	-4.3
Peru	13.4	5.2	127.1	247.0	-0.7	-0.6	-10.8	-5.3	-3.7
Philippines	24.8	9.5	81.6	139.1	0.8	3.6	-4.8	-12.4	0.0
Uruguay	3.6	1.4	70.7	184.8	-3.7	2.2	-11.3	-20.2	-4.7
Venezuela	33.6	17.8	48.9	91.4	-1.8	-3.8	-19.3	-15.6	-6.4
Yugoslavia (4)	19.6	13.6	33.3	62.6	0.6	-0.6	-8.1	-2.9	-0.5
Total (5)	445.9	194.9	106.9	203.1	-0.3	1.8	-9.2	-9.7	-1.8

NOTES:

(1) Estimated total external liabilities, including the use of IMF credit.

(2) Debt service is based on known long-term debt and terms at end-1984. It does not take into account new loans contracted or debt reschedulings signed after that date.

(3) Latest year for which data are available. Growth rates are computed from time series in constant prices, using beginning- and end-period values.

(4) Average annual growth rates are for 1980-83, except for GDP which is for 1980-84.

(5) Figures may not add to totals due to rounding.

SOURCE: The World Bank, *World Debt Tables*, 1986.

vice the debt also increased.⁴⁴ The emphasis on curtailing imports⁴⁵ (and thus conserving the needed dollars) and expanding exports (and thus generating the needed dollars) in these countries is understandable given this situation. Yet, these actions are not only difficult when these countries are experiencing slow growth, depreciating currencies, and falling commodity prices, but also adversely affect the competing domestic suppliers in the creditor countries, which brings calls for protectionist legislation in these countries.⁴⁶

The drive to expand exports at the cost of diverting the debtor countries output from other uses has had negative effects on their economies. While most of the seventeen debtor countries have taken action to increase exports over the last five years, as Table 2 indicates, this export growth has come at the cost of reduced consumption and investment. The reduced investment adversely affects future income growth in these countries because less capital will be available for production.⁴⁷ As a consequence, the long-term ability of these countries to repay their debts is actually reduced. The signs of this detrimental effect are already showing—nine of the seventeen countries experienced negative real output growth in the past five years and only one country, Morocco, experienced an annual average output growth rate in excess of 2%.

Reduced consumption can also have negative effects.⁴⁸ Falling consumption can generate political and social unrest, thereby increasing pressures to renegotiate the international debt on more favorable terms to the debtor countries, if not actually to repudiate some of the debt.⁴⁹ Such drastic actions relating to the willingness of countries to repay their debt would, of course, threaten the solvency of some of the larger international banking institutions, not to mention weaken overall confidence in the banking system. This particular problem will be discussed in the next section.

⁴⁴ The average annual growth rate of exports between 1980-1984 was positive for all top five Latin American debtor countries, except Venezuela. The highest rate was exhibited by Brazil (10.8%) followed by Mexico (10.5%) and Argentina (3.6%). See Table 2.

⁴⁵ For example, in response to the 1982 debt crises, Mexico reduced imports by 47.5% in 1983. See Solis and Zedillo, *The Foreign Debt Problem of Mexico*, in INTERNATIONAL DEBT AND THE DEVELOPING COUNTRIES, 286 (G.W. Smith & J.T. Cuddington eds. 1986).

⁴⁶ For the I.M.F. perspective, see de Larosiere, *Interrelationships Between Protectionism and the Debt Crisis*, in I.M.F. RELEASE, (Feb. 6, 1986).

⁴⁷ On average, annual investment growth was negative for all 17 countries during the period 1980-1984. The annual average decline for the top five Latin American debtor countries was 13%; in Latin America, Bolivia and Uruguay exhibited the most dramatic declines (22.1% and 20.2% respectively). See Table 2.

⁴⁸ The average annual decline of per capita consumption for the top five Latin American debtor countries during the 1980-1984 period was 4.92%. See Table 2.

⁴⁹ The social tensions arising from the debt issue are also acknowledged by J. de Larosiere, *supra* note 39 at 5.

