

International Payments Imbalances in the 1980s: An Overview

*by Norman S. Fieleke**

Many observers are troubled by the persistence of large international current-account imbalances in the industrialized and newly industrialized countries. Even deeper concern exists over the continuing difficulties of numerous less developed countries in servicing their international debts. These geographic imbalances, together with large, puzzling variations in exchange rates, have stimulated questions about the role played by international capital movements, about the efficiency of the international adjustment process, and about the possible need for greater international coordination of macroeconomic policy.

To consider these issues, a group of international economists, officials, bankers, businessmen, and other interested parties convened at a conference sponsored by the Federal Reserve Bank of Boston in the autumn of 1988. Although no effort was made to reach a consensus, some points of at least partial agreement did emerge. Of the authors presenting papers, three maintained that the United States government should reduce its budget deficit in order to shrink the nation's current-account deficit, and that to offset the resulting contractionary impact on world demand, monetary policy should be eased in some other countries. Three authors agreed that the behavior of foreign-exchange rates reveals a dearth of stabilizing speculation or an excess of destabilizing speculation, and two of these authors endorsed, in principle, the imposition of a moderate tax on all foreign-exchange transactions as a means of discouraging short-term destabilizing capital movements. Finally, a panel was unanimous that international coordination of

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macroeconomic policy can yield appreciable gains and should be pursued in spite of acknowledged serious difficulties.

This article offers an overview of the conference papers and discussants' remarks. The first three papers deal with major geographic imbalances in international payments. The fourth paper inquires into the role of international capital movements in payments imbalances and exchange-rate volatility, and the fifth examines the workings of the balance-of-payments adjustment mechanism. The conference concluded with a panel discussion of the desirability of international coordination of macroeconomic policy.

Japan, Germany, and the United States

William H. Branson and Grazia Marchese note that international policymakers have been puzzled and worried by the persistence of large current-account imbalances in Japan, West Germany, and the United States, and that international policy analyses such as the *OECD Economic Outlook* and the *IMF World Economic Outlook* have focused on prescriptions to reduce the imbalances. Their paper reviews the IMF and OECD projections published in April 1988 and June 1988, respectively, and then presents a theoretical model that is used to help analyze alternative scenarios, or policy mixtures.

The IMF and OECD baseline projections, which covered the years 1988–92, assumed little or no change in real exchange rates and in current or announced policies, and also assumed specified paths for certain key international variables such as oil prices. For 1989 the projections showed a U.S. current-account deficit amounting to 2.6 percent of U.S. GNP, a Japanese surplus of virtually the same magnitude relative to Japanese GNP, and a German surplus of 3.1 to 3.3 percent of German GNP. The projected surplus of the European Community countries collectively was only 0.3 percent of their GNP, leading Branson and Marchese to observe that the German surplus would provoke much less concern if Germany were viewed as part of an integrated European Community.

More striking than the size of the imbalances projected for 1989 is the failure of projected imbalances to decline appreciably in relation to GNP after 1990. Both the IMF and the OECD expected the U.S. deficits to hover around 2 percent of GNP from 1990 through 1992. For the same years the IMF foresaw Japanese surpluses running at 2 percent and German surpluses amounting to 3 percent of GNP, while the OECD projected Japanese surpluses to be about 2.7 percent and German surpluses to be about 2.2 percent of GNP. Branson and Marchese believe that imbalances of this size would probably generate further depreciation of the U.S. dollar against the yen and the Deutschemark.

But they argue that the dollar would also depreciate if policy shifts of the kind recommended by the IMF and OECD were undertaken, since the recommended shifts would produce the desired current-account effects partly through the medium of dollar depreciation. The recommendations have been for policies to induce more rapid growth in domestic demand in Japan and Germany and slower growth in the United States. As a consequence, world demand would grow more rapidly for Japanese and German output and more slowly for U.S. output. Thus, prices would tend to rise less rapidly in the United States than in the other two nations; in other words, the dollar would depreciate in real terms against the yen and the Deutschemark.

Using the IMF Multimod model and the OECD Interlink model, Branson and Marchese then evaluate the consequences of changes in some key assumptions underlying the IMF and OECD baseline projections. The changes, considered separately, are:

- (1) A market-driven depreciation of the dollar during 1988, amounting to 15 percent against other major currencies in the simulation with Multimod, and to 15 to 20 percent against the Deutschemark and the yen in the simulation with Interlink.
- (2) Fiscal restriction in the United States. For the Multimod simulation, federal government non-interest expenditure is reduced by amounts increasing from \$42 billion in 1988 to \$91 billion in 1992 from the levels assumed in the baseline projection. For Interlink, federal expenditure is gradually reduced by about \$70 billion and income tax proceeds increased by about \$50 billion by 1992 by comparison with the baseline.
- (3) Fiscal contraction in the United States and expansion in Japan and Germany. For Multimod, the same U.S. fiscal contraction as in (2) is assumed, and in Japan and Germany fiscal stimuli (higher expenditures or lower tax revenues) amounting to about 0.5 percent of each country's GNP are introduced over 1988 to 1990 or 1991. For Interlink, the general government financial deficit is cut back in the United States by 2 percent of GNP and increased in Japan by 1 percent of GNP, by comparison with the baseline projections for 1989-92, while in Germany the same stimulative policy as in the baseline is assumed.

