

Import prices decline, export indexes mixed in the first 6 months of 1983

Lower oil prices and the strength of the dollar were major factors in import-export price developments during the first half of the year; the Nation's strong economic recovery relative to the performance abroad also affected U.S. foreign trade prices

MARK J. JOHNSON

U.S. import prices, as measured by the Bureau of Labor Statistics International Price Program, fell 2.8 percent in the first half of 1983, after falling 2.9 percent for all of 1982.¹ (See table 1.) The import price drop contributed to the greatly reduced rate of increase in domestic inflation, as measured by the Consumer Price Index and the Producer Price Index.² At the same time, however, the strength of the U.S. dollar abroad and the slow pace of the worldwide economic recovery moderated price rises for U.S. exports.

The price indexes discussed in this article, which are not seasonally adjusted, are based on transaction price information provided by a sample of importers and exporters and their products.³ They represent 100 percent of the value of all imported products, and 83 percent of the value of all exported products. Indexes are published for 60 detailed and aggregate categories of imports and exports.

An overview

Crude oil prices, which account for 25.8 percent of the weight of the all-import price index, fell 13.6 percent during the first half, exerting substantial downward pressure on the index. The all-import index, excluding crude petroleum,

rose by 0.9 percent during the first half, compared with a 2.5-percent decline for all of 1982. Partially offsetting the price decrease for crude oil were increases in the indexes for nonferrous metals and for machinery and transport equipment, which rose 13.0 and 2.6 percent.

The strong U.S. dollar was a major factor affecting the all-import price index. During the first half, the dollar rose 5.0 percent *vis-à-vis* the currencies of our major trading partners. (In the first quarter, the dollar depreciated against the German Deutschemark and the Japanese yen, but registered a net first-half appreciation against the Deutschemark and little net change against the yen.) Between July 1980 and June 1983, the dollar appreciated steadily, rising 47.9 percent.⁴ (See chart 1.) This sustained rise in the dollar's value tended to lower the price of imported goods priced in dollars, but acted to raise the price of U.S. goods sold in foreign markets. The dollar's appreciation against certain currencies was especially strong. From June 1982 to June 1983, the dollar rose 212.3 percent against the Mexican peso, 208.5 percent against the Brazilian cruzeiro, 16.5 percent against the French franc, and 13.5 percent against the British pound.

The nascent U.S. economic recovery in the first half boosted demand for imports by consumers and producers. Personal consumption spending increased 5.7 percent, and consumer spending on durables rose 9.6 percent.⁵ Respond-

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ing to healthier consumer spending, many sectors of the economy increased output, and demand for imported inputs to manufacturing processes grew.

U.S. industrial production rose 8.3 percent during the first half. Especially important were the sharp production increases in the auto and housing industries. Domestic auto production advanced 24.3 percent in the first half over the corresponding weak period in 1982,⁶ generating additional demand for imported inputs such as engines, rubber, and aluminum.

With interest rates lower, U.S. housing starts rebounded strongly in the first half from their worst year since 1946, finishing 78.7 percent above the corresponding period in the previous year.⁷ Moreover, new construction put in place during the first half totaled \$115.6 billion, compared with \$106.3 billion for the first half of 1982. Growing construction activity meant increased business for suppliers of products such as lumber, appliances, and copper.

Key export price indexes registering increases were those for grain and intermediate manufactured products, which rose 14.5 and 2.1 percent.⁸ (See table 2.) However, the index for bituminous coal fell 12.6 percent in the first half. Export prices and total dollar values were heavily affected by the strong dollar; U.S. merchandise exports of \$98.4 billion in the first half were off 11.0 percent from their level of \$110.6 billion in the corresponding period last year.⁹

The slower pace of economic recovery among both industrialized and developing nations also dampened demand for U.S. exports. The European Economic Community (EEC),

which includes major U.S. trading partners, experienced very little economic growth in the first half. In particular, the economies of France and Italy continued to decline, while Germany and Britain experienced growth much less than that of the United States. The economy of Mexico, the Nation's third-largest trading partner, contracted significantly, while demand for U.S. exports by many other oil exporting nations fell as oil revenues declined.

Debt problems among developing nations were a major factor in the sharp reduction of U.S. exports to these nations. In the first half, exports to developing nations were \$36.4 billion, off 16.1 percent from \$43.4 billion in the first half of 1982.¹⁰ In recent years, approximately 40 percent of U.S. merchandise trade (both exports and imports) has been with developing nations. (See chart 2.) However, about 40 nations, including such developing nations as Mexico, Brazil, and Liberia, have recently undertaken economic austerity programs that include reduced spending for imports, in order to conserve scarce foreign exchange to service their international debts. A case in point is Mexico, which purchased \$4.4 billion of U.S. merchandise exports in the first half of 1983, compared with \$7.2 billion in the first 6 months of last year.¹¹

The decline in total exports was a major factor in the record-setting merchandise trade deficit of \$23.5 billion for the first half. This compares with deficits of \$12.0 billion in the first half of 1982 and \$36.4 billion for all of that year. In the first 6 months of 1983, merchandise imports of \$121.9 billion were down slightly from \$122.6 billion in the first

Table 1. Change in selected import price indexes in the first half of 1983, and share of total trade value

Commodity	Share of total 1980 trade value	Percent change in—			Commodity	Share of total 1980 trade value	Percent change in—		
		First half	First quarter	Second quarter			First half	First quarter	Second quarter
All commodities, except chemicals ¹	96.524	-2.8	-2.8	0.0	Intermediate manufactured products	13.520	2.9	1.3	1.6
Fuels and related products	32.776	-12.3	-10.2	-2.4	Nonferrous metals	3.123	13.0	6.9	5.8
Crude petroleum	25.799	-13.6	-10.8	-3.2	Silver and metals of the platinum group	1.037	17.0	13.6	3.0
Food	6.554	1.2	1.1	0.1	Copper	0.581	16.4	7.6	8.2
Coffee, tea, cocoa	2.241	4.0	2.2	1.7	Tin	0.323	11.0	6.5	4.3
Coffee	1.644	-1.5	-2.8	1.3	Zinc	0.135	-1.1	-1.2	0.1
Tea	0.054	9.8	4.8	4.7	Iron and steel	3.127	-2.2	-2.0	-0.3
Sugar, sugar preparations, and honey	0.925	3.9	0.0	3.9	Cork and wood manufactures	0.486	9.5	3.3	6.0
Meat	0.977	-3.8	-1.0	-2.9	Plywood and veneers	0.267	7.9	4.0	3.7
Meat of bovine animals	0.652	6.5	2.8	3.6	Nonmetallic mineral manufactures	1.944	5.9	3.1	2.8
Meat and edible meat offals	0.243	-13.4	-3.0	-10.7	Cut and polished diamonds	0.937	10.4	3.9	6.3
Other prepared or preserved meat	0.234	-13.8	-3.2	-11.0	Machinery and transport equipment	25.442	2.6	1.8	0.8
Fish	1.088	-1.1	-0.5	-0.6	Road vehicles and parts	10.887	2.1	1.7	0.4
Fresh fish	0.477	-2.5	0.9	-3.3	Automobiles	7.201	1.9	1.3	0.6
Shellfish	0.459	0.1	-1.5	1.6	Metalworking machinery	0.755	3.7	5.2	-1.4
Fish in airtight containers	0.126	-1.3	-1.0	-0.3	Machinery specialized for particular industries	1.998	4.6	3.9	0.7
Crude materials	4.275	(²)	(²)	(²)	Office machines and automatic data processing equipment	1.217	2.4	2.6	-0.2
Cork and wood	0.865	25.0	6.8	16.9	Miscellaneous manufactures	9.794	-1.0	-0.3	-0.7
Hardwood and softwood lumber	0.822	26.8	7.6	17.8	Footwear	1.232	-1.5	0.2	-1.7
Wood pulp	0.708	-2.3	-1.9	-0.4	Clothing	2.666	-1.0	-1.0	0.0
Sulphate or soda wood pulp	0.563	-2.7	-1.8	-0.9	Photographic apparatus and supplies, optical goods, watches and clocks	1.162	1.0	2.4	-1.4

