

# Chicago Fed Letter

## Foreign trade and the U.S. economy

The international trade sector of the U.S. economy continues to draw attention in economic and political circles. Rightly so, for the international market has become increasingly important as a source of demand for U.S. production and a source of supply for U.S. consumption. Indeed, it is substantially more important than is implied by the usual measures that relate the size of the international sector to the overall economy. This article explores the role international trade now plays in the U.S. economy.

Intense debate has developed in the past couple of years over a broad range of old issues related to the international sector. These include the desirability of open markets, specifically with regard to regional or multilateral trade agreements such as NAFTA, GATT, and the WTO; the depreciation of the dollar in foreign exchange markets, especially against the yen; the sustainability of U.S. competitiveness in world markets; and the persistent and once again increasing trade deficit, especially vis-à-vis Japan. The revival of economic growth abroad during 1994 focused attention on the potential for more rapid expansion in U.S. export growth and in turn a greater positive impact on U.S. economic growth emanating from the international sector. The stimulative impact of expanding foreign demand is of particular interest to economists and policymakers who expect some slowdown in U.S. domestic demand as the current year progresses. Interest in the foreign sector has been intensified by the recent Mexican peso depreci-

ation and turmoil in that economy. Prospects that the Mexican economy will slow abruptly during 1995, possibly to the point of sliding into recession, hold the potential for significantly slowing U.S. export growth during 1995.

In this environment, it is not surprising that attention to the impact of the trade sector on the economy continues to intensify. In one form or another, U.S. international trade issues have been and continue to be routinely placed in the public spotlight for review and dissection. In short, international markets are becoming ever more important to the U.S. economy as the nation participates in an increasingly interdependent world economy. While international interdependence is not universally popular, it is one of those facts of life that we ignore at our risk, for as we shall see, the degree of interdependence of the U.S. domestic economy with the international economy is extensive. Indeed, international trade is vital to the health of U.S. industry and to the interests of U.S. consumers.

### How we measure makes a difference

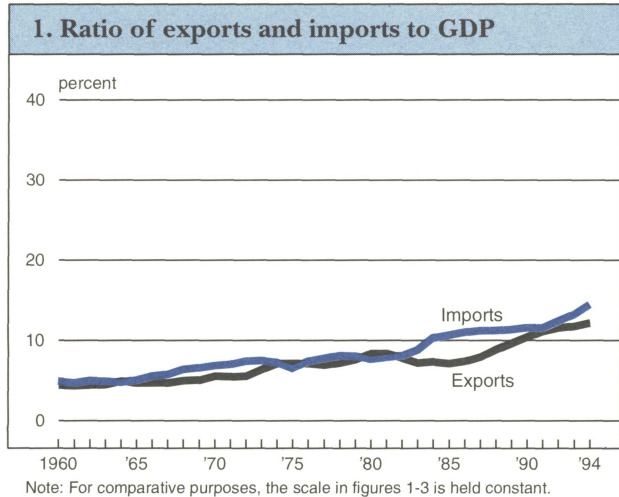
If we are to understand the importance of the international sector of the economy, it is critical to choose an appropriate measure. Different measures can suggest substantially different conclusions. A key issue is which questions are to be addressed, since different questions may require different measures. For instance, while a question such as How important are exports to the economy? may be interesting, it is nonetheless so general as to require an answer that is ambiguous in its interpretation. Such an an-

swer may tell us less than would appear on its face. A more narrowly defined question can be answered less ambiguously. For example, because most goods are potentially exportable, an appropriate question might be, How important are exports of goods relative to the nation's total output of goods, or what proportion of the nation's total output of goods is exported?

One needs to be similarly careful in assessing the importance of imports to the economy. Such questions might vary slightly from those posed for exports. The interpretation of a comparison of goods imported relative to domestic goods output is rather more obscure, for example, than is a comparison of goods imported relative to goods consumption in the domestic economy. In the final analysis, what is critical to understanding the importance of exports or imports to an economy is not so much which standard of comparison one uses, but rather, whatever the standard, to recognize its strengths and limitations.