Results of the simulations incorporating these changes are reported in detail. They support the authors' argument that dollar depreciation would ensue from fiscal policy shifts contracting domestic demand in the United States relative to that in Japan and Germany. The role of exchange-rate change is further highlighted by the finding that the largest projected reduction—\$86 billion by 1992—in the U.S. current

account deficit (by comparison with the baseline) is generated by the assumption of a market-driven dollar depreciation (with Multimod).

The fiscal policy shifts considered by Branson and Marchese, especially restriction in the United States accompanied by expansion abroad, are found to reduce aggregate GNP for the three countries below the level projected in the baseline. On the other hand, net fiscal contraction in these countries would reduce real interest rates, to the benefit of developing country debtors. To achieve a projection with lower real interest rates but without the slowdown in aggregate GNP growth, the authors investigate with Multimod the effect of a fiscal contraction in the United States accompanied by two alternative paths of monetary expansion in Japan and Germany. The policy combinations explored (one of which the authors say resembles policy actually in effect after late 1986) have the disadvantage of stabilizing real exchange rates and thereby allowing even larger Japanese and German current-account surpluses than in the baseline projection. On the other hand, the U.S. current-account deficit would be reduced by an estimated \$36 billion to \$38 billion below the baseline projection, about the same reduction yielded by fiscal contraction in the United States and fiscal expansion in Japan and Germany, but with higher growth in the latter countries and lower world real interest rates. On balance, then, Branson and Marchese would prefer the policy shift of fiscal contraction in the United States and monetary expansion in Japan and Germany.

In commenting on Branson's and Marchese's paper, Paul Krugman focuses mainly on their theoretical model. He affirms their conclusion that both expenditure-switching and expenditure-reducing measures are required to reduce the U.S. current-account deficit; neither dollar depreciation (expenditure-switching) nor belt-tightening will be sufficient by itself. But Krugman finds their model less than adequate in two respects: its failure to allow for substantial lags in the adjustment of trade volumes to exchange-rate changes, and its assumption of rational expectations.

The treatment of expectations is the more difficult to remedy. Krugman argues that if the dollar had fallen from its 1985 peak as slowly as market variables were then forecasting, the United States would have accumulated an infinite foreign debt, and that this and other market behavior clearly contradict the assumption of rational expectations. Unfortunately, how to model an irrational market is an unsolved problem.

In his discussion, Yoshio Suzuki argues that during 1987–88 Japan and Germany were in fact already engaged in the kind of monetary expansion that Branson and Marchese prescribe, but that the United States did not reduce its budget deficit enough. As a consequence, in October 1988 the IMF revised upward its baseline projection for real GNP growth in Japan and Germany, and concern has grown about an

acceleration of inflation, while insufficient reductions have occurred in the U.S. current-account deficit and in real interest rates. Also, contrary to the theoretical model presented by Branson and Marchese, Suzuki believes that a contraction of the U.S. budget deficit could improve the U.S. current-account balance without necessarily bringing about further dollar depreciation. A cut in the budget deficit that reduced U.S. absorption would reduce U.S. imports directly, without requiring the medium of dollar depreciation; and Suzuki thinks the effect might be quite large, as final goods comprise about 50 percent of U.S. merchandise imports. In addition, Suzuki argues that the model of Branson and Marchese can be used to analyze the effects of fiscal but not of monetary policy, since the model deals with relationships between real variables but not between nominal variables.

Heavily Indebted Developing Countries

In his survey of the developing-country debt problem, Norman S. Fieleke notes that the threat to stability of the international financial system has diminished since the Mexican payments crisis of August 1982, but not because of successful adjustment or restoration of creditworthiness in heavily indebted developing countries. Rather, the threat has eased as commercial banks have sharply reduced the share of their assets and capital exposed to the troubled debtor countries. Fieleke analyzes in some detail the adjustment that occurred in the 15 heavily indebted countries between 1982 and 1987, considers some indexes of creditworthiness (a measure of progress in adjustment), and addresses the questions of why growth has not accompanied adjustment, why debts continue to be serviced in the absence of growth, and why debt forgiveness has been so rare.

