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Large Foreign Capital Transfers: Do They Harm Developing Country Agriculture?

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Abstract

The impact of foreign capital inflows on developing country agriculture is examined for 73 developing countries for the period 1973-83. It is concluded that further borrowing by debt-burdened countries is unlikely to solve their agricultural production problems unless accompanied by the appropriate economic policy changes necessary for long-term economic growth.

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Introduction

Inflows of foreign capital have traditionally been viewed as beneficial for developing countries, but the current international debt problems facing many developing countries have called this view into question. The present paper does not, however, focus on repayments crises, but rather on the impact of capital inflows themselves on the agricultural sectors of developing countries. Until the 1970s, resource transfers from developed to developing countries were largely through foreign assistance; commodity assistance, such as food aid, in some cases and foreign exchange assistance in other cases. Both forms of assistance have been used since World War II to transfer large amounts of resources to developing countries in an effort to promote economic development in general and often agricultural development in particular. The view that more foreign assistance is always better than less has prevailed through out the post-war period, and foreign assistance expanded at particularly high rates during the 1960s and 1970s [Larson and Vogel].

During the 1970s, private international capital markets became more open to many developing countries, and capital transfers on commercial terms increased substantially. Borrowers included not only private sector firms in developing countries, but also public sector enterprises and governments themselves. It was not until the international debt crises of the early 1980s that developing country borrowers and their creditors began to question seriously the belief that more capital

transfers, including foreign assistance, were always better than less. As strong world markets for exports together with growing economies and low real interest rates during the 1970s changed to weak world markets, stagnant economies and high real interest rates in the early 1980s, many developing countries began to experience serious difficulties in servicing their external debt, much to the dismay of their external creditors. Several of the largest developing country borrowers have reached the verge of default, sending shock waves throughout international financial markets. One indication of this problem is that the number of formal debt reschedulings for World Bank members increased from an average of four per year in 1975-80 to a high of 31 involving 21 countries in 1983.

Formal debt reschedulings have continued to be a major issue for developed and developing countries since 1983. A number of countries have rescheduled their debt several times and may need to reschedule the debt several more times before the debt can be realistically serviced by them (Table 1). Changing commodity prices, interest rates, trade restrictions, weak world economies and difficult trade-offs between servicing the foreign debt and internal economic growth are some of the more important reasons for the large number of debt reschedulings. Some countries, especially in Latin America, have already stopped the interest and principal payments (defaulted) on their commercial bank debt while continuing to service the bilateral and multilateral private and public debt. These countries can no longer obtain commercial bank credit for their commercial trade and investment activities. One option to solve the debt problem which foreign banks hold with these countries is to write down the loans and recognize that this debt is currently being traded at a substantial

discount (discounts of 30 percent and more are not uncommon) in world financial markets. However, the foreign banks continue to carry these loans in their loan portfolio at face value because a write down of these loans would have a major impact on bank profits, stock prices and the entire financial system. Banks and governments are very reluctant to pursue this option. Developing countries, foreign bank lenders and investors are also considering debt-equity swaps as another option to reduce the debt burden of these countries. In the debt-equity swaps an investor buys the debt from the lending bank and then goes to the borrowing country to exchange the debt for an equity position in some enterprise in that particular country. The debt-equity swap option appears to have very limited potential for dramatically reducing the debt of developing countries because the amount of debt is very large and the number of investment options that a country is willing to make available may be quite limited.

The largest developing country debtor nation in the world, Brazil, announced in a nationally televised speech by President Jose Sarney on February 20, 1987, that it was suspending interest payments on its commercial bank debt of about $67 billion. On March 12, 1987, Ecuador suspended interest payments on its $8.2 billion foreign debt citing the earthquake that destroyed a 25 mile stretch of the nation's oil pipeline as the reason for this unilateral action. The decision of the Brazilian government sent shock waves throughout the U.S. and world financial system, while the Ecuadorian decision did not have such a large impact because the amount borrowed is much smaller. According to President Sarney, Brazil's commitment to economic growth and democracy is not

compatible with the massive transfer of resources required by the debt-rescheduling model applied up to now [Truell and Cohen]. Brazil's moratorium on commercial bank debt affects about 700 creditor banks and the bulk of its total debt of about $109 billion. Brazil had already stopped making principal payments on this debt some time ago in an earlier debt negotiation process. Like most other developing countries, Brazil wants to limit debt servicing to some smaller amount such as no more than 2.5 percent of gross national product, compared to scheduled debt payments for 1987 of 3.3 to 4.5 percent of GNP or from $9.6 to $12.5 billion [Truell and Cohen]. For many other developing countries such as Peru, Bolivia, Mexico, Chile, Argentina, Venezuela and The Philippines, debt service obligations are a larger share of the total economy than for Brazil. They are obviously even more interested in attempting to limit the amount of debt servicing.

