Recent U.S. Export Performance in the Developing World

by Bruce Kasman

Exports have been a major source of strength for the U.S. economy in recent years. The nation's sales abroad have more than doubled since 1986, prompting a large reduction in the U.S. merchandise trade deficit and substantially boosting output and employment growth. Many analysts had expected a surge in exports because of the acceleration of growth in Europe and Japan and the dollar's sharp decline against these countries' currencies during the second half of the 1980s. What had not been anticipated, however, was our remarkable export performance in developing country markets. U.S. sales increases to developing countries have far outpaced export growth to the industrial world since 1986, and over the past three years, the developing world has been the primary source of U.S. export growth.

This article investigates the reasons for the recent strong performance of U.S. exports to the developing world. The analysis suggests that macroeconomic developments in the industrial world have greatly contributed to this strength. Specifically, during the second half of the 1980s, the combination of declining world interest rates, faster industrial world growth, and the fall in the dollar boosted foreign exchange earnings in a developing world beset by high debt burdens and only limited access to external financing. This increase in earnings greatly expanded the spending capability of developing countries and largely explains their growing appetite for U.S. and other industrial country goods.

The close linkages between developing countries' foreign earnings and their import demand also helps explain why, until recently, these countries suffered no deterioration in their balance of trade with the industrial world. Indeed, from 1986 through 1990 the developing world's trade balance with the United States actually improved.

Renewed access to international capital flows has sustained the developing world's demand for U.S. goods in the face of an industrial world downturn during the past two years. The resiliency of developing world demand is limited, however, and the continued strength of our export performance to developing countries remains tied to the ability of developing countries to sell their products to the industrial world.

U.S. export performance since the mid-1980s

Although our export sector accounts for a relatively small share of the U.S. economy, exports have been a key source of output and employment growth in recent years. From 1986 onward, exports of goods and services grew at an average 8 percent annual rate in volume terms (Chart 1). Foreign sales contributed, on average, more than a percentage point to GDP growth per year during 1987-92, in sharp contrast to the first half of the 1980s, when exports placed a drag on activity.[1] Estimates made in a recent Commerce Department study suggest that our sales in foreign markets accounted for nearly all of the job creation in the U.S. manufacturing sector during this period.[2]

[1]Net exports, which measure foreign sales less purchases of goods and services from abroad, contributed slightly less than 1/2 percentage point per year, on average, to GDP growth from 1986 through 1992.

[2]Lester Davis, "U.S. Jobs Supported by Merchandise Exports," U.S. Commerce Department, April 1992. Davis estimates that export growth accounted for all manufacturing employment growth and one-quarter of all civilian employment growth from 1986 to 1990.

U.S. exports grew most rapidly over the three-year period from 1987 through 1989, when volume increases exceeded 10 percent each year. Since that time, export growth has slowed steadily, falling to about 6 percent in 1992. Despite this slowdown, our foreign sales played a particularly important role in U.S. activity during the more recent period. At a time when other major components of activity stalled or declined, exports contributed 2.1 percentage points to growth over 1990-92, an amount exceeding the increase in GDP during these years.

The acceleration in U.S. export sales since the mid-1980s extended to all regions of the world. Shipments of merchandise goods to countries in Europe, Asia, the Middle East, and the Western Hemisphere all grew rapidly during the second half of the 1980s, in most cases at double-digit annual rates (Table. 1). Underlying this broad-based acceleration, however, we observe a pattern of surprising strength in U.S. export growth to developing countries. This record of growth has made developing country markets an increasingly important destination for U.S. goods.

Chart 1

Export and GDP Growth

Constant Dollars, National Income and Product Accounts Basis

Note: Contribution of exports to GDP is measured by the change in exports as a share of GDP.

Following the 1982-86 period, in which our merchandise exports to developing countries declined, exports to the developing world expanded at an average annual rate exceeding 16 percent in current dollar terms from 1986 to 1992. Exports to developing countries in Asia (hereafter called Asia) and in Latin America and the Western Hemisphere more generally (hereafter termed Latin America)—countries that are the destination for almost one-third of our total foreign sales and over 80 percent of our trade with the developing world—increased at about this rate.[3] Within these broad regions, sales to the four Asian NICS, or newly industrialized countries (Hong Kong, Taiwan, South Korea, and Singapore), and Mexico were particularly strong, increasing annually by 17.4 and 22.7 percent, respectively, during 1987-92.

An examination of U.S. export growth by product category indicates that our export boom to the developing world has extended across a wide range of products (Chart 2). In each of the four major export end-use categories—capital goods, industrial supplies, consumer goods, and autos—exports to Latin America and Asia grew, on average, at double-digit annual rates over 1987-92. The success of U.S. auto sales to these regions is particularly notable, although auto sales make up a relatively small share of our trade with these regions.[4]

Our sales to industrial countries also grew rapidly following a period of prolonged weakness during the first half of the 1980s. The pace of U.S. export growth to industrial countries (9.7 percent per year since 1986) was, however, only three-fifths as fast as sales increases to the developing world. In none of our major industrial markets (Western Europe, Canada, and Japan) did U.S. exports grow as fast as they did to Latin America or Asia during this period. As a result, the share of U.S. foreign sales directed to developing countries rose steadily, from 32 percent in 1986 to 40 percent in 1992.

