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DEBT CONVERSIONS: ECONOMIC ISSUES FOR
HEAVILY INDEBTED DEVELOPING COUNTRIES

by

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ABSTRACT

This paper is a general discussion of debt conversions in heavily indebted developing countries. The paper first describes the three different types of transactions that are commonly called debt conversions. Next the paper discusses programs that have been established in Chile, Brazil, Mexico, Argentina, and the Philippines to facilitate these transactions. Then the different ways in which commercial banks can participate in these transactions and the volume of these transactions to date are discussed. The paper concludes with a discussion of a broad range of economic issues raised by these transactions, including: the effect of debt conversions on the structure of debtor countries' external liabilities, the incentives debt conversion programs provide for net new capital inflows, the macroeconomic effects of these transactions, and the new role for debt swaps programs in the so-called "menu-of-options" approach to restructuring developing countries' bank debts.
Debt Conversions: Economic Issues for Heavily Indebted Developing Countries

by

Lewis S. Alexander*

This paper describes the transactions that have come to be called debt conversions, and discusses their benefits and costs for debtor countries. It is divided into five sections. The first section describes three different types of transactions that are commonly called debt conversions. The second section contains detailed discussions of the debt conversion programs that have been established in five debtor countries: Chile, Brazil, Mexico, Argentina, and the Philippines. The third section discusses the role of commercial banks in these transactions. The fourth section presents estimates of the volume of debt conversions that have been carried out in different debtor countries. The final section discusses a variety of economic issues raised by these transactions.

I. Types of Transactions

The phrase "debt conversion" has been used to describe three different types of transactions: debt capitalizations, debt-for-equity swaps, and debt-for-cash swaps. It is important to distinguish between these transactions because they affect debtor countries in different ways.

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* Economist, International Banking Section, Division of International Finance, Board of Governors of the Federal Reserve System. This paper represents the views of the author and should not be interpreted as reflecting the views of the Board of Governors of the Federal Reserve System or other members of its staff. The work reported here has benefited from the helpful comments of many members of the Division of International Finance and participants in seminars at the IMF and MIT. In particular I want to acknowledge many helpful suggestions from Allen Frankel, Robert Kahn, David Howard, Ralph Tryon, and Henry Terrell. The normal caveats apply.
For example, some of the adverse macroeconomic impacts of debt-for-equity and debt-for-cash swaps are not associated with debt capitalizations. (In this paper debt-for-equity and debt-for-cash swaps will be collectively referred to as debt swaps.)

A. Debt Capitalizations

In this transaction a creditor converts debt of a particular obligor into an equity investment in the same obligor. The trade takes place directly, i.e., without any intermediate transactions. This type of debt conversion is usually the result of a bankruptcy-like work-out for a private sector borrower. A limited number of such transactions have taken place in major debtor countries. ¹

The most prominent debt capitalization to date was part of the reorganization of a Mexican industrial conglomerate, Grupo Industrial Alfa SA. In response to the insolvency of Grupo Alfa, foreign banks agreed, in October 1986, to accept $25 million in cash, $200 million in Mexican government debt, and a 45 percent equity share in the company in lieu of repayment of $920 million of Grupo Alfa’s debts. ²

¹ A large number of debt capitalizations have taken place in Brazil, but these transactions are almost always part of a complicated chain of transactions that are more accurately thought of as debt-for-equity swaps. These transactions are discussed in more detail in the second section of this paper.

B. Debt-for-Equity Swaps

In this transaction the investor also trades debt for equity, but the debt and the equity involved do not have to be liabilities of the same entity. Debt-for-equity swaps are carried out in a series of separate steps.

In the first step the investor acquires foreign currency debt of some borrower in the country in which the investor wants to make an equity investment. Non-bank investors, e.g., multinational corporations or residents of the debtor country, usually acquire the debt in the secondary market at a substantial discount. Investors then trade their foreign currency debt for a liability of the same obligor that is denominated in local currency. This trade typically takes place at less than par, but at a smaller discount than that which prevails in the secondary market for foreign currency debt. Finally, the investor sells the new liability for local currency and uses these funds to make the equity investment.

An example of a debt-for-equity swap undertaken by a non-bank investor is Chrysler's 1986 expansion of its operations in Mexico. In late 1986, Chrysler purchased debt of the Mexican government with a face value of about $110 million in the secondary market for about $65 million in cash. Chrysler then resold the external debt to the Mexican central bank for $100 million in Mexican pesos and used the funds to expand its operations in Mexico. ³

One example of a commercial bank using a debt-for-equity swap to purchase an equity investment in a debtor country is Bankers Trust's

investment in a Chilean pension fund management firm (Provida) and a related life insurance company (Consortcio). Bankers Trust first traded some of its loans to the Chilean central bank for domestic debt of the Chilean government. Bankers Trust then sold the domestic debt in Chile and used the proceeds of the sale to purchase its investments in Provida and Consortcio.4

A number of countries have set up programs to facilitate debt-for-equity swaps. These programs differ in a number of dimensions: what types of external debts may be redeemed; the method of converting a foreign currency debt into a local currency liability; the types of equity investments that are allowed; and restrictions on the repatriation of profits and capital from the resulting equity investments.

C. Debt-for-Cash Swaps

Debt-for-cash swaps, like debt-for-equity swaps, are carried out in a series of steps. The investor, usually a resident of the debtor country, first acquires foreign currency debt, then trades that debt for an asset denominated in local currency, and finally sells the asset for local currency. In these transactions investors are allowed to use the local currency for any legitimate purpose. This type of debt conversion is intended to provide an attractive mechanism for capital repatriation.

These transactions are different from the other two types of debt conversions because they do not, necessarily, result in the investor holding an equity investment in the debtor country. So far, only Chile has established a debt-for-cash swap program of significant size. Debt-for-cash

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swaps are considered in this paper for two reasons. First, the policy questions raised by these transactions are similar to those raised by debt-for-equity swaps. Second, Chile's debt-for-cash swap program has been one of the most popular debt conversion programs. But most discussions of debt conversions have failed to distinguish between debt-for-cash swaps and debt-for-equity swaps. This omission has left the mistaken impression that the substantial volume of Chilean debt swaps has led to an equally substantial increase in foreign direct investment in Chile.

I. Individual Country Programs

A. Chile

Chile has been more active in facilitating debt conversions than any other debtor country. Chile's existing foreign investment law (Decree Law Number 600, issued in 1974) has a mechanism allowing debt capitalizations, and in June 1985 Chile established programs for both debt-for-equity swaps and debt-for-cash swaps. As of the end of April 1987 Chile had reduced its foreign currency denominated external debt by $1,380 million through debt conversions. Chilean officials have stated that they hope to further reduce their external debt by as much a $1 billion through debt conversions during the next one or two years.