STABILITY OF THE BANKING SYSTEM

A major concern about the current international debt problem is that any defaults or repudiations may set in motion forces leading to a collapse of the international banking system.⁵⁰ Table 3 provides data that helps to understand this concern. More specifically, information pertaining to U.S. bank loans to the top three Latin American debtor countries and to all LDC's is presented, broken-down by all reporting banks and the nine largest banks.⁵¹ As may be seen, banks have generally channeled a disproportionately large share of their foreign loans to just three LDC's: Argentina, Brazil and Mexico.⁵² As a result, they have been extremely dependent upon events affecting these three countries as regards the possible adverse effect any defaults or loan write-downs would have on their capital. This is especially the case for the nine largest banks, which have put at risk a very large portion of their capital in the event of any nonpayment of their international debt.⁵³ Indeed, in 1982 and 1983 the loans to the top three Latin American debtor countries exceeded the entire capital of the nine largest banks. Of course, the debt problem for banks appears even more ominous when one includes other debtor countries that are experiencing difficulties servicing their debt.⁵⁴

Table 3 does show that the debt situation for banks - both all reporting banks and the nine largest banks - has improved in recent years. Clearly, international loans by banks have been growing much more slowly since 1982, and have even declined since 1984. As a result, debt-to-capital ratio for banks has significantly declined since 1982.⁵⁵

The data in Tables 2 and 3 raises important issues about the stability of the U.S. banking system. Most importantly, there is the issue as to

⁵⁰ For an analysis of whether international diversification renders the American banking system more or less prone to failure, see Darby, *The Internationalization of American Banking and Finance: Structure, Risk and World Interest Rates* 1989 in NAT'L BUREAU OF ECON. RES., WORKING PAPERS SERIES (July, 1986).

⁵¹ For a synopsis of the principal sources of data on foreign lending by both U.S.-chartered and foreign banks, see Mills, *Foreign Lending by Banks: A Guide to International and U.S. Statistics*, 10 FED. RES. BULL. 72 (1986).

⁵² The average of claims as a percentage of capital for Argentina, Mexico and Brazil (1977-June 1986) was 63.6% for all reporting banks. See Table 3.

⁵³ The average of claims as a percentage of capital for Argentina, Mexico and Brazil (1977-June 1986) was 92.1% for the nine largest banks. See Table 3.

⁵⁴ The average of claims as a percentage of capital for all non-oil developing countries (1977-June 1986) was 120.8% and 184.2% for all reporting banks and the nine largest banks, respectively. See Table 3.

⁵⁵ It is instructive to note that claims on Argentina, Brazil and Mexico as a percentage of claims on all non-oil developing nations have actually increased to 59.4% in 1986 (June) from 51.4% in 1982, for all reporting banks, and 58.5% in 1986 from 48.8% in 1982 for the nine largest banks. See Table 3.

TABLE 3. Bank Claims on Selected and All Non-Oil Developing Countries.

End of Period	CLAIMS (billions of U.S. dollars)					CLAIMS AS PERCENT OF CAPITAL				
	Argentina	Brazil	Mexico	Total 3 Countries	All Non-Oil Developing Countries	Argentina	Brazil	Mexico	Total 3 Countries	All Non-Oil Developing Countries
ALL REPORTING BANKS (1)										
1977	2.6	12.0	11.2	25.8	46.9	6.4	29.3	27.4	63.1	115.0
1978	2.8	13.4	10.7	26.9	52.2	6.1	29.4	23.5	59.0	116.0
1979	4.8	13.6	11.5	29.9	61.8	9.6	27.3	23.1	60.0	124.0
1980	6.9	14.5	15.7	37.1	75.4	12.1	25.4	27.5	65.1	132.0
1981	8.4	16.8	21.5	46.7	92.8	14.0	28.0	35.9	78.0	148.0
1982	8.2	20.4	24.4	53.0	103.2	11.6	28.9	34.6	75.1	146.0
1983	8.5	20.7	26.3	55.5	106.8	10.7	26.1	33.1	70.0	135.0
1984	8.0	23.9	26.5	58.4	105.8	8.6	25.9	28.8	63.3	115.0
1985	8.4	22.8	24.9	56.1	98.2	8.0	21.6	23.7	53.3	93.0
1986 (June)	8.5	22.3	24.2	54.9	92.5	7.6	20.1	21.8	49.6	83.6
NINE LARGEST BANKS										
1977	1.8	7.7	6.1	15.6	30.0	9.8	41.8	33.2	84.8	163.0
1978	1.8	8.5	6.1	16.4	33.4	9.0	42.5	30.5	82.0	176.0
1979	2.9	8.8	6.5	18.2	39.9	13.2	40.2	29.7	83.1	182.0
1980	4.2	9.4	9.1	22.7	47.9	17.5	39.2	37.9	94.6	199.0
1981	5.2	10.6	11.6	27.4	57.6	19.9	40.6	44.4	105.0	220.0
1982	5.1	13.3	12.9	31.3	64.1	17.6	45.9	44.5	107.9	221.0
1983	5.4	13.3	14.1	32.8	65.8	17.1	42.2	44.8	104.1	209.0
1984	5.1	15.8	14.7	35.6	66.4	13.9	43.1	40.0	97.0	181.0
1985	5.9	15.6	14.1	35.5	62.8	13.9	36.8	33.3	84.0	157.0
1986 (June)	5.9	15.2	13.6	34.7	59.3	13.3	34.5	30.7	78.5	134.2