The disparity in our export performance in industrial and developing country markets became more marked after 1989. U.S. sales to the industrial world slowed over 1990-92, increasing only 3.5 percent annually. In contrast, sales to developing countries remained

[3]Throughout this article, Latin America refers to all countries in the Western Hemisphere excluding the United States and Canada. Asia refers to all non-middle-eastern Asian countries excluding Japan, Australia, and New Zealand. In general, the regional groupings used here conform to the country classifications described in the International Monetary Fund's *International Financial Statistics*.

[4]In 1990, U.S. exports of automotive products accounted for 2 percent of our total exports to Asia and 10 percent of our total exports to Latin America.

Table 1

U.S. Merchandise Export Growth by Region

Annual Average Percentage Changes, Current Dollars, Balance of Payments Basis

	Percentage Share of Total in 1990	1982-86	1987-92	1987-89	1990-92
Total	100	−1.2	11.9	17.4	6.6
Developing countries	34	−5.1	16.2	19.8	12.7
Asia	16	1.8	15.5	25.0	6.7
Newly industrialized countries†	10	3.4	17.4	29.6	6.3
Other Asia	6	0.0	12.8	18.4	7.4
Latin America	14	−6.4	16.6	16.7	16.5
Mexico	7	−7.5	22.7	26.1	19.5
Other Latin America	7	−5.6	11.4	9.4	13.4
OPEC	3	−13.2	12.9	8.6	17.4
Industrial countries	66	1.1	9.7	16.3	3.5
Western Europe	29	−1.5	11.4	17.7	5.4
Japan	12	3.9	10.2	18.5	2.5
Canada	21	4.2	8.3	12.6	4.1

Note: Figures for 1992 are based on data through the third quarter.
†South Korea, Hong Kong, Taiwan, and Singapore.

robust, particularly to Latin America, where our exports continued to increase more than 16 percent per year. Overall, two-thirds of total U.S. export growth since 1989 can be attributed to sales to developing countries. This figure represents a dramatic increase from the sales' nearly 40 percent contribution to overall export growth during the previous three years and their less than 20 percent contribution from 1980 to 1986.

Sources of U.S. export growth to developing countries

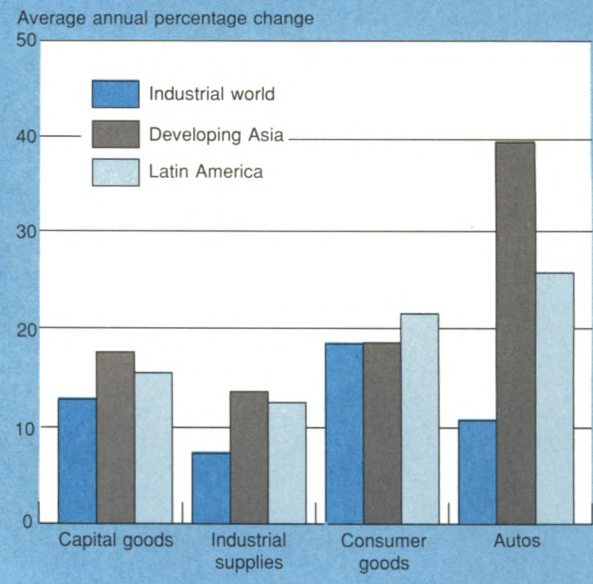
Most recent studies of U.S. export performance have emphasized traditional macroeconomic fundamentals—in particular, relative prices as determined by exchange rates and inflation trends, and foreign income—in explaining the surge in U.S. exports following 1986. Such analyses appear to explain U.S. exports to industrial countries relatively well. However, efforts to apply these determinants to developing countries suggest that this standard macroeconomic approach is not adequate to account for the strength of U.S. export growth to the developing world.

Chart 3 indicates that movements in U.S. relative prices and foreign GDP correspond closely to the observed pattern of U.S. export growth to industrial countries. The acceleration in our sales to the industrial world during 1987-89 was accompanied by a pickup in the pace of economic activity abroad. Foreign industrial

Chart 2

U.S. Export Growth by Major End-Use Category: 1987-92

Current Dollars, Census Basis



Note: Figures for 1992 are based on data through the third quarter.