Foreign-owned equity investments financed by debt capitalizations are granted the same treatment as new foreign direct investment under Chilean law. There are no restrictions on profit remittances from such investments, but the capital must be held in the country for three years. To date this mechanism has not been used to sell equity in public sector
enterprises. As of the end of April 1987 $155 million in Chilean debt had been cancelled through debt capitalizations.

Chile's debt-for-equity swap program (commonly called the Chapter 19 program) places somewhat more restrictions on the resulting investment than the debt capitalization scheme. profits from equity investments financed by debt-for-equity swaps cannot be remitted during the first four years of the investment. The proceeds from the sale of such investments cannot be remitted for 10 years. Most Chilean debt can be used in these transactions and both new investments and purchases of existing equity can be financed with debt-for-equity swaps. As of the end of April 1987 $469 million in Chilean debt had been redeemed through debt-for-equity swaps.

The debt-for-cash swap program (commonly called the Chapter 18 program) has been the most popular of Chile's debt conversion schemes. As of the end of April 1987 $654 million of Chilean debt had been cancelled through such transactions. Chile's central bank uses a quota system to limit the volume of these transactions. An auction is conducted to allocate the quota and so far the demand for these transactions has always exceeded the supply. The quota has been increased over time and it now exceeds $60 million per month. In September and October of 1986, however, the quota was cut-back because the Chilean authorities felt that these transactions were reducing the availability of foreign exchange in the parallel market, resulting in downward pressure on the parallel market exchange rate.

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5 "Chapter 19" refers to the section of the Chilean central bank's Rulings on International Exchange Operations.

6 "Chapter 18" refers to the section of the Chilean central bank's Rulings on International Exchange Operations.
Chile has reduced its external debt in a number of other ways as well. A modified Chapter 18 program for Chilean residents was established to facilitate the sale of stock of a number of Chilean banks that were taken over by the state in the wake of the financial crisis of 1982-83. This program reduced Chile's external debt by $33 million in 1986. Chilean banks have also swapped loans to other countries for loans to Chilean borrowers. These transactions have converted $68 million in Chilean external debts into internal debts.

But the repurchase of private sector debt at a discount prior to maturity has generated the largest debt reductions. Chile's private sector debt has been reduced by $458 million in this way. These transactions are not considered debt conversions because they are essentially debt buy-backs involving a direct expenditure of foreign exchange rather than an exchange of non-cash assets.

B. Brazil

Brazil does not, at present, have a formal program for debt-for-equity swaps. But the combination of debt capitalization provisions in Brazil's existing foreign investment law and relending facilities created in past Brazilian rescheduling agreements provide a method for financing equity investments in Brazil that is equivalent to debt-for-equity swaps.

Under the terms of Brazilian rescheduling agreements borrowers are usually required make amortization payments on foreign currency loans with public guarantees as originally scheduled. Such payments are made in Cruzados to the Brazilian central bank. Instead of remitting foreign currency, however, the central bank holds these funds as foreign currency
deposits in the name of the creditor. Creditors are not allowed, for the term of the rescheduling agreement, to take these funds out of Brazil. But creditors are allowed to relend a portion of these deposits to Brazilian borrowers.

Investors wishing to make equity investments in Brazil have utilized this "relending" facility in the following way. First, investors purchased blocked deposits that were eligible to be relent, at a discount, in the secondary market. Then the deposits were relent to the firm in which the investors wished to make an equity investment. Finally the new loans were capitalized using the existing debt capitalization provisions of Brazil's foreign investment law. These transactions are equivalent to debt-for-equity swaps as defined in the first section of this paper.

Multinational corporations used these transactions extensively in 1983 and 1984 to fund their operations in Brazil. The volume of debt capitalizations in Brazil over the period 1978 to 1986 is given in Table 1. Some of these transactions are debt capitalizations as defined in the first section. But most of the transactions that have taken place since 1982 are believed to have been part of what have been described above as debt-for-equity swaps.

Initially these transactions were virtually unrestricted. In mid-1984, however, the Brazilian central bank significantly restricted the

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7 Starting in 1982 the Brazilian government tried to encourage these transactions by granting a 10 percent subsidy in the form of a tax rebate for these transactions. This is still in force. See Euromoney, September 1987, page 94.
Table 1: Debt Capitalizations and Foreign Exchange Flows Associated with Foreign Direct Investment in Brazil
(millions of U.S.$)

<table>
<thead>
<tr>
<th></th>
<th>Net investment excluding debt capitalizations</th>
<th>Profit remittances</th>
<th>Non-capitalization flows (1)-(2)</th>
<th>Debt capitalizations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
</tr>
<tr>
<td>Average 1978-81</td>
<td>1,439</td>
<td>461</td>
<td>978</td>
<td>102</td>
</tr>
<tr>
<td>1982</td>
<td>1,227</td>
<td>585</td>
<td>642</td>
<td>143</td>
</tr>
<tr>
<td>1983</td>
<td>409</td>
<td>758</td>
<td>-349</td>
<td>452</td>
</tr>
<tr>
<td>1984</td>
<td>378</td>
<td>796</td>
<td>-418</td>
<td>746</td>
</tr>
<tr>
<td>1985</td>
<td>169</td>
<td>1,056</td>
<td>-887</td>
<td>581</td>
</tr>
<tr>
<td>1986*</td>
<td>-205</td>
<td>1,237</td>
<td>-1,442</td>
<td>206</td>
</tr>
<tr>
<td>Average 1982-86</td>
<td>396</td>
<td>886</td>
<td>-491</td>
<td>426</td>
</tr>
</tbody>
</table>

* Preliminary

Source: Brazilian Central Bank, as quoted in Euromoney, September 1987, page 94.
use of these transactions. First, the capitalization of loans by any party other than the original lender or guarantor of the loan was prohibited. This effectively prevented non-bank investors from purchasing blocked deposits in order to carry out debt capitalizations under their own names. Second, investors were prohibited from repatriating the capital from the resulting investment sooner than the blocked deposit could have been repatriated, i.e., for the term of the rescheduling agreement. Investors were also prohibited from repatriating, during the same period, any capital that was previously invested in the same firm.

Brazilian authorities gave two reasons for imposing these restrictions. First, they felt that these swaps, by allowing some banks to liquidate their Brazilian exposure, concentrated the burden of refinancing Brazilian debt on a smaller group of creditors. In their view this made it more difficult to negotiate new money and rescheduling agreements. They also felt that a large volume of outright sales of Brazilian loans at a discount was a negative signal that further hindered the normal process of refinancing Brazilian debt.