¹This category includes indexes other than those shown here. For all of the indexes available in each category, see *U.S. Import and Export Price Indexes*, USDL-83-77

(Bureau of Labor Statistics), Aug. 11, 1983.

²Data are not available.

half of 1982, but nonoil imports, at \$98.4 billion, were up 4.9 percent from \$93.8 billion during the same period a year earlier. (Petroleum imports of \$23.5 billion were off 18.4 percent from their level of \$28.8 billion in the corresponding period of 1982.¹²) In addition, the U.S. current account, which incorporates the balance on merchandise trade and the balance on services (which includes payments on investments abroad) was in deficit by \$13.3 billion in the first half, after recording a deficit of \$11.2 billion in 1982 and a surplus of \$4.6 billion in 1981.¹³

Gross trade as a percentage of U.S. final goods production is a measure of the importance of foreign trade to the goods sector of the economy.¹⁴ Because of the decline in U.S. export dollar values, the increase in domestic final goods production, and the lack of change in import dollar values, this proportion stood at 27.4 percent in the first half of 1983, down from 29.9 percent in the first half of 1982. In 1970, this figure was 15.9 percent.

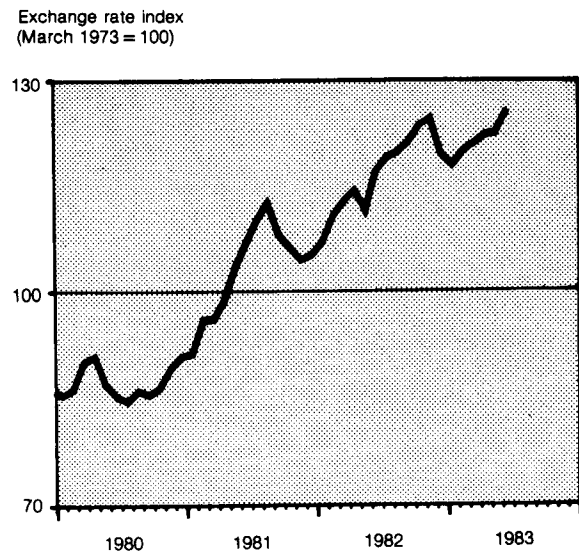
Import developments

Crude oil. The 13.6-percent drop in crude oil import prices during the first half of 1983 followed a 3.9-percent decline for all of 1982. Pressure for the price drop had been building for 2 years, in the form of sluggish economic growth, increased substitution of other energy sources for oil, the strong dollar, and continued conservation. In addition, the warm winter of 1982–83 allowed U.S. oil companies to draw down inventories and postpone purchases in anticipation of price drops. On the supply side, decontrol of prices in the United States, rising production by other non-OPEC producers, and sales in excess of production quotas by some OPEC members put further downward pressure on prices. One result of these factors was the March 1983 decision by OPEC to reduce its base price for a barrel of oil from \$34 to \$29. This action, the first cut in quoted prices in OPEC's 23-year history, brought the organization's prices in line with those of non-OPEC producers, such as Mexico, Britain, the Soviet Union, and Norway.

In 1982, U.S. consumption of crude oil fell for the fourth consecutive year.¹⁵ This trend continued during the first half of 1983. While the economy was recovering strongly from the recession, total oil consumption remained 3.5 percent below the level set during the first half of 1982.¹⁶ U.S. imports of crude were 2.82 million barrels per day (mbd), down 10 percent from 3.14 mbd in the corresponding 1982 period,¹⁷ primarily because of the decline in consumption and the production effects of decontrol. In the first half, energy imports (including crude oil, petroleum products, coal, natural gas, and electricity) were 15.3 percent of total U.S. energy consumption, down from 15.6 percent in the first half of 1982.¹⁸

Conservation was important in the drop in U.S. demand for oil, despite the fact that retail prices declined for many products. Much of the conservation was part of the contin-

Chart 1. Trade-weighted exchange rate of the U.S. dollar, January 1980–June 1983



SOURCE: Federal Reserve Bulletin (Washington, Board of Governors of the Federal Reserve System), July 1983, table 3.28.

uing response to the large oil price runups in 1973 and 1979–80. Gasoline use was off 0.6 percent in the first half from the same period a year earlier, reflecting the effect of price increases on demand, the greater efficiency of the U.S. vehicle fleet, and continued diesel penetration.¹⁹ The average retail price of gasoline fell to \$1.12 per gallon during the first half of 1983, an annual rate of decline of 6 percent.²⁰ Still, first-half average gasoline prices were up 225 percent from their level in the first half of 1973, the year that crude oil prices quadrupled, while the total Consumer Price Index rose only 127 percent.²¹ Demand for home heating oil fell 8.4 percent from the first half of 1982, due to the warm winter and a drop in the number of domestic burners.²² The average price of home heating oil was \$1.11 in the first half, down from the 1982 average of \$1.19 per gallon and the 1981 average of \$1.21 per gallon.²³

Utilities and industrial users have switched to nonoil energy sources while increasing conservation efforts. Residual fuel, the type used by utilities to generate electricity, has been steadily displaced by coal, nuclear, and hydroelectric power. In 1982, U.S. utilities burned 50 percent less oil while producing 440 percent more nuclear power than they did a decade earlier.²⁴ Most industrial users have also found ways to use less oil. For example, many steelmakers have converted to continuous casting technology, a process that uses 40 to 60 percent less energy than conventional mills. In recent years, cement plants continued to switch from oil to coal firing.²⁵

Table 2. Change in selected export price indexes¹ in the first half of 1983 and share of total trade value