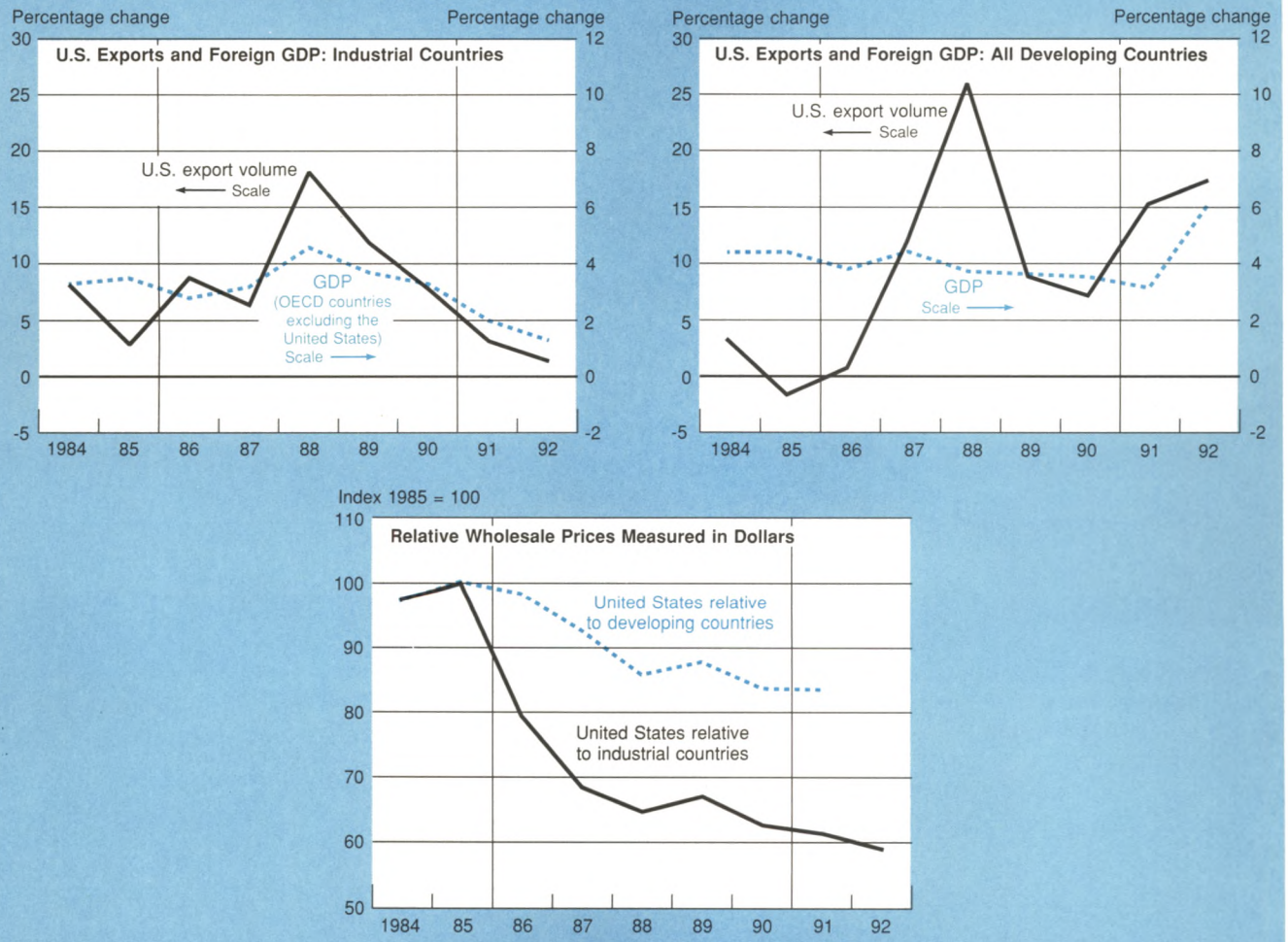
world GDP increased, on average, by close to 4 percent per year over 1987-89, its fastest three-year rate of expansion during the post-1973 period. Similarly, export growth slowed from 1990 onward in an environment of weakening activity abroad.

Our exports to industrial countries have also been boosted by U.S. relative price gains. Following the dollar's decline in 1985, foreign industrial country wholesale prices rose substantially faster than comparable U.S. prices. Through 1988 our relative gains amounted, cumulatively, to more than 30 percent. Since that time, the United States has continued to make modest gains in its competitive position in the industrial world.

Activity growth and relative price movements in the developing world do not seem to be as strongly linked to U.S. export performance. Developing countries' economic growth did not accelerate at the same time as U.S. exports to this region. In fact, developing world

Chart 3

Macroeconomic Determinants of U.S. Exports



Sources: U.S. Commerce Department; Organization for Economic Cooperation and Development, *Economic Outlook*; International Monetary Fund, *International Financial Statistics*.

Notes: In both upper panels, U.S. exports are adjusted by the U.S. aggregate export price deflator to compute export volumes. The lower panel presents trade-weighted indexes comparing U.S. wholesale prices with those of twenty-two developing countries (dashed line) and seventeen industrial countries (solid line). A decline in the index indicates that U.S. prices are rising more slowly than those of our trading partners. Values for 1992 are either through the third quarter or full-year estimates.

growth slowed during 1987-89 from its pace during the previous three years. Moreover, the relative price gains made by the United States against developing countries during this period were comparatively modest, amounting to slightly more than 15 percent cumulatively since 1985.

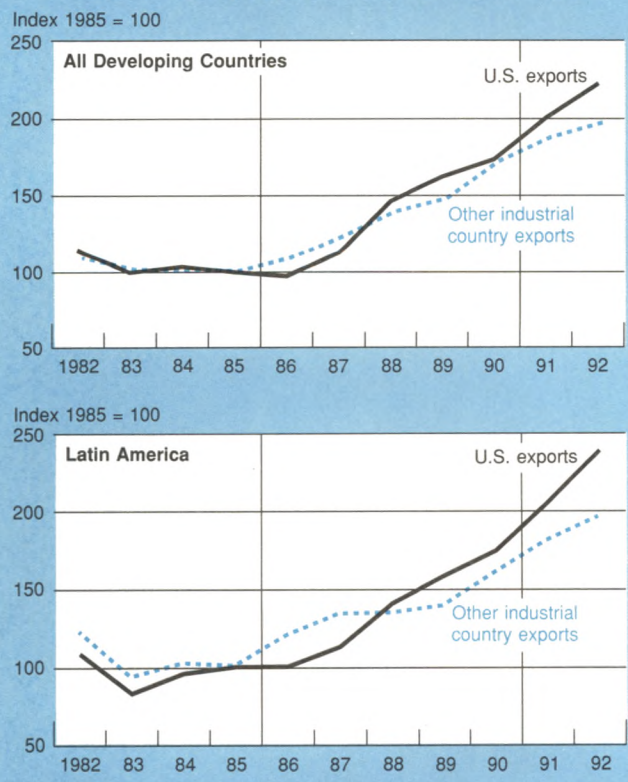
Examining the 1987-92 period in its entirety, we find that the relative strength of U.S. export growth outside industrial countries reflects a sharp rise in the demand for U.S. goods *relative to income* in the developing world. Following five years in which U.S. exports to the developing world grew considerably more slowly than developing country income, our exports increased more than four times as rapidly as developing country income after 1986; in the industrial world our sales increased roughly 2½ times as fast as income since 1986.