Second, the authorities felt that these transactions tended to increase net capital outflows from Brazil. They believed that some of these transactions merely displaced foreign direct investment that would have taken place anyway. Furthermore they felt that in some cases these

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8 Restrictions were imposed informally in the summer of 1984 and were formalized in Central Bank Circular 1125 in November of that year. For a discussion of the restrictions under the Brazilian program see Buchheit (1986), Kaufman (1986), and Euromoney, September 1987, page 94. The figures in Table 1 do not fully reflect the impact of the restrictions imposed in mid 1984 because there may be a significant gap between when transactions are approved and when they are recorded.

9 See Buchheit (1986).
transactions actually generated new capital outflows as investors simply earned a profit on these transactions without actually increasing their holdings of Brazilian equity.\textsuperscript{10} Table 1 presents estimates of debt capitalizations, net foreign direct investment, and profit remittances in Brazil for the period 1978-1986. These figure suggest that debt capitalizations replaced other methods of financing foreign direct investment during the period 1983-1986. During the period 1978-1982 net foreign direct investment averaged $1.5 billion per year in Brazil and only 7 percent of the total was financed with debt capitalizations. During the period 1983-1986, however, net foreign direct investment averaged $684 million per year and debt capitalizations accounted for 73 percent of the total. There was also a dramatic increase in profit remittances during the same period leading to a sharp reversal of the net transfer of resources associated with foreign direct investment.

It should be noted that the restrictions that Brazilian authorities placed on debt capitalizations in 1984 have not completely prevented non-bank investors from utilizing this financing mechanism. First, the Brazilian authorities have approved some conversions on a case-by-case basis where the investor is not the original lender or the guarantor of the loan. Second, there are indications that some banks holding blocked accounts have capitalized those accounts under their own name in conjunction with side transactions that effectively transfer the proprietary interest in

\textsuperscript{10} Investors could do this because capital remittances from foreign direct investment financed by debt capitalizations were unrestricted prior to mid-1984. Therefore investors could purchase blocked accounts at a discount, reblend and capitalize the funds at par, and then sell the investment within Brazil and repatriate the proceeds of the sale. These remittances were subject to capital gains taxes, however.
the resulting equity investment to third parties.\textsuperscript{11} This type of transaction allows non-bank investors to utilize debt-for-equity swaps without observable secondary market sales of Brazilian loans.

c. Mexico

Mexico established its debt-for-equity swap program as part of the 1985 rescheduling agreement. Transactions involving $953 million in debt had been approved by the end of April 1987. These loans will be converted into Mexican pesos at an average rate of 89 percent of face value. This compares to an average secondary market price of between 55 and 60 cents on the dollar.

The restrictions in the Mexican program are extensive compared with other debt-for-equity schemes. Each transaction must be approved on a case-by-case basis. Only the external debts of the United Mexican States and a few public sector firms may be used in these transactions. Mexican nationals are prohibited from participating in these transactions as investors. Also, the funds that a Mexican firm receives from the sale of new equity can only be used for two purposes: the purchase of new plant and equipment, or the repayment of local currency debts.\textsuperscript{12} In fact, the investor never actually receives any local currency. The central bank pays the funds directly to local suppliers or the holders of the domestic debt that is to be retired.

\textsuperscript{11} See de Svastich (1986) and Euromoney, September 1987, page 94.

\textsuperscript{12} It has been observed that some Mexican firms have used the proceeds of debt-to-equity swaps to retire local currency debt on one day and then obtained a new loan of the same amount from the same borrower on the following day. This suggests that the restrictions on the use of the funds may not be particularly effective.
About one-half of Mexican debt-for-equity swaps have been undertaken by foreign automobile manufacturers with existing operations in Mexico. There is reason to believe that a substantial portion of these investments would have been made even without the debt-for-equity swap program.

Before the debt crisis a large number of foreign companies established automobile assembly plants in Mexico to take advantage of high levels of protection against imported automobiles. The value of these plants’ imports of parts far exceeded the value of their exports. In September 1983 Mexico responded to this problem by adopting regulations that required automobile manufacturers to generate as much foreign exchange through net foreign financing and exports as they required for imports. In addition, net foreign financing was not allowed to provide more than 20 percent of the total supply of foreign exchange. These regulations forced the automobile companies to expand their production for export in order to maintain access to the Mexican market. As a result, these companies have expanded their operations significantly through new investment since 1983. For example, Chrysler invested $300 million in Mexico between 1982 and 1985, i.e., before the debt-for-equity program was established. Chrysler invested $100 million in Mexico in 1986 using debt-for-equity swaps.

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13 The automobile industry was responsible for 44 percent of swaps approved in 1986. See "Shares today, not money mañana," Euromoney Corporate Finance, June 1987, pages 37-43.


15 See Fountain (1987).
The question of whether the debt-for-equity swap program or the regulations imposed in 1983 were primarily responsible for the large volume of recent investments in the Mexican automobile industry financed with debt-for-equity swaps cannot be answered unequivocally. But the evidence suggests that a substantial portion of these investments would have been made even in the absence of the debt conversion program. Mexican officials have stated that 90 percent of the debt-for-equity swaps undertaken by automobile companies in 1986 financed investment projects that were already underway or on the drawing board when the program was established.\textsuperscript{16} Chrysler officials have acknowledged that a many of the investments funded with the debt-for-equity swaps in 1986 would have been made even if debt conversions were not available. But they also stated that the debt conversion program lowered the hurdle rate used to make investment decisions and, as a result, there were a number of projects initiated in 1986 that would not have been undertaken if other means of funding had to be used.\textsuperscript{17} The fact that automobile manufacturers have used debt-for-equity swaps more extensively than other foreign investors suggests, however, that factors other than the debt-for-equity swap program itself were the main inducements for many of these investments.

D. Argentina

Between September 1984 and August 1985 Argentina had a debt-for-equity swap program. During that period $470 million of debt was

\textsuperscript{16} See Hegewisch (1987).

\textsuperscript{17} See Fountain (1987) for a discussion of Chrysler's use of debt-for-equity swaps in Mexico.
extinguished as a result of debt conversions. Only private sector debt with exchange rate guarantees could be converted in this program. The program was discontinued because many of the transactions were financed with new capital outflows and Argentine authorities were concerned about the monetary impact of debt swaps. Since August 1985 about $50 million in debt-for-equity swaps have been approved on a case-by-case basis.