(1) Data covers 189 U.S. banking institutions for 1986.

SOURCE: *Statistical Release* (Country Exposure Lending Survey), various issues.

whether or not the failure to repay the debt by the debtor countries could set in motion a collapse in the banking system. This could conceivably happen if sufficient debt was not repaid, causing several large banks and numerous other participating smaller banks to become insolvent and thereby reducing depositor confidence enough to set off a run on banks.⁵⁶ Such a systemic run on banks could indeed lead to the failure of both solvent and insolvent depository institutions as occurred in the Great Depression. However, two important factors mitigate against any such panic occurring. First, federal deposit insurance now protects nearly all deposits at banks and other depository institutions.⁵⁷ And even the uninsured depositors rarely suffer any losses when depository institutions fail.⁵⁸ For this reason it is unlikely that depositors will lose confidence in the safety of their deposits and hence would be unlikely to run to withdraw them in the event a relatively few banks were to become insolvent because of their foreign debt. Second, the Federal Reserve System serves as a lender-of-last-resort, which means that it stands ready to lend to any institution that is solvent but finds itself not liquid enough to meet all deposit withdrawals.⁵⁹ Any run that therefore spreads to solvent institutions can be readily handled by the Federal Reserve System. Only the insolvent banks will be unable to withstand a run, but such a run only adversely affects the stockholders and any uninsured depositors at those banks. The bulk of the depositors are protected against loss by federal insurance. In short, since the regulatory authorities are obligated to contain systemic runs, but not individual runs on insolvent institutions, the international debt problem should not lead to a collapse of the banking system if the monetary authorities do not default upon their obligation to serve as the lender-of-last-resort.⁶⁰

Of course, the likelihood that any institution is or will become insolvent due to the international debt situation remains unclear. There are a number of reasons for this situation. First, the assets and liabilities (and thus capital which is the difference between the two sides of the balance sheet) of a bank are valued essentially at the time that they were entered

⁵⁶ Diamond & Dybvig, *Bank Runs, Deposit Insurance, and Liquidity*, 9 J. POL. ECON. 401-09 (1983).

⁵⁷ See E.J. KANE, *THE GATHERING CRISIS IN FEDERAL DEPOSIT INSURANCE*, (1985), and Barth, Brumbaugh, and Wang, *Insolvency in the Thrift Industry*, CONTEMPORARY POL'Y ISSUES 1-32 (Fall 1985).

⁵⁸ See Diamond and Dybvig, *supra* note 56.

⁵⁹ For a detailed discussion of the role of the lender-of-last-resort in dealing with both domestic and international financial crises, see Barth and Keleher, *Financial Crises and the Role of the Lender of Last Resort*, in *ECON. REV.*, FEDERAL RESERVE BANK OF ATLANTA, 58-67 (Jan. 1984), and Humphrey and Keleher, *The Lender of Last Resort: A Historical Perspective*, 4 CATO J. 275-318 (1984).

⁶⁰ See Edwards, *LDCs' Foreign Borrowing and Default Risk: An Empirical Investigation*, 1976-1980, 74 AM. ECON. REV. 726-34 (1984).

onto the books and thus reflect historic values rather than the current market values. This means that some institutions may already be insolvent (i.e., have negative capital) if the current market value of international debt were substituted for the accounting or book value of the debt.⁶¹