The general standard for measuring the overall size of the nation's economic activity is the value of gross domestic product (GDP). One of the components of GDP is a measure of the value of exports and imports of goods and services. The hitch is that GDP includes a large component of nontradeables that do not or cannot enter into international trade flows to any significant degree—for example, most buildings and structures, and personal and government services. Consequently, even though internationally traded items such as financial services and travel and transportation services are included in GDP, when we compare the size





of the foreign sector with the size of the domestic economy, we end up comparing apples with apples and pomegranates. As a result, comparing exports or imports of goods and services to GDP may understate the importance of international trade to relevant sectors of the domestic economy.

### International trade: Vital to the U.S. economy

Regardless of which measure one uses, it is clear that international trade has become markedly more important to the U.S. economy in recent decades. But different standards indicate substantially different magnitudes for this importance. Moreover, the impact has been especially great in particular broad sectors of the economy.

Preliminary figures for 1994 indicate that exports of goods and services (measured in constant 1987 dollars) were equivalent to 12% of GDP, more than 2.5 times the share in 1960 (see figure 1).<sup>1</sup> Imports were equivalent to just over 14% of GDP, nearly 3 times the share recorded in 1960. From these general measures, it is apparent that the international sector has come to play a significantly larger role in the U.S. economy. But a more narrowly defined specification of the relationship produces an even more dramatic picture.

### Exports

What proportion of the nation's output that is potentially exportable is in fact exported? One way to address this more narrow question is to begin with the domestic output of the goods-producing sectors of the economy, as measured by the value of final sales of goods, plus exports of goods, plus change in goods inventories, less im-

ports of goods.<sup>2</sup> This measure suggests a dramatic increase in the importance of exports to the economy. As figure 2 shows, in 1994 exports of U.S. goods were equivalent to 24% of the domestic output of goods. This is up from 8% in 1960, and 16% as recently as 1980. With foreign demand accounting for nearly one-quarter, on average, of the demand for the U.S. goods-producing industries, it is clear that the economic condition of export markets is of vital concern to those industries.

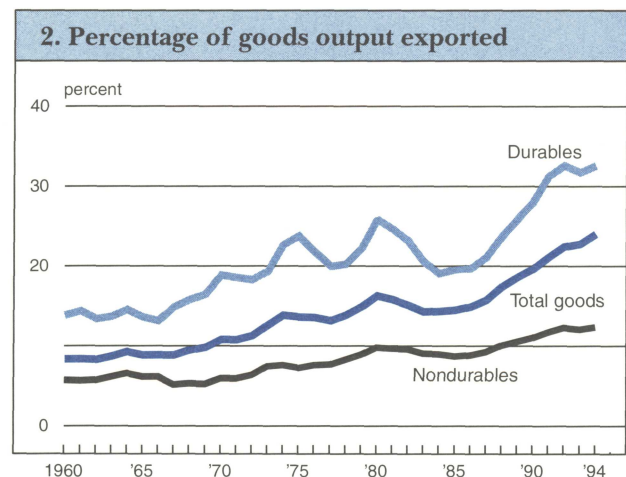
Further refinement of the output of the goods industry into durables and nondurables provides an even more impressive view (see figure 2). It also shows that these two groups differ substantially in their dependence on the international market. In 1994, one-third of domestically produced durable goods entered export markets; only 12% of nondurables did the same. (In 1960, the figures were 14% for durables and 6% for nondurables.)