The moratorium affects medium and long term international commercial bank debt but does not affect Brazil's debt to governments and international lending agencies or its short term debt with international banks. Brazil wants to start talking with commercial banks about its debt in the near future and also seems to want to involve governments more directly in the process in an attempt to politicize the process. Other developing countries may watch the process with great interest because a number of them (Chile, Venezuela, Argentina, Egypt, and The Philippines, for example) are currently re-negotiating their debt. This represents a test case with a major borrower and an ally of the Western world.

The U.S. financial system is more affected by the potential debt problem in developing countries than European banks because of the greater

amount of loans to these countries. In the case of Brazil, the biggest U.S. banks with loans are Citicorp, $4.6 billion; Chase Manhattan, $2.8 billion; Manufacturer's Hanover Trust Company, $1.9 billion; J.P. Morgan and Company, $1.9 billion; and Banker's Trust Company, $874 million. This lending has important implications for the banking system of the U.S. because interest on loans more than 90 days overdue must be classified as non-performing loans, and banks would have to make loan loss provisions against those loans. Since the loan amounts are so large, this decision would greatly reduce bank profits, bank stock prices, and affect the entire banking system. One can be sure that developing and developed countries alike want to avoid the enormous problems associated with default on this large foreign debt that could, if not resolved, lead to a crisis of the entire world financial system.

One approach to solving the repayment problems of developing countries involves some combination of additional capital inflows and more generous repayment terms. However, foreign debt cannot continue to grow indefinitely relative to gross national product. At some point more appropriate economic policies must be carried out by developing countries themselves in order to expand exports of goods and services or reduce imports and thereby curtail the growth of foreign debt relative to gross national product. Because agriculture is a major sector for most, if not all, developing countries, the impact of economic policies on agricultural output, and especially on imports and exports, cannot be ignored. If inflows of foreign capital had adverse impacts on developing country agriculture when they originally occurred, additional such transfers from developed to developing countries are unlikely to be an appropriate

solution to current problems without substantial policy changes.

Foreign Capital Inflows

The main purpose of the present paper is to examine whether foreign capital inflows may have adversely affected agricultural performance in a significant number of developing countries. Foreign capital inflows create opportunities for developing countries to allocate additional resources to promote more rapid growth, possibly within the agricultural sector, and to earn more foreign exchange to service the debt incurred. However, such opportunities may be wasted if increased capital inflows enable developing countries to delay making policy changes that could be more appropriate for the longer run. For example, exchange rate policies together with agricultural price policies can stimulate growth in the agricultural sector or can contribute to its stagnation. Policies that maintain over-valued exchange rates can contribute to low agricultural prices thereby discouraging farm production and exports while encouraging food imports [Bale and Lutz, Schuh]. In addition to exchange rates, other agricultural price policies that are commonly used to hold down farm and food prices include price ceilings, forced sales of products to government agencies at low prices, agricultural export restrictions, and "taxes" levied on farmers by commodity marketing boards. A study of price distortions in seven developing countries, (Argentina, Egypt, Kenya, Pakistan, Portugal, Thailand, and Yugoslavia) found substantial disincentive effects on food production because of heavy implicit and explicit taxation of the agricultural sector [Lutz and Scandizzo]. Agriculture was penalized in 21 out of the 24 cases studied in these seven countries. Additional evidence on the heavy taxation of the agricultural

sector was found in Costa Rica, Honduras, and The Dominican Republic [Larson and Vogel, and Larson]. As a consequence, agricultural production is discouraged, while consumption is subsidized, and the opportunity for more foreign exchange earnings from agriculture is lost.