Using real net exports as a gauge, Fieleke points out that the path of adjustment in the heavily indebted countries has been both suboptimal and halting. Across countries little progress in aggregate adjustment was discernible by 1987 beyond the progress attained in the first year or two following the onset of the debt crisis. This front-end loading of the aggregate adjustment suggests that, in the early stages, resources were not given enough time to shift without becoming unemployed, and that, in later years, aggregate adjustment may virtually have stalled.

Examining the anatomy of the adjustment, Fieleke reports that between 1982 and 1987 absorption decreased in 8 of the 15 countries, with the median change for all 15 amounting to -2.2 percent of 1982 GNP. The range of experience is striking, as Nigeria suffered a reduction in absorption amounting to 19 percent of 1982 GNP, while Brazil enjoyed a 21 percent increase.

The burden of restraining absorption has generally fallen primarily on gross domestic investment, so that GNP growth may be slow to recover. Nonetheless, Fieleke observes that reductions in investment may have been warranted, since before the crisis investment had become excessive. Thus, analyses of the debt problem may have placed too much emphasis on raising the supply of investable funds to the heavily indebted countries and not enough emphasis on raising the productivity of investment.

The countries with the greater GNP growth have not been more successful in enlarging their real net exports. By way of explanation, Fieleke speculates that the nations with the higher growth rates may have attained those rates precisely because they were under less pressure to adjust, perhaps benefiting from more favorable terms of trade than other debtors or from more favorable appraisals by foreign lenders. Also, the data do not support the view that a sharp recession early in the adjustment process enhances adjustment over the longer run.

Another question examined is whether the countries experiencing the greater deteriorations in their terms of trade have also recorded the greater deteriorations in the value of their net exports, as a percentage of nominal GNP. Fieleke finds a significant correlation.

Did the adjustments that were made between 1982 and 1987 improve the creditworthiness of the heavily indebted countries? Fieleke reports that commonly consulted indicators of creditworthiness present a mixed picture. Analysts with confidence in market valuations will consult first the discounts in the secondary market for the debt of the heavily indebted countries. On a weighted average basis, this discount had widened from 30 percent at the beginning of 1986 to more than 50 percent in the first quarter of 1988. It is somewhat disquieting that creditworthiness failed to show a clear improvement in spite of the presumably favorable influence of "reasonable growth" in the industrial countries.

Fieleke points out that, in principle, adjustment in the heavily indebted countries need not be inimical to their growth. Through 1987, however, adjustment with growth had failed to materialize. By way of explanation, Fieleke suggests that some past investment may have been ill-conceived, yielding little or no return; that even some well-conceived investments were rendered uneconomic by unforeseeable adverse shifts in the terms of trade and in real interest rates; that because of the rapid contraction in new lending, insufficient time was allowed for an efficient shifting of resources in the manner called for by long-term adjustment; that extreme risk aversion has come to characterize the attitude of potential lenders, who, once burned, are now twice shy; that aside from such risk aversion, the debt overhang itself discourages new foreign lending, because new loans may be lumped in with old unproductive

ones for repayment purposes; and that governments of heavily indebted countries have often discouraged investment and growth through government dissaving, overvaluation of their currencies, and uncertainty-generating policy shifts.

Even though the heavily indebted countries were unable by end-1987 to resume growth in per capita GDP, they generally continued to pay interest on their indebtedness. Fieleke presents a preliminary regression analysis to help explain the volume of these interest payments and finds, among other things, that higher exports seem to contribute to higher interest payments. Noting that only a few of the heavily indebted countries had by 1987 approached a state of confrontational default, he discusses the costs of such default for a country and concludes that they have been a significant deterrent.

In the proper circumstances and the proper dosage, debt forgiveness can make both borrowers and lenders better off. Fieleke argues that the rarity of forgiveness is attributable to the difficulty of identifying those circumstances and dosages. For example, to predict the debtor country's response to forgiveness—to ensure that forgiveness enhances rather than diminishes adjustment effort—one must estimate the country's marginal efficiency of investment and its intertemporal utility function, as well as the minimum level of absorption that it will accept.

In his discussion of Fieleke's paper, J. David Richardson emphasizes the impact on the developing debtor countries of capital losses suffered at the beginning of the 1980s and of net outward financial transfers from 1982 to 1987. Real interest rates in 1981–82 turned out much higher than had been expected, undermining the profitability of investments that had been committed earlier and inflicting substantial capital losses on the debtor countries. These losses, combined with the sizable net outward financial transfers from these countries, help to explain why their living standards declined and their trade balances improved so dramatically. Rising protectionism in creditor countries helps to explain why the trade-balance improvement was concentrated in import compression rather than export expansion.

Richardson expresses concern that the declines in investment in the heavily indebted developing countries will lead to a cycle of impoverishment, in which "aggregate poverty leads to underinvestment which leads to the perpetuation of aggregate poverty, and so on." Finally, he encourages an extension, over more years and countries, of the regression analysis undertaken by Fieleke to explain interest payments by the developing countries.