Argentina has recently established a new program as part of the recently negotiated bank restructuring agreement. The new program is designed to encourage new investment. Only swaps financing the purchase of new physical assets or the retirement of domestic debt will be approved. Profit and capital remittances from the resulting equity investment will also be restricted. 18

The most controversial aspect of the new program is the restriction that no more than 50 percent of any new investment project can be financed with a normal debt conversion. The remainder of the project must be financed with "additional funds." These additional funds can take a variety of forms: new foreign exchange, dollar denominated Argentine government bonds (BONEX) purchased in the primary market, and some types of new foreign currency loans including a portion of the most recent new money package and funds remaining under a previously established onlending facility. There are restrictions on the composition of the "additional funds," but given the pricing of the various alternatives it seems unlikely that more than a marginal portion will be made up of new foreign exchange.

The structure of the "additional funds" requirement makes the Argentine program different from other debt-for-equity swap programs in a number of ways. First, under the Argentine program the reduction in

external debt through conversion may be offset, to some extent, by an
increase in the supply of BONEX bonds. This limits the extent to which this
program will reduce Argentina's foreign currency debt. Second, the
provision that allows a portion of the 1987 new money package to be used as
"additional funds" increases the value of that part of this new money
package. Therefore, Argentina's debt-for-equity swap program provided an
additional inducement for banks to participate in Argentina's most recent
new money package.

E. Philippines

In August 1986 the Philippines established a debt-for-equity swap
program. The program distinguishes between "preferred" investments --
primarily export, social service, and infrastructure projects -- and other
investments. Preferred investments are granted superior treatment with
respect to both the price at which debts are converted to local currency and
the restrictions that are placed on remittances of profits and capital. As
of September 1987 about $285 million in external debt has been canceled
through Philippine debt-for-equity swaps.

A new policy proposed by the Philippine government during its most
recent negotiations with commercial banks will, if adopted, change the
nature of the Philippine program, however. The Philippines has announced
that it plans to issue a new type of security called a Philippine Investment
Note (PIN) in conjunction with scheduled interest payments on its
restructured bank debt. PINs will be denominated in U.S. dollars, they will
pay no interest, and they will have a maturity of six years. Their most
attractive characteristic, however, is the fact that they will eligible to
be converted into Philippine Pesos at par at the official exchange rate for
the purpose of making equity investments under the Philippines' debt-for-equity swap program. This innovation, if implemented, will effectively convert the Philippine program from a debt-for-equity swap program to a policy of offering a preferential exchange rate for new foreign direct investment where the foreign exchange so raised is targeted for interest payments on external debt.

III. The Role of Commercial Banks in Debt Conversions

Commercial banks participate in debt conversions in one of two ways: by providing loans eligible for conversion to non-bank investors, or by carrying out debt conversions for their own account. It is believed that in the majority of debt conversions concluded to date, commercial banks have acted as providers of loans rather than as investors.

In most cases non-bank investors acquire the loans redeemed in debt conversions from commercial banks through an outright sale. It is believed that smaller European and U.S. banks, with relatively little exposure to troubled debtor countries, have been the main suppliers of loans for this purpose. Banks also act as brokers in such transactions, bringing together non-bank investors and other banks wishing to sell debts that are eligible for conversion. Banks earn fee income for this service and a number of money center banks are actively involved in this business.

U.S. banking organizations have acquired equity investments in debtor countries through both debt capitalizations and debt-for-equity

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20 Recently a number of money center banks in both Europe and the U.S. have indicated a willingness to sell part of their portfolios of loans to troubled debtor countries, however.
U.S. banks have undertaken debt capitalizations in their domestic business for many years as part of the normal resolution of domestic bankruptcies. Foreign equity investments acquired in this way are essentially no different and they are subject to the same restrictions.\footnote{22}

U.S. banking organizations can acquire two different types of equity investments in foreign firms through debt-for-equity swaps. They can acquire a controlling interest in firms primarily engaged in banking or related financial activities. They are also allowed to purchase portfolio, i.e. non-controlling, investments in other firms.\footnote{23} It is believed that the majority of equity investments banks have acquired through debt-for-equity swaps are investments in firms engaged in banking or related financial activities.

IV. The Volume of Debt Conversions to Date

Table 2 shows the amount of debt that has been retired through debts conversions in five debtor countries: Chile, Brazil, Mexico, Argentina, and Philippines. These are the main countries that have now, or

\footnote{21} The Chilean debt-for-equity swap program gives investors better terms for both the initial conversion of external debt to domestic debt and future access the foreign exchange for the repatriation of profits and capital than the debt-for-cash program. Thus foreign investors have little or no incentive to undertake debt-for-cash swaps in Chile.

\footnote{22} U.S. banks can acquire equity investments in exchange for debts that are in default. Banks can hold such investments for up to five years.

\footnote{23} Bank holding companies can own up to 20 percent of firms that are not engaged in banking or related financial activities as long as the bank holding company does not exercise control over the firm. Larger investments are allowed in firms engaged primarily in banking and related financial activities. The Federal Reserve Board recently modified its rules to allow U.S. bank holding companies to acquire through debt-for-equity swaps up to 100 percent of non-financial companies that are being privatized. See the Federal Register, August 18, 1987 (52 Fed. Reg. 30912).
Table 2: The Volume of Debt Conversions 1983-1987
Compared to Total External Debt
(billions of U.S.$)

<table>
<thead>
<tr>
<th></th>
<th>Face Value of Debts Retired</th>
<th>External Debt 1/</th>
<th>Reduction in Debt as a Percentage of External Debt</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Through Debt Conversions</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Debt-for-Equity Swaps</td>
<td>Other Debt Conversions</td>
<td>Total</td>
</tr>
<tr>
<td>Chile</td>
<td>0.47 2/</td>
<td>0.91 3/</td>
<td>1.38</td>
</tr>
<tr>
<td>Brazil</td>
<td>1.99 4/</td>
<td>0.00 4/</td>
<td>1.99</td>
</tr>
<tr>
<td>Mexico</td>
<td>0.95 5/</td>
<td>0.70 6/</td>
<td>1.65</td>
</tr>
<tr>
<td>Argentina</td>
<td>0.52 7/</td>
<td>0.00</td>
<td>0.52</td>
</tr>
<tr>
<td>Philippines</td>
<td>0.28 8/</td>
<td>0.00</td>
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<tr>
<td>Total</td>
<td>4.21</td>
<td>1.61</td>
<td>5.82</td>
</tr>
</tbody>
</table>

N.B. - The discussions of the individual country programs in the second section of the paper provide a more detailed description of these transactions.

1/ Figures are for the end of 1984, from the World Debt Tables.

2/ This reflects $469.3 million Chapter 19 debt-for-equity swap conversions as of the end of April 1987 as reported by the Chilean central bank.