Under current regulatory rules, it is the financial regulator, not the marketplace, that decides when a depository institution is insolvent and thus should be closed. This means that some currently operating banks may actually be market-value insolvent. Second, even if market-value accounting were used, the value of debt to those countries experiencing difficulties in fulfilling their contractual obligations is not zero. Instead, although it is undoubtedly worth substantially less than its book value, its decline in value since the loans were initially made may be sizeable but not enough to create the solvency problems for even the creditor banks that many fear. Third, the increased use of equity-for-debt swaps may lessen any adverse effects on both banks and debtor countries.⁶² Banks benefit from exchanging debt for equity (in the sense of an ownership share in a company's operations in the debtor country) since their initial investment is not simply written-down. Debtor countries benefit from the exchange since their reputations and credibility with respect to honoring obligations suffer less than when defaults occur so that future borrowing is less adversely affected.⁶³

In sum, it is not clear that the international debt problem need create any adverse effects insofar as the overall stability of the banking system is concerned.⁶⁴ Stockholders of some banks may suffer if the debtor nations fail to fulfill their contractual obligations, but federal deposit insurance and the Federal Reserve System should be able to confine any banking problems to those banks that have become insolvent during the normal course of conducting their business in a risky world.⁶⁵

⁶¹ For example, the loan agreement reached in October 1986 between Mexico and foreign lenders "... means that the banks can continue carrying Mexico's problem loans on their books at 100 cents on the dollar, but those loans are still being sold or swapped at about 60 cents on the dollar." See Witcher and Schmitt, *Growing Market in Third World Debt Raises Questions on the Loans' Value*, Wall St. J., Oct. 7, 1986, at 21, col. 2.

⁶² See generally Buchheit, *Converting Sovereign Debt Into Equity Investments*, 5 INT'L. FIN. L. REV. 10-14 (1986); Meyier, *Les Contrats d'Echanges de Devises et de Taux d'Interet (Swaps)*, 12 DROIT ET PRATIQUE DU COMMERCE INTERNATIONAL 9-32 (1986) for a discussion of the legal aspects of transferring sovereign loans into equity.

⁶³ For more information about debt-for equity swaps, see Berg, *U.S. Banks Swap Latin Debt*, N.Y. Times, Sept. 11, 1986, at D1, col. 1.

⁶⁴ According to Robert E. Weintraub, "... under analysis, the threat of widespread bank failures, of the collapse of our banking system, is found to be imaginary." See Weintraub, *International Debt: Crisis and Challenge*, 4 CATO J. 38 (1984)

⁶⁵ In this regard, the Ad Hoc Committee on International Debt and U.S. Financial Policies has argued that "There should be no bailouts, either of debtor nations or of creditor banks." INTERNATIONAL LENDING AND THE INTERNATIONAL MONETARY FUND, 35 (A. Meltzer, ed. 1983).

INTERNATIONAL TRADE EFFECTS

There are direct linkages between the current international debt problem and international trade. These linkages are reflected in the trade data presented in Table 4. As may be seen, total U.S. imports have, with but one exception, increased significantly year-by-year from 1977 through 1985. Total U.S. exports, on the other hand, increased from 1977 through 1981 but then declined for two years. They rebounded somewhat in 1984 but declined again in 1985. Comparing exports and imports, one observes that what was a surplus in net exports (i.e., exports minus imports) in 1976 became a sizeable deficit in every year thereafter.⁶⁶ It is therefore no surprise that there is substantial concern about U.S. trade deficits and increasing calls for protectionist policies in the United States.⁶⁷

Examining the figures in Table 4 one finds that beginning in 1982 a portion of the trade deficit has been accounted for by Latin American.⁶⁸ Actually, the top five Latin American debtor countries accounted for the bulk of the Latin American trade imbalance.⁶⁹ The reason for this situation is that once the major debtor countries began experiencing difficulties in servicing their debt, they found it necessary to take steps to generate foreign currency (mainly U.S. dollars) and to reduce its use for activities other than fulfilling their contractual obligations to foreign creditors (mainly U.S. banks).⁷⁰ This has led to a contraction in imports that use up foreign currencies and an expansion in exports that generate foreign currencies. However, falling commodity prices, a relatively highly valued U.S. dollar, high real interest rates, and sluggish domestic economic growth have all made these efforts to stimulate exports and to curtail imports particularly burdensome for most debtor countries.⁷¹ After all, not all countries can simultaneously increase their exports while curtailing their imports in an attempt to run trade surpluses. Furthermore, imports are needed by many debtor countries to obtain the investment goods necessary for economic growth.⁷²

⁶⁶ In 1976, the U.S. trade surplus was \$13.8 billion. U.S. DEP'T OF COMMERCE BUREAU OF ECONOMIC ANALYSIS.