The failure to achieve adjustment with growth is attributed by Ariel Buirá primarily to the external environment faced by the debtor countries. Although economic growth in the industrial countries has been satisfactory, the debtor countries have been burdened by worsened terms of trade, by increased protectionism in the industrial countries, by

high real interest rates, and by net outward financial transfers. If government deficits in the indebted countries could be financed by capital inflows from abroad, then exchange-rate depreciation, inflation, and crowding out of private investment in these countries would be reduced, laying a basis for adjustment with growth. Buira notes that investment in the debtor countries is further discouraged by a climate of uncertainty over debtor government policies and over external economic conditions, including the availability of foreign financing.

Referring to Fieleke's observation that aggregate adjustment in the heavily indebted countries may have stalled, Buira offers the explanation that contraction of demand has a limit, at least politically. In the case of Mexico, he asserts that despite enormous adjustment efforts the nation faces low investment levels, low growth, and rising unemployment unless debt service can be reduced, and he warns that such economic problems may have unfortunate consequences, both political and economic, for the wider community of nations.

East Asian Developing Countries

Unlike many other developing countries, those in East Asia have generally escaped severe debt-repayment problems. On the contrary, some have earned such sizable trade and current-account surpluses as to provoke criticism. Moreover, although their record is not unblemished, the East Asian developing countries have generally enjoyed rapid GNP growth, rising per capita incomes, and low inflation. Jeffrey D. Sachs and Mark W. Sundberg inquire into the reasons for this superior economic performance and then examine alternative policies that some of the countries might pursue in order to reduce their trade surpluses.

It is difficult to generalize about the reasons for the success of the East Asian developing economies, as the countries differ markedly in social and economic characteristics and in the degree of government intervention. Nonetheless, Sachs and Sundberg discern six favorable factors that are fairly common to the countries in the region. First and foremost is a high rate of saving, which finances a high rate of domestic investment, not only in physical but in human capital. Second, most of the governments have avoided chronically large budget deficits and have run current-account budget surpluses, thus contributing to high national saving, low inflation, and high immunity to debt crises. A third and key factor is outward-oriented trade policy that provides incentives to export production at least as favorable as the incentives given to import-competing sectors. Accordingly, all four of the Asian newly industrializing countries—Hong Kong, Singapore, Korea, and Taiwan—have very large exports, including sizable manufactured exports, in relation to GNP.

Fourth, the East Asian countries adjusted quickly to the adverse external shocks of 1979–82 (the soaring world interest rates, falling commodity prices, and industrial country recessions), especially with exchange-rate policies that avoided currency overvaluation. Fifth, the distribution of personal income is more nearly equal in the East Asian countries than in other developing countries with comparable average per capita incomes. The lower degree of inequality probably fosters political stability and reduces demands for excessive government spending. Finally, the East Asian developing countries have had, in Japan, a close-at-hand model whose successful strategies they could emulate.

Sachs and Sundberg do not accept the argument that East Asia's success is due to *laissez-faire*, for they find government's economic involvement to be at least as extensive in East Asia as in Latin America. Nor do the authors credit East Asia's cultural background or its largely authoritarian political structure.

Because Korea and Taiwan have had easily the largest current-account surpluses among the East Asian developing countries, Sachs and Sundberg offer a more detailed analysis for those two nations. Far from suffering debt-repayment problems, Korea is becoming a net creditor, with a sizable current-account surplus. In addition, the nation enjoys rapid economic growth with virtually no inflation. By way of explanation, the authors cite the Korean government's 1979–82 austerity policies, which staved off a debt crisis, the favorable returns to investments of the late 1970s in heavy industry, and "plain old good luck."

Korea's good luck took three forms. First was the rapid growth of U.S. imports following the U.S. expansionary fiscal policy of 1983–84. Second was the combination in the mid-1980s of declining world interest rates, declining oil prices, and a declining real value of the Korean won in terms of the Japanese yen. Third was the 1987–88 boom in the Japanese economy, which—like the earlier boom in the U.S. economy and the decline in the won—served to raise the demand for Korean exports. Consequently, Korea's terms of trade improved at the same time that its debt-service costs diminished.

The net result of these favorable influences was a sharp rise in Korea's income and rate of saving and, thus, in its current-account surplus. Sachs and Sundberg argue that Korea's trade policies are not responsible for the surplus. Indeed, trade policy was being rapidly liberalized at the very time that the large current-account surpluses were developing.

