

The Latin American Debt Problem And U.S. Agriculture

By Mark Drabenstott, Alan Barkema, and David Henneberry

The 1980s have seen chronic debt problems in many parts of the world. Two of the most publicized debt problems have been in U.S. agriculture and Latin American countries. The two debt situations are often compared because the debt is big in both cases and both problems were born in the early 1980s. Currently, however, the U.S. farm debt crisis is rapidly receding while the Latin debt problem has shown little overall improvement.

Does a common bond bring these two disparate debt problems together? This article concludes that U.S. agriculture and Latin countries do share some important common ground—a steady stream of agricultural trade between the United States

and Latin America. Both U.S. agriculture and Latin economies stand to benefit from macroeconomic and trade policies that encourage global economic growth.

The article develops these conclusions in four sections. The first section explores the historical roots of the U.S. farm and Latin debt problems. The second section assesses the current financial situation in U.S. agriculture and indebted Latin economies. The third section details the important trade linkage between U.S. agriculture and Latin America. The final section explores the macroeconomic and trade policy elements of defusing the Latin debt problem—policy developments that also promise to be in the interest of U.S. agriculture.

The evolution of the Latin American and U.S. farm debt problems

The simultaneous development of debt problems in Latin American countries and the U.S. farm economy in the early 1980s goes beyond mere coincidence. Development of the two debt problems in these regions can be traced to readily

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available credit, low borrowing costs, and optimistic expectations of future incomes. A sea change in world macroeconomic conditions at the turn of the decade, however, precipitated a repayment crisis in both regions. Borrowers in Latin America and on U.S. farms were caught in a double bind in the early 1980s as global recession restricted export opportunities and incomes, while interest rates shot skyward.

The 1970s debt expansion

Total debt virtually exploded in the 1970s in both Latin America and in U.S. agriculture (Chart 1). Total external, long-term debt in Latin America and the Caribbean grew sixfold from nearly \$28 billion in 1970 to over \$172 billion in 1980, representing an average annual growth rate of 20 percent.¹ Debt expansion in U.S. agriculture was nearly as extraordinary, growing at an annual rate of 12 percent and tripling from \$49 billion to \$152 billion during the decade. Three interrelated factors appear primarily responsible for the rapid expansion of debt in the two regions during the 1970s: low real borrowing costs, strong income growth, and the oil price shock of 1973-74.²

Low borrowing costs. The real—or inflation adjusted—cost of borrowing was very low during much of the 1970s. In fact, real interest rates charged on Latin American and U.S. farm debt fell to zero and below during the decade (Chart

2).³ Rising inflation without fully compensatory increases in nominal interest rates effectively reduced borrowers' real debt burdens and encouraged further debt acquisition by lowering the value of debt service payments and outstanding principal. In real terms, for example, Latin American long-term debt and U.S. farm debt grew at annual rates of only 12 percent and 5 percent, respectively, well below nominal growth rates in debt during the decade (Chart 1).

Strong income growth. A second factor that contributed to the explosion of debt in Latin America and U.S. agriculture was strong income growth in both regions. The macroeconomic policies that contributed to the inflationary excesses of the 1970s also promoted growth in world trade and incomes, leading to optimistic expectations that future incomes would be sufficient to service newly acquired debt.

One rule of thumb suggests that a borrowing nation's financial position is stable so long as export earnings are growing at a rate greater than the interest rate charged on its loans. Otherwise, the burden of servicing a growing stock of debt would eventually exhaust the country's ability to

³ Borrowing decisions are affected by the real interest rate, equal to the difference between the nominal interest rate and the rate of inflation expected to prevail (ex ante) over the term of a loan. The ex post real interest rate, equal to the difference between the nominal interest rate and the rate of inflation that prevailed (ex post) during the term of a loan, is not known until after the borrowing decision has been made and therefore cannot affect the borrowing decision. The ex post real rate is offered here as an estimate of the ex ante real rate.

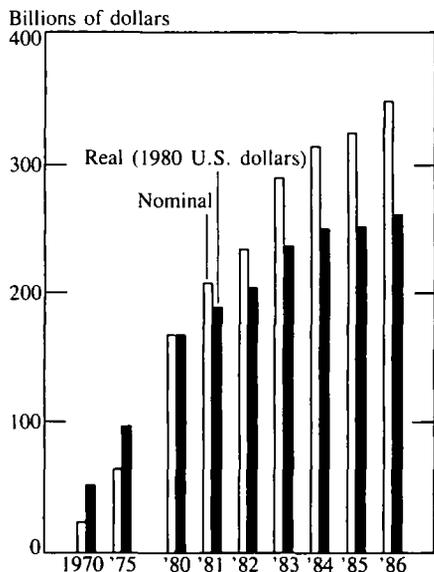
Trends in the real cost of U.S. farm debt are shown by subtracting the annual inflation rate in the United States, measured by the GNP deflator, from the average annual interest rate charged on farm mortgages by Federal Land Banks, the largest U.S. farm mortgage lender. Similarly, trends in the real cost of Latin American debt are found by subtracting an inflation rate from the nominal interest rate charged on Latin loans. The international interest rate used in the calculations is the London Interbank Offered Rate (LIBOR), the rate to which much of Latin America's debt is tied. The annual percentage change in the value of exports, the source of income that Latin America must use to repay its debt, is subtracted from LIBOR to determine the real cost of Latin debt.

¹ Latin American long-term, external debt rather than total external debt are reported here because data on Latin American short-term debt are not available for years prior to 1980. Long-term debt represented 71 percent of total external debt in 1980 and 88 percent of total external debt in 1986. Caribbean nations are included in the Latin American debt totals throughout the article.

² While these factors suggest comparison between regions, an important difference is that U.S. farm debt is owed by individuals whereas a significant part of Latin American debt is owed by sovereign governments.

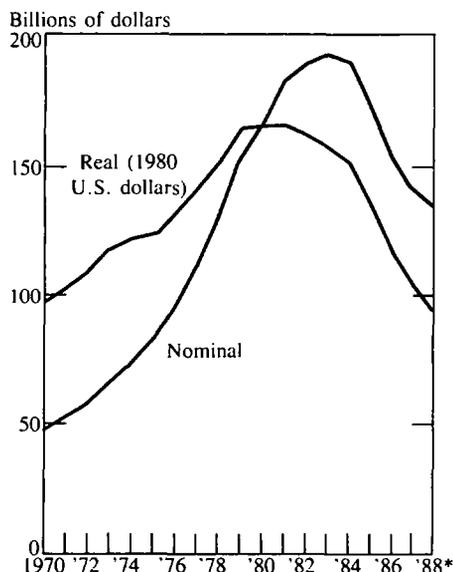
CHART 1

Panel A
Latin American long-term debt



Source: *World Debt Tables*, External Debt of Developing Countries, The World Bank.