Commodity	Share of total 1980 trade value	Percent change in—		
		First half	First quarter	Second quarter
Grain and grain preparations	8.341	14.5	7.2	6.8
Wheat	2.943	-0.8	-1.0	0.2
Yellow corn	3.956	25.7	13.1	11.2
Other grain	0.522	(²)	(²)	(²)
Yellow sorghum	0.498	22.3	10.0	11.2
Crude materials	10.948	(²)	(²)	(²)
Oilseeds and oleaginous fruit	3.024	5.0	-2.0	7.2
Soybeans	2.716	6.7	-0.2	7.0
Textile fibers	1.813	11.2	2.5	8.5
Cotton	1.341	17.3	4.4	12.3
Metalliferous ores and metal scrap	2.062	(²)	(²)	(²)
Scrap metal of iron or steel	0.566	16.0	7.4	8.0
Fuels and related products	3.691	(²)	(²)	(²)
Bituminous coal	2.088	-12.6	-2.6	-10.2
Intermediate manufactured products	10.544	2.1	1.5	0.6
Nonferrous metals	2.280	10.7	8.0	2.5
Silver	0.772	28.7	28.0	0.5
Copper	0.204	3.9	3.9	0.0
Aluminum	0.919	7.4	0.9	6.5
Leather and furskins	0.200	2.8	0.2	2.6
Iron and steel	1.438	-2.0	-2.8	0.7
Machinery and transport equipment	35.261	1.0	0.4	0.5
General industrial machinery and parts	4.939	1.0	0.8	0.3
Telecommunications equipment	1.590	1.2	0.7	0.5
Electrical machinery and equipment	4.738	-0.1	-0.7	0.6
Other transport equipment	2.718	2.4	1.5	0.9
General aviation aircraft and helicopters	0.479	2.7	2.0	0.7
Miscellaneous manufactured articles	7.397	(²)	(²)	(²)
Professional, scientific, and controlling instruments and apparatus	2.437	4.2	2.6	1.6
Photographic apparatus, optical goods, watches and clocks	1.187	-2.3	-3.5	1.2

¹For all of the indexes available in each category, see *U.S. Import and Export Price Indexes*, USDL-83-77 (Bureau of Labor Statistics), Aug. 11, 1983.

²Data are not available.

The strong dollar has also played an important part in holding down oil prices. Because the dollar appreciated strongly against the currencies of most major industrialized nations in the last three years, those nations have had to pay larger amounts of their currencies to obtain dollars to purchase oil. This has further depressed oil demand in world markets.

The United States continued to import an increasing percentage of its crude oil needs from non-OPEC sources during the first half, part of a trend that gained momentum during 1982. Leading suppliers were Mexico, at 849,000 barrels per day, Canada, at 523,000, Venezuela, at 401,000, and Britain, at 348,000. Of these, only Venezuela is an OPEC member. OPEC members supplied 31.9 percent of U.S. oil imports, compared with 42.0 percent during 1982 and 55.4 percent in 1981.²⁶ The level of crude oil imports from Saudi Arabia is especially noteworthy: in the first half, the United States imported an average of 179,000 barrels per day of Saudi crude, compared with 552,000 barrels per day in 1982 and 1.1 million in 1981.

Food. The price index for food imports rose 1.2 percent during the first 6 months of 1983, after rising 0.2 percent for all of 1982. Food imports totaled \$8.5 billion in the first half, compared with \$7.6 billion during the same period a

year earlier. The food index is one of the most volatile components of the all-import index because of the uncertainties associated with food production, the varying impact of weather conditions, and the difficulty of shipping perishable products.

Prices for coffee, tea, and cocoa rose 4.0 percent, leading the rise in the food index. Cocoa price increases reflected poor harvests in the Ivory Coast and Ecuador. The tea index rose 9.8 percent because of lower output by Sri Lanka and Indonesia and relatively low stock levels in several major importing nations. Coffee prices fell 1.8 percent during the first half, due to plentiful supplies and the continued general decline in U.S. coffee consumption. The International Coffee Organization, whose producing members account for 99 percent of world production, lowered member nations' export quotas in an effort to stabilize coffee prices.²⁷ Despite this action, however, some members sold coffee at a discount to other nations, many of which are in the Eastern bloc,²⁸ placing additional downward pressure on coffee prices.

The index for sugar and honey rose 3.9 percent, with all of the increase occurring in the second quarter. World sugar prices were about 12 cents per pound in June, compared with 6.2 cents at the same time last year. The second-quarter price rise was prompted by speculation following reports that weather problems in the third quarter might affect next season's output in major sugar producing regions.²⁹ Speculative activity also centered on the possibility of U.S. restrictions on imports of sugar-containing formulations, which were entering the country through a loophole in the existing system of raw sugar import quotas. (On June 29, imports of all sugar containing formulations were embargoed.³⁰)

The decision by two major U.S. soft-drink makers to use high-fructose corn syrup in their beverages placed downward pressure on prices of imported sugar. The move demonstrated the continuing displacement of sugar by the syrup, the use of which is expected to reduce 1983 domestic sugar consumption by 3 to 4 percent.³¹ Prices for imported honey fell as an influx of lower-priced honey, mainly from China, increased supplies on the U.S. market.

Imported meat prices fell 3.8 percent. Canned hams and shoulders led the downward trend, dropping 13.8 percent in the first half in response to abundant supplies of pork for canned hams from Poland and Denmark and plentiful supplies on the domestic market. The beef and veal index, which accounts for approximately two-thirds of the value of the meat index, rose 6.5 percent in the first half. U.S. demand for imported beef increased because of tight domestic supplies resulting from wet winter weather in the major cattle breeding areas. At the same time, world production and exports of cattle declined as ranchers held cattle to rebuild severely depleted herds. Supplies from Australia, the world's largest beef exporter, were limited by adverse weather conditions, and exports by New Zealand, another major U.S. beef supplier, also fell.

Fish prices declined 1.1 percent during the first half, in

response to a 2.5-percent drop in the index for fresh fish, which reflected abundant supplies of cod, haddock, flounder, and tuna. The index for shellfish showed a 0.1-percent increase, as lobster supplies, which were tight at the beginning of the year, recovered to more typical levels by June. Mexico's nationalization of its shrimp industry tended to drive up shellfish prices. Supplies of Mexican shrimp were difficult for U.S. importers to obtain, and the shrimp that was available had risen dramatically in price. Prices for canned fish fell 1.3 percent in the first half, largely due to plentiful supplies of imported canned clams and sardines.

Crude materials. In general, indexes in the crude materials category rose during the first 6 months of 1983. Because products in this category are used extensively as raw materials in manufacturing and construction, the quickening of the U.S. economy generated additional demand for them. The United States imported \$4.8 billion of such products in the first half, compared with \$4.7 billion during the first half of 1982.³²