With Taiwan, as with Korea, the authors attribute the country's sizable trade surpluses neither to trade policies nor to exchange-rate manipulation, but to other forces determining the flow of domestic investment relative to national saving. During 1980–85 investment spending contracted relative to GNP in Taiwan, while the saving rate remained very high and, after 1985, rose still higher. The contraction in

the domestic investment rate probably stemmed from the curtailment of government investment, from the political uncertainty generated by U.S. recognition of the People's Republic of China and severance of relations with Taiwan, from the rise in protectionist barriers to Taiwanese exports in developed countries (leading Taiwanese firms to shift investment abroad to preserve market access), and from domestic financial intermediation that failed adequately to channel the flow of national saving into private domestic investment.

Turning to macroeconomic policy for the future, Sachs and Sundberg argue that even substantial policy changes in Korea and Taiwan would have very small effects on the rest of the world, including the United States, so that macroeconomic policy in the two nations should be geared to their own domestic needs rather than to accommodating the rest of the world. The authors speculate that for Taiwan the marginal social return might be greater on domestic investment than on foreign investment, in which case the nation would benefit from an increase in the rate of domestic investment and a commensurate decrease in the current-account surplus. For Korea, however, they believe that current-account surpluses that eliminate the nation's net foreign indebtedness may be desirable, "in view of the turmoil of world financial markets." Whether or not the two nations reduce their current-account surpluses, both should generate more of their surpluses in trade with Japan and less with the United States. This shift requires little in the way of policy changes, but can emerge from market forces such as the rapid growth in Japanese domestic demand and the depreciation of the won against the yen.

In his comment, Fai-nan Perng reports that Taiwan's large current-account surpluses have generated excess liquidity and inflationary pressure within the country's economy. However, steps have been taken to reduce the surplus, which dropped by more than 50 percent between the first half of 1987 and the first half of 1988. Among the steps taken, the N.T. dollar has been allowed to appreciate by 40 percent against the U.S. dollar since September 20, 1985. Import tariffs have been lowered, and the number of import items on the prohibited and controlled list has been reduced to only 1.5 percent of all import items. Of the projected 7.2 percent real GNP growth for 1988, 12.6 percentage points should come from domestic demand and -5.4 percentage points from net exports; and government spending is projected to increase by 17 percent in fiscal year 1989, stimulating domestic demand. Perng accepts the widespread view that further reduction in the U.S. government budget deficit is preferable to U.S. protectionist measures as a means of shrinking the U.S. external deficit.

Richard C. Marston infers from exchange-rate data presented by Sachs and Sundberg that the Korean won and the Taiwanese dollar had risen enough by October 1988 to regain most if not all of their 1980-82

value in real terms relative to the U.S. dollar. This development should ease tensions between the United States and these two countries over the U.S. trade deficits with them.

Marston discerns that a "new triangular trade" has emerged: the Asian newly industrializing economies export consumer goods to the United States and import machinery and inputs from Japan, which imports securities from the United States. Such penetration of the U.S. market by the Asian countries would not have been possible if they had not rapidly changed the composition of their production for exports, shifting from traditional exports like textiles and footwear to technically more sophisticated products like electrical machinery.

Although Marston agrees with Sachs and Sundberg that lowering the trade surpluses of the newly industrializing countries would have little impact on the U.S. trade deficit, he observes that a reduction in the U.S. trade deficit could powerfully affect *those* countries. Their export growth between 1980 and 1987 was heavily oriented toward the U.S. market, and a slackening in U.S. demand for their exports would confront them with the need to find fast-growing markets in other industrial countries. The latter, Marston argues, should be receptive.

Capital Mobility and Exchange-Rate Volatility

With Jeffrey A. Frankel's paper, the focus shifts away from regional imbalances to the role of capital movements in payments imbalances, or more precisely, to the role of capital movements in exchange-rate volatility. This paper examines first the various approaches to evaluating the degree of capital mobility and then the relationship between capital mobility and exchange-rate volatility.

Frankel presents four definitions, or criteria, of perfect capital mobility that are widely used. In ascending order of rigor, they are: (1) closed interest parity: capital flows equalize interest rates across countries when contracted in a common currency; (2) uncovered interest parity: capital flows equalize expected rates of return on countries' bonds, in spite of exposure to exchange risk; (3) real interest parity: capital flows equalize real interest rates across countries; (4) Feldstein-Horioka definition: exogenous changes in national saving can be financed by borrowing from abroad and thus need not crowd out investment in the borrowing country, except to the extent that the country looms large in world financial markets.

The Feldstein-Horioka criterion requires not only real interest parity but also that all determinants of a country's rate of investment other than its real interest rate be uncorrelated with its rate of national saving. By this criterion, econometric tests have generally shown capital to be immobile internationally. The easy explanation for this finding, accord-

ing to Frankel, is that real interest parity has not held. However, another possibility he raises is that past divergences between national saving and investment may have been too small to provoke sizable international capital movements. He finds that the divergence in the United States (generated by the federal budget deficit) has recently been so sizable as to elicit large capital flows into the country, contrary to the finding of immobility in earlier econometric studies. Frankel notes that recent financial liberalization and innovation in various countries may have made some contribution to this greater degree of capital mobility.

