

The NBER Digest

NATIONAL BUREAU OF
ECONOMIC RESEARCH, INC.

March 1988

Are Exchange Rate Changes Necessary?

Despite a sharp fall in the exchange value of the dollar, the U.S. trade deficit remains near record levels. This has cast doubt in some circles on the traditional view that exchange rate changes are a necessary part of trade adjustment. Indeed, there is a common view among policymakers and journalists that the U.S. budget deficit directly causes the trade deficit and that exchange rate changes only lead to inflation in the depreciating countries and deflation abroad. However, according to NBER Research Associate **Paul Krugman**, exchange rate adjustment remains a crucial part of the process by which trade imbalances are reduced.

Exchange rates have a role in adjustment because of differences in marginal spending patterns across countries. A reduction in the U.S. trade deficit necessarily involves a fall in U.S. expenditure relative to U.S. output, and a corresponding rise in other countries' expenditure relative to output. Part of the fall in U.S. expenditure will be reflected directly in lower demand for imports to the United States, and part of the rise in foreign spending will result in higher demand for U.S. exports. If this redistribution of world spending left the total demand for U.S. goods and

services unchanged, then no change in exchange rates would be necessary.

However, this is not the case. In **Adjustment in the World Economy** (*NBER Working Paper No. 2424*), Krugman finds that at most 33 percent of a fall in U.S. expenditure will be reflected directly in a reduction of imports; only 12 percent of a rise in expenditure in foreign countries will fall on U.S. exports. As a result, a redistribution of expenditure from the United States to other countries will reduce the overall demand for U.S. goods and services, requiring that the price of U.S. goods relative to those of other countries fall—that is, that the U.S. real exchange rate decline.

“Growth in surplus countries can play only a minor role in correcting current trade imbalances.”

The size of this required decline in the real exchange rate would be small if elasticities of import and export demand were large—that is, if goods produced in the United States were close substitutes for those produced elsewhere. However, Krug-

man finds that these elasticities are fairly small. Despite the considerable fall in real import prices in the first half of the 1980s, the share of imports in U.S. GNP has been roughly constant, suggesting an elasticity of import demand of approximately one.

Does adjustment of nominal exchange rates produce changes in real exchange rates? According to Krugman, the large exchange rate changes of the past eight years have taken place with only small inflation differentials between the major industrial countries, so that nominal and real exchange rate changes have been correlated almost perfectly. This implies that adjustment of the nominal exchange rate facilitates the changes in the real exchange rate that accompany redistributions of world expenditure.

Finally, Krugman considers the possibility that growth in surplus countries can be an alternative to exchange rate adjustment. He shows that for such a strategy to work, expenditure in the surplus countries must rise by much more than expenditure in the deficit countries falls. For this to be possible, in turn, there must be excess capacity in the surplus nations that can be brought into use when their domestic demand rises. He calculates that to reduce the U.S. external deficit through foreign growth alone, expenditure abroad would need to rise by more than five times as much as U.S. expenditure falls. It would require a minimum 8 percent rise in output (over and above normal economic growth) in the rest of the world to eliminate a \$150 billion U.S. current account deficit without exchange rate adjustment. This greatly exceeds even the most optimistic estimates of usable excess capacity in the rest of the world. Moreover, this result is based on the most favorable estimates of spending propensities. Therefore, Krugman concludes that growth in surplus countries can play only a minor role in correcting current trade imbalances. This leaves the main burden of adjustment on the traditional channel of exchange depreciation by deficit countries and appreciation by surplus countries.

rates would be 21 percent lower, according to a recent NBER study by **Douglas Holtz-Eakin** and **Harvey Rosen**. The average property tax rate would fall by \$7.15 per \$1000 of assessed value.

"If property taxes were not deductible from income taxed by the federal government, local property tax rates would be 21 percent lower."

In **Federal Deductibility and Local Property Tax Rates** (NBER Working Paper No. 2427), Holtz-Eakin and Rosen also find that property tax rates rise with the average income and asset level of the community. On the other hand, property tax rates are lower in communities that have more outstanding debt. Holtz-Eakin and Rosen calculate that an increase in the property tax rate will reduce a community's local property tax base, but not by enough to actually reduce property tax revenues. Thus, in contrast to some earlier results, communities appear to be operating on the "correct side of the Laffer curve."

Holtz-Eakin and Rosen's analysis is based on a sample of 82 communities for 1976-80.

Do Pensions Keep Workers on the Job?

It is well documented that workers covered by pension plans are less likely to change jobs than workers without pension coverage are. For example, a 1983 survey analyzed by NBER Research Associate **Alan Gustman** and **Thomas Steinmeier** showed that only 9 percent of workers with pensions changed jobs over a five-year period, while 56 percent of workers without pensions left their jobs during

Property Taxes and Deductibility

If property taxes were not deductible from income taxed by the federal government, local property tax

that same period. However, higher compensation, not the loss of pension benefits from changing jobs, explains the lower mobility of workers with pensions, Gustman and Steinmeier conclude.