Foreign capital inflows may under certain circumstances be associated with declining agricultural exports and increasing agricultural imports. The increased foreign exchange made available through capital inflows may resolve problems of foreign exchange scarcity for the borrowing country in the short run and thereby allow foreign debt to be serviced and imports to continue. At the same time, the increased availability of foreign exchange may permit an over-valued exchange rate to develop or to be maintained. Most developing countries fix the value of their currency in relation to the currency of a major trading partner (e.g., the U.S. dollar). If significant amounts of foreign currency loans can be obtained, such exchange rates can be maintained substantially above the value that would be determined in a free market. If the exchange rate is thus over-valued, revenues received by producers for export sales are accordingly reduced in terms of the domestic currency, so that incentives for producers to export, or even to produce those products which might be exported, are reduced. In a similar way the domestic currency costs of imported goods are reduced, so that incentives to import are increased. Furthermore, the attractiveness of low cost imports discourages the production of domestic import substitutes even when such import substitutes may reflect international comparative advantage.

The net effect of an over-valued exchange rate is to tax exports and subsidize imports, thereby not only failing to correct the underlying cause of foreign exchange scarcity but also possibly exacerbating the problem. A country that fails to adjust its policies in order to expand exports and curtail imports will need to continue foreign borrowing in the future to cover its foreign exchange gap, and this gap is likely to grow because of interest payments on a growing foreign debt. A country's foreign debt cannot, moreover, continue increasing without limit relative to its output, but can only delay the ultimate need to adjust - most probably through a move to a more appropriate exchange rate. In the meantime, an over-valued exchange rate impacts adversely on agricultural output, with repercussions throughout the economy since in most develop ing countries agriculture is a relatively large sector and agricultural exports represent a major source of exchange earnings [Chambers and Just].

A country's exchange rate can initially become over-valued because of an adverse shift in the terms of trade or, more commonly in recent years, because of differential rates of inflation; that is, the exchange rate will tend to become over-valued as a country's rate of inflation exceeds the rates of inflation experienced by its major trading partners. Domestic costs and prices will increase faster than the costs and prices of the goods produced in foreign countries, making the latter relatively less expensive, and thereby retarding exports and encouraging imports [Frankel]. Protective trade policies such as import tariffs and quotas and export taxes and quotas can also lead to an implicit over-valuation of the exchange rate by raising the domestic prices of protected goods

and lowering the prices in domestic currency of exported goods. The structure of protection in developing countries typically raises the prices of industrial goods, many of which serve as inputs into agricultural production, while agricultural output is left relatively unprotected so that farmers producing both exports and import substitutes are penalized.1/

In summary, capital inflows allow an over-valued exchange rate to develop or to be maintained, at least in the short run. This over-valuation of the exchange rate acts as an implicit tax on the agricultural sector in developing countries that export agricultural goods. At the same time, consumers of food and other users of agricultural goods are subsidized indirectly through the low domestic currency prices of these imports, particularly those which are unprotected. Depressed prices reduce the incentives for domestic agricultural production, and this can be especially pronounced for exports and import substitutes. [Larson and Vogel]. In such a situation developing countries often tend to export less and to import more and may thus become increasingly dependent on capital inflows as a source of foreign exchange rather than on the production of commodities sold in international markets. When inflows come in the form of foreign assistance, especially food aid, the adverse impact on the agricultural output of a developing country can be even more direct. Foreign aid in the form of low interest loans for agriculture can also directly disrupt agricultural production by reducing savings mobilization and causing credit outflows from rural areas that actually reduce resources available for agriculture.

Agricultural Trade of Developing Country Borrowers

In order to evaluate the impact of foreign capital inflows on developing country agriculture, the present paper examines the ratio of foreign debt to gross national product in seventy-three developing countries as compared to the ratios of agricultural imports and exports to gross national product for these same countries. Figures for foreign debt outstanding and disbursed are taken from the World Bank's World Debt Tables and may be understated for some countries because short-term debt (under one year) is not included and because private sector debt without government guarantee may not be fully reported. Foreign debt is defined as debt that has an original maturity of over one year (long-term debt) and that is owed to nonresidents and repayable in foreign currency, goods, or services. The World Debt Tables also report figures for gross national product in U.S. dollars converted at the official exchange rate and are thus subject to the usual problems of such conversions. Agricultural imports and exports are taken from the Food and Agriculture Organization's Trade Yearbook. Data are for the years 1973 through 1983, which covers the period of major growth in the foreign debt of developing countries. The seventy three developing country borrowers selected for this analysis includes all the countries with over 500 million dollars of total debt outstanding and disbursed in 1983.

