

ECONOMIC COMMENTARY

Will Taxing Imports Help?

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The United States is currently experiencing the strongest economic recovery since the Korean War, with virtually no increase in the rate of inflation. Uncertainties associated with persistently large federal-budget deficits, and with international-payments imbalances, however, cloud the outlook for continued prosperity.

The federal-budget deficit will equal approximately \$210 billion in the current fiscal year, representing 5.4 percent of Gross National Product (GNP). In the absence of significant budget-cutting measures, the deficit will remain in the neighborhood of 4 percent to 5 percent of GNP throughout the decade. During the 1970s, the federal-budget deficit averaged slightly more than 2 percent of GNP; during the 1960s, a decade of rapid capital accumulation, the deficit averaged less than 1 percent of GNP. As the economy continues to expand, and as private credit demands continue to firm, hefty federal credit needs could place increasing pressure on interest rates and could threaten the continued growth of the interest-sensitive sectors of the economy.

Meanwhile, the current-account deficit reached a record \$102 billion, or 3 percent of GNP, in 1984. The current-account balance measures our net international trade in goods and services plus U.S. unilateral transfer payments to foreigners.

Many analysts regard the current-account surplus or deficit as the most useful summary statistic of the nation's gains or losses from international commerce. Throughout most of the post-World War II period, the United States has run a current-account surplus. Most observers expect the current-account deficit to remain in the neighborhood of 3 percent of GNP at least through 1987. The large current-account deficit bears witness to the substantial gains foreign competitors have made recently against U.S. firms in domestic and world markets.

Recently, some policymakers have expressed interest in the possibility of using an across-the-board tax on imports to reduce the federal-budget and current-account deficits. Proponents of a tariff surcharge argue that the levy would reduce U.S. imports, thereby lowering the current-account deficit, while raising revenues to reduce the federal-budget deficit. In this *Economic Commentary*, we examine the possible effects of an across-the-board tariff and estimate its costs.

The Current International Environment

Economic theory and centuries of economic history have taught that nations engaged in international trade reap substantial benefits in terms of the quantity and diversity of products available for consumption. Trading nations have always prospered more than nations that have

closed their borders. Recent experience has demonstrated, however, that the benefits of international trade are not always evenly distributed. The United States is currently experiencing a record current-account deficit, much of which is attributable to the 72 percent appreciation of the dollar since 1980. A dollar appreciation lowers the dollar-price of U.S. imports and raises the foreign-currency price of exports. A dollar appreciation benefits consumers and importers, but hurts U.S. industries that compete against imports and that sell goods in foreign markets.

Many analysts cite the federal-budget deficit as one important factor contributing to the dollar's strength. The relationship between the federal-budget deficit and exchange rates is neither simple nor direct. It relies on the deficit's tendency to raise domestic interest rates and to attract foreign capital, which depends crucially on the behavior of private savings and investment both here and abroad. Heavy federal borrowing is consuming a record peace-time share of the private savings available to finance private credit needs in the United States, and is helping to keep U.S. interest rates above levels they otherwise would have attained. With credit demands relatively weak abroad, the attractive return on dollar-denominated assets has encouraged heavy net inflows

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The views stated herein are those of the authors and not necessarily those of the Board of Governors of the Federal Reserve System or of the Federal Reserve Bank of Cleveland.

of capital to the United States. These capital inflows have helped to keep the dollar strong in foreign-exchange markets. It might seem that measures to reduce the federal-budget deficit would promote a dollar depreciation, but this is not the case for a tariff, as we discuss below.

The Effects of a Tariff

Tariffs, which are taxes on imports, raise the dollar prices of goods imported to the United States. As prices rise, consumers buy fewer imports. The extent to which a tariff alters the price and quantities of imports depends on many things. Three important factors are the response of exchange rates to the tariff, the behavior of foreign prices following imposition of the tariff, and the price-sensitivity of U.S. consumers.

The ultimate impact of the proposed tariff on U.S. consumer prices depends on the resulting behavior of exchange rates. As U.S. residents buy fewer foreign goods because of the tariff, the amount of foreign currencies needed by U.S. consumers to purchase those goods will decline, as will the volume of dollars supplied to the foreign-exchange market. Consequently, the dollar's exchange rates (the price of dollars relative to other currencies) will tend to appreciate, making the dollar more expensive in terms of foreign currencies and making foreign currencies less expensive in terms of dollars. The appreciation, therefore, tends to reduce the dollar-price of imports. In this way, the dollar's appreciation partially offsets the price effects of the tariff.

Tariffs reduce the competitive edge of foreign products. As sales decline in the United States, many foreign suppliers will lower their prices. Some will reduce prices, because the cost of production falls as the quantity produced for shipment to the U.S. market declines. Others will cut prices to protect market share in the United States. As foreign producers lower their prices, they effectively pay part of the tariff and help finance the U.S. federal-budget deficit from their profits.