3/ This reflects $154.8 million in debt capitalizations under Chile foreign investment law (Public Law 600), $654.3 million in Chapter 18 debt-for-cash swaps, $68.3 million in portfolio swaps (traditional loan swaps between foreign and Chilean banks), and $33.3 million in purchases of Chilean bank stock by Chilean residents through a modified Chapter 18 program. Chile's external debt has been reduced by an additional $458.3 million through the forgiveness and prepayment of private sector debt. This reduction in private sector debt is usually reported as part of the total debt reduction although these transactions are not debt conversions.
as defined in this paper. Figures are as of the end of April 1987 as reported by the Chilean central Bank.

4/ The figure given for debt-for-equity swaps is the total of all debt capitalizations in Brazil for the years 1983-1986. (See Table 1 for the annual figures.) They are reported as debt-for-equity swaps because the vast majority of these transactions are believed to be part of series of transactions that are, in effect, debt-for-equity swaps. Source is the Brazilian central bank as reported in Euromoney, September 1987, page 94.

5/ This figure reflects approved debt-for-equity swaps involving external debts with a face value of $953 million as of the end of April 1987. During the same period external debts with a face value of $722 million were converted into Mexican Pesos worth $542 million. The source is the Mexican Ministry of Finance.

6/ This reflects $695 million in debt capitalizations from the reorganization of the Mexican company Grupo Alfa, which was in default on loans to foreign banks. In that transaction foreign creditors traded $920 million of Grupo Alfa's external debt for $25 million in cash, $200 million in Mexican government debt, and a 45 percent share in Grupo Alfa. It was assumed that the difference between the debt that was retired ($920 million) and the face value of the cash and the debt that the creditors received ($225) represents the amount of debt that was implicitly traded for the equity investment in Grupo Alfa. The source is "Banks to Get Stake in Mexican Concern," The New York Times, December 11, 1986, page D11.

7/ This represents $470 million in debt-for-equity swaps that were approved under an Argentine program that was in force from September 1984 to August 1985 and another $50 million that were approved on a case-by-case basis outside of the established program. Source is IMF paper titled "Implementing the Debt Strategy: Financing Issues - Conversion of External Debt to Equity and Liquidation of Loan Claims at a Discount," March 11, 1986, number EBS/86/41.

8/ This represents $268.8 million in transactions completed as of September 1987 under the Philippine program that was established in August 1986 and one $16 million transaction that was approved before the program was established. Source is Reuters, October 1, 1987.
have had in the past, established mechanisms facilitating debt conversions. The figures in Table 2 indicate that external debts with a face value of almost $6 billion have been retired through debt conversions in these five countries. This represents 2 percent of the gross external debt of these countries at the end of 1984.

The Chilean debt conversion program has been the most ambitious. A combination of debt capitalizations, debt-for-equity swaps, and debt-for-cash swaps reduced Chile’s gross external debt by 7 percent. It is worth noting that debt-for-equity swaps represent only about one-third of all Chilean debt conversions. Brazil’s program is also substantial, having retired debt equivalent to 2 percent of its total external debt. Debt conversions equivalent to 1.7 percent of Mexico’s external debt have been approved in that country. But Mexico’s established debt-for-equity swap program represents only about 60 percent of the total. The remainder reflects a single transaction, the capitalization of some of Grupo Alfa’s external debt in conjunction with its reorganization. Debt-for-equity swaps in Argentina retired 1.1 percent of Argentina’s external debt, mostly between September 1984 and August 1985. The Philippines’ debt swap program has been in place for a little more than one year and it has retired about 1 percent of the Philippines’ external debt.

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24 Turkey and Nigeria have carried out small amounts of debt swaps but they do not ongoing formal programs. Costa Rica, Ecuador, Honduras, Jamaica, and Venezuela have recently established a debt-for-equity swap programs but only a handful of transactions have been reported.
V. Economic Issues Raised by Debt Conversions

Debt conversions generate some benefits for, and impose some costs on, debtor countries. This section discusses a number of ways in which debt conversions affect debtor countries:

- The impact of debt conversions on the net flow of service payments associated with external assets and liabilities;
- The effect of debt conversions on the structure of debtor countries' external liabilities;
- The incentives debt conversion programs provide for net new capital inflows to debtor countries;
- The macroeconomic impact of debts swaps;
- The effect of debt repurchases on the economic welfare of debtor countries;
- Debt conversions as a mechanism for reducing banks' exposure to troubled debtor countries;
- The potential for additional debt conversions;
- The new role for debt conversion programs in the so-called "M&nu-of-Options" approach to bank restructuring agreements.

A. The Effect of Debt Conversions on Net Financial Flows.

By retiring external debt, debt conversions reduce debt service payments. But these transactions do not significantly affect the net external asset position of the debtor country. A debt conversion financed by a foreign investor will generate new profit and capital remittances from the resulting foreign direct investment. Similarly, when a resident of the host country carries out a debt conversion it can only be financed by a reduction in the stock of external assets held by the debtor country. This

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25 Debt swaps improve a debtor country's net external asset position to the extent that external debt is traded for another external asset or liability at less than face value.
will cause a reduction in the flow of foreign exchange earnings from such assets. Thus the reduction in debt service payments caused by debt conversions will probably be offset, over the life of the investment, by either an increase in outflows of foreign exchange associated with other external liabilities, or a reduction in foreign exchange inflows generated by the foreign assets of the debtor country.

In the short run, however, debt conversions can either increase or decrease net service payments from debtor countries. For example, profits earned on investments made through the Chilean debt-for-equity swap program cannot be remitted during the first four years of the investment. Under this program debt-for-equity swaps will probably reduce Chile's needs for external financing for at least the first four years of the program. On the other hand, the Brazilian government believes that debt-for-equity swaps caused an increase in foreign exchange outflows prior to mid-1984 because profit and capital remittances from Brazilian investments made through debt-for-equity swaps were not restricted during that period.

B. The Effect of Debt Conversions on the Structure of Debtor Countries' External Liabilities.

Debt-for-equity swaps and debt capitalizations carried out by foreigners alter the structure of debtor countries' external liabilities. These transactions reduce the quantity of external debt and increase the quantity of foreign-owned equity on debtor countries' external balance sheets. This transformation may reduce the burden of servicing external liabilities for two reasons.

First, service payments associated with equity investments should be more closely correlated with the actual return on real assets in the debtor country than scheduled interest and principal payments on external
debt. This suggests that shifting from debt financing to equity financing may incorporate an element of risk sharing between debtor countries and their foreign creditors that benefits the former.

Second, there may be positive externalities associated with foreign direct investment that are absent with debt financing. Foreign direct investment may facilitate technology transfer as multinational firms import advanced industrial processes and products. Similarly, investment projects may benefit from management assistance provided by foreign direct investors. Finally, local manufacturing operations may benefit from enhanced access to foreign markets provided by a foreign parent company.