If inflows of foreign capital are in fact damaging agricultural output in general and the production of agricultural exports and import substitutes in particular, an increase in foreign debt relative to gross national product should be associated with increasing imports and decreasing exports relative to gross national product. Thus, for each of

the seventy three developing countries in the sample, the change in the ratio of foreign debt to gross national product from one year to the next has been correlated with the changes in the ratios of agricultural imports and exports to gross national product. In addition, because of substantial year-to-year variations in debt and gross national product, and especially in agricultural production and hence imports and exports, three year averages have also been used. That is, the ratios of foreign debt, agricultural imports and agricultural exports to gross national product have been averaged for the first three years of the period, 1973-1975, and subtracted from the same ratios averaged over the last three years of the period, 1981-83. This can be seen as providing a longer term, and probably more appropriate, view of the impact of capital inflows on developing country agriculture.

The evidence for the seventy three developing country borrowers in the sample is shown in Table 2. As expected, the change in the three year average ratio of foreign debt to gross national product from 1973-75 to 1981-83 is positive for sixty-two of the seventy-three countries which means that the large majority of the countries were relatively deeper in debt at the end of this period than at the beginning of it. The most striking cases are Costa Rica, Guyana, Mauritania, Togo and Peoples Republic of Yemen; countries that nearly doubled their foreign debt relative to gross national product in this period. Only eleven countries reduced their foreign debt to gross national product ratio from the average of 1973-75 to the average of 1981-83. Pakistan achieved the largest reduction in its foreign debt relative to gross national product in this period.

Changes in the average value of agricultural imports relative to gross national product and agricultural exports relative to gross national product from 1973-75 to 1981-83 are shown in Table 2. For thirty-eight of the countries, the results are totally consistent with the expected relationship between changes in foreign debt relative to gross national product and agricultural imports relative to gross national product. Increasing foreign debt leads to increasing agricultural imports and decreasing debt leads to decreasing agricultural imports. The results are even better for the relationship between foreign debt and agricultural exports. In forty-seven of the countries, increases (decreases) of the foreign debt to gross national product ratio are associated with decreases (increases) of the agricultural exports to gross national product ratio.

Table 2 shows the results of the correlation coefficients between the yearly changes in the ratio of foreign debt to gross national product and the yearly changes in the ratio of agricultural imports to gross national product. The correlation coefficient for fifty of the seventy-three countries is positive indicating that increasing debt is associated with increasing agricultural imports. These results are also consistent with the expected relationship between these two variables. When the yearly changes in the ratio of foreign debt to gross national product are correlated with the yearly changes in the ratio of agricultural exports to gross national product, the results are not as consistent with the expected relationship. Changes in the foreign debt ratio are negatively correlated with the agricultural export ratio for only twenty-three of

the seventy-three countries. The weaker and less consistent correlations between changes in the foreign debt ratio and the agricultural export ratio compared to the expected relationship and compared to the results of the correlations between the foreign debt ratio and the agricultural import ratio may be explained in part by the difference in the composition of agricultural exports compared to agricultural imports. In most developing countries the agricultural exports are concentrated in a few main crops which are subject to substantial fluctuations in prices and quantities while agricultural imports are not concentrated in a few crops and are less subject to severe price and quantity fluctuations.

Agricultural Trade of a Developed Country Borrower

The effect of exchange rates on agricultural trade can be analyzed using U.S. agriculture as a developed country example of how these macroeconomic factors can affect trade and financial flows. Under the gold standard system of the Bretton Woods Agreement which continued until 1971, the U.S. was obligated to maintain the price of gold at $35 per ounce while other countries pegged their currency to the U.S. dollar with commitments in the International Monetary Fund (IMF). In this system, the credibility of the dollar was backed by the gold stock of the U.S. When the U.S. ran a balance of payments deficit, some foreign countries would have to increase their reserves of gold or hold dollars and supply their own currency to stabilize the foreign exchange market. The U.S. supplied both gold and dollars to the foreign exchange market. This exchange rate system operated throughout the 1944-1971 period when agricultural exports were relatively unimportant in terms of U.S. farm sales. For 1940, the value of farm exports was $2.9 billion (adjusted to 1985 dollars) and

increased at a steady rate of about $400 million (1985 dollars) per year [Rossmiller]. During much of this period the multilateral trade weighted value of the U.S. dollar (March 1973 equals 100) was increasing (becoming overvalued) and reached levels of 120 and higher. The overvalued dollar made U.S. farm exports more and more expensive and less price competitive to foreign buyers.

