

## **Import Prices and the Trade Deficit**

Since the beginning of 1985, the dollar has fallen sharply in relation to the currencies of most of our major trading partners, making U.S. goods relatively cheaper. As expected, U.S. exports have grown rapidly in this period. But the U.S. trade deficit remains large, because imports to the United States have continued to rise. Two recent NBER studies suggest that imports remain strong because foreign producers have not raised their dollar prices, even though the dollar is now worth less. They suggest several possible explanations for this conclusion.

In **Some Empirical Evidence on Hysteresis in Aggregate U.S. Import Prices** (*NBER Working Paper No. 2483*), **Richard Baldwin** confirms that the actual level of imports between 1968 and 1987 was very close to what one would have expected, based on U.S. GNP and import prices. While the rising dollar of the first half of the 1980s *did* result in lower real import prices, the more recent falling dollar has led to only *slightly* higher import prices. The divergence between actual import prices and the prices one would expect, based on the exchange rate, has increased greatly since early 1985.

There are several possible explanations for the failure of importers to raise prices in response to the dollar's fall, that is, to pass exchange rate changes through to import prices. According to Baldwin, when the dollar was high, foreign firms may have used their relative cost advantage over U.S. producers to establish distribution networks and consumer loyalty in the United States. The increased competition in many U.S. markets now may result in lower

profit margins for all producers and lower-than-expected import prices.

Second, he offers, the expected pass-through of changes in dollar costs to prices may have been muted somewhat by constraints on capacity in the importers' distribution and servicing facilities. As these facilities were expanded, the dollar cost decreases of the early 1980s led to more imports and lower prices. However, the cost increases that would have been induced by the dollar's fall may have been offset in part by an alleviation of these distribution bottlenecks. The pattern of U.S. aggregate import prices in the 1980s broadly supports both of these explanations.

---

**“Imports remain strong because foreign producers have not raised their dollar prices, even though the dollar is now worth less.”**

---

In **Exchange Rate Pass-Through When Market Share Matters** (*NBER Working Paper No. 2542*), **Ken Froot** and **Paul Klemperer** suggest that foreign firms may have been unwilling to expand their share in the U.S. market when the dollar was high. Believing that the appreciation was only temporary, these firms may have kept their prices, and their profits, up. By refusing to reduce their prices at the time when the dollar was valuable, they may have earned higher total profits overall.

Froot and Klemperer present evidence to suggest that the dollar appreciation of the early 1980s indeed

was viewed as more temporary than past appreciations were. In addition, they show that foreign producers' expectations about the future value of the dollar may influence their current pricing decisions.

In a recent interview, Froot presented the example of Porsche automobiles as an exception to this rule. In the early 1980s, as the dollar rose in value, other makers of European luxury automobiles sold in the United States refused to lower their dollar prices. Porsche pursued the opposite strategy, cutting prices and aggressively expanding their market share. As it turns out, this investment in market share was a mistake: the dollar's subsequent depreciation made Porsche's profits in the U.S. market worth less in terms of Deutschemarks. Indeed, Porsche's CEO recently resigned under criticism from the Porsche family for his encouraging the company to become overly dependent on its sales in the United States.

The fact that the expansion of market share undertaken by Porsche when the dollar was high turned out to be costly after the dollar fell could support either the explanation in Froot and Klemperer, or one of Baldwin's theories.

## Can the United States Maintain Its Technological Lead?

In the quest for maintaining international competitiveness, U.S. policymakers worry most about the loss of U.S. leadership in high technology production. However, according to NBER Research Associate **Rachel McCulloch**, the U.S. share of the world's total exports of high technology products has been rising during the 1980s. In fact, the U.S. share in world exports of technology-intensive products exceeded 25 percent by 1984, nearly reaching its level of the 1960s, when the U.S. technological lead seemed invulnerable. Despite substantial gains by new competitors, the United States has been able to reverse the earlier loss of market share in leading-edge products.

In **The Challenge to U.S. Leadership in High Technology Industries** (NBER Working Paper No. 2513), McCulloch concedes that the U.S. trade balance in high technology products has been declining during the 1980s. However, that trend is mainly the result of rapidly rising imports, not flagging U.S. exports.

Between 1970 and 1984, the U.S. share of total world imports of high tech goods rose from 11 percent to nearly 23 percent. In any case, the growth of multinational firms has blurred the distinction between "U.S." and "foreign" sales. For many industries, the main "foreign" competition facing domestic firms comes from U.S. subsidiaries abroad.