Panel B
Total U.S. farm debt



Source: USDA, Economic Research Service. (Excluding Commodity Credit Corporation Loans)

*Forecast

pay.⁴ Booming Latin American export growth clearly met this criterion throughout most of the 1970s. Real annual growth in Latin American exports averaged 13 percent through the decade, well in excess of the of the real London Interbank Offered Rate (LIBOR). Moreover, real gross domestic product (GDP) in the Latin American countries surged ahead at a robust average annual rate of 6 percent.

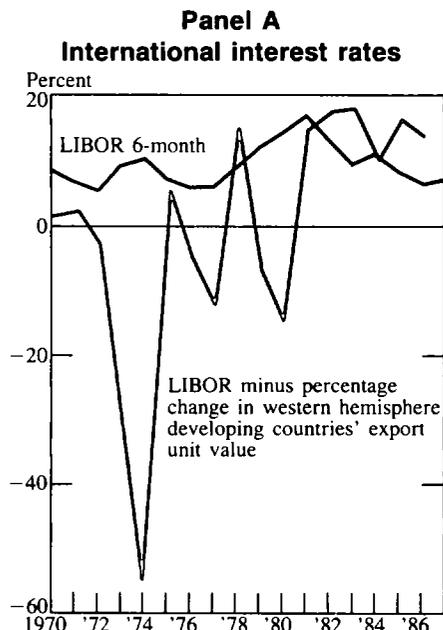
Strong growth in foreign incomes also contributed to booming U.S. agricultural trade and farm income. Rising incomes in Latin America and other parts of the developing world, a

⁴ See William R. Cline, *International Debt: Systemic Risk and Policy Response*, Institute for International Economics, Washington, D.C., 1984, p. 7; and Brian Kettel and George Magnus, *The International Debt Game*, Ballinger Publishing Company, Cambridge, Massachusetts, 1986, p. 81.

generally weak U.S. dollar, and insufficient grain supplies elsewhere combined to push up U.S. farm exports. U.S. agriculture's real trade balance increased tenfold during the 1970s, representing an annual growth rate of nearly 25 percent. And surging export demand for U.S. farm products boosted the total real rate of return to U.S. farm production assets to an average annual rate of nearly 9 percent, nearly triple the average rate of return in the previous decade.

Oil price shocks. A sharp increase in world oil prices was the third factor that contributed directly to debt expansion in Latin America and somewhat indirectly to debt expansion in U.S. agriculture in the 1970s. An abrupt quintupling in world oil prices in 1974 contributed to higher inflation and lower real borrowing costs for borrowers in Latin America and U.S. agriculture. In addition,

CHART 2



Sources: *International Financial Statistics*. International Monetary Fund.

See Footnote 3.

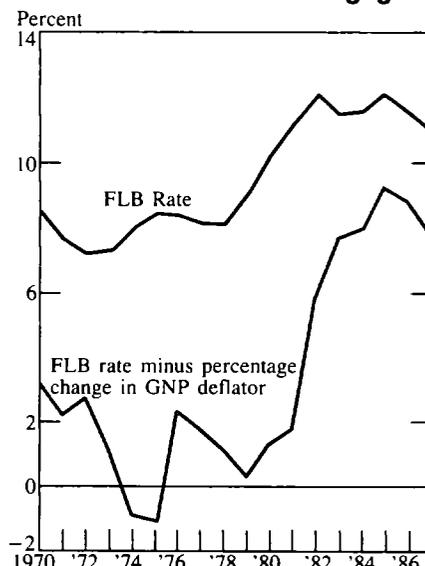
OPEC's annual oil income increased from about \$30 billion prior to 1973 to about \$120 billion in 1974. But only a portion of OPEC's windfall, roughly \$50 billion, was spent; the balance of \$70 billion was saved.⁵ That \$70 billion represented a sizable pool of funds from which banks subsequently increased lending, including more loans to developing countries to maintain living standards and promote economic growth.

The 1980s debt problem

The tables turned abruptly for Latin America and U.S. farm borrowers in the early 1980s. Real borrowing costs jumped while incomes fell

⁵ Kettel and Magnus, p. 40.

Panel B
Federal Land Bank farm mortgage rates



Sources: Farm Credit System; Board of Governors, Federal Reserve System.

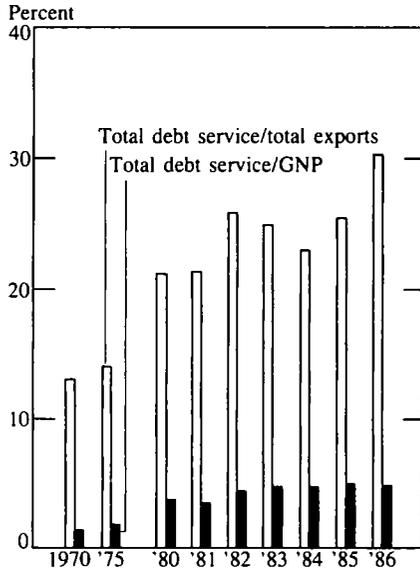
sharply, leading quickly to a debt repayment crisis for both regions.

Rising borrowing costs. Just as U.S. macroeconomic policy had contributed to the inflationary excesses of the 1970s, an abrupt change in macroeconomic policy by the United States and other western nations resulted in sharply lower inflation in the 1980s. Monetary restraint followed by an expansionary U.S. fiscal policy characterized by record-large federal budget deficits pushed interest rates sharply higher in nominal terms and, to an even greater extent, in real terms.