These potential benefits from a shift from debt to equity financing can be mitigated, however, by a number of factors. First, in many cases those sectors of debtor countries' economies that have the greatest potential for beneficial risk sharing with foreign creditors are off limits to foreign direct investment. For example, foreigners are not allowed to invest in Mexico's oil industry. Similarly, Chile has no plans to sell any of the state-owned copper industry to foreigners. 26

Second, debt-for-equity swaps will be less likely to generate the positive externalities discussed above if the investors do not actively participate in the management of the firms in which they invest. Therefore, the potential benefits of debt-for-equity swaps and debt capitalizations will be mitigated to the extent that banks, and other investors, use these transactions to purchase portfolio investments.

26 Some new foreign investments in Chile's copper industry have recently been approved. But these investments are a small share of the existing capacity, most of which is owned and operated by the Chilean government.
Third, when evaluating the redistribution of risk that occurs in a debt-for-equity swaps it is important to recognize that existing debt contracts already incorporate an important degree of risk-sharing. The fact that bank loans to developing countries are regularly rescheduled and new loans extended on a "concerted" basis suggests the institutional arrangements supporting the existing contracts already give debtors some flexibility to at least postpone scheduled payments when the burden of debt service is high.

C. The Incentive Debt Conversion Programs Provide for Net New Capital Inflows

Debt conversion programs may generate net new capital inflows for three different reasons: they allow investors to purchase assets in the host country more cheaply than through normal means; debtor country governments may find it politically feasible to lift some restrictions on foreign direct investments in conjunction with a debt conversion program; and debt conversion programs may allow residents of the host country to repatriate flight capital without incurring penalties for tax evasion or previous violations of currency controls.

1. Subsidizing Capital Inflows

Debt swaps, in effect, subsidize gross capital inflows to debtor countries. By purchasing external debt at a discount and exchanging it for local currency at a smaller discount, investors can convert foreign currency into the currency of the debtor country at rate that is superior to both the official and parallel market exchange rates. It has often been asserted

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27 See Roberts and Remolona for a more detailed discussion of the so-called issues of "additionality" and "round-tripping". Also see Alexander (1987) for a more a formal analysis of this problem.
that this implicit subsidy provides an incentive for net new capital inflows, both in the form of foreign direct investment and the repatriation of flight capital.

It is not obvious, however, that the gross volume of debt-for-equity swaps represents net new capital inflows. In some cases debt-for-equity swaps may simply be the cheapest way to finance an investment that would have taken place with or without a debt conversion program. Similarly, debt swaps may increase capital outflows from the debtor country.

In order for a debt conversion program to provide an effective incentive for net new capital inflows it must increase the return to holding the domestic assets of the debtor country. But debt conversions only subsidize the conversion of foreign assets into domestic assets. Clearly, to the extent that debt conversions finance capital inflows that would have taken place anyway, the subsidy for conversion is a simple transfer from the debtor country to the investor that does not benefit the former.

A similar problem arises if capital outflows from the host country are not effectively restricted. In this case the conversion subsidy generates an arbitrage opportunity. Investors can earn a riskless profit by converting foreign exchange into assets in the debtor country at a subsidized rate through a debt conversion and then converting the domestic assets back into foreign exchange in either the official or parallel exchange markets. This is the so-called problem of "round-tripping."

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28 There are many ways investors can exploit the arbitrage opportunity created by debt swap programs. Consider a resident of a debtor country who initially holds both foreign assets and equity investments in his/her home country. This investor can earn a riskless profit by liquidating his/her equity investment, converting his/her local currency into foreign currency in the parallel market, and then financing the repurchase of his/her original equity investment with a debt-for-equity swap.

Similarly, consider a multinational corporation that wants to expand its operations in a debtor country. The company can finance this
The subsidy implicit in debt conversions provides an effective incentive for net new capital inflows only if investors are forced to actually increase their holdings of assets denominated in the debtor country's currency in order to profit from these transactions. This will only be true if debtor country governments are able to impose effective barriers to the new capital outflows that debt conversion programs tend to encourage.

In practice it is extremely difficult to distinguish between capital inflows that would take place in the absence of a debt conversion program and truly marginal investments. Thus, even if a debtor country can impose effective barriers to capital outflows, debt conversions will undoubtedly finance some capital inflows that are not additional.

Virtually all of the major debt conversion programs have suffered, to some degree, from these problems. Early debt conversion mechanisms established in Brazil and Argentina were drastically curtailed in response to widespread "round-tripping." The disproportionate use of the Mexican debt-for-equity swap program by foreign automobile manufacturers suggests that a significant proportion of the investments financed by debt-for-equity swaps in Mexico may not have been truly additional. The Chilean central bank restricted the volume debt-for-cash swaps in late 1986 because they felt that these transactions were generating new capital outflows that contributed to a widening of the spread between the official and the parallel market exchange rates.

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expansion with retained earnings. But it is more profitable for the company to use a debt-for-equity swap to make the investment and to increase profit remittances accordingly. In both cases debt-for-equity swaps are carried out but investors do not increase their holdings of domestic assets.
2. Reducing Restrictions on Foreign Direct Investment

Most troubled debtor countries place important restrictions on foreign direct investment. If debt conversion programs make it politically feasible for debtor country governments to relax those restrictions then debt conversion programs may, in this indirect way, provide an important incentive for net new foreign direct investment. 29


Residents of troubled debtor countries have accumulated significant holdings of assets outside of their home countries. The owners of these assets may be subject to significant penalties if they remit these funds, either because the funds were taken out of the country illegally, or because the owners have not reported the income earned on these assets to the domestic tax authorities. In this context debt conversion programs may provide an incentive for net new capital inflows if residents of the debtor country can use debt conversions to remit funds held abroad without incurring such penalties.

There is some evidence that the Chilean debt-for-cash swap program has worked in this way. This program has been extremely popular generating gross capital inflows of equal to about 3.3 percent of Chile’s outstanding external debt. But the Chilean central bank has estimated that the rate of profit investors earn on these transactions is only 2.4 percent. 30 This suggest that it is unlikely that the subsidy alone has prompted these inflows.

29 See Conrow (1987) for a discussion of this point.

30 This estimate is a point estimate reflecting market prices and fees charged by banks acting as brokers as of the end of February 1987. See Garces-Garrido (1987).
One of the reasons the debt-for-cash swap program has been so popular may be that it is a way for Chileans to remit capital held abroad without incurring penalties for tax evasion or past violations of capital controls. The Chilean central bank does not require a case-by-case approval of such transactions and it does not appear to be scrutinizing the source of financing for these transactions. 31

D. The Macroeconomic Impact of Debt Swaps 32

In debt swaps the investor trades external debt for an asset denominated in domestic currency. In most cases the obligor of the external debt finances its side of a debt swap by issuing a new liability denominated in domestic currency. If the external debt that is being redeemed is government debt then the new domestic currency liability is either base money or domestic government debt. 33

Debt swaps can have the normal monetary consequences associated with other types of capital inflows. If the debtor government finances its part of a swap by issuing new money then offsetting open market operations may be needed to sterilize the monetary injection.