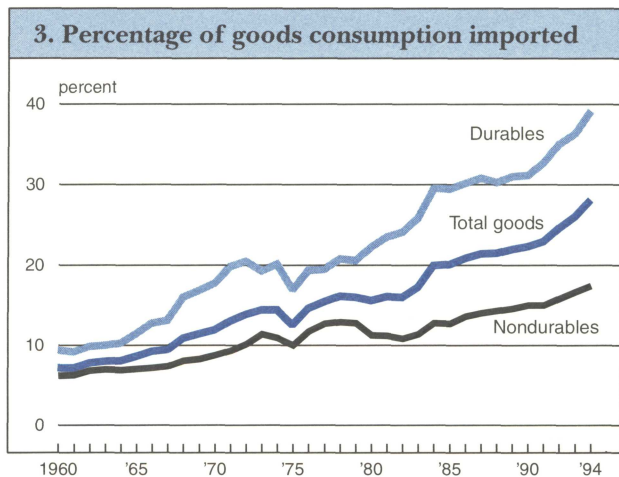
### Imports

As with exports, a narrower measure than total GDP provides a markedly different

picture of the importance of imports to the domestic economy. With imports, however, goods output as a standard of comparison does not contain the same intuitive interpretation as it did for exports. Thus, rather than looking at goods output, let us now consider goods consumption as the standard of comparison. What change has occurred in the relation of goods imported to total goods consumed? (We measure the latter as the value of final sales of goods, domestic and imported, to domestic purchasers in constant 1987 dollars.) The answer is striking. In 1994, imports accounted for 28% of total goods consumption (see figure 3). Further refining the measure by separating goods into durables and nondurables generates an even more impressive statistic. In 1994, imported goods were 39% of total domestic durables consumption. Imports were less important to nondurables consumption—17%. (In 1960 imports were only 9% of durables consumption and 5% of nondurables.)

Not surprisingly, imports of durable goods were strongly dependent on the strength of consumption in the domestic economy. The stronger the domestic consumption of durable goods, the stronger the rate of growth in durable goods imports (see figure 4). In particular, it is interesting to note that in years when durable goods consumption growth was at or above 5%, signify-





ing especially strong growth in the domestic economy, the rate of growth of durable goods imports has typically been well above the rate of growth of consumption. This explains the increase over time in the import share of consumption.

#### Implications for the U.S. economy

Over the past thirty years the international sector has become progressively more important to the U.S. economy. Indeed, within the durable goods industries, the international environment has become vital to the economic well-being of domestic producers and consumers.

Export-oriented durable goods industries dare not ignore conditions in markets that in the aggregate account for one-third of their output. Recession or expansion in

these foreign markets potentially holds far greater consequences for these domestic industries and in turn the U.S. economy than was the case a few decades ago. Thus it is not surprising that the prospect for a more broadly-based resumption of economic expansion abroad that began in 1994 and is expected to continue through 1995 is viewed with considerable enthusiasm in the U.S., especially in capital goods industries. The recent economic turmoil in Mexico—the third largest market for U.S. exports—has been viewed with some trepidation by U.S. export industries and by those economists and policymakers who looked to strong export markets to counter an expected slowdown in domestic demand.

With imports of durable goods accounting for two-fifths of durable goods consumption, a far larger share than a decade or so ago, the domestic economy has become more dependent on foreign suppliers. Some view this development with mixed emotions. Certainly it means that there is a higher degree of competition in domestic markets than previously. For those who have

forgotten the central premise of a market economy, competition is what it's all about. A consequence of competition is greater variety of selection for consumers, lower prices, and better quality. For producers, it means meeting or beating the competition, or losing out.

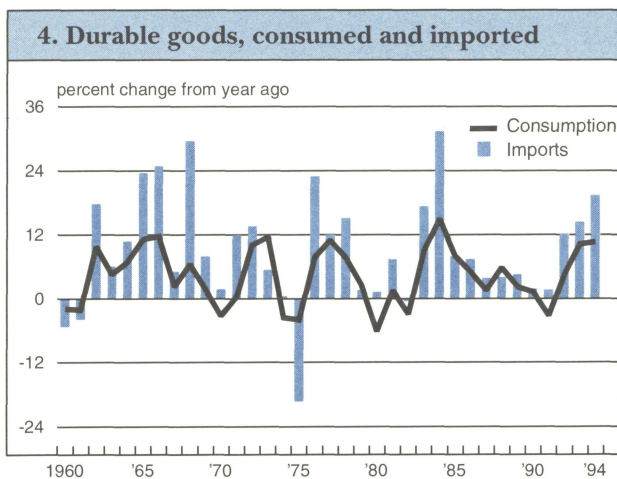
The last three decades have seen important segments of

the U.S. economy transformed into an international market. In a very real sense, there is no clear distinction any more between domestic and foreign markets. No longer can U.S. markets exist in isolation. Export markets and import markets go hand in hand. World markets have become dramatically more interdependent in recent years, and goods industries in the United States are prime examples of this development.

