

**Adjusting the U.S. Trade Imbalance:
A Black Hole in the World Economy**

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March 1987
BRIE Working Paper #24

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Introduction

While analysts have long talked about trade deficits and surpluses, it is important to understand that today's U.S. trade deficit, and the rest of the world's trade surplus, are qualitatively different from anything discussed in the past. As the deficits and surpluses have become larger and larger, they have qualitatively changed in terms of their potential future impacts on the world's economies.

In 1986, the U.S. ran a merchandise trade deficit estimated at \$170 billion, an amount larger than the GNPs of all but twenty countries in the world.¹ Between 1980 and 1986, the deficit increased more than six times, surpassing the highest levels ever recorded for the merchandise trade deficit of a single nation. In 1985, it took an estimated one million full-time, full-year workers to produce \$42 billion of manufactured goods in the U.S. and an even larger number of workers to produce the same value of goods in the rest of the world, assuming somewhat lower levels of foreign labor productivity.² Thus, if the U.S. had achieved a balanced trade position, whether by exporting more or importing less, it would have employed approximately 4 million additional workers, mainly in manufacturing, and the rest of the world would have had at least 4 million fewer workers, mainly in manufacturing. Based on bilateral trade patterns, approximately one third of these lost jobs would have been in Japan, one third in Europe and Canada, and one third elsewhere in the world.³

Growing U.S. trade deficits were financed by U.S. borrowing from the rest of the world. During the last five years, the U.S. squandered assets accumulated over decades to become the world's largest debtor nation. By the

end of 1985, U.S. debt exceeded \$100 billion. Given the size of the 1986 trade deficit, it is likely that U.S. debt reached approximately \$250 billion by the end of 1986.⁴ Although this is the largest absolute debt in the world, it is still small relative to U.S. GNP. If the U.S. is able to borrow as much as Mexico relative to its GNP, it can borrow about \$650 billion. If it can borrow as much as Chile borrowed, 130 percent of GNP, it can borrow about \$6,000 billion.⁵ If it does so, however, like Chile now, it will forever owe the rest of the world about 10 percent of its annual GNP in interest payments.

The U.S. trade deficit and the buildup in U.S. debt have reached a point where they are to the world economy what a black hole is to astronomy. As one gets into a black hole it gets harder and harder to get out. Once in a black hole, the entire structure and behavior of matter changes. So too with an economic black hole. The longer huge U.S. trade deficits persist, the larger will be the ultimate changes that will have to be made in the trading structures of the economies of the world, and the harder it will be to avoid a crisis within the economic alliances of the industrial democracies and within the world trading and financial systems.

At some point in the future, a reversal in the U.S. trade deficit is inevitable, although its timing and speed are unknowable and uncertain. To say so is not simply to make a forecast but to express a truism of economic arithmetic. No country, not even one as big and as rich as the U.S., can forever run a large trade deficit. To finance deficits, countries must borrow and go into debt, and no country can forever accumulate larger and larger debts. Yet this is exactly what a deficit country must do, since it must borrow to finance both its continuing trade deficits and to make interest payments on previously accumulated debt. No lender, however, has the ability

or the willingness to lend forever. As a result, lending will stop at some point, and when it does, the borrowing country will no longer be able to finance continuing trade deficits.

A second economic truism is that a country must run a trade surplus to accumulate the funds necessary to service its outstanding debt. There is no other way to obtain these funds. In other words, sooner or later international debtors have to run trade surpluses, and, conversely, international creditors must run trade deficits if their loans are to be serviced. Unless creditors run trade deficits, borrowers cannot acquire the funds necessary to pay their interest bills. This observation leads to an inevitable conclusion: at some point in the future, the U.S., now the world's largest net debtor, is going to have to shift from being a large net importer to being a large net exporter; and Japan, now the world's largest net creditor, is going to have to shift from being a large net exporter to being a large net importer. There is no uncertainty that the current patterns of trade are going to change.

A third economic truism is that the slower the rate at which the trade deficit declines, the bigger and more painful the ultimate adjustment required. This reflects the logic of accumulating interest on outstanding debt. Each year's deficit adds to the stock of outstanding debt and to future interest payments on the debt. And the larger the interest burden, the larger the toll on the future living standards of a debtor nation.

Economists make a distinction between what they call a hard and a soft landing. In a hard landing the U.S. quickly corrects its trade deficit, and in a soft landing it slowly closes its trade deficit. A soft landing does not mean an easier landing, however, because the interest burden would necessarily

be much larger than that of a hard landing. Consider the economic arithmetic of a soft landing. Suppose that the U.S. were to correct its balance of payments at the rate of \$20 billion per year. In addition, assume that the interest rate on foreign borrowing averages 6 percent per year. Under these assumptions, the U.S. would not balance its current account until 2001. By that time it would have an international debt of \$1,800 billion and an annual interest payment of about \$110 billion.⁶ Approximately \$110 billion in interest payments owed to the rest of the world represents \$110 billion of goods and services that would not be available for domestic use. At current levels of output, every \$40 billion in annual interest payments is equivalent to a 1 percent reduction in U.S. living standards.⁷

Although not an economic truism, it is a certainty under current economic circumstances that when the U.S. trade deficit improves, the brunt of the adjustment will fall on manufacturing. If one subtracts earnings on direct foreign investment (counted as a service export but more than balanced by the interest outflow on bonds that shows up in the capital rather than in the current account) and exports of military hardware (which for some unknown accounting reason appear as service exports), in 1985 the U.S. was left with \$55 billion in civilian service exports. This compares with total imports of goods and services of approximately \$463 billion.⁸ There is no conceivable way that service exports can be expanded to pay for the volume of manufactured products that the United States now imports. A country the size of Switzerland might survive as a service exporter but not one the size of the United States with its 242 million people.

