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# FRBSF WEEKLY LETTER

September 4, 1987

## LDC Debt Swaps

In recent years, a market has developed that enables investors to purchase the external debt of less developed countries (LDCs) to acquire equity or domestic currency in those same countries. The market for LDC debt swaps, as the transactions are called, has grown rapidly over the past few years. The volume of debt swaps amounted to about \$4.5 billion between 1982 and 1986. Although the rate at which debt swaps are occurring is still small in relation to the \$300 billion owed to banks by the 15 LDCs listed in the Baker Plan, there are indications that the debt swaps market is poised for even faster growth. Five major debtor countries — Chile, Mexico, Venezuela, Argentina, and the Philippines — have initiated debt swaps programs, and there is reason to believe that more will follow.

The loan loss reserves accumulated by major bank lenders in 1987, which totaled over \$15 billion dollars for the top twelve banks in June, may permit large increases in the supply of debt for the swaps market. At the same time, the development of new instruments for debt swaps, the recent change in Federal Reserve Regulation K authorizing bank holding companies to hold 100 percent equity holdings in nonfinancial firms that are being privatized in LDCs, as well as incentives by participating debtor countries, may stimulate demand.

Because debt swaps may reduce the repayment burden of debtor countries, they show promise as a potential solution to the LDC debt problem. However, a 1987 study of the Federal Reserve Bank of New York highlights the disadvantages of debt swaps and raises questions about their ultimate usefulness. This *Letter* describes the characteristics of the debt swaps market and the potential implications of its development.

### **Types of debt swaps and their rationale**

This *Letter* will focus on two types of swaps: debt-equity and debt-“peso” swaps. Debt-equity swaps enable foreign residents to purchase LDC debt at a discount to acquire equity in the debtor country. Purchasers include creditor banks,

multinational corporations, and more recently, closed-end funds that pool the resources of private investors.

Debt-peso swaps enable residents of a debtor country to purchase their country's foreign debt at a discount and to convert this debt into domestic currency. Residents use funds held abroad or hard currency acquired from international trade or in the exchange market to finance these purchases.

By arrangement with the debtor country, domestic currency assets obtained via debt swaps are acquired at closer to the original face value of the debt. For example, in 1986, a purchaser who acquired Mexican debt for 57 cents on the dollar could obtain equity worth 82 cents. Even after accounting for fees and redemption discounts applied by debtor countries to convert the debt into domestic currency, debt-swaps permit investors to acquire the domestic currency of debtor countries much more cheaply than do official exchange markets. In effect, investors resorting to the debt-swaps market enjoy a preferential exchange rate.

Because debt-equity swaps permit foreign residents to acquire equity in the debtor country at a substantial discount, equity holders may be satisfied with smaller hard currency dividends than the interest on the debt that was retired, as long as the risk-adjusted yield on the equity investment exceeds the return on alternative assets. In this way, debt equity swaps may potentially reduce the (discounted present) value of the external liabilities of the debtor by the amount by which the nominal value of the debt has been discounted in the open market. Debt-peso swaps, in contrast, reduce the foreign currency liability of debtor countries to the full amount of the debt swapped, as claims acquired by domestic residents may be settled in domestic currency and require no hard currency outflow.

### **Advantages of swaps**

Debt swaps may enhance the repayment capacity of LDCs by shifting the composition of their

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external liabilities away from debt, toward equity. From the standpoint of a debtor, the advantage of equity liabilities is that smaller dividends may be paid if the revenue produced by an equity investment declines (concomitantly, larger dividends must be paid if revenue increases). Thus, shifting toward equity liabilities can have a large favorable effect on a country's repayment burden when economic conditions are adverse.

For example, consider the sharp decline in oil prices late in 1985, which reduced the revenue from oil exports earned by Mexico's state-owned petroleum company PEMEX by \$7.7 billion in 1986. If a company like PEMEX, which accounted for over \$15 billion of Mexico's external debt of \$97.5 billion in 1985, had resorted to equity rather than debt in obtaining external financing, the hard currency outflow associated with dividend payments could have declined to reflect the multibillion dollar temporary decline in the export revenues of Mexico's petroleum sector, and significantly eased Mexico's repayment burden.