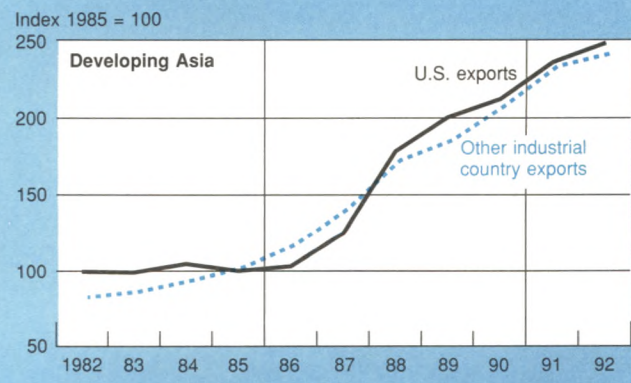
These differences seem particularly surprising given the more modest relative price gains made by the United States in developing world markets. However, any consideration of the competitive gains made by U.S. exporters in the developing world cannot be limited to comparing our prices with those of developing country producers. U.S. exports to developing countries compete more with exports from other industrialized countries than with goods produced in the developing countries themselves. As a result, the greater than 40 percent improvement in our price position against other industrial countries since 1985 may be a better predictor of competitive gains made by U.S. exporters in the developing world.[5]

[5]For a detailed analysis of measures assessing the competitiveness of the United States relative to other industrial countries, see Susan Hickok, Linda Bell, and Janet Ceglowski, "The Competitiveness of U.S. Manufactured Goods: Recent Changes and Prospects," this *Quarterly Review*, Spring 1988; and Martine Durand, Jacques Simon, and Colin Webb, "OECD's Indicators of International Trade and Competitiveness," Organization for Economic Cooperation and Development, Working Paper no. 120, 1992.

Chart 4

Industrial Country Exports to Developing Countries





U.S. Share of Industrial World Exports to Developing Countries
(Percentage points)

	1986	1989	1992
All developing countries	24	28	28
Developing Asia	22	26	25
Latin America	50	58	59

Source: International Monetary Fund, *Direction of Trade Statistics.*

Note: Figures for 1992 represent data through the first half of the year, annualized.

If an improvement in our competitive position relative to that of other industrial world exporters explains the surge in U.S. exports to developing countries, then we should observe a shifting in developing country import demand away from other sources. As Chart 4 shows, the United States did make inroads in developing economy markets following the dollar's decline. From 1987 through 1989 our exports to developing countries grew faster than those of other industrial countries. As a result, the U.S. share of industrial country sales to the developing world rose about 4 percentage points from its 1986 level. U.S. exports grew more rapidly than other industrial countries' exports in both Latin American and Asian markets; our market share gains were greatest in Latin America, where in 1989 U.S. exporters' market share was 58 percent of industrial world sales, a full eight percentage points above 1986 levels.[6]

Since 1989, however, U.S. exporters have been unable to make further market share gains. Our exports to the developing world have grown rapidly, but these sales increases have generally been matched by those of other industrial countries. Although small market share gains were recorded by U.S. exporters in Latin American markets, these gains were offset by a deterioration in our share of industrial world exports to Asia.

Overall, increases in the U.S. share of industrial world exports to developing economies do not account for a large part of the strength in U.S. export growth to the developing world. As Chart 4 clearly shows, developing countries have sharply increased their demand for industrial world products generally since 1986, following a prolonged period of weak demand. Other industrial countries, whose currencies swung sharply against the dollar during the 1980s, recorded export growth similar to that of the United States both before and after 1985. Indeed, if U.S. exports had increased only as rapidly as the rate of growth of developing world demand for all industrial country goods, our exports to developing countries would have grown at an annual rate only 3 percentage points slower than they actually did since 1986; over the past three years, U.S. exports would have increased at about their actual pace.[7]

[6]U.S. exporters' large share of the Latin American market is overstated because it includes inputs to the Mexican Macquilidora sector, whose output in large part must be shipped back to the United States. Currently, Macquilidora inputs represent more than 10 percent of total Latin American purchases of industrial world goods.

[7]Although the improvement in relative prices achieved through dollar depreciation did not lead to large market share gains in the developing world, it did enable U.S. exporters to reverse the pattern of market share losses that took place in the first half of the 1980s.