The U.S. dollar was devalued in 1971 and again in 1973 when the gold standard system was abandoned. The price of gold quickly increased from the $35 per ounce guaranteed rate to over $350 per ounce in the free market. The price of gold henceforth would be determined by supply and demand in a freely competitive market. The dollar was no longer backed by gold but was instead backed by the the ability and willingness of the U.S. to restrict the supply of dollars. With these devaluations the trade weighted value of the dollar decreased from over 120 to less than 100 in 1973, 1974, and 1975. The agricultural export boom from 1973 to 1981 was fueled by these devaluations, the world oil shock, and strong economic growth worldwide. During these golden days for American agriculture, farm exports increased at the rate of $2.1 billion (1985 dollars) per year or about five times the rate of increase in the 1940-1972 period. Agricultural exports increased rapidly from 1973 until 1981 when they reached a peak of nearly $44 billion. It is most interesting to note that the multilateral trade weighted value of the U.S. dollar was declining throughout most of this period and reached a low of 87.4 in 1980.

The export decline began in 1982 when agricultural exports dropped by $4.7 billion (1985 dollars) caused primarily by a strong dollar, a worldwide recession, a second oil shock and a tight monetary policy to

counter inflation in the U.S. and other developed countries. Farm exports continued to decline from 1982 to 1986 at the rate of about $1 6 billion (1985 dollars) annually to a low of about $26 billion in 1986. It is widely believed that farm exports have now leveled off and no further declines are expected. In the 1982-1986 period the multilateral trade weighted value of the dollar increased to a high of 156.5 in the first quarter of 1985 before beginning to decline in the remainder of 1985, 1986, and into 1987. The strong dollar not only led to decreased agricultural exports but also led to increased agricultural imports so that the U.S. agricultural trade balance changed from a surplus to a deficit for the first time in over 25 years.

During this period of the strong dollar, capital inflows to the U.S. from foreign countries, especially Japan, were very large. Foreign capital was attracted to the U.S. because of the high interest rates that prevailed in the economy and the belief that the U.S. was a safe place to invest. The large inflow of foreign capital also kept the dollar strong in world markets because all these investors were buying dollars to place in the U.S. This large inflow of foreign capital helped to finance the U.S. fiscal deficits that were growing rapidly in the 1980s and also helped to offset the balance of trade deficit that was getting increasingly large in this same period. The U.S. became the largest debtor nation of the world in terms of the absolute amount owed during this period.

Thus, fluctuating exchange rates in combination with other economic events have had a significant impact on U.S. agricultural exports and imports in the recent past. An overvalued exchange rate has been asso-

ciated with declining agricultural exports and increasing agricultural imports. At the same time, large capital inflows from foreign countries maintained the strength of the dollar at high levels in spite of a large trade imbalance. This situation is similar to developing countries that have large capital inflows that enable those countries to maintain an overvalued exchange rate for extended periods of time when exports are declining and imports are increasing.

Conclusions

Foreign capital inflows appear to affect adversely the performance of developing country agriculture, especially the production of agricultural exports and import substitutes. Foreign borrowing apparently permits over-valued exchange rates to develop or to be maintained, thereby reducing incentives to export and increasing incentives to import. The evidence for seventy three developing country borrowers indicates that an increasing ratio of foreign debt to gross national product is closely associated with an increasing ratio of agricultural imports to gross national product, but the relationship of foreign debt to gross national product with the ratio of agricultural exports to gross national product is less clear. The lack of a close association may be due to the concentration of agricultural exports of most developing countries in a few main crops which are subject to substantial fluctuations in prices and quantities produced. In any case, the fact that the relationship between increasing debt and decreasing agricultural exports is less clear than the strong relationship of increasing debt to increasing agricultural imports undercuts the argument of reverse causation - that decreased agricultural exports can lead to increased capital

inflows. In fact, if there is any reverse causation it may be the opposite - that increased agricultural exports lead to increased credit worthiness in international capital markets and hence increased capital inflows.