If debt swaps lead to an increase in the outstanding stock of domestic government debt then they will have a direct impact on the fiscal deficit of the debtor country. By reducing the amount of foreign currency, i.e. low nominal interest rate, debt and increasing the amount of domestic

31 See Ffrench-Davis (1987) for a discussion of the Chilean program in this context.
32 See Alexander (1987) for a formal analysis of this issue.
33 If the external debt that is redeemed is private sector debt, then in most cases debt swaps will lead to an increase in the supply of domestic private sector debt.
currency, i.e., high nominal interest rate, debt, these transactions will increase the cost of servicing the debtor government's liabilities in the short run.\textsuperscript{34} This will increase the fiscal deficit of the debtor government. It should be noted, however, that the so-called "operational" or inflation-corrected deficit will only be affected to the extent that foreign and domestic real interest rates differ.\textsuperscript{35}

The increase in the outstanding supply of debtor government's domestic liabilities caused by debt swaps may have other, more direct, macroeconomic consequences. If debt swaps do not induce a substantial increase in the demand for domestic assets, the additional supply of base money or domestic debt will generate an excess supply of domestic assets. Such an excess supply may increase inflation, further crowd-out investment due to higher interest rates, put downward pressure on the exchange rate, or all three.\textsuperscript{36}

Consider the case of Brazil. Debt conversions under the Brazilian mechanism cause a one-for-one increase in the monetary base. This is problematic because of the chaotic state of the Brazilian economy. During the second quarter of 1987 the average monthly rate of growth of consumer prices exceeded 20 percent. In June the Brazilian government instituted a new stabilization program designed to reduce inflation through demand

\textsuperscript{34} By transforming low nominal interest rate debt into high nominal interest rate debt, debt swaps, in effect, reduce the duration of the debtor country's liabilities.

\textsuperscript{35} The "operational" or inflation-corrected deficit is the conventional deficit less that part of debt service that compensates debt holders for inflation. Under this definition only that part of interest payments that exceeds the product of the stock of outstanding debt and the rate of inflation are considered expenditures for the purpose of calculating the deficit.

\textsuperscript{36} For an eloquent discussion of these problems in the Argentine case see Alemann (1987).
restraint and price controls. Debt conversions would cause further problems if they generate additional capital outflows, as in the past. At the end of June Brazil's foreign exchange reserves were equivalent to just 4 months of imports.\textsuperscript{37} Concerns over the macroeconomic impact of debt swaps is probably one reason why Brazil has not established a formal debt-for-equity swap program although one has been under consideration for more than a year.\textsuperscript{38}

Chile has reduced its external debt through debt conversions by more, relative to the size of its economy, than any other debtor country. Since mid-1985 Chilean external debts with a face value of almost 7 percent of Chilean GDP have been redeemed through debt conversions. Chile has been able to complete this volume of swaps because during that time it significantly depreciated its exchange rate in real terms, reduced its fiscal deficit, and pursued a relatively restrictive monetary policy. These policies have, in effect, accommodated the macroeconomic impact of the large volume of Chilean debt conversion transactions.

The adverse macroeconomic impact of debt conversions will be mitigated to the extent that they provide an additional incentive for holding domestic assets. As noted above, this will only be true to the degree that investors are prevented, by effective restrictions on capital account transactions, from offsetting debt conversions with new capital outflows.

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\textsuperscript{38} See Buchheit (1986) and Euromoney, September 1987, page 94.
E. The Welfare Effects of Repurchasing debt at a Discount

Arellano and Ramos have pointed out that debt-for-equity and debt-for-cash swap programs are equivalent to a policy of converting capital inflows into local currency at a preferential rate and using the foreign exchange so generated to repurchase external debt at a discount in the secondary market. This raises the question as to whether debtor countries benefit by implicitly repurchasing their debts at a discount. It is not obvious that repurchasing debt at a discount makes the debtor better-off. If a debtor is credit constrained or if there is a positive probability that its debts will not be repaid in full then a repurchase of debt at a small discount may make a debtor worse-off. It seems clear that most troubled debtors meet both of these criteria. Therefore one cannot say unequivocally that Chile, Brazil or Mexico are made better off by repurchasing their debt at a discount.

Another way to look at this issue is to consider whether debt repurchase is the highest valued use for scarce foreign exchange. One should consider whether the debtors might benefit more by using the implicit foreign exchange inflow inherent in debt swaps for another purpose. If the only alternative use for the foreign exchange is scheduled amortization

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39 See Alexander (1987) for a discussion of this issue.

40 See Arellano and Ramos (1986).

41 If a debtor is credit constrained it would prefer to sell debt at par, i.e., borrow more at market terms. Such a debtor may be worse off if it purchases its debt at a price that is only marginally less than par. Purchasing ones own debt at par is equivalent, in expected value terms, to repaying that debt in full. If there is a strictly positive probability that the debt will not have to be repaid in full then the expected value of future debt service payments sums to less than par. Therefore the cost to the debtor of purchasing debt at slightly less than par may exceed the expected cost of debt service payments if there is a chance that the debt will not have to be fully repaid.
payments of outstanding debt (or a reduction in the amount of new lending) then clearly repurchasing debt at a discount is the highest valued use for the additional foreign exchange.\textsuperscript{42} But if the foreign exchange can be used to finance an increase in imports, or for some other use, then it is not clear that debt repurchases is the best use for the foreign exchange that is implicitly raised by these programs.

F. Debt conversions as an Exit Instrument

Debt conversions undertaken by non-bank investors give banks a way of liquidating, at a price less than par, their existing exposure to troubled debtor countries.\textsuperscript{43} This aspect of debt conversions may, for different reasons, either facilitate or undermine the continuing process of refinancing debtor countries' existing external obligations.

The banks that choose to dispose of developing country loans will, obviously, be those banks that have the least long-run interest in holding claims on developing countries. As a result, the remaining group of creditor banks will presumably have more uniform long-run commercial interests. This may make it easier to negotiate refinancing agreements in which all bank creditors choose to participate.

On the other hand, by reducing the number of bank creditors and the stock of outstanding debt without significantly reducing the financing

\textsuperscript{42} This discussion applies only to countries that cannot borrow all that they want. Clearly if banks are willing to lend a particular debtor all the funds that it wants then the banks would not be willing to sell their loans to that debtor at a discount.