Real debt burdens for Latin American countries and U.S. farmers escalated with the sharply higher real interest rates. The real burden of Latin debt, measured by adjusting LIBOR for changes in Latin export prices, rose from an average of less than zero in the 1970s to double digits in the

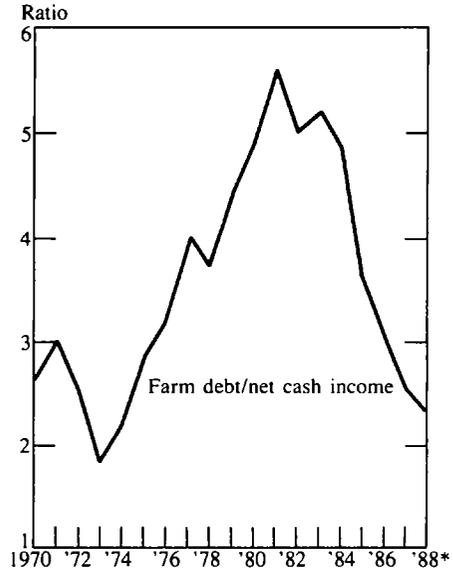
CHART 3

Panel A
Latin American debt service measurements



Source: *World Debt Tables*, External Debt of Developing Countries, The World Bank.

Panel B
United States farm debt/net cash income



Source: USDA, Economic Research Service.

*Forecast

early 1980s. U.S. farmers also realized sharply higher real debt costs as real interest rates on farm loans rose from less than 2 percent in the late 1970s to 9 percent in the mid-1980s (Chart 2).

Falling income. Just as borrowing costs began a rapid ascent, Latin American countries and U.S. agriculture encountered sharply lower incomes. Global economic growth fell at the turn of the decade, accompanied by a slump in world trade. From 1981 through 1984, Latin American real GDP and real exports fell at an average annual rate of 0.1 percent and 6.4 percent, respectively. The slower economic growth was due in part to macroeconomic policy changes in many Latin American countries. Fast growth policies of the 1970s—which encouraged rapid debt accumulation—were no longer sustainable. At the same time, world demand and prices slumped for key Latin American export commodities, including

copper, tin, and iron ore.

U.S. agriculture's exports were similarly affected by a combination of lackluster growth in foreign incomes, the rising value of the dollar, and growing global stockpiles of grain. The industry's real trade surplus fell 83 percent from 1981 through 1986. Plummeting U.S. farm exports were quickly reflected in sharply lower farm earnings.

Escalating repayment problems. In the early 1980s, borrowers in both hemispheres found themselves squeezed between rising debt service obligations and falling incomes. Rapidly rising debt-to-income or debt service-to-income ratios in Latin America and in U.S. agriculture are a direct measure of the repayment crisis that developed for borrowers in each region at the turn of the decade (Chart 3). Latin America's annual debt service requirement rose modestly from just

over 13.2 percent of the region's exports of goods and services in 1970 to 14.3 percent in 1975. But by 1982, Latin America's debt-service ratio had nearly doubled to 26.1 percent.⁶

Similarly, U.S. farm debt increased from 2.7 times net cash income in 1970 to 2.9 times cash income in 1975. But the sector's debt-to-net cash income ratio nearly doubled to 5.6 by 1981.⁷ In summary, expectations of continued low-cost debt and high incomes formed during the 1970s were proven wrong in the 1980s. The inevitable result was that Latin American and U.S. farm borrowers were trapped between burgeoning debt costs and tumbling incomes.

Assessing the current problem

Following the rapid financial deterioration of the early 1980s, how severe are the farm and Latin debt problems today? They appear to be on different paths to recovery. U.S. farmers are in the midst of recovery, while Latin economies have made only limited gains at best. This section surveys financial conditions in each and puts forward some reasons for the disparity. In both cases, the debt problems are approached from the perspective of borrower, not lender.

⁶ This debt-service ratio, from the World Bank, includes both interest and principal. Another measure is the ratio of total interest payments to exports of goods and services. This alternative measure, from the IMF, peaked at 32.3 percent in 1982 and then declined to 22.6 percent in 1987.

⁷ Data on total debt in U.S. agriculture are used here because they are much more reliable than estimates of the industry's total annual debt service obligation. The industry's debt service-to-net cash income ratio likely increased even more rapidly than the debt-to-net cash income ratio due to rising interest rates. For example, assuming average annual principal repayment rates of 3 percent on real estate debt and 15 percent on nonreal estate debt and average interest rates on outstanding debt of 8 percent in 1975 and 11 percent in 1981, U.S. agriculture's estimated debt service-to-net cash income ratio more than doubled from 0.5 in 1975 to 1.1 in 1981.

Recovery in U.S. agriculture

The U.S. farm debt problem faded in 1987 as U.S. agriculture began a strong, broadly based recovery. Record farm income, stabilizing land values, and rebounding exports all signaled the end of the farm recession in the United States. Farm lenders reported fewer loan problems, and the number of farm business failures was down.

What brought about the farm financial improvement in the United States? Three factors appear principally responsible: strong incomes underpinned by record government expenditures, financial adjustments in the industry, and some recovery in farm exports.

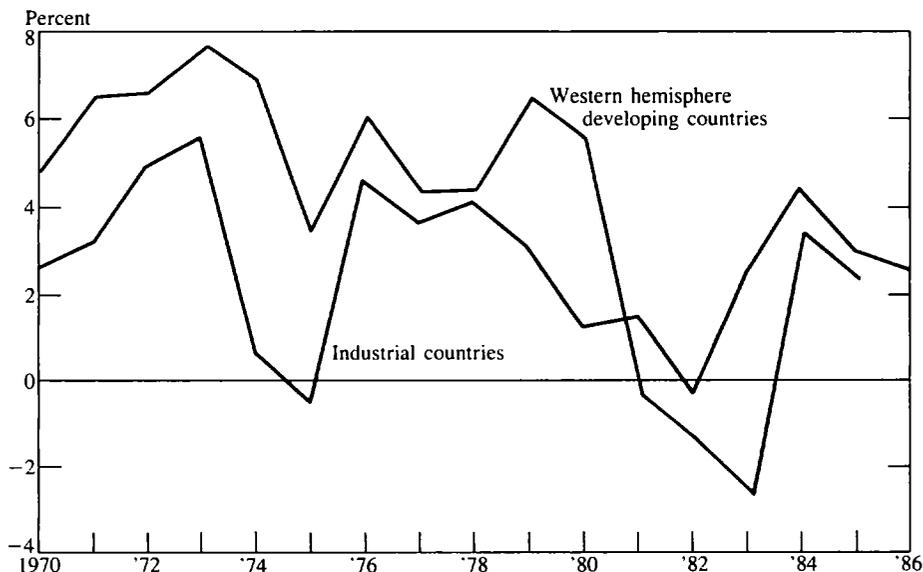
Strong farm income. U.S. farm income was record high the past two years, giving U.S. farmers considerable financial breathing room. Even after adjusting for inflation, 1987 net farm income was the highest since 1979.