Further evidence of the developing world's increased demand for industrial world products is presented in Table 2. Following five years in which purchases of industrial country goods fell, the developing world's appetite for imported goods increased rapidly after 1986 in both absolute terms and relative to income growth. This acceleration in import demand is observed across regions in the developing world, but the change is sharpest for Latin American countries. Although GDP in Latin America grew at almost the same rate over 1987-92 as during the previous five-year period, the region's imports from the industrial world increased by over 7 percent annually in volume terms during 1987-92, compared with a decline of more than 4 percent per year in the earlier period.

Developing economy imports and industrial world economic conditions

We have seen that the rapid increase in developing country demand for U.S. goods is not fully explained by such standard macroeconomic forces as income growth and competitiveness gains. We now consider other developments since the mid-1980s that may have

Table 2

Developing Country Imports from Industrial Countries

Annual Average Percentage Change

	1982-86	1987-92
All developing countries		
Imports from industrial countries†		
Value	−2.6	11.4
Volume	−1.4	6.4
Real GNP growth	3.3	4.2
Asia		
Imports from industrial countries†		
Value	5.4	13.6
Volume	6.8	8.7
Real GNP growth	7.1	6.7
Latin America		
Imports from industrial countries†		
Value	−5.0	12.3
Volume	−4.1	7.4
Real GNP growth	1.4	1.5

†Measures of developing country imports are based on industrial world export data from International Monetary Fund, *Direction of Trade Statistics*. Import value growth is deflated by the average of the change in industrial country export unit values and regional import unit values to compute import volume growth.

played a role in boosting developing country demand.

One significant change in the developing world has been a shift away from restrictive, inward-looking policies. Since the mid-1980s, several developing countries have undertaken comprehensive adjustment programs combining measures to deregulate domestic markets, reduce the size of the public sector, and foster greater integration of domestic with world markets.

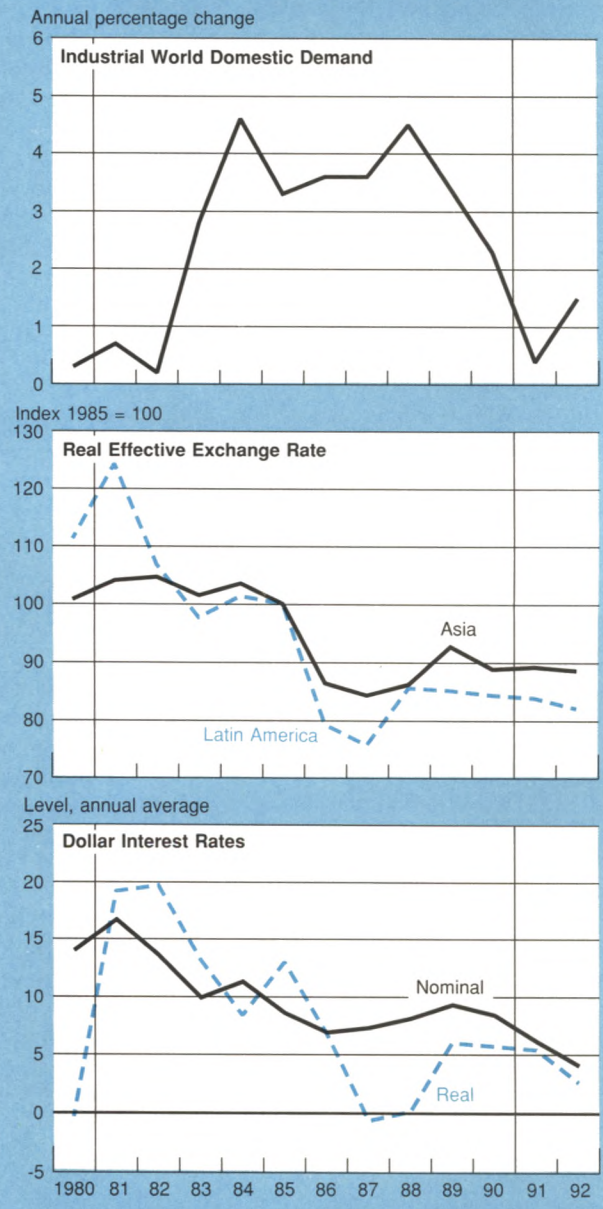
A significant liberalization of trade policies has been a central part of this shift in orientation. A recent study by the International Monetary Fund identified seventeen regionally important countries that since the mid-1980s have moved from tightly controlled trading systems to systems characterized as open or relatively open.[8] That ten countries in this group are in the Western Hemisphere highlights the dramatic changes taking place in this region. Nearly all major countries in Latin America are now committed to open trading systems, and most have bound their tariff schedules in the General Agreement on Tariffs and Trade (GATT).

These internal reforms have opened developing economy markets to industrial world exporters. Nonetheless, the surge in purchases of industrial world goods could not have occurred without a significant improvement in the external economic conditions confronting developing countries. From the early 1980s onward, many developing countries, particularly those in Latin America, faced severe debt repayment problems and had only limited access to international credit markets. As a result, their capacity to import was largely tied to their foreign exchange earnings. During the early 1980s, earnings were depressed in an environment of weak industrial world growth and high dollar interest rates (Chart 5).[9]

From the mid-1980s onward, however, changing macroeconomic conditions in the industrial world provided a significantly more favorable environment for developing country import demand. As Chart 5 demonstrates, industrial country demand remained above its long-term trend growth rate of about 3 percent for each year from 1984 through 1989. In addition, developing countries were able to improve their price competitiveness after 1985, despite the appreciation of their currencies against the dollar noted earlier. By limiting the degree to which their currencies rose relative to the dollar, devel-

Chart 5

External Conditions Facing Developing Economies



Sources: Organization for Economic Cooperation and Development (OECD), *Economic Outlook*; Morgan Guaranty Trust Company, *World Financial Markets*; International Monetary Fund, *International Financial Statistics*.