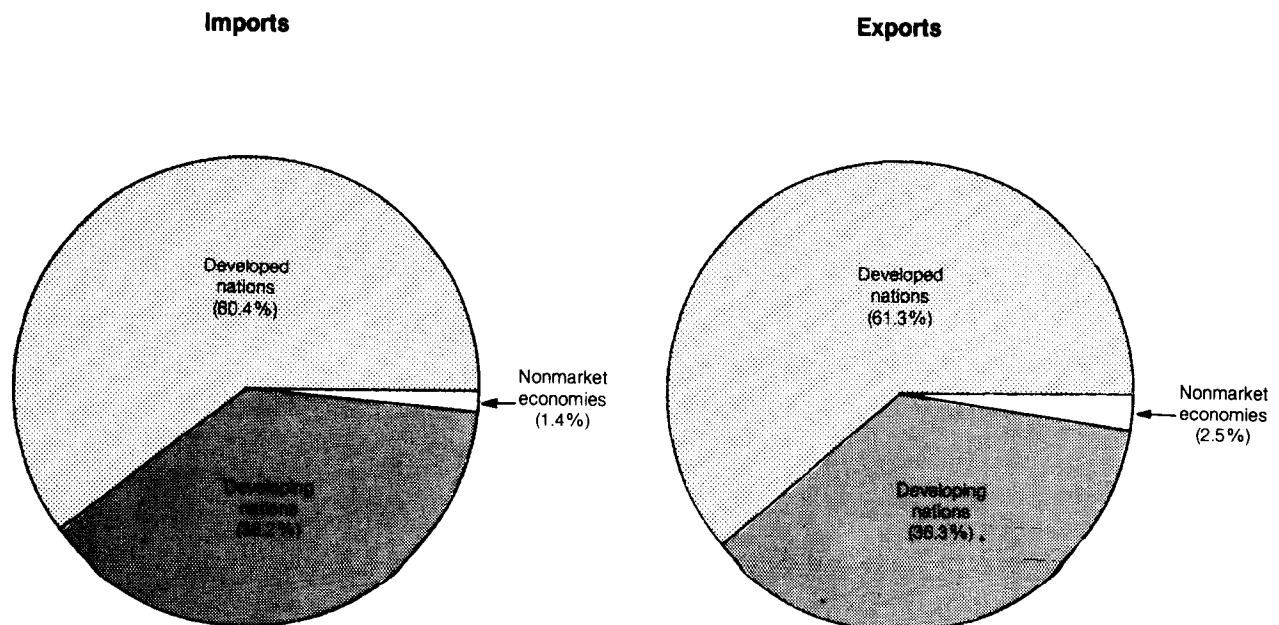
Lumber prices jumped 26.8 percent, rising 7.6 percent in the first quarter and 17.8 percent in the second. Wood prices had been depressed since 1979, and a significant number of marginal suppliers were forced out of business.

Canada is the largest supplier of lumber to the United States, and when this country, Saudi Arabia, and China all increased purchases of Canadian wood during the first half, prices were driven up. Greater U.S. consumption of lumber occurred despite a shift to construction of multifamily homes, townhouses, and mobile homes, all of which require significantly less lumber per unit than single-family homes. The construction of single-family homes did not rebound as strongly as general housing construction.

The index for sulphate wood pulp fell 2.7 percent as weakened demand caused many suppliers to discount their prices. Use of pulp products is directly related to kraft paper and paperboard sales. Packaging is the chief use for the unbleached grades and the bleached pulp is used in a wide range of applications from packaging to printing.

Intermediate manufactured products. Large price increases for cork and wood products and for nonferrous metals led the 2.9-percent price rise in the index for intermediate manufactures, which had fallen 7.5 percent during 1982. In the first half, the United States imported \$17.3 billion of products in this category, compared with \$18.8 billion in the first half of 1982. These products include metals, cork,

Chart 2. U.S. merchandise trade by type of trading partner, January-June 1983



SOURCE: U.S. Department of Commerce.

wood, textiles, iron and steel, glassware, paperboard, and other basic inputs to manufacturing processes.

Nonferrous metal prices rose 13.0 percent in the first half after falling 14.0 percent during all of 1982. Lower interest rates and increased output in basic industries were key factors boosting consumption of many nonferrous metals. The increase in the index was led by sharply rising prices for silver, copper, platinum, and palladium. While demand by the capital goods sector continued at reduced levels, demand for nonferrous metals from the automotive, construction, and consumer appliance sectors was especially robust. However, in the case of some metals, most notably copper, lead, and nickel, world market prices remained below production costs for some producers.³³

The index for silver and metals of the platinum group, which accounts for 33.6 percent of the nonferrous index, rose 17.0 percent in the first half. Silver prices rose rapidly in the first quarter as interest rates eased, industrial demand rose, and speculative activity increased, but fell slightly in the second quarter as interest rates edged upward and speculation waned. Growing demand for platinum fueled higher prices: early in the first half, gold was selling at a premium to platinum, a reversal of the historical price relationship between the two metals. However, demand for platinum from such industries as electronics and glass quickly pulled platinum prices back up past gold prices. Palladium prices also rose as the auto industry purchased greater quantities of the metal for use in catalytic converters. Supplies of both platinum and palladium tightened over the period as the Soviet Union and South Africa cut shipments of these metals.

The index for copper rose 16.4 percent in the first half. Copper prices tend to mirror the general economy, as the metal is used in virtually every major industry. When industrial production began to improve, copper prices quickly rose from the record lows posted in 1982, but these increases were tempered by large stocks on world markets.³⁴ Tin prices rose 11.0 percent, as the buffer stock manager of the International Tin Council bought tin to support the metal's price, and producer nations continued export controls in an effort to reduce the world tin surplus.³⁵ Zinc and lead prices remained depressed in the first half.

Cork and wood prices rose 9.5 percent, paced by increased consumption of products related to the construction industry, such as wood moldings, shingles, shakes, and carpentry items. Increased demand for hardwood plywood and veneers from Southeast Asia has been accompanied by reduced demand for products from the traditional suppliers, Korea and Taiwan, and increased demand for products from Indonesia, which previously had supplied only the logs. Nonconstruction items showed less price change over the period.

Prices for nonmetallic mineral manufactures rose 5.9 percent, largely because of a 10.4-percent increase in the index for cut and polished diamonds. The rise in diamond prices

resulted from greater demand for smaller gems (those of one carat or less), while production and distribution controls in South Africa reduced supplies on world markets. (South Africa is the world's largest diamond producer.)

The drop in imported steel prices was the result of sluggish demand and vigorous price competition by foreign producers in developing nations. For domestic steelmakers, 1983 showed signs of improvement over 1982; in terms of capacity utilization, last year's 48.4 percent was the worst since the Great Depression for U.S. steelmakers, but the rate rose to 53.6 percent in the first half of 1983.³⁶ The U.S. economic recovery was uneven in its effect on major steel consuming sectors. Demand for sheet products for the auto industry rose, but the lag in capital spending meant continued depressed demand for plate and structural products. Requirements for oil country tubular goods, which are directly related to levels of exploration and drilling activity, were reduced. And demand was slack for stainless bars, plates, and tool steel, as users in most markets operated with thin inventories.

Import penetration of the U.S. steel market, measured in net tons, was 18.5 percent in the first half, down from 22.6 percent in the first half of 1982.³⁷ This decline was primarily the result of agreements reached with the EEC and Japan late last year which limit those nations' steel exports to the United States. However, although first-half shipments from the EEC and Japan were down substantially from 1982 levels, steel imports from developing nations such as Brazil, Mexico, and Korea made up much of the shortfall. In recent years, the latter nations have increased capacity in continuous casting steel plants, which have low unit labor costs.

Machinery and transport equipment. This index, which accounts for 25.4 percent of the weight of the all-import price index, rose 2.6 percent in the first half. The economic recovery fueled higher demand for these products: \$41.8 billion of merchandise was imported in this category, compared with \$39.1 billion in the first half of 1982. Much of the dollar value of this index consists of consumer end-use products such as autos, electric amplifiers, and household appliances. As consumer spending increased, purchases of these types of items rose. The index also includes many important components of manufacturing processes, such as electric motors, air pumps, compressors, valves, and roller bearings, for which demand grew with the increase in U.S. manufacturing output. The continued appreciation of the dollar placed some downward pressure on prices in this index.