At present, foreign investment in important economic sectors in LDCs, such as the petroleum sector, is often not permitted. A desire to retain control over investments has prompted many LDCs to prefer external debt over equity financing since the 1970s and to adopt policies that have effectively discouraged foreign equity investment. However, the experience of most major debtor countries in recent years indicates that an excessive reliance on debt financing can be very costly.

A country with a large external debt that suffers a temporary loss in export revenues will face no corresponding reduction in its external obligations. It would be forced to compress its imports substantially, a move that tends to discourage investment and growth, or to borrow more, which prevents default but increases a country's vulnerability to future economic disturbances. When too large a share of external liabilities takes the form of debt, temporary economic disturbances will have a more severe effect on a country's future growth and repayment capacity.

## Effects on capital flows

The effect of debt swaps on the flow of capital to LDCs is uncertain. Consider the effect on bank lending. On the one hand, because debt swaps enhance the repayment capacity of debtor coun-

tries, creditors may be more willing to maintain or even increase their exposure to LDCs. On the other hand, debt swaps also may reduce the pool of bank loans from which new money for LDC debtors is potentially available. Since the 1982 debt crisis, lender consortia have arranged for individual banks to supply new money to debtor countries in proportion to their exposure. If a large number of banks were to reduce their exposure by selling their debt, the amount of new money available from bank creditors would fall. The net effect of debt swaps on bank lending is therefore unclear.

Consider also the effect on non-bank capital flows. The preferential exchange rate provided by debt-equity swaps has two offsetting effects. On the one hand, because of the effective preferential exchange rate for acquiring domestic currency assets, foreign investors may invest funds they otherwise would not have placed in the debtor country, and residents of debtor countries may repatriate foreign assets they hold abroad. On the other hand, the preferential exchange rate associated with swaps means that a smaller amount of foreign assets will be required to acquire any given amount of domestic assets. If there were great uncertainty about the economic outlook in the debtor country or if the investment climate were unattractive, the hoped-for increase in capital inflow likely would not be large, and the net result may even be a capital outflow.

## Effects on money supply and exchange rates

A number of commentators have noted that debt swaps may tend to increase the money supply of debtor countries if they were to stimulate a large volume of capital inflows and the countries were unable or unwilling to sterilize the monetary effects of such inflows. However, even in the absence of increased capital inflows, debt swaps may tend to increase the money supply of debtor countries.

Because the debt swaps market offers a more favorable exchange rate than do official exchange markets, it creates an incentive for arbitrage. For example, a resident of a debtor country may exchange 100 pesos in domestic currency in official exchange markets to acquire a dollar in foreign assets. It may then use these foreign currency assets to acquire, via the debt swaps market, 125 pesos in domestic currency, thus gaining a 25 peso profit. The effect is a "round trip" of the assets of domestic residents,

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and the domestic currency profit from the arbitrage tends to increase the domestic money supply. This process may continue as long as the differential between the debt swaps and official exchange markets exists.

The arbitrage operation also means that the differential between the exchange rate in the open and debt swaps market will tend to narrow. As domestic residents increase their demand for foreign assets in the open market, the exchange rate of the debtor country will tend to depreciate. Debt swaps thus may introduce unintended, and perhaps undesirable, disturbances to asset markets by affecting the money supply and exchange rates.

Exchange controls will not necessarily be effective in preventing this "round trip" process as domestic residents may elude exchange controls in a number of ways, e.g., by overstating imports. In this manner, the debt swaps market may make it more difficult for debtor countries to lift exchange controls when lifting those controls may be desirable from the standpoint of economic efficiency.

#### **Implications for banks**

The main advantage of the debt swaps market for banks is that it permits them to unload non-performing assets from their portfolios. However, continued rapid growth in the debt swaps market would increase the risk that deep discounts on the debt will affect bank balance sheets and market value far more adversely.

The discount on LDC debt and its impact on banks will be influenced by the rate at which debt is supplied to the swaps market. We may conservatively estimate this supply as the sum of (a) loans to the private sector of LDCs by large money center banks, which can arguably be valued on a case by case basis without having to write down the value of the rest of the debt held, and (b) the loans of regional banks. Regional banks are prepared to mark down their entire LDC debt as their exposure to LDCs is generally quite limited.