Three factors explain the record farm income. The U.S. government provided nearly \$50 billion of support the past two years. The livestock industry, which accounts for about half of U.S. agriculture's gross revenue, had three years of excellent returns based mainly on market factors. Finally, U.S. farmers have slashed expenses the past five years, bolstering bottom lines and improving competitiveness in world markets.

Financial adjustments. Healthy farm incomes and a general decline in U.S. interest rates made significant financial adjustments possible for U.S. farmers. U.S. farmers restructured balance sheets and paid down debt more substantially than ever. Farm debt fell nearly \$50 billion—or more than a fourth—between 1983 and 1987 (Chart 1). U.S. commercial farm lenders absorbed a portion of that reduction as loan losses. But most of the decline can be attributed to the unique circumstances in which producers of nearly all farm commodities enjoyed strong incomes the past three years.

Rebounding farm exports. Improving exports

CHART 4
Growth of real GDP



Source: *International Financial Statistics*, International Monetary Fund, Various Issues.

are the final signal of a farm recovery in the United States. After declining for six years, U.S. farm export volume rebounded nearly a fifth in 1987. A weaker dollar, cuts in U.S. support prices, and some pickup in export demand contributed to expanded sales. But government played a part here, too. The Export Enhancement Program—another term for export subsidies—played a key role in boosting exports of such commodities as cotton, rice, and wheat.

In short, strong farm income, successful financial restructuring, and some pickup in farm exports herald the end of the U.S. farm debt crisis. The U.S. government has been an active participant underpinning the recovery. The Latin American economies have not had so generous a backstop.

The lingering Latin debt problem

The persistence of the Latin debt problem

appears to be caused by weak economies and anemic exports, relatively low commodity prices that keep real interest rates high, and insufficient financial restructuring on the part of borrowers and lenders.

Weak exports and economies. The 1981-82 world recession dealt an especially hard blow to Latin America as real economic growth fell sharply and debt burdens grew more onerous. The strong economic recovery in the United States and other western countries that began early in 1983 helped to pull Latin economies back into positive growth (Chart 4). But since then, real growth in Latin America has been only about 3 percent, roughly half its level for the 1970s. Sluggish income growth may constrain demand for imports and ease debt service difficulties. Nevertheless, more robust export-led growth will likely be required for Latin America to significantly reduce its debt problem.

Total Latin American external debt remains

high and the debt service burden is still heavy. In constant 1980 U.S. dollars, total external debt for the region grew from \$285 billion in 1982 to \$301 billion in 1986. Latin America's debt service obligations as a percent of its exports of goods and services grew to 30 percent in 1986 compared with 26 percent in 1982.

The real problem is that exports have not grown enough to allow the Latin countries to pay down debt. In fact, Latin exports of goods and services actually fell in 1985 and 1986, the last years for which data are available. In real terms, exports fell more than 7 percent in 1985 and more than 15 percent in 1986. Much of that decline is due to generally weak prices for the primary commodities Latin America exports, namely oil, metals, and agricultural products. In addition, generally moderate growth in the industrial countries the past two years has not fueled higher demand for Latin American exports.

Even more disturbing than the recent economic weakness in Latin America is the prospect for continued sluggish growth ahead. Latin economies face the ongoing problem of trying to balance short-term, debt-correction measures with steps to foster long-term growth. To bolster their external accounts and service more debt, Latin countries have enacted adjustment measures to discourage consumption and restrict imports as part of a package negotiated with the International Monetary Fund (IMF) and private lenders. The short-run correction measures have been quite successful. Per capita consumption has declined at an annual rate of nearly 1 percent in the 1980s, translating into an even sharper 6 percent annual decline in imports (Table 1). In spite of the export problems just discussed, therefore, most Latin countries have made dramatic progress in their current accounts.

Offsetting these short-run current account gains, however, has been a marked falloff in investment. In effect, long-run growth has been sacrificed to meet short-run obligations. Due to

the overshadowing debts that most Latin countries already have, most international lenders have grown extremely cautious about new loans. Net new loans to the region slowed to only \$1.5 billion in 1985 and \$2.4 billion in 1986 compared with \$23.7 billion in 1981 and \$12.1 billion in 1982.⁸ The net result is an annual investment in Latin America that has declined more than 4 percent annually in the 1980s. As a percent of GDP, investment has fallen from 23.4 percent in 1980 to 17.5 percent in 1987. While the 1970s investment pace was unsustainable, the slowdown in capital formation nevertheless poses fundamental questions about long-run growth prospects.

Weak commodity prices. Weak commodity prices have been key to the disappointing performance of Latin American exports through most of the 1980s. Primary commodities account for a major share of Latin American exports, and their prices have been generally weak in recent years. Oil prices, important to Mexico and Venezuela, are off more than 40 percent from late 1985 levels, with most of the decline occurring in 1986. A significant recovery in metals and agricultural commodities was a heartening development in 1987. Metals prices did rebound in 1987 and are now about 10 percent above 1980 levels. Raw agricultural materials, weak through 1986, also rose appreciably in 1987 and are now slightly above 1980 levels.⁹

The weakness in most commodity prices cuts the value of exports, as already discussed. But the decline in Latin America's terms of trade has an even more devastating effect on debt service. In brief, weak prices for Latin exports sharply raise the real interest rate facing the region. Even though market rates have declined the past few years, that nominal fall has been more than off-

⁸ Source: *World Debt Tables*, External Debt of Developing Countries, The World Bank, 1987.

⁹ Source: *International Financial Statistics*, International Monetary Fund, 1987 Yearbook.