---

**"The U.S. share in world exports of technology-intensive products had exceeded 25 percent by 1984, nearly reaching its level of the 1960s, when the U.S. technological lead seemed invulnerable."**

---

McCulloch also finds that the really dramatic change in global patterns of competition has reflected the rise of Japan rather than the decline of the United States. Japan's share in total world exports of technology-intensive products, just 7 percent in the mid-1960s, has soared to 20 percent by the mid-1980s. While Japanese gains have come at the expense of U.S. producers in a few industries, Japanese exports primarily have replaced European goods in world markets for high technology products. Surprisingly, Japan's overall expenditure for research and development (R and D) as a share of national income was 2.6 percent in 1984, no higher than that of the United States. However, almost all of the Japanese expenditure was for nondefense R and D, while nearly a third of the U.S. expenditure on R and D was related to defense.

McCulloch considers the efficacy of a national policy to expand high technology production. Such policies, in one form or another, are now the rule in industrial countries and even in many less-developed nations. While a valid economic case sometimes can be made for government support, McCulloch cautions that the potential for national gains by no means ensures that the actual policies adopted will be beneficial. In particular, she emphasizes that explicit subsidies that maintain active competition in integrated global markets are more likely than import barriers or "managed" trade arrangements with market shares allocated by country to stimulate high tech industries and promote efficiency. Ironically, current GATT (General Agreement on Tariffs and Trade) rules actively discourage the use of subsidies but allow import barriers. This amounts to at least tacit acceptance of turf agreements that segment global markets.

Many Americans remain reluctant to accept a future in which the United States is one of several leaders in the high technology industries. But could new policies restore the United States to its onetime posi-

tion of unquestioned technological preeminence? Probably not, in McCulloch's view, in a world that has become highly interdependent and where many nations have the resources needed to participate in R and D at the technological frontiers. Still, competition in high technology production, whether among firms or nations, is likely to stimulate technological progress. Such progress will continue to be a source of future economic growth and rising living standards. Vigorous competition can quicken the pace of advancement worldwide and thus can enhance economic prospects both at home and abroad. ML

## Only Part of the Field Is Level

Many economists felt that the Investment Tax Credit (ITC) resulted in overinvestment in equipment because it did not apply to land, structures, or inventory. Therefore, they believed that repeal of the ITC in the Tax Reform Act of 1986 (TRA) would remove this distortion and increase the economic productivity of investment. In that sense, the TRA was seen as an effort "to level the playing field" among different types of investment.

If tangible assets such as land, structures, and equipment were the only types of capital, then the different tax treatments of various corporate assets before 1986 would have caused an annual loss of output of about \$10 billion. The ITC would have been the primary cause of this loss, according to NBER researchers **Don Fullerton** and **Andrew Lyon**. Eliminating the ITC would have reduced the loss to under \$1 billion annually, they report in **Tax Neutrality and Intangible Capital** (NBER Working Paper No. 2430).

However, Fullerton and Lyon point out, much investment is in intangible capital, such as the knowledge and reputation achieved through research and development (R and D) and advertising. Under both prior and current tax law, expenditures on such intangibles are treated as current expenses rather than as capital investments. The tax treatment creates a strong incentive for businesses to invest in intangible capital. Therefore, although repeal of the ITC did level the playing field between equipment and other tangible investments, it "tilted" the field between equipment and intangibles.

Expenditures on R and D and advertising equal some 57 percent of capital for producers of military equipment, 33 percent for motor vehicles, 28 percent for finance and insurance, 25 percent for chem-

icals and rubber, 23 percent in metals and machinery, and 20 percent for food and tobacco. Taking account of intangible capital changes the estimates of both the loss from misallocation of capital caused by the old tax law and the gain from repealing the ITC. As might be expected, the estimated loss from the old tax law rises from \$10 billion to \$13 billion because the old tax code biased corporate investment toward R and D and advertising. Repeal of the ITC, which raises the cost of investing in equipment, still results in a gain in efficiency. Thus, total misallocation falls from \$13 billion to \$7 billion.

These numbers depend critically on estimates of intangible capital. Fullerton and Lyon note that budgets for advertising and R and D represent only some of the cost of firms' investment in reputation and future profitability. Intangible assets also are created by expenditures on: customer relations and sales representatives; recruitment and employee training; and marketing techniques and other firm-specific expertise. Indeed, many firms invest in the future by accepting current losses while they build up a clientele.

---

**"The net result of the 1986 Act was a more efficient tax treatment of different types of corporate investment, no matter how large the measure of intangible capital."**

---

Because no data are available for many such categories of intangible capital, Fullerton and Lyon admit that they probably underestimate total intangibles. If intangible capital actually were four to five times larger than their estimate for just advertising and R and D, then repeal of the ITC would have *increased* the misallocation of capital among various assets.