⁶⁷ As stated in a recent International Monetary Fund Publication, "... protectionist pressures for trade restrictions continued unabated in 1985." See *Protectionist Pressures Persist, But Capital Controls Ease in '85*, I.M.F. Survey, Sept. 15, 1986, at 273.

⁶⁸ It is interesting to note that despite its overall trade deficit following 1976, the U.S. enjoyed a trade surplus with Latin American countries up to 1981 (with the exception of 1977), most of which was accounted from its trade with the top five Latin American debtor countries. See Table 4.

⁶⁹ The U.S. trade deficit with respect to the top five Latin American debtor countries, as a percentage of its total trade deficit with Latin American countries was, on average (for the period 1982-Sept. 1986), 98.6%. *Id.*

⁷⁰ de-Larosiere, *supra* note 39, at 86-7.

⁷¹ See OECD, *supra* note 29, at 50-1.

⁷² For example, imports of machinery, transport equipment and fuels, as a percentage of total

TABLE 4. Trade with Major Latin American Borrowers (billions of U.S. dollars)

	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986 (Sept.)
	U.S. EXPORTS									
Argentina	0.7	0.8	1.9	2.6	2.2	1.3	1.0	0.9	0.7	0.7
Brazil	2.5	3.0	3.4	4.3	3.8	3.4	2.6	2.6	3.1	2.8
Chile	0.5	0.7	0.9	1.4	1.5	0.9	0.7	0.8	0.7	0.6
Mexico	4.8	6.7	9.8	15.1	17.8	11.8	9.1	12.0	13.6	9.4
Venezuela	3.2	3.7	4.6	4.6	5.4	5.2	2.8	3.4	3.3	2.3
Total Top Five	11.7	15.0	20.6	28.0	30.7	22.7	16.1	19.7	21.6	15.8
Total Latin America	16.4	20.2	26.3	36.0	39.0	30.1	22.6	26.3	27.8	19.5
Total World	121.2	136.7	181.8	220.8	233.7	212.3	200.5	217.9	213.1	160.9
	U.S. IMPORTS									
Argentina	0.4	0.6	0.6	0.7	1.1	1.1	0.9	1.0	1.1	0.7
Brazil	2.2	2.8	3.4	3.7	4.5	4.3	4.9	7.6	7.6	5.2
Chile	0.3	0.4	0.4	0.5	0.6	0.7	1.0	0.8	0.8	0.7
Mexico	4.7	6.1	8.8	12.6	13.8	15.6	16.8	18.0	19.1	13.1
Venezuela	4.1	3.5	5.5	5.3	5.6	4.8	4.9	6.5	6.5	4.0
Total Top Five	11.7	13.4	18.7	22.9	25.5	26.4	28.5	33.9	35.0	23.6
Total Latin America	16.5	18.6	24.8	30.0	32.0	32.5	35.7	42.3	43.4	28.5
Total World	147.7	172.0	206.3	244.9	261.3	244.0	258.0	325.7	345.3	276.0

SOURCE: "Highlights of U.S. Export and Import Trade." U.S. Department of Commerce, Report FI990.

In sum, the international debt problem is definitely linked to international trade. Since most of the Latin American debt owed to U.S. banks was based upon a variable rather than a fixed interest rate and payable in U.S. dollars, the rising value of the dollar and increasing interest rates in the early 1980's made debt servicing extremely burdensome for the Latin American debtor countries. The recent decline in the value of the U.S. dollar and the fall in interest rates has eased the burden for the debtor countries, but the fall in commodity prices for Argentina, Chile and Brazil and the fall in oil prices for Venezuela and Mexico have had the opposite effect.⁷³ Furthermore, capital flight⁷⁴ and the recent world-wide sluggish economic growth's adverse effect on the exports of the debtor countries have both hurt these countries' efforts to acquire foreign currencies.⁷⁵

PROSPECTS FOR RESOLVING INTERNATIONAL DEBT CRISES

The ultimate solution to the current international debt problem is economic growth. Debtor countries can only meet their contractual obligations through economic growth. Such growth, however, requires domestic saving to finance public investment in education, roads, irrigation, telecommunications and other infrastructure and to finance private investment in plant and equipment. Domestic saving can be supplemented, of course, with saving from abroad in the form of aid, grants, loans and equity investments provided by foreign governments, international financial institutions, like the World Bank and the Inter-American Development Bank, and private suppliers of goods and private banks. At present, however, private creditors appear reluctant to increase their overall risk exposure in the heavily indebted LDC's. This obviously reflects the recent and frequent interruptions on the part of these debtor countries in servicing their outstanding external debt. It is clearly in the

merchandise imports, constitute 71%, 57%, 48%, and 44% for Brazil, Mexico, Argentina, and Venezuela, respectively. See Solis and Zedillo *supra* note 45, at 195.