Taking up next the real interest parity definition of capital mobility, Frankel observes that it entails not only uncovered-interest parity but also *ex ante* relative purchasing power parity (an expectation of no change in the real exchange rate). Because goods markets are not perfectly integrated, real exchange-rate change may well be expected, in which case the real interest parity condition is not satisfied, even if uncovered-interest parity prevails. Thus, it is not necessary to assume that uncovered-interest parity fails to hold—in particular, it is not necessary to assume the existence of a risk premium—in order to demonstrate violation of the real interest parity condition. But while the real exchange rate may be expected to change in the short run, Frankel asserts that less reason exists to expect it to change in the very long run. Using 119 years of data on the real exchange rate between the United States and the United Kingdom, he finds a statistically significant tendency for the rate to regress to purchasing power parity.

In Frankel's judgment, closed-interest parity is the appropriate test of capital mobility, in the sense of the degree of integration of financial markets across national borders. The covered-interest differential reflects such obstacles as capital controls, discriminatory tax laws, the risks of default and of future capital controls, and transaction and information costs. Frankel's analyses have confirmed this differential to be very small, at least for short-term capital movements, for 11 industrial countries whose capital markets he characterizes as essentially open. Using currency swap-rate data to measure covered-interest differentials for the longer term for some of these countries, he concludes that those differentials, too, are very small.

Frankel asserts that high capital mobility helps to explain the high variability of exchange rates since 1973, variability that some economists consider excessive. One school of economists argues that exchange rates are too volatile because capital moves too readily in response to minor disturbances, while a second school argues that the volatility stems from the failure of disturbances to evoke enough stabilizing capital flows. To reconcile the two, Frankel points out that the first school is concerned with destabilizing capital movements, such as those undertaken by traders with bandwagon expectations. If such movements predominate,

or if stabilizing speculation is lacking, exchange-rate volatility will be excessive.

From surveys of the forecasts of foreign-exchange market participants, Frankel concludes that those who forecast at shorter horizons tend to extrapolate recent trends, or display destabilizing expectations, while those who forecast at relatively longer horizons tend to have regressive, or stabilizing, expectations. He argues that the destabilizing short-term traders may play the larger role in the foreign-exchange market because their superiors (typically, bank executives) can assess the profitability of their trading activities over a much shorter time period than is required for longer-term, stabilizing investments. The theory of rational speculative bubbles shows how such destabilizing speculators can make money.

If destabilizing speculators are indeed short-term traders, then a small percentage tax on all foreign-exchange transactions, such as proposed by James Tobin, would discourage the volume of such short-term trading without significantly deterring longer-term stabilizing transactions. The net result could be to reduce exchange-rate volatility. However, unless all countries imposed the tax, foreign-exchange transactions would gravitate toward jurisdictions without the tax so that high volatility could persist.

In commenting on Frankel's paper, Michael Dooley stresses that real exchange rates may change predictably over substantial time periods. It is important to know the reasons for such changes. Proposals for monetary reform assume that the changes reflect destabilizing speculation or a lack of stabilizing speculation. If, on the contrary, the changes stem from changing fundamentals, they may be part of an efficient adjustment mechanism.

Dooley finds that theory provides no strong presumption on whether the real exchange rate must change as current-account balances change. However, it is instructive to note that the real exchange rate will change when investors generally seek to reduce their claims subject to taxation by a government facing insolvency, as in some heavily indebted developing countries. Residents of such countries export tradable goods in exchange for claims held in other countries, thereby raising the prices of tradable goods relative to nontradable goods within the exporting country.

The Adjustment Mechanism: Theory and Problems

Large current-account imbalances, persistent swings in real exchange rates, and high volatility of exchange rates from one month to the next are inclining policymakers toward more active management of exchange rates, according to Rudiger Dornbusch. To launch his analysis

of the adjustment mechanism, Dornbusch classifies the sources of current-account imbalance into eight categories: development deficits, which arise in countries with low saving relative to investment opportunities; deficits driven by government dissaving, as in the United States in the 1980s; deficits induced by adverse terms of trade shocks; deficits resulting from new investment opportunities, such as an oil discovery that attracts foreign capital; deficits resulting from enhanced financial intermediation, providing new borrowing opportunities; deficits engendered by structural change in the form of new foreign competition in world markets; demographic deficits resulting from aging of the population and concomitant dissaving; deficits produced by misaligned exchange rates.