Prices for imported autos rose 1.9 percent, largely because of the resurgence in domestic auto sales and the voluntary self-restraint quotas that limit exports of Japanese cars to the United States to 1.68 million units per year. Helped by lower interest rates, first-half U.S. auto sales rebounded from their lowest level since 1961. Retail sales were 4.55 million units in the first half, compared with 4.04

million in the corresponding 1982 period. Import penetration of the U.S. market was 26.7 percent for the first 6 months of 1983, versus 27.9 percent for all of 1982. (See chart 3.) Domestic and imported car sales were limited by the fact that inventories of both types of cars were unusually low, and dealers regularly sold out of the more popular models. Domestic auto inventories reflected conservative production levels, while inventories of Japanese vehicles were thin as a result of the voluntary quotas. On June 1, import inventories sank to 33 days of sales (as compared with a 53-day level a year earlier). Inventories of Japanese cars were even lower, at a 28-day level, with one major Japanese carmaker holding a 14-day supply.³⁸

The quotas on exports of Japanese autos were a source of upward pressure on import prices of these cars. During the first half, Japanese cars accounted for 21.5 percent of all new-car sales, compared with 22.6 percent during 1982. Because of the quotas, Japanese automakers were unable to maintain or increase their market share by fully exploiting a cost advantage estimated at \$1,500 to \$2,000 per car.³⁹ Instead of competing on price, Japan's carmakers concentrated on selling higher-valued, option-laden cars in the United States, in effect providing a pricing floor for the domestic industry.⁴⁰

In recent years, U.S. consumers have purchased an increasing percentage of higher-valued imported cars. This trend continued in the first half as luxury European models continued to sell well and Japanese carmakers entered sev-

eral new models in the compact market, which had previously been dominated by domestic models.

The index for metalworking machinery rose 3.7 percent, reflecting a 5.2-percent first-quarter increase and a 1.4-percent second-quarter decrease. The bulk of the value in this index consists of machine tools—power driven devices used to cut, shape, or form metal in the production of durable goods. The first-quarter increase was influenced by the dollar's depreciation during that time against the German Deutschemark; Germany is our second largest supplier of machine tools, after Japan.

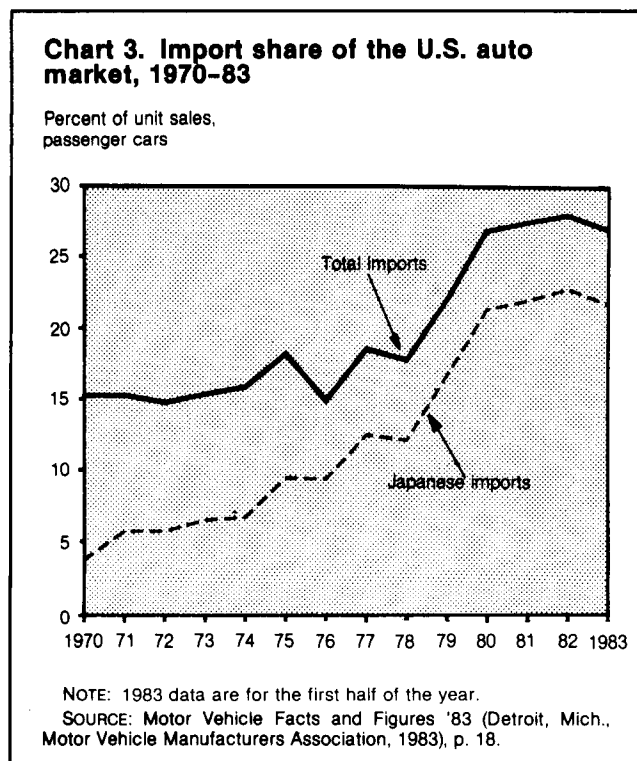
Prices were also affected by the decision of the Japanese Ministry of International Trade and Industry to hike U.S.-dollar-based export floor prices of numerically controlled lathes and machining centers (both major U.S. imports) by a minimum of 10 percent. This decision applied to orders placed after January 1, 1983, and shipments made after April 1, but not to machine tools already in U.S. warehouses.⁴¹

Conditions in the domestic industry had been depressed since late 1981, and remained that way in the first half. At the end of June, the metalworking machinery index was down 3.3 percent from the June 1982 level, despite the increase during the first 3 months of 1983. Prices in this index are heavily influenced by spending on capital goods, which remained depressed in the first half, as it usually lags the general economy by 6 to 12 months. In the first half of 1983, the United States posted a \$297.7 million trade deficit in machine tools (on imports of \$501.0 million and exports of \$203.3 million), compared with a first-half 1982 deficit of \$358.7 million.⁴² A large stockpile of Japanese machine tools in U.S. warehouses also dampened price increases.

As domestic firms attempted to deal with the long-term recession in their industry, the cost advantage that the strong U.S. dollar provided to efficient foreign machine tool producers made recovery doubly difficult. A number of U.S. firms have responded to foreign competition by entering into mergers or by filing petitions for import relief with the Federal Government.

The index for machinery specialized for particular industries rose 4.6 percent in the first half, after declining 0.3 percent in 1982. This broad aggregate index covers agricultural equipment, tractors, construction and mining equipment, printing machinery, food processing machinery, and textile and sewing machinery. The index moved up 3.9 percent in the first quarter, reflecting manufacturers' annual price increases and the weakening of the dollar *vis-à-vis* the yen, Deutschemark, and Swiss franc. The slight increase—0.7 percent—in the second quarter is a better indicator of the soft U.S. market for machinery. Construction and mining equipment prices were up 1.2 percent as demand continued to lag, while the index for textile and sewing machinery increased 3.4 percent, with 2.9 percentage points of this change occurring in the first quarter.

Prices for office machines and automatic data processing equipment rose 2.4 percent. This group includes mainframe



computers, terminals, optical scanners, and printers. The United States has historically posted large trade surpluses in this category, where our manufacturers have a lead in technology. In the first half, the United States exported \$5.6 billion of these products, and imported only \$3.0 billion. (In 1982, the United States posted a \$5.9 billion trade surplus for the category.) Pricing of these products is very competitive, as U.S., Japanese, and European firms vie for shares in the industrialized nations. Technological advances that lower production costs have placed downward pressure on prices in this index; in March they were 4.5 percent lower than they were 3 years earlier. Parts prices rose faster than equipment prices in the first half, illustrating the traditionally more inelastic demand for parts than for equipment. Finally, prices for cash registers continued to decline in the first half.

Miscellaneous manufactures. The import index for miscellaneous manufactures fell 1.0 percent in the first half. The bulk of the weight in this index is derived from professional, scientific, and controlling instruments and apparatus, and products for consumer end use, such as apparel and footwear. U.S. consumer demand for such products increased as the economy rebounded; in the first half, imports were \$15.6 billion compared with \$14.0 billion in the same period last year. Even so, prices fell because there are numerous foreign suppliers for many of the products in this group, and because competition for sales in the United States is intense. In addition, technological improvements have lowered production costs for many items. As a result of these factors and the strong dollar, the index rose only 0.4 percent from March 1980 to June 1983.

Prices of imported footwear fell 1.5 percent in the first half, continuing the downward price trend in imported footwear which began in 1981. First-half prices were nudged downward by strong worldwide competition among suppliers, decreasing costs for petroleum-based raw materials, and the dollar's appreciation against the currencies of major suppliers. Furthermore, supply increased as the countervailing duties against Brazilian shoes that had been under consideration for the last 3 years failed to materialize. Demand for athletic footwear was strong in the first quarter, and prices rose, but price cutting by domestic suppliers in the second quarter forced established exporters to the United States to lower prices to remain competitive.