⁷³ The average rate of interest paid on total long-term debt declined in 1985 to an estimated 7.6%, down from a peak of 9.3% in 1982; moreover, the dollar value of commodity prices (excluding oil) fell 11.0% in 1985 after the post-recession recovery in 1983 and 1984. That left prices 26% below their 1980 level. See THE WORLD BANK, WORLD DEBT TABLES xiii-xiv (1986).

⁷⁴ Capital flight refers to capital outflows motivated by normal portfolio decisions as well as those based on the desire to place assets beyond the control of domestic authorities. Michael P. Dooley finds "that capital flight has been of little consequence in Brazil, while about 40% and 70% respectively, of all external debt in Mexico and Venezuela was matched by capital flight." See, *Capital Flight: A Response to Differences in Financial Risk*, Federal Reserve Board Mimeo, July 18, 1986 at 23.

⁷⁵ Industrial countries' demand for developing countries' exports grew by only 2.6% in 1985, following a 10.6% growth in 1985. *Id.*, p.xv. Although capital flight in 1985-86 has decreased to about one-third of its peak 1982 level of \$30 million, it is still considered excessive. See OECD, *supra* note 29, at 50.

interest of the creditor banks to have other international financial institutions increase their share of credit to the debtor countries.⁷⁶ However, the banks are under pressure to contribute to any additional loans that are made. To the extent that the debtor countries can obtain additional borrowings and thereby avoid defaults it is in their interest to do so, as long as the terms of the loans are viewed by them as being politically and economically achievable. This of course is the source of concern. Although the debtor countries may have sufficient internal resources, including human and natural resources, to achieve sufficient economic growth to repay their debts, the fiscal and monetary policies required may be viewed as unacceptable, at least in the short run.⁷⁷ Whether or not external loans are repaid, in other words, depends ultimately upon economic growth,⁷⁸ but that in turn depends heavily upon domestic fiscal and monetary policies pursued in the debtor countries.⁷⁹ In this regard, it must again be emphasized that economic growth in the debtor countries must be sufficient to service old debt as well as any additional "bridge" loans. When the original loans were made, the lenders expected the borrowing countries to use funds for investment that would enhance productive capacity and thereby enable the country to repay its debt. This did not happen. The debtor countries thus confront the burden of debt repayments with very little additional earning capacity having been generated by investment financed with past debt. New loans must therefore stimulate enough economic growth so that the countries can service both the old and new obligations. An analogy might clarify matters. Consider our student mentioned earlier who borrows, purportedly, to go to law school. If the funds were spent instead on a world cruise, the student would not have added to her earning capacity to repay the debt. The student might then argue for additional or new loans, claiming that the money will now be used to finance a law school education to increase her earning capability or productive capacity. However, if a loan is made, the student's future earnings must now rise by enough to cover both the world cruise and the law school debts or a default will eventually occur.

In the sphere of international lending, the situation is even more

⁷⁶ In October of 1986, Mexico reached agreement on \$12.5 billion of new loans. Of this amount, \$6 billion will come from banks and will be partially guaranteed by the World Bank. See, *Mexico Reaches Accord With External Creditors*, I.M.F. Survey Oct. 20, 1986 at 305.

⁷⁷ Indeed, it was recently reported with respect to the October 1986 debt agreement concerning Mexico that "Many bankers feel the Mexican Government lacks the political support it needs to cut food and transportation subsidies, sell or close inefficient state enterprises, encourage private investment and make the new money bear fruit." See Walsh and Witcher, *Mexico's Bailout Masks Grave Problems that Threaten the Ruling Party's Grip*, Wall St. J., Oct. 2, 1986, at 35, col. 4.