TABLE 1
Financial and economic conditions of Latin debtors

Country	Debt Outstanding, 1987 ^a		Debt Service 1987-89 ^b		Debt Ratios Percent ^c		Trade Balance ^d (US \$ Billion)		Average Annual Growth Rates 1980-87 ^d (Percent)				
	Total (US \$ Billion)	Of Which Private Source (Percent)	Of Which		EDT/ 1986	INT/ XGS, 1987	1983-87 Annual Average Value	Balance in 1982	GDP	Exports	Imports	Investment	Per Capita Consumption
			Total	Interest									
Argentina	49.4	85.8	23.7	7.9	65.8	33.1	3.1	2.3	0.0	1.4	-11.0	-9.5	-1.2
Bolivia	4.6	26.7	1.6	0.6	118.8	31.5	0.0	0.3	-3.5	-0.3	-2.4	-2.6	-5.1
Brazil	114.5	75.5	61.4	20.0	41.0	30.2	8.6	-0.9	3.4	3.2	-4.4	-1.1	1.1
Chile	20.5	83.2	9.8	4.2	138.8	29.5	0.5	-0.4	0.9	4.1	-6.8	-4.6	-2.2
Colombia	15.1	49.4	8.5	3.1	46.8	16.6	-0.3	-2.4	2.8	8.0	-3.3	0.9	0.2
Costa Rica ^e	4.5	50.8	2.4	0.7	118.7	18.9	-0.1	-0.1	1.5	2.1	-2.4	1.3	-1.4
Ecuador ^e	9.0	70.2	4.3	1.8	83.5	24.4	0.6	0.6	1.4	5.9	-2.6	-4.7	-2.2
Mexico	105.0	86.2	44.9	22.2	83.8	32.7	9.1	6.2	0.3	6.4	-7.7	-6.7	-2.7
Peru	16.7	53.2	7.9	2.2	62.4	29.0	0.3	-0.4	0.7	-0.6	-5.7	-12.6	-0.2
Uruguay ^e	3.8	80.1	1.3	0.7	63.4	15.3	0.2	-0.1	-1.4	-0.1	-8.1	-13.8	-2.4
Venezuela	33.9	99.3	15.9	6.6	70.8	22.5	3.9	3.6	-0.7	-0.9	-5.7	-3.4	-4.6
Total	377.0	79.4	181.7	3.8	60.4	28.6	25.9	8.7	1.5	3.0	-6.1	-4.3	-0.9

^aEstimated total external liabilities, including use of IMF credit.

^bDebt service is based on long-term debt and terms at yearend 1986. It does not take into account new loans contracted or debt reschedulings signed after that date.

^cTotal external debt relative to GNP. Interest due in 1987 on long-term debt outstanding at the end of 1986, relative to exports of goods and all services.

^dData for 1987 are preliminary estimates. Growth rates (least squares) are computed from time series in constant prices.

^eYearend 1986 debt.

Source: *World Debt Tables*, External Debt of Developing Countries, The World Bank, 1987.

set by weakness in the region's terms of trade. The net effect is that Latin America's real interest rate remains at double-digit levels (Chart 2).

Slow financial adjustments. Unlike U.S. agriculture, where financial restructuring has moved along fairly rapidly the past three years, Latin debt adjustments have emerged much more slowly. The slowness stems from the very large potential losses at stake and from the ongoing weakness in the Latin economies. The past year, attention has focused on steps by U.S. banks to set aside sizable loan-loss reserves, and on the continued emergence of debt swap agreements.

One of the most heralded Latin debt adjustment mechanisms is debt exchange. The arrangement takes one of two forms. In a debt swap, Latin loans are exchanged at discount for higher

yielding bonds issued by Latin countries and backed by U.S. Treasury securities. Mexico conducted a debt swap auction in March 1988, but the auction met with only limited success. In a debt-equity swap, Latin loans are exchanged at discount for an equity stake in a Latin corporation or business. This market continues to develop slowly, and U.S. banks do appear to be considering it more seriously. Overall, the financial markets are developing new channels for restructuring, but there is a long road ahead.

Overall, the Latin American debt problem remains serious, with only limited improvement evident. Total debt remains high, Latin economies are weak, exports are hampered by low commodity prices, and real interest rates to the region are still high. The magnitude of the potential

TABLE 2

Latin American debt held by U.S. banks compared to assets and capital
(billions of dollars)

	1982				1987			
	9 Money Center	Next 15 Large	All Others	Total	9 Money Center	13 Other Large	All Others	Total
Total Latin Loans	50.0	16.4	15.4	81.8	48.8	13.0	11.1	73.0
Total Assets*	588 (8.51)	253 (6.47)	420 (3.68)	1,261 (6.49)	626 (7.80)	284 (4.59)	723 (1.53)	1,633 (4.47)
Total Capital**	29.0 (172.52)	13.5 (121.25)	28.1 (54.96)	70.6 (115.92)	51.5 (94.83)	23.9 (54.51)	53.8 (20.61)	129.2 (56.47)

*In parentheses, Latin loans as percent of total assets.
**In parentheses, Latin loans as percent of total capital.
Source: "Country Exposure Lending Survey," Board of Governors of the Federal Reserve System, June 1, 1983 and April 22, 1988.

losses has slowed the restructuring process, but some new channels for adjustment are developing.

There is one perspective from which the Latin debt crisis has shown greater improvement. That is the perspective of U.S. banks. The exposure of the U.S. banking system to Latin debt problems has declined since the early 1980s, as Latin debt held by U.S. banks has edged lower and the banks have strengthened their capital positions. Latin debt held by U.S. banks declined about 11 percent from 1982 through 1987 (Table 2). As total Latin loans at U.S. banks were shrinking modestly, the banks boosted their total capital about 85 percent. As a result, Latin loans as a percentage of total bank capital was halved from 116 percent to 56 percent, over the five-year period.

The exposure of the largest money center banks to Latin loan problems has not fallen as sharply as for smaller banks. The decline in Latin debt held by the largest money center banks—less than 3 percent—was disproportionately smaller than the decline at other banks. The money center banks took major steps to set aside loan loss reserves against their Latin American loans in

1987, however. Led by Citibank, U.S. money center banks made loan loss provisions of 25 to 30 percent of Latin loans. Still, at 95 percent, Latin debt as a percentage of total capital at the money center banks remained much higher than at the smaller banks. On balance, U.S. banks have made notable progress in a long process of addressing problem loans in Latin America.

Common ground: the importance of Latin America to U.S. agriculture

Despite contrasting improvement in U.S. farm and Latin debt problems, the two regions do have an important common bond: a strong, well-established flow of agricultural trade. Maintaining healthy bilateral trade between the United States and Latin America is clearly in the interests of both U.S. farmers and Latin American economies.