In the "new classical," or "equilibrium," approach, external imbalances and exchange-rate variations are generally deemed to require no policy response, for they are seen as the outcome of optimizing decisions made under conditions of full wage and price flexibility. Consumers choose the optimum path of consumption based on current information about their future endowments, and governments select the optimum tax and spending path and structure. Trade imbalances and exchange-rate changes are thus considered to be optimizing responses to shocks in technology, endowments, or policies, and are interpreted as equilibrium phenomena, unless externalities are present. In this framework, Dornbusch observes, government generally has no role to play in regard to real exchange rates or external imbalances.

Dornbusch believes that policy activists have not met the challenge to government involvement posed by the new classical approach. He agrees with the new classical economists that government should not intervene in some cases. For example, governments should tolerate external imbalances arising from demographic change and also real exchange-rate changes associated with differentials in productivity growth between nations.

Dornbusch next considers three questions related to the adjustment mechanism: whether exchange-rate changes contribute to adjustment, whether speculation in exchange markets is stabilizing, and whether adjustment and financing of external imbalances will continue smoothly. On the first question, his answer is affirmative; nominal exchange-rate changes produce real exchange-rate changes, which alter trade volumes sufficiently to affect nominal trade balances. He adds that real exchange-rate changes entail price changes that differ widely across products and countries, sometimes altering the industrial organization landscape.

On the second question, his answer is negative. Speculation fails to keep the exchange rate on a path that minimizes excess volatility and resource misallocation. Three classes of evidence support this conclusion. The first is the poor performance of model-based estimates of the

determinants of exchange rates. The second is movement of actual exchange rates well beyond the movements that econometric models predict to occur in response to monetary and fiscal policy changes. Finally, forward rates are poor forecasters of future spot exchange rates, and the forecast errors are not even random. Dornbusch concludes that if asset markets do not work efficiently, governments should intervene, contrary to the prescription of the new classical approach. The intervention might take the form of a moderate, worldwide tax on foreign-exchange transactions, or indeed on all financial-asset transactions, with the goal of discouraging short-term, destabilizing speculation. Dornbusch recognizes, however, that the tax could easily be avoided if only a few countries levied it.

With respect to the third question—whether adjustment and financing of external imbalances will continue smoothly—Dornbusch focuses on the U.S. current-account deficit. The U.S. government must reduce its fiscal deficit in order to free resources for the expansion of net exports. To offset the effect of contractionary U.S. fiscal policy on world demand, monetary policy should foster lower worldwide real interest rates; government budget deficits are already so large in foreign industrial countries that fiscal expansion would be inappropriate. This policy mix would facilitate reduction of the U.S. current-account deficit and a timely depreciation of the dollar, obviating the need for an abrupt depreciation in the more distant future.

In his discussion of Dornbusch's paper, W. Max Corden concentrates on the question of whether current-account imbalances should be considered an adjustment problem, requiring a policy response. He contrasts three approaches to this question.

First is the traditional, still popular approach, in which policymakers do concern themselves with the current account because they have a view on what national saving should be, and saving in turn influences the current account. If private saving deviates from their perception of the optimum, policymakers strive to compensate by adjusting fiscal policy so as to attain the optimum level of national saving and the optimum current-account balance.

Second is the new classical approach, which is essentially the reverse of the traditional approach. The new classical view is that government fiscal policy may well be suboptimal, but that private saving behavior will compensate, so that optimal national saving is attained. In this case, neither the current account *nor* the budget deficit should be the object of policy.

The third approach, the one endorsed by Corden, falls between these two extremes. It asserts that the private sector does not fully compensate for nonoptimal saving or dissaving within the public sector, so that the government budget balance, but not the current-account balance *per se*, is a fit concern for policymakers.

To Coordinate or Not to Coordinate?

As the first panelist to address this question, Richard N. Cooper defines macroeconomic coordination as a strong form of international economic cooperation. Such coordination can be directed at targets of economic policy, such as exchange rates, or at the instruments, such as interest rates. It can be rule-based, meaning that countries agree upon rules of behavior (such as the General Agreement on Tariffs and Trade) within a specific area, or it can be process-oriented, meaning that countries consult closely shortly before taking action.

In Cooper's view, macroeconomic coordination likely enhances world welfare. One reason is that large nations, acting independently, can influence their own terms of trade, and if they undertake to do so, will reduce world welfare below the optimum. Another reason is that nations require current information on the probable policies of other nations in order to formulate wise policy. Finally, coordination has the potential to improve macroeconomic stabilization, an international public good.

Coordination faces substantial obstacles, including disagreements among governments on objectives, on the outlook, and on how economies respond to policy measures. And if governments did agree, their agreement might be based on a seriously flawed model of the world economy. Thus, Cooper does not foresee a lot of coordinated action, although he believes gains are possible.