The typical defined-benefit pension plan calculates retirement benefits based on the worker's years at the job and/or wages. As a result, retirement benefits accrue disproportionately in the later years of employment; this is termed "pension backloading." Leaving a job with a defined-benefit plan after many years can cost the worker a lot. In **Pensions, Wages, and Job Mobility** (NBER Working Paper No. 2426), Gustman and Steinmeier estimate that workers leaving such jobs lose an average of \$17,000 in pension benefits.

"Higher compensation, not the loss of pension benefits from changing jobs, explains the lower mobility of workers with pensions."

However, jobs with backloaded pensions also tend to pay above-average wages, and the pension loss is spread over many years. Gustman and Steinmeier estimate that the backloading of pension benefits accounts for only about 5 percent of the gross difference in total compensation between pension jobs and jobs without pensions. By far the largest part of the difference, over 75 percent, may be attributed to the fact that pension jobs typically pay much higher wages than jobs without pensions do. The value of pensions themselves accounts for the remaining 20 percent.

Gustman and Steinmeier show that workers without pensions in their 1978 jobs gained an average of 17 percent from an average base hourly compensation of \$8.41 if they changed jobs, while workers with pensions lost 17 percent of their base hourly compensation of \$14.44 if they moved on. On the other hand, for the workers in their study, backloading raised total compensation between 1978 and the expected retirement age by only about 3 percent.

Gustman and Steinmeier estimate that eliminating pension backloading would increase the five-year mobility rate from pension-covered jobs by less than two percentage points from the basic value of about 10 percent. In contrast, reducing compensation on pension-covered jobs to the levels of noncovered jobs would raise mobility from the same base by over 40 percentage points.

The authors use the 1983 Survey of Consumer Finances for their analysis. Their sample is 550 males between the ages of 30 and 50 in 1978.

Inheritance and Affluence

It is certainly easier to accumulate wealth by inheriting a fortune or receiving large financial gifts than by working or saving, but most Americans do it the hard way. According to NBER Research Associate **Michael Hurd** and **Gabriela Mundaca**, only 15-20 percent of all household wealth comes from inheritances while another 5-10 percent comes from gifts.

In **The Importance of Gifts and Inheritances among the Affluent** (NBER Working Paper No. 2415), Hurd and Mundaca analyze data from surveys conducted in 1964 and 1983. They report that the top 1 percent of the income distribution had about 15 percent of total assets, while the top 10 percent had about 40 percent of all assets. This latter group also received 82 percent of the value of all inheritances.

Hurd and Mundaca calculate that the top 10 percent of income recipients received 40-60 percent of their wealth from gifts and inheritances. This fraction includes both the value of the transfer and the interest earned on it between its receipt and the time of the survey. The other 90 percent of income recipients received less than 10 percent of their wealth from gifts or inheritances. About 85 percent of that group received no gifts or inheritances at all, or had less than \$1000 in assets.

"Only 15-20 percent of all household wealth comes from inheritances while another 5-10 percent comes from gifts."

Hurd and Mundaca also analyze the reasons for saving given by survey respondents. Among the top 10 percent of income recipients, 28 percent said that their primary reason for saving was for retirement, and 16 percent mentioned saving for their children's education. Only 18 percent said their main reason for saving was to make a bequest or to provide for their families in case of death, and only 10 percent listed that as a secondary reason for saving.

Hurd and Mundaca use the 1964 Survey of the Economic Behavior of the Affluent and the 1983 Survey of Consumer Finances for their study. Both of these surveys include a disproportionate percentage of high-income households.

Recent NBER Book

The United States in the World Economy

The United States in the World Economy, edited by Martin Feldstein, is now available from the University of Chicago Press. The clothbound volume is \$75.00; the paperback is \$24.95. This volume, the result of an NBER conference, includes background papers prepared by nine academic economists; personal statements by such prominent individuals as Philip Caldwell, John R. Block, H. Brewster Atwater, Jr., James R. Schlesinger, Peter G. Peterson, and E. Gerald Corrigan; and summaries of the discussion that followed each presentation. Among the topics considered are foreign competition in Latin America and the Asian Pacific rim; Third World debts; innovations in international financial markets; changing patterns of international investment; international capital flows; and international competition in goods, services, and agriculture.

Prepared for a sophisticated but nontechnical audience, these papers present complicated economic issues clearly, indicating the many ways in which

the American economy influences and is influenced by economic events and conditions around the world. As Feldstein states in his introduction, "This conference and the resulting book will have been a success if they increase the awareness of corporate leaders, policymakers, and economic analysts to this changing role of the United States in the world economy." *The United States in the World Economy* should appeal to policymakers, as well as specialists in, or students of, macroeconomics and international economics.

Feldstein is the George F. Baker Professor of Economics at Harvard University and is president and CEO of the National Bureau of Economic Research.

How to Order

This volume may be ordered directly from the University of Chicago Press, Order Department, 11030 South Langley Avenue, Chicago, IL 60628. Academic discounts of 10 percent for individual volumes and 20 percent for standing orders for *all* NBER books published by the University of Chicago Press are available to university faculty; orders must be sent on university stationery.

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.

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.