This section focuses on the linkage between growth in U.S.-Latin American trade, growth in Latin American incomes, and Latin America's debt problem. First, the relative importance of

TABLE 3

Total U.S. agricultural exports, agricultural exports to Latin America, and Latin America as a percent of total agricultural exports, 1970-86
(millions of dollars)

<u>Year</u>	<u>U.S. Agricultural Exports to Latin America</u>	<u>Agricultural Exports to Latin America as a Percent of Total</u>	<u>Total U.S. Agricultural Exports</u>
1970	688	9	7,259
1971	774	10	7,693
1972	872	9	9,401
1973	1,692	10	17,680
1974	2,565	12	21,945
1975	2,280	10	21,859
1976	1,943	8	22,978
1977	2,217	9	23,636
1978	3,158	11	29,382
1979	3,684	11	34,749
1980	6,172	15	41,233
1981	6,367	15	43,339
1982	4,438	12	36,627
1983	5,211	14	36,099
1984	5,263	14	37,804
1985	4,224	15	29,041
1986	3,639	14	26,046
1987*	4,007	13	31,596

*Preliminary
Source: U.S. Department of Agriculture, Foreign Agricultural Trade of the United States, Calendar Year Supplements, 1970-86.

U.S.-Latin American agricultural trade to both regions is considered. Then the relationship between agricultural trade growth and income growth in Latin American countries is explored. The linkage between agricultural trade and income is important to a discussion of the Latin American and U.S. farm debt problems. Agricultural trade is important to the economies of the heavily indebted Latin American nations and to the U.S. farm economy.

U.S. and Latin American farm trade linkages

Latin America is the third largest regional market for U.S. farm exports, with annual purchases less than those of only Asia and western Europe. And Latin America's importance to U.S. farmers is growing. In 1970, Latin America purchased \$688 million worth of U.S. agricultural exports, or 9 percent of that year's total U.S. farm exports. By 1986, U.S. agricultural exports to

TABLE 4

Total U.S. agricultural imports, agricultural imports from Latin America, and Latin America as a percent of total agricultural imports, 1970-86
(millions of dollars)

<u>Year</u>	<u>U.S. Agricultural Imports from Latin America</u>	<u>Agricultural Imports from Latin America as a Percent of Total</u>	<u>Total U.S. Agricultural Imports</u>
1970	2,254	39	5,770
1971	2,236	38	5,823
1972	2,519	39	6,467
1973	3,023	36	8,419
1974	4,045	40	10,221
1975	3,611	39	9,293
1976	4,330	39	10,966
1977	5,668	42	13,438
1978	6,098	41	14,805
1979	6,962	42	16,724
1980	7,255	42	17,366
1981	6,554	39	16,772
1982	5,652	37	15,341
1983	6,177	37	16,627
1984	7,176	37	19,334
1985	7,639	38	19,968
1986	8,229	39	21,051
1987*	8,018	36	22,104

*Preliminary

Source: U.S. Department of Agriculture, Foreign Agricultural Trade of the United States, Calendar Year Supplements, 1970-86.

Latin America—primarily wheat, corn, soybeans, and beef—had increased to \$3.6 billion, bringing Latin America's share of total U.S. farm exports to 14 percent (Table 3). Thus, Latin America's importance as an export market for U.S. agricultural products has increased in relative as well as absolute terms.

In addition to being an important market for U.S. agricultural exports, Latin America is the single most important supplier of U.S. farm imports. In 1970, the United States imported \$2.3

billion of agricultural products from Latin America, 39 percent of total U.S. agricultural imports (Table 4). Although Latin America's share of total U.S. agricultural imports in 1986 was unchanged at 39 percent, imports from Latin America, including large quantities of coffee and orange juice, had increased to \$8.2 billion.

The agricultural trade of the four most heavily indebted Latin American countries, Mexico, Brazil, Venezuela, and Argentina, is especially important to the United States. Mexico has been

TABLE 5
Total U.S. agricultural exports to Latin America with rankings of the five largest purchasers, 1970-87
(millions of dollars)

<u>Country</u>	<u>Agricultural Exports</u>
1970	
Total Latin America	688
Mexico	156
Venezuela	98
Brazil	68
Colombia	39
Jamaica	35
1980	
Total Latin America	6,172
Mexico	2,490
Venezuela	701
Brazil	680
Chile	320
Peru	316
1987*	
Total Latin America	4,007
Mexico	1,273
Caribbean	893
Venezuela	552
Central America	403
Brazil	335

*Preliminary

Source: U.S. Department of Agriculture, Foreign Trade of the United States, Calendar Year Supplements, 1970-86

TABLE 6
Total U.S. agricultural imports from Latin America with rankings of the five largest suppliers, 1970-87
(millions of dollars)

<u>Country</u>	<u>Agricultural Imports</u>
1970	
Total Latin America	2,254
Brazil	536
Mexico	513
Colombia	199
Dominican Republic	166
Argentina	118
1980	
Total Latin America	7,255
Brazil	2,019
Mexico	1,059
Colombia	1,025
Dominican Republic	454
Guatemala	373
1987*	
Total Latin America	8,018
Mexico	2,098
Brazil	2,005
Colombia	805
Ecuador	471
Guatemala	394

*Preliminary

Source: U.S. Department of Agriculture, Foreign Trade of the United States, Calendar Year Supplements, 1970-86

the largest Latin American importer of farm products from the United States every year since 1970, and Brazil and Venezuela have ranked second or third (Table 5). Together, these three countries accounted for about 54 percent of U.S. farm exports to Latin America, or 7 percent of total U.S. agricultural exports in 1987. Mexico and Brazil have also been the largest Latin American exporters of agricultural products to the United States every year since 1970. Together, these two countries accounted for over half of all U.S. agricultural imports from Latin America, or 19 percent of total U.S. agricultural imports last year (Table 6). Though Argentina has not ranked among the top five Latin American countries in direct agricultural trade with the United States in recent years, Argentina's presence in world markets is well known to American farmers. Argentina is one of the world's most efficient producers of wheat, corn, and soybeans and competes directly with the United States in world grain and oilseed markets. Similarly, Brazilian farmers compete directly with U.S. farmers in the world soybean market.¹⁰ Thus, the most heavily indebted Latin American countries are also important participants in world agricultural trade.