Large inflows of foreign capital during the 1970s appear to have been ill-advised for many developing countries, not only because of subsequent payments crises but also because of adverse impacts on the agricultural sector performance. Further foreign borrowing, especially to rescue countries with debt repayment problems, is unlikely to resolve the basic problems that led to debt crises, unless such borrowing is accompanied by significant changes in economic policy with respect to exchange rates and other possible distortions. In fact, foreign capital inflows that rescue countries from debt problems in the short run may thereby delay the policy changes necessary for long-term economic growth and development. This does not mean, however, that foreign capital inflows can never be a complement to basic policy changes. For example, as mentioned above, exchange rates can become implicitly over-valued through the structure of protection, and protection is often tightened and turned further against the agricultural sector in response to international payments crises. Foreign capital inflows thus can sometimes help to assist in import liberalization, or at least reduce the threat of increased protection. Capital inflows, especially in the form of foreign aid, can also provide developing country governments with resources that can be used to compensate losers in the process of trade and financial liberalization and thereby allow the liberalization process to continue.

Footnote

1/See Balassa and Associates for a full discussion of effective protection and for estimates of effective protection for several developing countries. More recent estimates of effective protection for selected countries can be found in Bale and Lutz.

Table 1: The Five Largest Troubled Foreign Debtors, 1987

Country	Total Foreign Debt	Status
Brazil	$109 billion	Seeking debt rescheduling, new loans from banks
Mexico	107 billion	Negotiations finished, waiting for banks to sign on
Argentina	52 billion	Negotiations on rescheduling and new loans under way
Venezuela	35 billion	Negotiations on rescheduling completed
Philippines	28 billion	Negotiations on rescheduling under way

Source: International Monetary Fund, other lending institutions

Table 2: Foreign Debt, Agricultural Imports, and Agricultural Exports Relative to Gross National Product and Correlations Among These Variables for Seventy-three Developing Country Borrowers, 1973-1983[a/]

Borrower	Correlations of Annual Change in: FD/GNP With Change in Ag IM/GNP	Correlations of Annual Change in: FD/GNP With Change in Ag EX/GNP	Change in Three-Year Average From 1973-75 to 1981-83: Foreign Debt to GNP	Change in Three-Year Average From 1973-75 to 1981-83: Agr'l Imports to GNP	Change in Three-Year Average From 1973-75 to 1981-83: Agr'l Exports to GNP
Algeria	- 0.31	0.23	2.1	- 0.01	- 0.01
Argentina	0.14	0.69	17.7	- 0.01	0.02
Bangladesh	- 0.02	0.19	28.8	- 0.03	0.01
Benin, P.R.	0.12	0.26	40.3	0.32	- 0.05
Bolivia	0.16	0.29	6.7	- 0.01	- 0.03
Brazil	0.23	0.64	11.3	- 0.01	- 0.01
Burma	- 0.02	- 0.07	24.2	0.01	0.02
Cameroon	0.44	0.22	15.7	- 0.01	- 0.10
Chile	0.28	0.84	- 13.0	- 0.02	0.02
Colombia	- 0.38	- 0.16	- 2.1	- 0.01	- 0.02
Congo, P.R.	0.58	0.27	23.3	- 0.01	- 0.04
Costa Rica	0.53	0.76	92.1	0.01	0.08
Cyprus	- 0.39	0.08	18.6	- 0.02	0.01
Dominican Rep.	0.38	- 0.48	9.8	- 0.02	- 0.09
Egypt	0.59	0.26	18.6	0.03	- 0.05
El Salvador	- 0.18	- 0.57	12.5	0.01	- 0.04
Ecuador	0.47	- 0.01	26.3	- 0.01	- 0.05
Ethiopia	- 0.42	- 0.41	12.8	0.01	- 0.01
Gabon	0.67	0.36	- 12.9	0.02	- 0.04
Ghana	0.68	0.79	- 14.3	- 0.03	- 0.13
Greece	0.71	0.63	7.4	0.01	0.01
Guatemala	- 0.17	- 0.49	8.7	0.01	- 0.05
Guinea	0.36	0.57	19.6	0.01	0.01
Guyana	0.44	- 0.77	88.8	0.02	- 0.03
Honduras	- 0.31	0.14	34.1	- 0.01	0.02
India	0.46	0.44	- 2.4	- 0.01	- 0.01
Indonesia	0.80	0.45	- 5.7	- 0.01	- 0.03
Israel	0.05	0.77	17.3	- 0.01	0.01
Ivory Coast	0.70	0.10	44.9	0.01	- 0.05
Jamaica	0.38	- 0.19	36.2	0.01	- 0.02
Jordan	0.03	- 0.20	11.9	- 0.01	0.01
Kenya	0-35	0.24	20.8	- 0.02	- 0.01
Korea, R.P.	0.50	0.79	2.2	- 0.03	- 0.02
Liberia	0.31	0.15	34.1	0.03	0.02
Madagascar	0.59	- 0.72	45.6	0.01	- 0.02
Malawi	- 0.04	- 0.23	12.6	- 0.01	- 0.01
Malaysia	- 0.13	- 0.44	20.1	- 0.02	- 0.03
Mali	0.60	0.87	- 14.0	- 0.10	0.01