The index for apparel fell 1.0 percent, as a pickup in U.S. consumer demand for clothing was counteracted by the continued strength of the dollar and competition among suppliers in the Far East. With consumer confidence growing, promotional efforts by apparel retailers helped to boost apparel sales significantly over first-half 1982 levels.

Trade differences between the United States and suppliers in the Far East limited supplies of some items. The U.S. Government authorized a unilateral freeze on imports of Chinese textiles while the two nations negotiated a new

textile agreement.⁴³ The United States also restricted Taiwanese imports of men's wool suit-type slacks and women's wool suits, slacks, and shorts.⁴⁴ Additionally, an embargo was placed on 15 Taiwanese apparel trading firms.

Moderating the decline in miscellaneous manufactures prices, the index for photographic apparatus, watches, and clocks rose 1.0 percent, after falling 10.2 percent during all of 1982. Increased consumer purchases of these products were the main factor behind the increase in the first half. In recent years, new technologies and changing consumer preferences have forced prices steadily downward; since June 1980, the price level of this index has fallen 8.5 percent. Technological advances such as computer chip control, quartz oscillation, and electronic imaging have resulted in lower unit costs for products in this index.

Export trends

Grain. Grain, which consists mainly of corn, wheat, and sorghum, is the largest U.S. export in dollar value, accounting for sales of \$14.2 billion in 1982. Export prices for grain rose 14.5 percent in the first half of 1983 after falling 7.3 percent for all of 1982. Prices for corn increased 25.7 percent, and those for sorghum rose 22.3 percent, while wheat prices fell 0.8 percent. These results were greatly influenced by the U.S. Payment-In-Kind (PIK) program, which was implemented in January 1983. Under PIK, the Government provides surplus wheat, corn, rice, cotton, and sorghum to farmers who reduce their plantings of the same commodities. The purpose of the program is to draw down surplus grain stockpiles.

Farmers took advantage of the PIK program to idle 46.6 million acres of cropland, more than twice the number anticipated. Together with the Acreage Reduction Program, PIK brought about the retirement of about 82 million acres this year, the largest reduction ever.⁴⁵ Corn export prices greatly increased because of tight supplies. Farmers planted 58.8 million acres in corn this year, 28 percent below last year's plantings and the lowest figure since records were begun in 1890.⁴⁶ Export wheat prices were not affected as heavily as corn prices by the PIK program; first-half wheat production was estimated at 15 percent below last year's production, but the huge surplus stored in U.S. silos held prices down. Sorghum prices rose 22.3 percent, reflecting the depletion of stockpiles.

U.S. wheat exporters faced slack demand and stiff competition from other nations for the business available. The U.S. share of world trade in grains fell to about 53 percent this year from a high of 60 percent in 1980. The Soviets continued to purchase only the minimum amount of grain required under the Long Term Agreement. Since the 1980 grain embargo, the U.S. share of world grain exports to the Soviet Union has fallen from 70 percent to 20 percent.⁴⁷ China, the largest customer for U.S. wheat last year, did not buy any wheat after January, because of the improved

outlook for the Chinese grain harvest and a trade dispute with the U.S. involving textiles. Wheat exporting nations such as Canada, Argentina, and France used more aggressive export marketing to make inroads into major U.S. export markets for grain. And finally, several Third World nations with international debt problems substantially reduced 1983 grain imports.

Crude materials. Most major categories of crude materials showed price increases in the first half. These products are generally used in the initial stages of manufacturing processes. Exports in this category totaled \$9.3 billion in the first half, compared with \$10.6 billion in the corresponding period in 1982.

Soybean prices rose 6.7 percent, after falling 10.4 percent during 1982, largely because of increased demand from the Soviet Union and Japan. As the size of the hog and cattle population in the Soviet Union has grown, the need for soybean meal for livestock feed has also increased. In Japan, soybeans for crushing are imported from the United States to produce soy milk, a product for which local demand has expanded rapidly in recent years. A relatively poor soybean harvest in Argentina this year also placed some upward pressure on prices.

Prices for cotton spurted 17.3 percent, recouping some of the declines recorded over the past 2 years. The PIK program exceeded expectations in restricting cotton supplies, while heavy rains in the South and a prolonged drought in Texas cut U.S. production further. The Soviet Union, a major cotton producer, experienced a poor harvest, and anticipates another one next season. At the same time, worldwide demand has grown as textile mills react to economic recovery. The major factor tending to hold prices down was the increasing domestic cotton output in China, formerly a major importer of cotton.

Prices for most types of metal scrap soared in the first half. The increases were led by a 16.0-percent rise in scrap iron and steel prices and a 76.8-percent increase in scrap aluminum prices. Iron and steel scrap are essential inputs in new steel production. As domestic steel mills purchased larger amounts of scrap to replenish their depleted inventories in anticipation of an upturn in demand, scrap prices were rapidly bid up in the domestic market. This domestic price rise was quickly transmitted to the export market. Demand for aluminum scrap was also robust, as U.S. primary aluminum producers put much idle capacity back into operation in the first half. In addition, demand from Japan, the largest customer for U.S. scrap aluminum exports, was very strong. Japan is not a low cost producer of primary aluminum, and per-unit energy costs in its secondary aluminum industry (that segment which produces aluminum products from aluminum scrap) are much lower than in its primary industry.

Bituminous coal prices dropped 12.6 percent, as world demand for U.S. coal continued to fall. The volume of coal

exports in the first half plummeted 37.7 percent from the same period in 1982.⁴⁸ Prices for bituminous coal used in the production of steel showed the greatest decline. Japan is the largest market for U.S. exports of this metallurgical coal; in the spring, Japanese buyers negotiated new contracts with U.S. firms that lowered existing prices by 12 to 20 percent. Prices for metallurgical coal exported to other nations also fell, but by lesser amounts. Steam coal, used for generating electricity, also declined in price because of reduced worldwide demand for electricity, sharp competition from other sources of coal, and higher inventories.

Over the last 2 years, the international coal situation changed from a sellers' market to a buyers' market. Two years ago, ships were lined up at U.S. ports as coal customers struggled to build up stockpiles for protection against price increases and supply interruptions. Subsequently, however, Poland and Australia reentered world coal markets with aggressive pricing policies and prices dropped. Projections of world coal demand also proved to be overly optimistic, and continuous rounds of price cuts forced high-cost suppliers out of business.

Intermediate manufactured products. Export prices for intermediate manufactured products rose 2.1 percent in the first half, following a 1.8-percent decline in 1982. The United States exported \$7.4 billion of products in this category in the first half, compared with \$9.0 billion in the first 6 months of 1982. Nonferrous metals prices advanced 10.7 percent, leading the increase in the index for intermediate manufactures. Prices for leather and furskins rose 2.8 percent, while those for iron and steel fell 2.0 percent, moderating the increase in the index.

The sharp rise in nonferrous metals prices reflected increased demand by basic industries and lower interest rates. These prices are directly related to the level of world economic activity; last year, as world economies slumped, prices for many of these metals posted record lows in real terms, and many U.S. producers had to price output below production costs. The 1983 first-half rise in prices was accompanied by leaner inventories for many metals than existed during the previous year.