Notes: The top panel measures demand for all OECD countries. The middle panel shows the U.S. trade-weighted average of real effective exchange rates for five Latin American and eight Asian economies. In the bottom panel, nominal interest rates are six-month dollar LIBOR rates. Real rates are obtained by deflating nominal rates by the average annual change in export unit values for non-fuel-exporting developing countries.

[8]See Margaret Kelley and Anne Kenny McGuirk, "Issues and Developments in International Trade Policy," *World Economic and Financial Survey*, International Monetary Fund, 1992.

[9]For a detailed analysis of the impact of industrial world economic conditions on developing country performance during the early 1980s, see Rudiger Dornbusch, "Policy and Performance Links between LDC Debtors and Industrial Nations, *Brookings Papers on Economic Activity*, 2:1985, pp. 303-68; and Carlos F. Diaz-Alejandro, "Latin American Debt: I Don't Think We Are in Kansas Anymore," *Brookings Papers on Economic Activity*, 2:1984, pp. 335-403.

oping countries made significant relative price gains against Europe and Japan. Finally, dollar interest rates, both in nominal terms and when deflated by developing country export prices, fell substantially after the mid-1980s.

The rise in export earnings and reduction in debt service resulting from these developments directly eased foreign exchange constraints limiting the developing countries' spending on industrial world goods, thus increasing demand independent of income growth.[10] Indeed, as Table 3 shows, increases in these sources of foreign exchange closely correspond to the rise in imports in the developing world since 1986. In the developing world overall as well as in Asia and Latin America individually, foreign currency income gains—defined as the increase in exports and the decline in debt service payments as a share of GDP—roughly matched the rise in imports from the industrial world between 1987 and 1991. In Asia, the increase of more than 4 percentage points in industrial world imports as a share of output was financed entirely through export earnings. In Latin America and elsewhere in the developing world, export earnings and declining debt service payments contributed about equally to the rise in import shares.

Increased foreign earnings may also have stimulated demand for foreign goods through other channels. In a number of developing countries, the improved profitability in the traded goods sector that accompanied rising export earnings revived investment demand, much of which was met by capital goods exports from the industrial world.[11] In addition, because the external creditworthiness of a country is generally assessed by the ratio of debt service to exports, the expansion in export earnings, independent of income levels, probably reduced borrowing constraints in debt-burdened countries.

Several developing countries that had experienced debt-servicing difficulties have recently, in fact, been able to reenter the international market for capital.[12] During 1991 and 1992, inflows of foreign private capital have been substantial in Latin America and Asia, reflecting renewed investment opportunities and increased solvency in these regions. The ability of the developing world to attract large inflows of foreign capital during 1991 and 1992 helps to explain why import demand and economic activity more generally in the developing world have remained resilient in the face of weakening demand in the industrial world.[13]

[10]Increased earnings and reduced debt service payments also boosted import demand through their direct effect of raising income.

[11]According to estimates presented in the International Monetary Fund's *World Economic Outlook*, October 1992, investment spending as a share of GDP rose roughly 3 percentage points in both Asia and the Western Hemisphere from 1986 to 1992.

[12]For a detailed discussion of recent developments in developing countries' access to international capital markets, see Charles Collyns et al., *Private Market Financing For Developing Countries*, International Monetary Fund, December 1992.

[13]There is some evidence that external forces, specifically the industrial world recession and falling U.S. interest rates, have encouraged a portfolio shift towards developing world assets and influenced the recent pattern of world capital flows. See Guilermo A. Calvo, Leonardo Leiderman, and Carmen Reinhart, "Capital Inflows and Real Exchange Rate Appreciation in Latin America: The Role of External Factors," International Monetary Fund, Working Paper no. 92-62, August 1992.

Table 3

Developing Country Imports and Foreign Income Gains

Shares of GDP

	1986	1991	Change from 1986 to 1991 (Percentage Points)
All developing countries			
Imports from industrial countries	12.1	13.9	+1.8
Exports to industrial countries	13.5	15.0	+1.5
Debt service interest payments	2.9	2.1	−0.8
Asia			
Imports from industrial countries	12.7	16.8	+4.1
Exports to industrial countries	14.7	18.7	+4.0
Debt service interest payments	1.7	1.5	−0.2
Latin America			
Imports from industrial countries	8.4	10.9	+2.5
Exports to industrial countries	10.5	11.7	+1.2
Debt service interest payments	4.9	3.5	−1.4

Source: International Monetary Fund, *World Economic Outlook*, October 1992.

The evidence presented here suggests that developing countries' ability to export to the industrial world independent of income growth has been an important determinant of their purchases of U.S. goods. To assess this linkage more directly, we present in Table 4 the results of regressions relating U.S. export growth to developing countries (USX_i) from 1987 to 1991 to developing countries' sales to the industrial world (DVX_i) and their GDP growth ($DGDP_i$) over this period. In addition, we have included a variable (TRD_i) identifying countries that have undertaken major trade liberalization programs since the mid-1980s to determine whether U.S. exports have grown more rapidly to those countries.