The decline in the quantity of imports also depends on how sensitive consumers are to price changes in the import market. If, for example, there are few domestically produced substitutes for imports, U.S. consumers will be less sensitive to import-price increases than if substitute goods are readily available. Immediately following imposition of the tariff, the resulting price increases will elicit a relatively small response from consumers. As consumers discover domestic substitutes for the higher priced imports, however, their response to the levy will grow. Import sales will drop, and domestic sales will rise.

In raising prices and lowering the quantities of imports, the tariff has two important effects on U.S. consumers. First, the tax transfers money away from U.S. consumers to the government. This money is a source of revenue for financing the federal-budget deficit. While certainly a cost to consumers, this transfer of purchasing power does not represent a net loss to the country as a whole. The second effect does represent a net cost to the country in the form of a misallocation of resources. Because of the tariff, consumers shift some purchases away from low-cost foreign producers to high-cost domestic producers. The shift in production to a manufacturer that requires more resources to produce a given level of output represents an efficiency loss. This loss is manifested in a lower level of world output and consumption.

The Effects on the Import Market

To consider the quantitative implications of a comprehensive tariff, we estimated the effects of a 15 percent tax levied on all merchandise imports beginning in 1985. Table 1 provides our results. We incorporate into these estimates the offsetting influence of a dollar appreciation. The exchange-rate effects were derived from a model that allows foreign prices to respond to the tariff and that assumes the value of the dollar is determined solely by trade in goods and services.¹ Other factors, such as expectations and interest rates, also influence exchange rates, especially in the short run. Because we are uncertain how the tariff will affect these factors, we could not include their influence in the exchange-rate model.

The estimates also span two time frames. The short run refers to a period of approximately three years. Some proposals for a tariff surcharge would limit the tax to a period of three years. The long run refers to a period longer than three years, in which consumers have adjusted more fully to the tariff.

It is important to remember that our approach considers only the effects of the tariff on imports. The tariff also will affect exports through its influence on exchange rates and income levels both here and abroad. These effects on exports are discussed in later sections of this *Economic Commentary*, but are not incorporated in the results presented in table 1.

The imposition of a 15 percent tariff by the United States would produce a 4 percent to 6 percent appreciation of the dollar in the short run and a 7 percent to 9 percent appreciation in the long run, according to our models. Foreign producers would reduce their prices by approximately 1 percent to 1.5 percent in the short run and 1.5 percent to 2 percent in the long run. U.S. consumers would experience a 7 percent to 10 percent rise in import prices in the short run and a 4.5 percent to 7 percent rise in import prices in the long run.

The tariff would raise approximately \$33 to \$35 billion per year in the short run and \$31 to \$33 per year in the long run. This revenue would be sufficient to reduce the federal-budget deficit by an amount equal to approximately 1 percent of GNP per year throughout the decade. Of course, this assumes that the federal government enacts no additional spending programs or tax reductions. U.S. consumers would pay most of the tax, but foreign producers would pay roughly \$3 to \$6 billion in the short run and \$6 to \$10 billion in the long run.

1. The exchange-rate model is found in Giorgio Basevi, "The Restrictive Effects of the U.S. Tariff and Its Welfare Value," *American Economic Review*, vol. 58 (June 1968), pp. 840-52.

The model suggests that the U.S. trade deficit would decline approximately \$25 to \$35 billion in the short run and \$38 to \$47 billion in the long run. The tariff would be sufficient to reduce the U.S. current-account deficit to a level approximately equal to 2.5 percent of GNP through 1987. These figures consider only the effects of the tariff on imports, but the induced appreciation of the dollar will also raise the foreign-currency price of U.S. exports. Consequently, U.S. exports will also fall, and the resulting improvement in the trade balance will be smaller than our model suggests.

Price Responses

The tariff will tend to cause a one-time rise in the overall U.S. price level, the extent of which depends on many variables. As already discussed, the effect on domestic prices depends on how foreign prices react to the tariff and on the resulting exchange-rate appreciation. We have taken account of these factors in making our estimates of the tariff's impact on import prices. Weighting the increase in import prices according to their importance in the consumer price index (CPI) suggests that the tariff will add approximately

environment, the tariff could cause greater price increases than we normally might expect based on the current percentage of imports in the CPI.

Income Effects

A large-scale tariff surely would have some effects on domestic and foreign income levels, on real economic activity, and on employment. Without a more elaborate econometric model, we are unable to estimate the size of these effects, but we can discuss the general direction of their influence. The tariff shifts consumers' expenditures away from imports to domestically produced goods. This should raise nominal domestic income growth, but the net impact on real economic activity and employment in the United States is quite uncertain. As we already have indicated, the tariff will induce other effects that will offset the boost to nominal income. The impact on real income also depends on how the tariff will affect prices.