\textsuperscript{43} Banks can eliminate their exposure to debtor countries by selling their loans to troubled debtor countries to investors wishing to carry out debt swaps. If banks utilize debt swaps for their own account they reduce the amount of developing country debt in their portfolio, but they do not eliminate their exposure to transfer risk.
needs of debtor countries, debt conversions may increase the burden that the refinancing of existing external obligations of debtor countries imposes on the remaining creditor banks.\textsuperscript{44} This may make the remaining banks more reluctant to participate in refinancing agreements.

G. The Potential for Additional Debt Conversions

The potential volume of debt-for-equity swaps is limited by the supply of economically viable investments that investors are allowed to purchase using debt-for-equity swaps. Debtor countries restrict the set of eligible investments in two ways. First, most developing countries place some restrictions on normal foreign direct investment. In most cases these restrictions apply to investments made through debt-for-equity swaps as well. For example, foreign investment in Mexico's oil industry is not allowed regardless of how it is financed. Second, some of the debt-for-equity swap programs place additional restrictions on the types of investments that can be purchased using debt conversions. Both the Mexican and the Argentine programs do not allow debt-for-equity swaps to be used to purchase existing equity. These programs also differentiate the terms of conversion of the external debt into domestic currency depending on the nature of the investment. Preferred investments are given better terms.

Thus, the number of potential equity investments that are available to be financed by debt conversions is determined, in part, by the

\textsuperscript{44} Banks can avoid participating in future rescheduling agreements by selling their loans to troubled debtor countries to investors wishing to carry out debt swaps. Under current practice banks cannot eliminate their obligation to participate in new money packages because the division of expected commitments among creditor banks in new money packages has traditionally been based on banks' shares of total exposure at some date in the past. But banks that have eliminated, or significantly reduced, their exposure to debtor countries may have less incentive to fulfill their obligation to participate in new money packages.
debtor countries' existing policies towards foreign direct investment and the terms of debt conversion programs. Those countries that have traditionally been relatively open to foreign direct investment, e.g., Chile and Brazil, have a greater potential to utilize debt-for-equity swaps than countries like Mexico that place severe restrictions on the types of direct investments foreigners can make.

As noted above, most debt-for-equity swaps carried out to date have involved commercial banks primarily as sellers of loans to third parties. This pattern of limited direct bank participation in debt-for-equity swaps is likely to persist. This expectation is based on the fact that multinational firms, relative to commercial banks, have both superior experience and capabilities in evaluating and managing industrial enterprises in developing countries. An important piece of evidence supporting this proposition is the fact that European universal banks, which are not subject to strict limitations on their equity investments, do not appear to have carried out significant amounts of conversions for their own accounts. This also suggest that regulatory restrictions on U.S. banks are not a major factor constraining the overall market for debt-for-equity swaps and debt capitalizations.

H. The New Role for Debt-for-Equity Swap Programs

In the refinancing packages negotiated before 1987 banks were given only two ways to provide financial relief to heavily indebted countries: reschedule amortization payments, and extend new syndicated credits. The goal of the so-called "menu of options" approach is to expand the set of alternatives considered in bank restructuring agreements. The new items on the "menu of options" include: alternative debt instruments,
such as bearer instruments and exit bonds; debt-for-equity swap programs, with special instruments that can be used in such programs; and onlending programs. The added complexity in bank restructuring agreements is intended to encourage banks to participate in such arrangements by giving debtor countries and creditor banks more scope to find a mutually acceptable agreement.

The bank restructuring plan for Argentina that was signed in August 1987 is the first financing agreement to incorporate fully the principles of the "menu of options" approach. Argentina's new debt-for-equity swap program was established as one part of this agreement. In both the Chilean and Mexican cases the potential for debt-for-equity swaps were considered in negotiations with bank creditors. But the Argentine agreement is the first case in which much of the structure of a debt conversion program was formally negotiated between a debtor country and its bank creditors. As noted above, the program is structured in such a way that part of the implicit subsidy, which accrues solely to the investor in other debt-for-equity swap programs, is directed towards participants in the Argentine new money package. As such, the Argentine debt-for-equity swap program serves the important function of providing an additional inducement for banks to participate in the new money package. It seems likely that this new role for debt-for-equity swap programs will be included in future bank restructuring agreements.

I. Conclusion

In brief, the analysis and the record to date point to the conclusion that debt conversion programs, in all their varieties and complexities, may be a mixed blessing for debtor countries. In some
circumstances their advantages probably outweigh their disadvantages. But in other cases the reverse is probably true as well.

The main conclusion of this paper is that the simple arguments often put forward both for and against these transactions are usually misleading and in many cases inaccurate. Debt conversions are not necessarily good because they reduce the stock of outstanding debt, nor does the implicit subsidy in these transactions necessarily generate net capital inflows. It is important to recognize that factors unrelated to the structure of the programs, such as other regulations affecting capital flows and the general macroeconomic environment in particular debtor countries, can have an important impact on the programs' success or failure. This fact must be taken into account in evaluating the record of debt conversion programs and in considering their potential contribution to the resolution of the economic problems of heavily indebted developing countries.
References

Alemann, Roberto. (1987)  
"Policy and Applications for Debt Capitalization in Argentina."  

Alexander, Lewis S. (1987)  
"Debt-for-Equity Swaps: a Formal Analysis"  Board of Governors of the Federal Reserve, Division of International Finance, mimeo.

Arellano, Jose Pablo and Joseph Ramos. (1986)  

Buchheit, Lee C. (1986)  
"Converting sovereign debt into equity investments."  

Cardenas, Emilio (1987)  
"Argentina's new debt to equity conversion program,"  
International Financial Law Review, Volume 6, Number 8, August, pages 32-34.

Conrow, James W. (1987)  
Remarks at a conference "Euromoney Debt/Equity Swap Conference," sponsored by Euromoney, New York City, March 11-13th.

Fountain, Frank W. (1987)  
Remarks at a conference "Euromoney Debt/Equity Swap Conference," sponsored by Euromoney, New York City, March 11-13th.

Ffrench-Davis, Ricardo (1987)  
"Debt-Equity Conversion: a View from the LDCs." The CTC Reporter, April.

Garces-Garrido, Francisco (1987)  

Hegewisch, Licenciado Adolfo (1987)  
Kaufman, Ross (1986)
"Finalization of Brazil's 1985-1986 Financing Plan."
*Butterworths Journal of International Banking and Financial Law*,
September, pp. 36-39.

"Debt Swaps: A Technique in Developing Country Finance," in

de Svastich, Peter (1986)
"A Market Approach to Debt Reduction." *The Banker*, September,
pp. 35-40.
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