At the end of December 1986, such loans by U.S. banks to Latin America, the Philippines, and Africa amounted to approximately \$43 billion, or 46 percent of the total debt owed to U.S. banks by those areas. Of this amount, \$29.4 billion were loans by the top 23 banks to the LDC private sector and \$13.5 billion were loans by banks other than the top 23 banks. If such large amounts of debt were placed too rapidly in the swaps markets, the market value of LDC debt would fall sharply unless ways were found to increase the demand for such debt rapidly. In fact, significant declines in market rates have already occurred in 1987.

Debtors can raise the demand for LDC debt by adopting economic policies that create an attractive investment climate. Unfortunately, LDC debtors may instead have an incentive to adopt inappropriate economic policies (or to adopt scare tactics, such as suspending debt service) to drive down the value of their debt, and then purchase the debt in the open market as a means of retiring it.

#### **Conclusions**

While the conversion of large amounts of debt into equity liabilities can significantly alleviate the repayment burden of debtor countries, debt swaps are no panacea. Capital inflows and the arbitrage opportunities provided by the debt swaps market may affect monetary control and exchange rates in debtor countries. Furthermore, only a strong demand for LDC debt can ensure that debt swaps result in capital inflows to LDCs, and prevent steep discounts in the swaps market that could adversely affect international banking.

The demand for the debt of LDCs will ultimately depend on whether investment in the economies of LDCs is attractive. Thus, the development of the debt swaps market does not eliminate the need for appropriate economic policies on the part of debtor countries.

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# Research Department Federal Reserve Bank of SAN FRANCISCO

## BANKING DATA—TWELFTH FEDERAL RESERVE DISTRICT

(Dollar amounts in millions)

Selected Assets and Liabilities Large Commercial Banks	Amount Outstanding 8/12/87	Change from 8/5/87	Change from Dollar 8/13/86	Percent <sup>7</sup>
Loans, Leases and Investments <sup>1 2</sup>	204,706	27	2,810	1.3
Loans and Leases <sup>1 6</sup>	181,339	- 73	- 2,227	- 1.2
Commercial and Industrial	50,975	- 46	225	0.5
Real estate	69,843	150	2,629	3.9
Loans to Individuals	36,899	- 85	- 4,037	- 9.8
Leases	5,448	32	59	- 1.0
U.S. Treasury and Agency Securities <sup>2</sup>	16,417	81	5,844	55.2
Other Securities <sup>2</sup>	6,951	20	807	- 10.4
Total Deposits	206,430	- 1,530	- 202	0.0
Demand Deposits	51,788	- 1,402	39	0.0
Demand Deposits Adjusted <sup>3</sup>	36,514	283	- 11,476	- 23.9
Other Transaction Balances <sup>4</sup>	19,924	- 312	3,022	17.8
Total Non-Transaction Balances <sup>6</sup>	134,718	184	- 3,263	- 2.3
Money Market Deposit				
Accounts—Total	44,427	- 50	- 2,427	- 5.1
Time Deposits in Amounts of \$100,000 or more	31,464	76	- 4,389	- 12.2
Other Liabilities for Borrowed Money <sup>5</sup>	23,824	636	- 1,473	- 5.8
<b>Two Week Averages of Daily Figures</b>	Period ended 8/10/87	Period ended 7/27/87		
<b>Reserve Position, All Reporting Banks</b>				
Excess Reserves (+)/Deficiency (-)	32	61		
Borrowings	12	21		
Net free reserves (+)/Net borrowed(-)	19	40		

<sup>1</sup> Includes loss reserves, unearned income, excludes interbank loans

<sup>2</sup> Excludes trading account securities

<sup>3</sup> Excludes U.S. government and depository institution deposits and cash items

<sup>4</sup> ATS, NOW, Super NOW and savings accounts with telephone transfers

<sup>5</sup> Includes borrowing via FRB, TT&L notes, Fed Funds, RPs and other sources

<sup>6</sup> Includes items not shown separately

<sup>7</sup> Annualized percent change