The increase in the nonferrous metals index was led by increases in silver, copper, and aluminum prices. Silver prices posted a 28.7-percent gain, virtually all of which occurred in the first quarter, in response to increased U.S. economic activity, lower interest rates, and speculative expectations. Copper export prices were up 3.9 percent, as domestic demand rose in response to production increases in basic industries such as autos, housing, and appliances. Although a strike began at one major U.S. copper producer as the first half ended, most producers achieved early wage agreements with their unions, which helped to cool speculative activity in copper. Aluminum prices rose 7.4 percent, reflecting producers' increases for several product lines.⁴⁹ U.S. output of primary aluminum rose from 8,875 short

tons per day in December 1982 to 9,607 short tons in June 1983 as firms geared up to meet the increased demand for their products.⁵⁰ Most U.S. aluminum makers posted losses during 1982, but several posted profits in first-half 1983. For molybdenum and lead, prices and output remained depressed.

Prices for leather and furskins went up 2.8 percent, largely because of a substantial second-quarter increase for wet blues (the product between the raw hide and finished leather stage). Tanners in apparel manufacturing nations (Hong Kong, Taiwan, South Korea, and China) purchased large amounts of raw hides as well as wet blues from the United States during the second quarter in anticipation of increased orders from shoe and clothing manufacturers.

Most finished leather prices were stable during the first half, although there were some slight price increases for high-quality bovine leathers used in shoe manufacture. Domestic demand for finished leathers has declined sharply in recent years as production of leather goods shifted abroad. For example, import penetration of the U.S. footwear market, as measured in numbers of pairs, was 59 percent in 1982, compared with 41 percent in 1975.⁵¹ Conversely, export expansion by U.S. tanners has proved especially difficult because of trade barriers in foreign markets.

Export steel prices fell 2.0 percent, as demand continued at drastically reduced levels. In 1980, U.S. firms exported 4.1 million tons of steel, but by 1982, this had fallen to 1.8 million tons.⁵² And in the first half of 1983, U.S. firms exported only 583 thousand tons. U.S. steel products are essentially fungible with low-cost steel products from developing nations such as Brazil, Mexico, and Korea. This, combined with an excess of worldwide steelmaking capacity, has made it difficult for U.S. steelmakers, which generally have higher production costs, to compete in foreign markets.

Machinery and transport equipment. Machinery and transport equipment accounts for 35.3 percent of the value of all U.S. exports. Prices for such products advanced 1.0 percent in the first half, after rising 3.9 percent for all of 1982. Most major aggregate indexes in the category showed marginal first-half price increases. The strengthening of the dollar and continued slack demand abroad were major factors moderating price rises and sales volumes. Exports of machinery and transport equipment were \$42.1 billion, compared with \$46.0 billion in the first half of 1982. Many of the products in this group, such as computers, electronic components, and telecommunications equipment, require a high degree of technical sophistication, and U.S. firms have a comparative advantage in their manufacture.

The index for general industrial machinery and parts rose 1.0 percent, compared with a 1982 first-half increase of 3.2 percent. This subgroup includes heating and cooling equipment, air pumps and compressors, and pumps and valves for liquids. In the first half, heating equipment prices rose

1.2 percent and machine parts prices advanced 2.9 percent, while prices for pumps for liquids fell 0.8 percent. Although higher prices for aluminum and steel alloys put upward pressure on the costs of many industrial machines, slack demand in overseas markets moderated price increases as U.S. producers kept their export prices relatively stable in dollars to retain market share.

The index for general aviation aircraft and helicopters rose 2.7 percent in the first half, sharply below the average rate of increase over the last 6 years. Demand for aviation products, both at home and abroad, was at reduced levels in the first half. Export sales for the first half were down 56.7 percent (in units) from sluggish 1982 levels, which, in turn, were 49.0 percent below 1981 levels.⁵³ As a result, some U.S. firms furloughed workers and halted production of certain single-engine models to bring production in line with demand. A large supply of relatively new used aircraft offered at low prices also helped to hold down prices.

The index for telecommunications equipment rose 1.2 percent in the first half, after increasing 3.3 percent during all of 1982. Prices rose 3.4 percent in the miscellaneous telecommunications equipment subgroup, which accounts for 77 percent of the weight of the telecommunications equipment index. The subgroup includes such items as office communications devices, large radio transmitters and receivers, and navigational devices and parts. Demand was strong for these highly sophisticated products in the first half. Prices for television sets declined 4.1 percent, and prices for video and sound reproducers and recorders fell 3.4 percent during the first half, placing downward price pressure on the telecommunications equipment index. Exporters of these products, which include tape recorders and radios, faced stiff competition from Japanese producers. Finally, prices for individual telephones declined in direct response to the impending deregulation of the U.S. telephone industry.

Moderating the rise in the machinery and transport equipment index were prices for electrical machinery and equipment, which fell 0.1 percent after rising 2.2 percent in 1982. During last year and the first half of this year, the United States recorded a slight trade surplus for products in this category. In the first 6 months of 1983, the United States exported \$5.72 billion of such merchandise, and imported \$5.67 billion.⁵⁴

Lower prices for semiconducting materials and devices such as silicon wafers and chips led the price decline in the electrical machinery and equipment index. Wafer prices fell as competition among American, Japanese, and European producers intensified, and technological advances and economies of scale lowered production costs in many cases as firms moved further up the learning curve. Upward pressure was placed on the index by continuing strong demand for computers, defense equipment, and other types of electronic apparatus; by increased demand for new home electrical appliances as homebuilding activity picked up; and by price

hikes for inputs such as aluminum, copper, and precious metals.

The indexes in the miscellaneous manufactures category showed mixed changes. Miscellaneous manufactures account for 7.4 percent of the value of all U.S. exports, and include such products as measuring and controlling instruments and apparatus, watches and clocks, toys, games, and musical instruments. During the first half of 1983, exports of such merchandise were \$7.6 billion, compared with \$8.2 billion for the same period last year. The index for photographic apparatus and supplies, optical goods, and watches and clocks fell 2.3 percent in the first half, while that for professional, scientific, and controlling instruments and apparatus rose 4.2 percent.

The increase in the latter index reflected the industry practice of making major price changes early in the year.

(For the first half of last year, for example, this index rose 7.0 percent.) Overseas demand was high for these products, which are used to monitor and control industrial processes and improve production efficiency. Foreign demand for U.S. products in this group has traditionally been robust, and in recent years large trade surpluses have been recorded. Because U.S. exporters are generally able to pass through increases in their production costs, this index increased 69.8 percent from June 1977 to June 1983.

Film, cameras, and related photographic equipment account for the bulk of the weight in the index for photographic apparatus and supplies, optical goods, and watches and clocks. Most producers of photographic supplies adjust their prices at the beginning of the year. Prices fell 3.4 percent in the first quarter, reflecting efforts by exporters to counteract the effects of the strong dollar on sales abroad. □

—FOOTNOTES—

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¹In this article, the "all-import-price index" refers to the all-commodities-import-price index, excluding chemicals. This measure accounts for 96.5 percent of the value of all imports. A new all-import index which includes chemicals and covers 100 percent of the value of all imports is now available, starting with fourth-quarter 1982 data.