Borrower	Correlations of Annual Change in: FD/GNP With Change in Ag IM/GNP	Correlations of Annual Change in: FD/GNP With Change in Ag EX/GNP	Change in Three-Year Average From 1973-75 to 1981-83: Foreign Debt to GNP	Change in Three-Year Average From 1973-75 to 1981-83: Agr'l Imports to GNP	Change in Three-Year Average From 1973-75 to 1981-83: Agr'l Exports to GNP
Mauritania	0.17	0.48	99.0	- 0.03	0.10
Mexico	0.04	0.75	21.4	0.01	- 0.01
Morocco	- 0.01	0.22	44.7	- 0.01	- 0.02
Nicaragua	0.25	0.29	56.5	0.01	- 0.07
Niger	0.48	0.04	26.4	0.01	0.01
Nigeria	- 0.12	0.62	7.6	0.02	- 0.02
Oman	0.22	0.45	- 3.1	- 0.01	0.01
Pakistan	- 0.11	- 0.21	- 23.9	- 0.02	- 0.01
Panama	- 0.42	- 0.06	33.6	- 0.01	- 0.02
Papua, N.G.	0.16	0.12	10.7	0.02	0.02
Paraguay	0.07	0.41	2.2	- 0.03	- 0.07
Peru	0.06	0.69	8.9	0.01	- 0.02
Philippines	- 0.09	0.09	16.4	- 0.01	- 0.06
Portugal	- 0.24	0.46	34.9	0.01	0.01
Senegal	0.70	- 0 19	33.1	0.01	- 0.04
Singapore	0.17	0.73	- 1.1	0.04	0.01
Somalia	0.15	0.20	58.4	0.07	0.01
Sri Lanka	0.42	0.66	21.0	- 0.04	- 0.01
Sudan	0.36	0.59	41.5	- 0.01	- 0.07
Syria	- 0.37	0.47	1.2	- 0.03	- 0.05
Tanzania	0.07	0.41	5.9	- 0.03	- 0.05
Thailand	0.12	- 0.20	12.7	0.01	0.01
Togo	- 0.09	0.18	86.4	0.10	0.01
Trinidad & Tobago	0.21	- 0.50	1.3	- 0.01	- 0.04
Tunisia	- 0.19	0.12	14.6	- 0.01	- 0.03
Turkey	0.09	0.49	18.3	- 0.01	0.01
Uganda	0.59	0.66	- 0.5	- 0.01	- 0.08
Uruguay	0 05	0.86	11.9	- 0.01	0.02
Venezuela	0.01	- 0.13	10.9	0.01	- 0.01
Yemen, Arab	0.05	0.26	8.2	0.02	- 0.01
Yemen, Peoples	- 0.22	- 0.32	78.4	0.01	- 0.02
Yugoslavia	0.20	0.76	4.1	- 0.02	- 0.01
Zaire	0.55	- 0.02	31.5	- 0.03	- 0.02
Zambia	- 0.07	- 0.21	33.1	- 0.01	- 0.01
Zimbabwe	- 0.31	0.03	13.4	0.01	0.02

a/ Foreign debt is defined as public and publicly guaranteed debt outstanding and Public and publicly guaranteed debt does not include data for: (a) transactions with the International Monetary Fund, with the exception of Trust Fund Loans; (b) debt repayable in local currency; (c) direct investment; and (d) short-term debt (that is, debt with original maturity of a year or less).

Source: World Debt Tables: External Debt of Developing Countries. The World Bank. Washington, D.C. 1983-84 and 1984-85 editions and calculations by the authors.

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