⁷⁸ See Cooper and Sachs, *supra* note 5 at 22

⁷⁹ A comparison of domestic macroeconomic policies across sound and unsound debtors is given in P. NUNNENKAMP, *supra* note 3.

difficult. At least the student was aware of what policies were appropriate to increase earning power - law school attendance. It is not nearly so clear what macroeconomic policies are appropriate to achieve the "super" economic growth required in the current situation confronting debtor countries.⁸⁰ Not only are economists somewhat divided about the choice of appropriate policies to spur growth, but the recent performance of industrialized economies supports the contention that effective policies are always known and readily available.⁸¹

Finally, even if the proper policies were available, any additional bridge loans are not costless. Given the world-wide pool of saving available at any point in time, diversion of additional funds to heavily indebted countries necessarily implies a reduction of funds available to other countries.⁸² Such an allocation of funds means that some other, perhaps more productive, investments will go unfunded. The historical performance of the heavily indebted countries suggests that this is not an unlikely event. If a diversion of funds to the less productive investments occurs, world-wide output growth will necessarily suffer. This reduction in output growth represents a permanent and genuine resource cost of extending additional credit to the heavily indebted countries.⁸³

The prospects for resolving the current international debt problem in a manner acceptable to all parties involved are difficult to assess because political as well as economic factors are involved. Banks are reluctant to extend further credit to the debtor countries but are also reluctant to have to adjust their balance sheet and income statements at the present time by writing-down their foreign debt or by attempting to sell it in the recently developed secondary market for such debt.⁸⁴ The latter reluctance is strengthened to the extent that international financial institutions become more heavily involved in providing credit to the debtor countries as well as involved in providing some limited guarantees to those banks

⁸⁰ For an analysis of the difficulties and diversities in macroeconomic policymaking see M.G. RUKSTAD, *MACROECONOMIC DECISIONMAKING IN THE WORLD ECONOMY* (1986).

⁸¹ Indeed policies may even be implemented that create economic problems. For, as Paul DeGrauwe and Michele Fratianni argue, "The excessive monetary expansion of the seventies is one of the ultimate causes of the present international debt crisis." See, DeGrauwe and Fratianni, *The Political Economy of International Lending*, 4 *CATO J.* 166 (1984).

⁸² More generally, an inappropriate allocation of funds reduces the efficiency of the international capital market. For an enumeration of the conditions required to improve the efficiency of the international financial markets see A.K. Swoboda, *Debt and the Efficiency of the International Financial System*, in *INTERNATIONAL DEBT AND THE DEVELOPING COUNTRIES*, 151-78 (G.S. Smith and J.T. Cuddington, eds. 1986).

⁸³ See Kharas, *The Long-Run Creditworthiness of Developing Countries: Theory and Practice*, 99 *Q.J. OF ECON.* 425-39 (1984).

⁸⁴ The secondary market for LDC debt is currently not very active. A major reason is that under generally accepted accounting rules, if a bank sells a loan at a discount, it has to report a loss from the transaction on its income statement. For more information on the secondary market, see Carns, *Secondary Market for LDC Debt*, *BANKING AND ECON. REV.* 5-6 (July/Aug. 1986).

that do extend additional credit. The debtor countries, for their part, are reluctant to default, even partially, on their external debt as long as reschedulings and negotiations continue buying them time.

The issue still remains open as to what are appropriate rules governing the extension of credit across national boundaries, particularly when private financial depository institutions are involved.⁸⁵ Recent proposals by Treasury Secretary Baker⁸⁶ and Senator Bradley⁸⁷ presumably are meant to provide just such a set of rules not only to resolve the current debt problem but to avoid future debt problems. Secretary Baker's plan calls on banks to lend more and for debtor countries to adopt certain reforms oriented toward the free market, with the goal of fueling economic growth so that these countries can fulfill their debt obligations.⁸⁸ Senator Bradley's plan, on the other hand, includes a reduction in the interest rates charged to debtor countries, forgiveness of three percent of the principal of some countries debts and new loans to stimulate economic growth in these countries.⁸⁹

CONCLUSIONS

The historical existence of borrowing and lending across national borders clearly is evidence that both the debtors and creditors involved viewed such transactions as welfare enhancing. Inevitably, however, countries have now and then experienced severe difficulties servicing their external debts. The most recent debt crisis broke out in 1982 when several heavily indebted LDC's were unable to fulfill their debt obligations. When such crises occur, attention naturally turns to how best to resolve the international debt problem.⁹⁰

This paper has attempted to provide a conceptual framework within which one can come to understand the causes and effects of international debt crises. This framework operates as follows. To avoid debt problems, external debt must grow less rapidly than exports and domestic output. This is a long-run condition which, if satisfied, means that a country is "solvent." However, exogenous shocks can cause debt to grow

⁸⁵ For a review of the legal issues of international borrowing, see L. KALDEREN & Q.S. SIDDIQI, *SOVEREIGN BORROWERS: GUIDELINES ON LEGAL NEGOTIATIONS WITH COMMERCIAL LENDERS*, (1984).