However, the TRA did more than repeal the ITC; it also cut the tax rate on corporate income. This cut brought down the cost of investing in highly taxed intangible assets, such as land, buildings, and inventories. Therefore, Fullerton and Lyon conclude, the net result of the 1986 Act was a more efficient tax treatment of different types of corporate investment, no matter how large the measure of intangible capital.

DRH

## Do Wage Gaps Explain European Unemployment?

Between 1966 and 1986, the unemployment rate in Western Europe rose from 2 percent to 10.6 percent

cent. Scores of economists have tried to explain this sharp rise in European unemployment during the 1970s and 1980s. Most have concluded that half, or more, of the increase has been caused by so-called supply factors that have boosted the natural rate of unemployment. Much less consensus exists about the reasons for the change in the natural rate. Some economists blame a "wage gap," meaning that real wages have outpaced productivity growth, leading to a higher share of national income going to labor. Others go beyond the wage gap to deeper structural problems, such as more generous unemployment benefits, labor militancy, and a mismatch of jobs and skills.

In **Wage Gaps and Output Gaps: Is There a Common Story for All of Europe?** (*NBER Working Paper No. 2454*), NBER Research Associate **Robert J. Gordon** casts doubt on these supply-side explanations. After estimating wage and output gaps for 11 European countries, he finds that high real wages are not responsible for the differing behavior of unemployment in Europe as contrasted with the United States. Indeed, patterns of real wage behavior across European countries are the opposite of what would be required to link high unemployment with high real wages.

Gordon maintains that past researchers have erred by mixing data on hourly wages in manufacturing with economywide data on unemployment and output. He corrects for that by developing an economywide wage index that includes the income and hours worked of the self-employed. When that adjustment

is made, the high European wage gaps, which others have found, disappear. Using 1972 as the base year, Gordon finds that wage gap indexes were almost identical in Europe and the United States in 1963 and 1984. There was a real wage explosion between 1966 and 1975 in three small countries with high unemployment (Belgium, Denmark, and the Netherlands) but the wage gap barely moved in the four large countries with high unemployment (France, Germany, Italy, Britain). In other words, the wage gap concept is almost useless in providing an explanation of differences in unemployment within Europe.

---

**"High real wages are not responsible for the differing behavior of unemployment in Europe as contrasted with the United States."**

---

Gordon does not explain high unemployment in Europe, and he does not refute the proposition that the natural unemployment rate consistent with a constant inflation rate has risen substantially since 1972. However, he estimates that stimulative policies could push unemployment down by three percentage points without causing inflation to accelerate appreciably beyond the recent 3 percent rate experienced by Europe as a whole. Gordon also finds that Europe has experienced a substantial Keynesian output gap in the 1980s, so that the increase in unemployment is not entirely "structural" or "classical" in nature. AE

---

*The National Bureau of Economic Research is a private, non-profit research organization founded in 1920 and devoted to objective quantitative analysis of the American economy. Its officers are:*

Chairman—Richard N. Rosett  
Vice Chairman—George T. Conklin, Jr.  
Treasurer—Charles A. Walworth

President and Chief Executive Officer—Martin Feldstein  
Executive Director—Geoffrey Carliner  
Director of Finance and Administration—Sam Parker

*Contributions to the National Bureau are tax deductible. Inquiries concerning contributions may be addressed to Martin Feldstein, President, NBER, 1050 Massachusetts Avenue, Cambridge, MA 02138.*

*The NBER Digest summarizes selected Working Papers recently produced as part of the Bureau's program of research.*

*Working Papers are intended to make preliminary research results available to economists in the hope of encouraging discussion and suggestions for revision. The Digest is issued for similar informational purposes and to stimulate discussion of Working Papers before their final publication. Neither the Working Papers nor the Digest has been reviewed by the Board of Directors of the NBER. Preparation of the Digest is under the supervision of Donna Zerwitz. The articles indicated by ML, DRH, and AE were prepared with the assistance of Marc Levinson, David R. Henderson, and A. F. Ehrbar, respectively.*

*Individual copies of the NBER Working Papers summarized here (and others) are available free of charge to Corporate Associates and other supporters of the National Bureau. For all others, there is a charge of \$2.00 per paper requested. Prepayment is required for all orders under \$10.00. For further information, please contact: Working Papers, NBER, 1050 Massachusetts Avenue, Cambridge, MA 02138; (617) 868-3900. Abstracts of all current National Bureau Working Papers appear in the NBER Reporter.*