—Jack L. Hervey

<sup>1</sup>Data used in this article are derived from the U.S. Department of Commerce, Bureau of Economic Analysis, National Income and Product Accounts, various years. All values are in 1987 dollars.

<sup>2</sup>A more detailed examination of the impact of trade by industry might use as the standard of comparison the annual estimates of gross domestic product by industry, "gross product originating" (GPO), as reported by the U.S. Department of Commerce's Bureau of Economic Analysis.



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## Tracking Midwest manufacturing activity

### Manufacturing output indexes (1987=100)

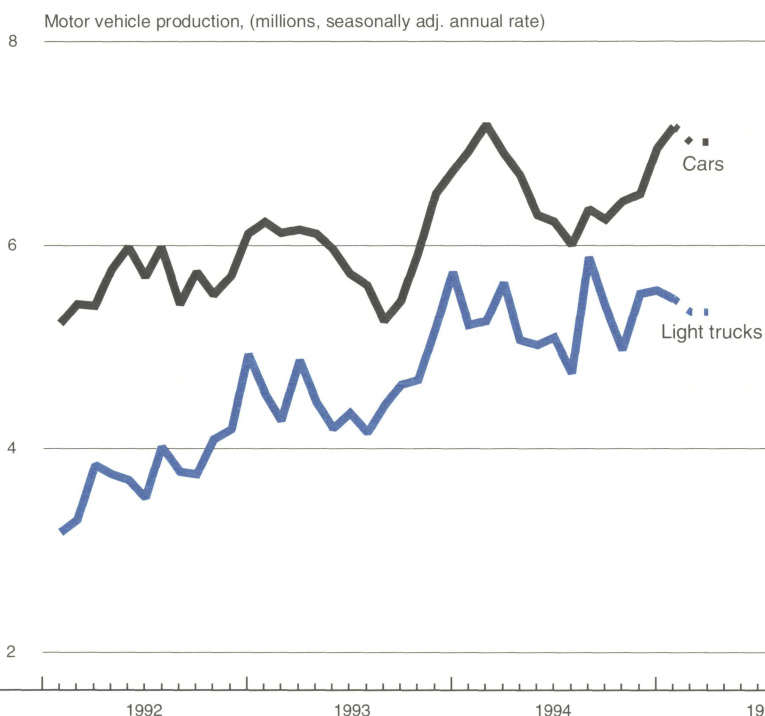
	Dec.	Month ago	Year ago
MMI	140.3	139.2	128.2
IP	123.9	122.6	116.1

### Motor vehicle production (millions, seasonally adj. annual rate)

	Jan.	Month ago	Year ago
Cars	7.2	7.0	6.9
Light trucks	5.5	5.6	5.2

### Purchasing managers' surveys: net % reporting production growth

	Jan.	Month ago	Year ago
MW	69.4	68.5	63.7
U.S.	62.7	62.7	61.5



Note: Dotted lines are estimated production from auto producers.

Car and light truck production closed out 1994 on a strong note. In December and January, light vehicle assemblies posted two of the highest monthly output rates since 1979. Strikes at parts plants curtailed some assemblies in January, but total assemblies still managed to eke out another increase on a seasonally adjusted basis.

The onset of interest rate increases in early 1994 prompted some consumer hesitancy and slower output around midyear, but demand and production both staged strong renewed growth in the latter half of the year. Some evidence is beginning to suggest that higher interest rates are again reining in expansion in demand, but current production schedules still imply a gain in vehicle assemblies in the first quarter of 1995.

Sources: The Midwest Manufacturing Index (MMI) is a composite index of 15 industries, based on monthly hours worked and kilowatt hours. IP represents the Federal Reserve Board industrial production index for the U.S. manufacturing sector. Autos and light trucks are measured in annualized units, using seasonal adjustments developed by the Board. The purchasing managers' survey data for the Midwest are weighted averages of the seasonally adjusted production components from the Chicago, Detroit, and Milwaukee Purchasing Managers' Association surveys, with assistance from Bishop Associates, Comerica, and the University of Wisconsin-Milwaukee.

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