⁸⁶ See James A. Baker, *Statement Before the Joint Annual Meeting of the I.M.F. and the World Bank*, *TREASURY NEWS*, Oct. 8, 1985.

⁸⁷ See Senator William Bradley, *A Proposal for Third World Debt Management*, United States Senate Memo, June 29, 1986.

⁸⁸ See Baker, *supra* note 86, at 4-6.

⁸⁹ Bradley, *supra* note 87, at 4.

⁹⁰ It is also important to realize that, as Carlos Massad points out, "An early warning system is necessary to provide information far enough in advance to allow corrective policy measures to be adopted before the problems get out of hand." See *Debt: An Overview*, 16 *J. DEV. PLANNING* 17 (1985).

more rapidly than exports and output, but this situation must be temporary. In a world of uncertainty, of course, it is not easy to distinguish temporary from longer-run adverse effects on export and income growth. This is especially the case when a debtor country's fiscal and monetary policies importantly influence this growth. And political rather than just economic factors may effect government policies so that whether or not debt obligations are fulfilled involves the willingness of a country to repay its debts as much or even more than a country's ability to repay those debts. It is for this reason that the notion of solvency has limited applicability to an individual debtor country.

Debtor countries do face costs if they default or repudiate their debt, with the major cost being the inability to secure external funds in the future. It is for this reason that countries attempt to establish a reputation for honoring their debts. Debtor countries also attempt to reschedule their debts rather than default or repudiate them entirely. To secure new funds from banks frequently necessary for these reschedulings, the debtor countries agree to conditions set down by the International Monetary Fund⁹¹ so as to signal to banks that credible fiscal and monetary policies are being implemented to generate the required long-term growth in exports and domestic output.⁹² In this way, the countries are expressing a willingness to fulfill their debt obligations.

But despite the best of intentions and the most appropriate government policies, some debt may eventually not be fully repaid.⁹³ It is therefore desirable to obtain information about the market value of such debt so that the position of banks can be continually monitored.⁹⁴ Furthermore, debt-for-equity swaps may become more important if the debt situation fails to improve significantly in the near future. Of course, even if some debt is never repaid fully,⁹⁵ there is no economic reason to believe

⁹¹ The role of the I.M.F. is therefore, according to J. Richard Zecher, "... to enforce contracts, particularly in a troubled time such as the one we are in right now." See Zecher *The Interventionist Disease and the I.M.F.'s Agency Cost Role*, 4 CATO J. 342 (1984).

⁹² For a discussion of the role of the I.M.F. in the negotiation of new sovereign loans and the rescheduling of outstanding loans, and of the I.M.F.'s relationship with creditor banks, see G.P. Nicoletopoulos, *Remarks in a panel of the 78th Annual Meeting of the American Society of International Law on the international debt rescheduling*, 78 AM. SOC'Y OF INT'L LAW PROCEEDINGS 310-12 (1984).

⁹³ Peter Hakim states that "A significant portion of the debt—perhaps as much as 30%—may have to be written off." See Hakim, *The Baker Plan: Unfilled Promises*, CHALLENGE 58 (Sept./Oct. 1986).

⁹⁴ According to two scholars, "If a mark-to market policy had been in effect [in the early 1980s], alarm bells would have gone off well before the [current international debt] crisis hit." See J.M. GUTTENGAG & R.J. HEARING, *THE CURRENT CRISIS IN INTERNATIONAL LENDING* 15 (1985).

⁹⁵ Rudiger Dornbusch and Stanley Fisher argue that "Equity, good foreign policy, or simple common sense would indicate that certain write-offs are in both debtors' and creditors' interest." See Dornbusch and Bisher, *The World Debt Problem: Origins and Prospects*, 16 J. OF DEV. PLANNING

that such a situation should lead to a collapse in the international banking system and in international trade.

80 (1985). The problem with simply writing down some loans is that it creates a moral hazard problem. See Barth and Pelzman, *supra* note 25, at 385.