Examining a broad cross section of thirty-eight large developing economies, we find a significant and strong positive relationship between individual country sales to the industrial world and their purchases of U.S. goods. On average, an added 1 percentage point in a developing country's exports to the industrial world over 1987-91 was associated with 0.64 percentage point higher U.S. sales to the country. Estimates of the impact of trade liberalization indicate an additional boost to our export growth from the opening of markets, but the coefficient estimate fails to pass significance tests at standard statistical levels.

Important distinctions can be observed when the relationship between developing countries' sales to the industrial world and their purchases of U.S. goods is estimated across regions. A very strong and significant relationship is found for Latin American countries. During 1987-91, increased Latin exports to the industrial world were associated with a 0.89 percentage point increase in their purchases from the United States. In contrast, estimates for Asian countries are smaller and not significant statistically.

These findings are consistent with the view that developing country export performance has been a particularly important determinant of demand in countries facing high debt burdens. Indeed, when we isolate the countries with the highest ratios of debt service to exports during the mid-1980s, we find a significant relationship between their export earnings and purchases from the United States.

It is also useful to compare these results with estimates of a similar relationship between industrial countries' export performance (here measured as total exports of a country) and their purchases of U.S. goods. In contrast to the developing country results, a negative relationship is found between an industrial country's exports and its purchases of U.S. goods. The divergence in results between industrial and developing economies most likely arises because industrial economies are not credit constrained and employ their resources relatively efficiently. The effect of increased export earnings on demand should therefore be largely captured in the income growth variable. The negative coefficient estimates in the regression probably capture the impact of macroeconomic developments not incor-

Table 4

U.S. Export Performance and Developing Country Sales to the Industrial World

$USX_i = C + B_1(DVX_i) + B_2(DVGDP_i) + B_3(TRD_i) + \mu_i$

	Number of Observations	C	B_1	B_2	B_3	$\bar{R}_2$
All developing countries	38	16.3	0.64**	0.32**	20.24	.44
		(1.14)	(4.24)	(3.29)	(1.64)	
Asia	11	17.7	0.59	0.36*	—	.27
		(0.38)	(1.59)	(2.13)		
Latin America	14	23.4*	0.89**	0.14	—	.41
		(1.76)	(3.97)	(0.44)		
High-debt-service countries†	13	38.9**	0.51**	0.53*	—	.69
		(8.40)	(4.09)	(1.89)		
Industrial economies‡	21	113.5**	−1.19*	0.73	—	.16
		(3.21)	(−2.60)	(1.36)		

Notes: The variables are defined as follows: USX_i = cumulative U.S. export growth to country i, 1987-91; DVX_i = cumulative export growth of country i, to the industrial world, 1987-91; $DVGDP_i$ = cumulative GDP growth of country i, 1987-91; TRD_i = dummy variable identifying countries that undertook major trade liberalizations since the mid-1980s. Data for growth in exports and GDP are based on dollar values of variables. Standard errors are adjusted to be consistent in the presence of heteroskedasticity.

†Defined as those countries whose ratio of debt service to exports exceeded one-third for the 1985-86 period.
‡For industrial economies, export growth (DVX_i) represents total export sales growth over 1987-91.

*Significant at 10 percent level
**Significant at 1 percent level

porated in the estimated relationship—most notably the decline in the dollar's real value relative to other industrial currencies—which weakened foreign exports and stimulated U.S. exports during this period.

Export performance and the U.S. trade balance

The analysis presented here highlights the close linkages between economic conditions in the industrial world and U.S. export performance in developing country markets. These linkages can help to explain the evolution of our merchandise trade balance with developing countries and can shed light on the prospects for the continuation of our strong export performance.

Although U.S. exports grew rapidly to all regions of the world in the second half of the 1980s, our overall trade balance with developing countries followed a different course than our trade balances with industrial countries (Chart 6). Trade with the industrial world accounted for all of the roughly $40 billion improvement in our merchandise trade balance from 1986 through 1990. While U.S. import growth from industrial countries slowed sharply from its pace during the first half of the decade, purchases from developing countries accelerated, increasing nearly as rapidly as our exports. As a result, our trade position with the developing world as a whole, as well as with Asia and Latin America separately, deteriorated somewhat during this period.

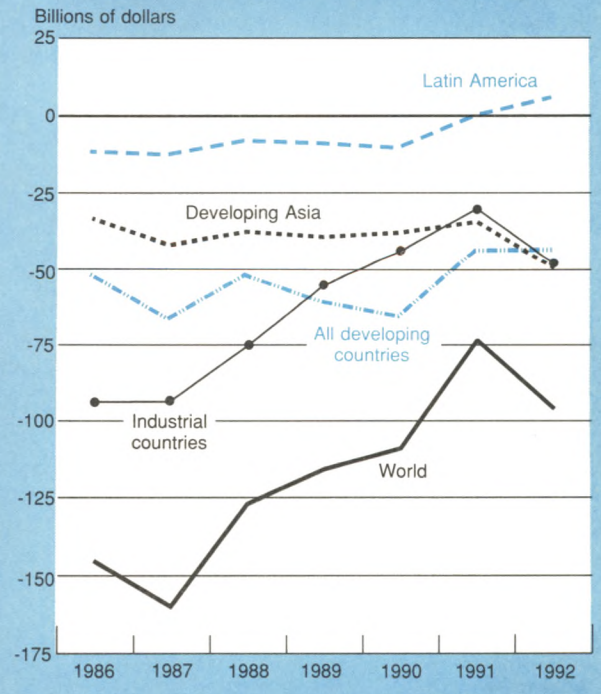
The rapid rise in U.S. imports from the developing world is readily explained by the changes in price competitiveness discussed earlier. By limiting the appreciation of their currencies against the dollar after 1985, developing countries realized large improvements in their competitive position against Europe and Japan. These gains enabled developing country exporters to make significant inroads in U.S. markets, leading to a rise of more than 6 percentage points in the developing world's share of total U.S. imports from 1986 to 1990. Through these market share gains, developing countries improved their trade position with the United States during this period, despite the relatively moderate growth in U.S. domestic demand.[14]