More robust income growth in Latin American economies would likely be of benefit to U.S. agriculture as well as to the Latin American countries themselves. Larger Latin incomes resulting from stronger growth in net exports would ease the debt servicing problems of Latin American borrowers. Because most Latin economies are heavily dependent on agricultural trade, however, expansion in agricultural exports from Latin American countries is a prerequisite of more rapid

income growth in the region. And growing exports of Latin American farm products are likely to compete directly with U.S.-produced goods in selected markets. Therefore, some observers of U.S. agriculture are concerned about the current and future competitive threat posed by Latin American countries. They argue that agricultural development there will only reduce the U.S. share of world markets. But two factors mitigate against this argument and tend to make free trade beneficial for both parties.

First, there is an inherent difference in agricultural productive capabilities. The main agricultural production area in the United States specializes in temperate zone commodities, such as corn, wheat, soybeans, and cotton. The main Latin American production zone specializes in tropical agricultural commodities, such as fruits, vegetables, and citrus. There are some important exceptions. Sunbelt states such as Florida and Texas are likely to compete directly with South American fruit and citrus. Argentina is an efficient, though low-volume, producer of wheat, corn, and soybeans. And U.S. soybean growers will face some threat from soybeans grown in the cone region of Brazil. That region is becoming a significant producer of soybeans, although it remains uncertain how and when its full potential will be realized and thus how much it will threaten U.S. growers in the future.

Second, rising incomes in Latin America will lead to greater demand for U.S. feed grains. Greater demand for meat products—beef, pork, and poultry—is likely to accompany rising Latin incomes. Greater beef output could be achieved through grazing rangeland. But any increase in pork and poultry production will lead to larger feed grain imports, quite likely from the United States.

Taken together, different comparative advantages in crop production and the potential for greater trade in feed grains suggest that agricultural trade growth will benefit both regions.

¹⁰ See Alan Barkema and Mark Drabentstott, "Can U.S. and Great Plains Agriculture Compete in the World Market?" *Economic Review*, Federal Reserve Bank of Kansas City, February 1988. pp. 3-17.

Whether trade benefits are realized may depend importantly on the future course of agricultural and trade policies in both regions. Pursuit of protective agricultural and trade policies in the United States and Latin countries will diminish agricultural trade opportunities. On balance, therefore, policies that maintain a robust trading relationship between the United States and Latin America serve the long-run interests of both regions, even though competition in both foreign and domestic markets accompanies free trade.

Easing debt adjustment in the future

Latin America clearly faces an ongoing challenge in moving from short-run debt management to long-run prosperity. U.S. agriculture, although much more successful in addressing its debt crisis, also faces significant problems in finding long-run prosperity. In both cases, adjustment costs will continue to mount unless transition is made from debt restructuring to long-run growth. Especially for Latin America, continued negotiations between lenders and Latin borrowers remain to be made before the problems start to fade.

But broader policy issues will transcend those individual decisions. Macroeconomic policy, trade policy, and agricultural policy together will create the stage on which Latin debts get resolved. The directions policymakers take will have enormous effect on the ultimate cost of the debt adjustments and the eventual success of those adjustments. And, coincidentally, the very same policies will in large measure determine U.S. agriculture's future.

Vital links, therefore, connect Latin America and U.S. agriculture. Not only do they have solid trade ties, they also have a great mutual interest in a sound policy package that will promote long-run prosperity. This section briefly considers the potential debt adjustment costs that may lie ahead and then suggests a package of macroeconomic, trade, and agricultural policies that would benefit

both Latin America and U.S. agriculture.

Debt adjustment costs

A relatively small portion of U.S. agriculture's debt adjustment cost apparently remains. The U.S. Department of Agriculture estimates that agricultural lenders will incur \$15 to \$19 billion of losses in the 1980s, about 10 percent of the farm debt outstanding when the decade began.¹¹ At the end of 1987, lenders were estimated to have already taken 75 to 85 percent of those losses. Thus, agriculture's future costs appear relatively low.¹²

But that conclusion could prove too optimistic. U.S. agriculture could lose in a coming tug of war. On the one hand, government support seems likely to decline in coming years, undercutting agriculture's recovery. On the other hand, continued growth in export sales would fuel agriculture's recovery. U.S. agriculture needs rapid economic growth in developing countries because the industry's comparative advantage lies in selling large volumes at low-unit cost.

It is not clear which side of this tug of war will win. But if exports remain sluggish while government support is reduced, farm debt problems could again resurface. Thus, U.S. agriculture is extremely dependent on growth in export markets to keep its hard-won recovery going.

¹¹ Gregory Hanson, Richard Kodl, Gary Lucier, and Kenneth Erickson, "Farm Finance Outlook," presented at the annual U.S. Department of Agriculture Outlook Conference, Washington, D.C., December 3, 1986.

¹² Much of the remaining debt adjustment cost will be borne by two lenders—the Farm Credit System and the FmHA. For a discussion of the loan problems facing these lenders, see Alan Barkema and Mark Drabenstott, "A New Era in Farm Lending: Who Will Prosper?" *Economic Review*, Federal Reserve Bank of Kansas City, June 1988, pp. 22-38.

TABLE 7
Market prices for developing-country debt
 (percent of face value)

<u>Country</u>	<u>January 1987</u>	<u>July 1987</u>	<u>December 1987</u>	<u>July 1988</u>
Argentina	62-65	46-49	35-38	22-25
Brazil	74-77	58-61	45-48	50-52
Chile	65-68	68-70	60-63	57-60
Colombia	—	81-83	67-72	60-65
Ecuador	63-66	45-47	34-38	23-27
Mexico	54-57	55-57	51-54	50-52
Peru	16-19	10-12	2-7	5-8
Venezuela	72-74	70-72	49-52	53-55

Source: *LDC Loan Monitor*, Shearson Lehman Hutton, Inc., July 1988.

Latin America's future debt adjustment costs are much bigger and more uncertain. One market measurement of unrealized losses is the discount attached to Latin American loans. As listed in Table 7, loans in various Latin countries are currently selling at discounts ranging from one-third to more than two-thirds. These secondary markets are thinly traded, and thus provide an imperfect estimate of eventual losses. Nevertheless, the markets do point to future losses of great magnitude.