In addition, as the tariff switches consumers' expenditures toward domestically produced goods, it will cause foreign income growth to slow. Foreigners consequently will buy fewer of our exports. Growth and employment among U.S. export industries would decline. As already indicated, the tariff-induced appreciation of dollar exchange rates would lower further the growth of the export sector and, as the tariff raised domestic prices, it would erode further the export industries' ability to compete in world markets. We are unable to discern the net impact of the tariff on domestic growth and employment, but these income considerations all suggest that the improvement in the current-account and federal-budget deficits could be much smaller than our estimates suggest.³

Table 1 Impacts of a 15 Percent Across-The-Board-Tariff^a

Response	Short-run estimates	Long-run estimates
Tariff revenues (billions)	\$ 35.1 to \$ 33.4	\$ 32.8 to \$ 31.4
Consumer burden	\$ 31.8 to \$ 27.8	\$ 26.4 to \$ 21.7
Producer burden	\$3.3 to \$5.6	\$6.4 to \$9.7
Change in import values (billions)	\$-24.7 to \$-34.7	\$-38.4 to \$-46.9
Efficiency losses (billions)	\$1.1 to \$1.3	\$1.3 to \$1.3
To United States	\$1.0 to \$1.1	\$1.1 to \$0.9
To foreign producers	\$0.1 to \$0.2	\$0.2 to \$0.4
U.S. import price change (%)	9.7 to 7.4	6.6 to 4.5
Foreign price change (%)	-1.0 to -1.5	-1.6 to -2.0
Exchange rate change (%)	4.3 to 6.1	6.8 to 8.5

a. These estimates are average annual values and allow for exchange-rate feedbacks. The authors will provide a description of the estimation technique upon request.

According to our model, the efficiency losses associated with the tariff would be fairly small, amounting to slightly more than \$1 billion per year. U.S. consumers would incur nearly all of the efficiency losses associated with the tariff. In total, U.S. consumers would incur costs associated with the transfer of purchasing power to the federal government and with the increased inefficiency resulting from the tariff.

1 to 2 percentage points to the CPI, but this estimate could be on the low side. The speed and extent to which import price changes ripple through the economy depend importantly on the amounts of unused resources and unused capacity in the economy. A tariff works by switching consumer expenditures from foreign goods to domestically produced goods. With unused resources in the economy, domestic producers can accommodate this increase in demand largely through increased output. Prices under these circumstances will rise only modestly. When the economy reaches full employment and capacity limits, however, no additional output is possible; producers then will accommodate the increase in domestic demand through higher prices.

The U.S. economy is showing strong and steady growth, as it enters its second year of expansion. GNP is currently above its trend value, suggesting that resources are becoming fully utilized and that price pressures could develop.² In such an

2. The GNP trend is the mid-expansion trend as defined by the Bureau of Economic Analysis, U.S. Department of Commerce.

3. Large-scale econometric model simulations suggest that an across-the-board tariff would reduce real economic activity and raise the unemployment rate moderately. See, for example, Christopher Caton, "The Effects of a Temporary Import Tariff," Special Studies, *Data Resources U.S. Review*, March 1985, pp. 13-20.

Additional Adverse Effects

Although the tariff surcharge could help reduce the federal-budget deficit and the current-account deficit, it also would reduce U.S. exports because the tariff would promote a dollar appreciation and would reduce foreign income growth. The adverse repercussions on U.S. export industries would be especially serious if foreign governments retaliate.

An attractive feature of an across-the-board tariff is that part of its burden falls on foreign producers, if they lower the prices of goods shipped to the U.S. market. This, however, is the most dangerous aspect of the proposal. If foreign governments view the tariff as a politically motivated attempt to shift the burden of financing U.S. budget deficits abroad, instead of incurring the domestic costs of trimming expenditures and raising taxes, they might retaliate by blocking the sale of U.S. exports in their markets. Many of our trading partners also have relatively large government budget deficits and could decide that if a tariff is an acceptable budget-trimming tool for the United States,

it could work well in their countries. If retaliation were to result, the tariff jeopardizes the growth and continued development of some of our most efficient and rapidly growing industries, such as computers and aircraft. Moreover, retaliation would fall especially hard on already depressed U.S. agricultural exports, which are often a target of foreign protectionist measures.

When talking about a tariff surcharge, we speak of imports as if they were a homogeneous group of products from a single foreign producer. In fact, we import myriad items from many different countries. It might not be in our best interest to tax all of these items according to the same rate. Some imports are important in the production process of domestic industries and lack domestic substitutes. Taxing such items could impair the ability of domestic industries that use imported materials to compete in world markets.

It also might not be in our best interest to tax the exports of less-developed debtor nations. Despite the numerous financial arrangements lenders have provided to ease the burden of repaying international debts, debtor countries ultimately must run export surpluses if they are to repay their debts. Under International Monetary Fund austerity programs, these nations have greatly reduced their imports from the United States, but they cannot reduce their imports below the minimum level needed to support their economies. It is especially important, therefore, that these nations expand their export markets. Because the United States is the largest national market in the world, an across-the-board tariff would greatly handicap such efforts.

The analysis presented in this *Economic Commentary* does not recommend the surcharge as an efficient policy option. Although such a tariff would help lower both the internal and external deficits, it would have adverse effects on dollar-exchange rates and could easily invite foreign retaliation. Much of the burden of a tariff surcharge would settle on U.S. consumers and U.S. export industries.

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