²For a detailed look at import-export price movements in 1982, see Mark J. Johnson, "U.S. import-export prices in 1982," *Monthly Labor Review*, May 1983, pp. 20-29.

³Import price indexes are weighted by 1980 import values and are published on an f.o.b. (free-on-board) foreign port or c.i.f. (cost, insurance, and freight) U.S. port basis. Export price indexes are weighted by 1980 U.S. merchandise export trade values and are published on an f.o.b. factory or f.a.s. (free-alongside-ship) U.S. port basis. See "International Price Program" (Washington, U.S. Bureau of Labor Statistics).

⁴For details on the value of the U.S. dollar against currencies of other nations, see *Federal Reserve Bulletin*, July 1983, p. A68.

⁵*U.S. Department of Commerce News*, BEA 83-38 (U.S. Department of Commerce, Bureau of Economic Analysis), July 20, 1983, table 4, p. 8.

⁶*P-1 Report* (Detroit, Mich., Motor Vehicle Manufacturers' Association), July 6, 1983, p. 1.

⁷*U.S. Department of Commerce News*, CB 83-108 (Bureau of the Census), July 19, 1983, p. 1.

⁸Information on U.S. merchandise trade exports, imports, and trade deficits is from *Survey of Current Business*, September 1983.

⁹*Ibid.*

¹⁰*Highlights of U.S. Export and Import Trade—FT-990* (U.S. Department of Commerce, Bureau of the Census), June 1983, table E-3.

¹¹*Ibid.*, table 8.

¹²*U.S. Department of Commerce News*, BEA 83-40 (Bureau of Economic Analysis), Sept. 15, 1983.

¹³*Summary of U.S. International Transactions* (U.S. Department of Commerce, Bureau of Economic Analysis), Sept. 15, 1983.

¹⁴The share of final goods production that is accounted for by gross trade (merchandise imports plus merchandise exports) is calculated as:

$$\frac{\text{Merchandise imports} + \text{Merchandise exports}}{\text{Final goods} + \text{Merchandise imports}} \times 100$$

It is computed using data from *Survey of Current Business*, various issues.

¹⁵Robert J. Beck, "U.S. Demand, Imports to Edge Down; Production Rising," *Oil and Gas Journal*, July 25, 1983, p. 114.

¹⁶*Ibid.*, p. 114.

¹⁷*Petroleum Supply Monthly* (U.S. Department of Energy, Energy Information Administration), August 1983.

¹⁸*Monthly Energy Review* (U.S. Department of Energy, Energy Information Administration), September 1983, p. 6. This figure is derived by using the information given in the Executive Summary and dividing total energy imports by total domestic energy consumption.

¹⁹Beck, "U.S. Demand," p. 127.

²⁰*Ibid.*

²¹See "Consumer Price Index (CPI-U), All Urban Consumers," *USD1 83-366* (Bureau of Labor Statistics), July 1983.

²²Beck, "U.S. Demand," p. 127.

²³*Ibid.*

²⁴"Now OPEC Feels an Oil Shock," *Business Week*, July 18, 1983, p. 52.

²⁵*Ibid.*

²⁶*Petroleum Supply Monthly*, DOE/EIA-0109(83/07) (U.S. Department of Energy, Energy Information Administration), June 1983, pp. 17-18.

²⁷Neil Behrmann, "World Coffee Accord Faces Tough Session as Producers Seek Bigger Share of Market," *The Wall Street Journal*, Sept. 3, 1982, p. 24.

²⁸*Foreign Agriculture Circular* (USDA, Foreign Agricultural Service), July, 1983, p. 6.

²⁹*Sugar and Sugar Sweetener Outlook and Situation* (U.S. Department of Agriculture, Economic Research Service), June 1983, p. 8.

³⁰Presidential Proclamation Number 5071: the proclamation was issued on June 28, 1983, and took effect on June 29, 1983.

³¹*Sugar and Sweetener Outlook and Situation*, p. 11.

³²*Summary of U.S. Export and Import Merchandise Trade—FT900-83-06* (Bureau of the Census), June 1983, p. 10.

³³"Quarterly Forecast—Nonferrous," *Iron Age*, July 4, 1983, p. 28.

³⁴*Ibid.*

³⁵For information on tin pricing, see "Tin Prices In General Improved in April," *Tin News* (Washington, The Malaysian Tin Bureau), May 15, 1983, p. 1; and "May and June Tin Prices," *Tin News*, July 15, 1983, p. 1.

³⁶ *Pig Iron and Steel Report*, AIS-7 (Washington, American Iron and Steel Institute), July, 1983.

³⁷ *Monthly Apparent Supply* (Washington, American Iron and Steel Institute), August 1982 and August 1983.

³⁸ *The Automotive News*, June 20, 1983, pp. 1-61.

³⁹ Amal Nag, "High New Car Prices Keep Many Lookers Looking, Not Buying," *The Wall Street Journal*, Aug. 3, 1983, p. 8.

⁴⁰ *Ibid.*

⁴¹ "MITI Boosts Prices of Japanese Machines," *American Machinist*, February 1983, p. 27.

⁴² "U.S. Foreign Trade in Machine Tools, First Quarter, 1983 (McLean, Va., National Machine Tool Builders' Association), Sept. 29, 1983.

⁴³ For information regarding this unilateral curb, see Richard Wightman, "U.S. and China Quota Talks Collapse," *Women's Wear Daily*, Jan. 14, 1983; and Amanda Berrett, "U.S.-China Textile Trade Talks Ended on Calm Note, but Sides Remain Far Apart," *The Wall Street Journal*, Mar. 21, 1983, p. 25.

⁴⁴ "U.S. Lowers Boom on Some Taiwan Imports," *Women's Wear Daily*, Apr. 27, 1983, p. 17.

⁴⁵ Jeffrey H. Birnbaum, "Some Farmers Like it, But Critics Call PIK a

Major Miscalculation," *The Wall Street Journal*, July 19, 1983, p. 1.

⁴⁶ *Feed Outlook and Situation Report* (U.S. Dept. of Agriculture, Economic Research Service), May 1983, p. 2.

⁴⁷ Jeffrey H. Birnbaum, "U.S. Will Negotiate with Soviets, Chinese this Week to Boost Lagging Farm Exports," *The Wall Street Journal*, July 25, 1983, p. 4.

⁴⁸ *International Coal Review* (Washington, National Coal Association and Coal Exporters' Association of U.S.), Aug. 3, 1983, p. 8.

⁴⁹ "Alcoa Buys Metal to Meet Certain Orders as Aluminum Prices and Demand Surge," *The Wall Street Journal*, July 27, 1983, p. 48.

⁵⁰ *Primary Aluminum Production Monthly Report* (Washington, The Aluminum Association), July 1983.

⁵¹ *U.S. Leather Industry Statistics, 1983 Edition* (Washington, Tanners' Council of America, 1983), pp. 20, 28.

⁵² *Exports of Steel Products* (Washington, American Iron and Steel Institute), June 1983.

⁵³ *News* (Washington, General Aviation Manufacturers Association), July 11, 1983.

⁵⁴ *FT-990, Highlights of U.S. Export and Import Trade* (U.S. Department of Commerce, Bureau of the Census), June 1983, tables E-2 and I-2.