Cooper then takes up the matter of "credibly fixed exchange rates," as an extreme form of rule-based coordination. The cost to a participating nation is the loss of monetary (and exchange-rate) policy as a national instrument, and the gain is a reduction in the real exchange-rate uncertainty facing the productive sectors. The gain might exceed the cost for large and diversified regions such as Western Europe, within which adjustment can be facilitated by growing factor mobility and increased use of fiscal transfers, both of which reduce the need for exchange-rate change.

Another member of the panel, Jeffrey A. Frankel, sets forth three characteristics of fruitful coordination. To be substantive, coordination agreements must entail policy changes that countries would not necessarily make independently, but that are seen as beneficial if executed jointly. To be enforceable, coordination agreements must entail commitments to performance criteria that are closely enough related to policy instruments so that policymakers can be held accountable for deviations. Finally, if welfare is to be enhanced, the performance criteria must be closely enough linked to policymakers' ultimate goals (such as output and inflation levels) that fulfilling the criteria promotes attainment of the ultimate goals.

Frankel observes that the current G-7 system of indicators lacks some of these characteristics. All of the indicators are either too far removed from the available policy instruments or from the output and inflation goals of greatest concern. Moreover, the G-7 countries do not publish the targets adopted for their indicators, and the number of indicators and targets easily exceeds the number of policy instruments available to act upon them.

To remedy these failings, Frankel proposes that the G-7 should henceforth set for each member a single target variable: the rate of growth of nominal GNP (or even better, nominal demand). This proposal assumes that the motivation for coordination is to avoid an outcome that is either too contractionary or too inflationary. By committing to a specific growth rate for a nominal magnitude such as nominal GNP, the authorities can reduce inflationary expectations and thereby, in the long run, achieve a lower level of inflation for a given level of output. And nominal GNP is superior to the other nominal variables proposed as targets in that it is more closely linked to the output and inflation goals, and is also closely enough related to policy instruments that the authorities can be held at least loosely accountable for it.

Jacob A. Frenkel, another panelist, notes that coordination can be viewed as a mechanism for internalizing the externalities that arise from the influence of one country's economy on others. The motivation to engage in coordination is national self interest—recognition by a nation that it is in the same boat with other nations. Coordination should generate somewhat better policies, but is likely to enjoy success only in crises. Thus, it is important to keep the mechanism in place—to have ongoing meetings—in order to be prepared to deal with crises.

Coordination should not focus on monetary policy, Frenkel warns, lest that policy instrument become overburdened. The peer pressure imposed by the coordination process can be beneficial, and the major industrial countries should participate. When evaluating the benefits and costs of coordination to the participants, one should do so in a broad context, including more than purely economic considerations.

Panelist Helmut Schlesinger observes that the susceptibility of national economies to external influences has increased in recent years, as world trade has grown faster than world GNP and financial markets have become more integrated internationally. Thus, policymakers must take foreign developments into account, and should also consider the effects of their actions on other nations.

In principle, coordination can reduce policy-generated disruptions of the world economy. In fact, successful coordination is difficult, depending on the fulfillment of several conditions. Policymakers must understand the economic transmission mechanism. Nations must adhere to the agreed rules of behavior. And agreed policy objectives must be attainable with the policy instruments available. In spite of these

obstacles, coordination must be pursued to avoid further disintegration in the form of nationalistic trade barriers, capital controls, and the like.

However, Schlesinger warns against overburdening the coordination process with unrealistic goals. Coordination should be confined to the broad adjustment of policies, leaving the detailed implementation to individual nations, and should be pursued when pending or actual disequilibria clearly need to be rectified, not otherwise. Fiscal as well as monetary policy must be subjected to the coordination process. Mechanistic rules should be avoided, and policy coordination should be supplemented by free market processes, which contribute to coordination through price adjustments.

Conclusion

The autumn 1988 conference sponsored by the Boston Fed grappled with some major international economic problems and policy issues: What initiatives, if any, should be taken to reduce the large and persistent current-account imbalances of some industrialized and newly industrialized countries? What progress is being made in restoring the creditworthiness of the heavily indebted developing countries? Are international capital movements insufficiently stabilizing, or perhaps even destabilizing? Does the international adjustment process work fairly well? Should macroeconomic policies be coordinated more closely across countries?

The question of coordination elicited the greatest agreement among those presenting papers, as a panel unanimously endorsed further efforts at coordination, elusive though the gains might be. Several authors also agreed that the U.S. government's budget deficit should be reduced as a means of decreasing the U.S. current-account deficit. To counteract the resulting contractionary effect on world demand, these authors proposed an easing of monetary policy in some other major countries. Finally, considerable support emerged for the view that foreign-exchange rate movements betray too little stabilizing speculation or too much destabilizing speculation. This view led some to advocate a small tax on all foreign-exchange transactions in order to discourage short-term destabilizing capital flows, although the problems of enforcing such a tax on a worldwide basis were duly noted.