Our earlier analysis linking the imports of developing countries to their foreign exchange earnings would suggest that the developing world's strong appetite for industrial world goods was not accompanied by a deterioration in its balance of trade. In fact, developing countries recorded an improvement of roughly $30 billion in their trade balance with industrial countries from 1986 through 1990. This relationship between imports and foreign exchange earnings did not, however, constrain movements in the trade position of the developing world with any individual industrial country. Nonetheless, the United States is a particularly important destination for developing country exports, accounting for more than 40 percent of Asian sales and more than 50 percent of Latin American sales to the industrial world during this period. As a result, our willingness to expand purchases of developing country goods was probably vital in fueling both developing country demand and the strong performance of our exports to these countries.

The onset of recession in the United States in 1990, followed soon after by a downturn in activity in Europe and Japan, slowed import demand across the industrial world. This falloff in activity has had little impact on our balance of trade with other industrial countries, which

Chart 6

U.S. Merchandise Trade Balances by Region



Note: Figures for 1992 are based on seasonally adjusted annualized data through the third quarter.

[14]The performance of developing country exports was even more impressive elsewhere in the industrial world during this period. Spurred by competitiveness gains and the acceleration in foreign industrial world growth, developing country exports grew more rapidly to Europe and Japan than to the United States after 1986.

remains roughly unchanged from its 1990 level. Weaker industrial country demand did, however, boost the trade position of the United States and other industrial countries relative to developing countries during 1991 and 1992.

Although weaker export earnings slowed spending in many developing countries, developing world import demand did not collapse as it had during the last cyclical slowdown in the industrial world in 1982. A sharp rise in private capital inflows during the past two years enabled the developing world to dampen the effects of this downturn. In particular, capital inflows to Latin America exceeding $40 billion in both 1991 and 1992 (about four times their average during the second half of the 1980s) spurred a boom in regional demand. All of the roughly $13 billion improvement in the U.S. trade balance from 1990 through 1992 can be traced to our trade with Latin America.

The recent rise in capital inflows to the developing world may, however, have negative consequences for U.S. export performance. The history of developing country financing is marked by episodes in which large inflows of capital to the developing world are followed by market corrections and debt-servicing problems. The persistence of high debt levels and the recent deterioration in the current account positions of several large developing countries have raised concerns that a shift in external financing availability could occur, prompting a significant weakening in developing world demand as it did in 1982-83.

It is also true, however, that a country's vulnerability to shifts in external financing depends critically on the resiliency of its economic system and the soundness of policies pursued.[15] Evidence suggests that the recent inflows of capital to the developing world may be, at least in part, the fruits of the fundamental economic and political reforms taking place. These developments, together with other important differences between recent experience and the events of the early 1980s, point to greater sustainability of current financial flows.[16]

Certainly, important risks remain for U.S. export performance in the developing world, particularly if recovery in industrial world activity is delayed or if protectionist pressures lead industrial countries to raise barriers against developing country exports. Nevertheless, the ability of many developing countries to limit their vulnerability to the current economic downturn in the industrial world must be viewed with cautious optimism.

Conclusion

In our highly integrated world economy, major developments in one part of the world have repercussions for nations everywhere. Developing countries have been particularly sensitive to changes in world economic conditions because of their limited access to international credit markets throughout most of the past decade.

Our analysis highlights how the major macroeconomic developments in the industrial world during the second half of the 1980s—specifically, the rapid pace of demand growth and the declines in the dollar's value and U.S. interest rates—improved conditions for a developing world beset by foreign debt problems. One important consequence of this improvement has been a sharp increase in developing country import demand. This increase in turn largely explains the surge in U.S. exports to these countries since 1986.

Our export performance in the developing world has remained strong despite a deterioration in industrial world growth during 1991 and 1992. The revival of capital inflows, particularly to Latin America, has enabled developing countries to weather declines in industrial world demand for their goods and to continue their imports of industrial country goods. Although these developments are supported in part by the ongoing reforms in the developing world, both the linkages described in this article and past experience suggest that the resiliency of developing world demand is limited. As a result, strong U.S. export growth to this region can probably only be sustained if developing countries can also increase the sales of their goods to the industrial world.

[15] In comparing the response of Latin America and developing Asia to the external shocks of the early 1980s, Jeffrey Sachs emphasizes the importance of sound macroeconomic policies ("External Debt and Macroeconomic Performance in Latin America and East Asia," *Brookings Papers on Economic Activity*, 2:1985, pp. 523-64).

[16] For a detailed assessment of the sustainability of the recent inflow of capital to developing countries, see Collyns et al., *Private Market Financing*.