Smooth debt adjustment in the future depends upon the performance of the Latin economies. The usefulness of debt-equity swaps as a vehicle for adjustment, for example, is limited by the willingness of lenders and other investors to accept equity positions in Latin America. The value of equity positions will depend, in turn, on the likely returns to those equity positions. Economic performance, therefore, becomes the linchpin of both U.S. agricultural and Latin American recovery.

A sound policy package

A sound policy package for the mutual benefit

of U.S. agriculture and Latin America has macroeconomic, trade, and agricultural policy elements. Together, the proper elements should combine to lower interest rates, stimulate economic growth, and encourage trade. The United States plays a key role in shaping the package, but coordination among many nations will be necessary in putting sound policy in place.

Macroeconomic policy. The essential starting point for both U.S. agriculture and Latin America is macroeconomic policy. Macroeconomic policy imbalances have contributed significantly to the debt problems, and greater policy balance is a necessary condition for improvement.

U.S. federal budget deficits have been an important macroeconomic policy element in the U.S. farm and Latin debt problems. The high deficits are generally thought to have been harmful to U.S. agriculture and to have had mixed effects in Latin America. The deficits have raised real interest rates in the United States and elsewhere, harming borrowers in U.S. agriculture and Latin America. By stimulating the U.S. economy, however, the deficits did cause U.S.

imports to rise, a factor helpful to Latin America. But the deficits were also responsible for a huge capital inflow into the United States that redirected capital away from other possible uses in the developing world.

Another element is more stimulative fiscal policy in other industrial nations. Unless West Germany and other European countries stimulate their economies, budget cuts in the United States will only weaken the world economy, making it even more difficult for Latin debtor nations to export goods and services.

Numerous benefits would accompany these moves to greater fiscal policy balance within the United States and among industrial countries. Real interest rates would decline. That would ease Latin debt service while stimulating economic growth in Latin countries. The United States would need less of the world's capital supply, making more available for developing countries. A more sustainable pattern of world capital flow would stabilize financial markets and relieve market concerns. That would contribute to a more favorable climate in which to address Latin debt problems. And greater fiscal restraint in the United States would give monetary policymakers more flexibility, possibly allowing interest rates to decline with less fear of inflation. All of these outcomes would benefit both U.S. agriculture and Latin America.

Greater macroeconomic balance will encourage more stable exchange rates. The great fiscal and trade imbalances of the 1980s have led to wide currency fluctuations. Both the Latin American region and U.S. agriculture benefit from more stable, sustainable exchange rates. Because much Latin debt is denominated in dollars, a more stable dollar improves debt service management. And more stable western currencies may ease pressures on Latin currencies. Macroeconomic policy balance, by lowering interest rates and stimulating growth, would give Latin countries more stable footing to better manage their currencies.

Another important macroeconomic element is further structural adjustments in the Latin American economies. Adjustments that are needed include improved market incentives, further attention to public expenditures, and greater balance between fiscal and monetary policies. Such adjustments would maximize the benefits that will accrue to the limited investment funds available to Latin American countries.

Trade policy. Closely related to sound macroeconomic policy is open trade policy. Both U.S. agriculture and Latin America have interest in fluid trade. Without growth in trade, U.S. agriculture must put huge amounts of resources on the shelf. And Latin America is unable to service its debts without growing exports to service its debts.

A pressing need is for countries to discourage protection and pursue multilateral agreements that encourage trade. Protectionist pressures remain considerable in the United States and elsewhere, and growing protectionism will harm U.S. farmers and Latin America. The current Uruguay round of General Agreement on Tariffs and Trade negotiations is attempting to reduce trade barriers in a number of products and services. The outcome of those talks will set the tone for trade patterns in coming years. Both U.S. farmers and Latin American countries have an interest in seeing nontariff barriers, including quotas, lowered by the industrial nations.

Agricultural policy. Current agricultural policies seriously distort agricultural production and trade patterns around the world. Subsidies encourage inefficient production and even make exporters out of importers. And the policies raise food prices to consumers while also raising taxes. Still, the policies are firmly entrenched in nearly all developed countries, and the United States certainly is included in that group.

The Uruguay round provides a clear opportunity for all parties to reach a new understanding on agricultural policy. The United States has pro-

posed that all trade-distorting subsidies be eliminated in ten years. Although producing nations are not likely to subscribe to this relatively quick end to farm supports, the Uruguay round may initiate a clear trend toward more market-oriented farm policies.

What benefits does greater market orientation offer to U.S. agriculture and to Latin America? For U.S. farmers, freer agricultural policy should encourage trade while lowering U.S. production costs by more efficiently allocating resources. And it is increasingly apparent that U.S. agriculture's real comparative advantage lies in exporting large quantities at low-unit cost. That advantage derives from the United States' huge resource base and unequalled grain handling infrastructure. Only at high levels of trade do these advantages come into full play. For Latin America, a trend to freer agricultural policy would limit the quantities of subsidized farm commodities competing with Latin America's agricultural products on world markets. In brief, Latin American countries could pursue their true comparative advantage in a growing market.

A policy package of greater macroeconomic balance, open trade, and more market-oriented farm policy is in the mutual interests of U.S. agriculture and Latin America. A more favorable policy setting would lower the cost of debt adjustment for Latin America and maintain one of U.S. agriculture's most promising markets.

Conclusions

Latin America and U.S. agriculture both have had serious debt problems in the 1980s. Though seemingly dissimilar, the two problems do have some common roots. Currently, the U.S. farm debt problem is improving while the Latin debt problem lingers. Buoyed by generous government support of agriculture, U.S. farmers and lenders have been aggressive in addressing problem loans and reducing the debt burden. Adjustment has been much slower south of the border. However, while the debt burden remains large, innovative mechanisms are emerging for addressing problem loans.

Looking to the future, U.S. agriculture and Latin America have a strong mutual interest in the broad economic policy setting in which they will operate. To prosper, both U.S. agriculture and Latin America need greater macroeconomic balance, more open trade, and more market-oriented agricultural policy. Additional structural adjustment in the Latin American countries will also be needed. Such a package of broad policy elements will help determine the ultimate cost and eventual success of the many debt adjustments that must be made in Latin America during the next few years. Without stronger trade growth in Latin America and other developing regions, U.S. agriculture will face the unpleasant task of stockpiling even more of its plentiful resources.