More important, in the same year, 1985, the United States imported \$58 billion worth of services.⁹ As in its manufacturing accounts, the U.S. had a

deficit in its service accounts. If one looks at the components of the service accounts this is not surprising. In 1985, the tourists' trade deficit was approximately \$12 billion.¹⁰ Americans like to take foreign vacations more than foreigners like to take American vacations. The insurance capital of the world is Lloyds of London. In 1985, the U.S. owed \$3 billion more in insurance fees than it earned from selling insurance to the rest of the world.¹¹ The only part of the service account with a large surplus was the sale of technology (an \$8 billion surplus).¹² This, however, is a product of a past American lead in technology that is rapidly disappearing. There is every reason to believe that in the future Americans will export less technology and import more technology than they have in the past. Earnings from licensing technology are apt to grow smaller with time. American service exports are not large enough or competitive enough to carry the burden they would have to carry if the U.S. were to depend upon them to pay for its imports and service its debt. It has no choice but to sell more manufactured exports.

This conclusion becomes inescapable if one looks at agricultural exports. In 1979-80 the U.S. had a trade surplus of nearly \$30 billion in agricultural commodities.¹³ In 1986 its agricultural trade surplus was only \$4 billion.¹⁴ Little of the deterioration in the U.S. agricultural surplus can be traced to the value of the dollar. The real causes are to be found in the green revolution (China, India, and Pakistan now all feed themselves) and in Common Market agricultural policies. During the last decade Europe has moved from imports of 25 million tons of grain to exports of 16 million tons.¹⁵ For the foreseeable future there is no prospect that the U.S. agricultural trade

surplus will recover to earlier levels. As a result, manufactured exports must replace lost agricultural markets.

Finally, although it is a certainty that the U.S. trade deficit will finally begin to improve and that the improvement will be concentrated in manufacturing, there is no certainty about how soon and how quickly the improvement will occur. How much will foreigners lend or Americans borrow before U.S. indebtedness to the rest of the world reaches a peak and begins to decline? Will the landing be hard or soft? No one knows the answers to these questions because the world finds itself in brand new financial territory -- never before has the world's richest country been the world's largest international borrower.

I. The Path to Indebtedness

The most important cause of the erosion in the U.S. trade position between 1980 and 1986 was the dollar's appreciation, and this was the result of macroeconomic conditions in the U.S. and in the rest of the world. A series of tax cuts and increases in government spending beginning in 1981 fueled a Keynesian economic recovery in the U.S. while the other major industrial economies continued to pursue slow-growth macro policies and while growth rates in the developing countries plummeted as external credit sources dried up. In the U.S., growing private investment demand plus huge increases in the federal deficit exceeded U.S. saving and forced the U.S. to look to the rest of the world for additional funds.

Foreigners were attracted to U.S. assets for a variety of reasons including slow growth in the other advanced industrial markets, the declining attractiveness of Third World lending, deregulation and favorable tax policy in U.S. financial markets, and relatively high U.S. interest rates. The increase in foreign demand for U.S. assets pushed the dollar's value up, and this caused a serious erosion in the price-competitiveness of U.S. producers, with predictable consequences for the trade deficit. During this period, capital account forces drove the trade account.

The short-term erosion in U.S. competitiveness aggravated a longer-term erosion in U.S. competitiveness reflecting both decades of relatively low U.S. productivity growth compared to productivity growth abroad and the disappearance of the U.S. technological lead in a number of industries. As a result of these longer-term trends, the U.S. trade position would have deteriorated during the 1980-86 period unless there had been a steady decline in the dollar's value. If trade performance had driven exchange rates during

this period, the dollar would have fallen. For those who point to the strength of the U.S. trade account in 1980 as evidence of long-term competitiveness it is sufficient to note that U.S. exports to Latin America accounted for almost two-thirds of total U.S. manufactured exports at that time.¹⁶ Such a level of exports was clearly unsustainable over the long run, since it was predicated on unsustainable levels of foreign borrowing by the Latin American economies.

Since 1980, the U.S. economy has behaved like a drug addict, hooked on foreign borrowing. Foreign lending has provided a significant portion of America's investable funds — in some years as much as 25% — and has allowed the U.S. to consume substantially more than it produces.¹⁷ By importing more than they export and borrowing the difference, Americans now enjoy a consumption standard of living that is more than 4 percent above their production standard of living. If foreign lending were to stop, this 4 percent addition to U.S. living standards would be lost. Moreover, if the U.S. were forced to run a trade surplus to pay interest on its outstanding debt, the loss in living standards would be even greater. \$110 billion in annual interest payments would generate another 2 and 3/4 percent reduction in U.S. living standards., While a 5 or 6 percent reduction in U.S. living standards may not sound like much, it would be a reduction 2 to 3 times as large as that caused by the largest recession in the U.S. since World War II.¹⁸

The addiction of the U.S. economy to foreign borrowing has been matched by the addiction of foreign economies to U.S. markets. Whole dedicated industries have been built abroad to service the U.S. market. Their output is so large that it could not possibly be diverted to home or other markets. The

developed countries have become addicted to the U.S. market as a source of demand, even as they have criticized the U.S. for its excessive fiscal expansion. About one-half of the growth of the countries of the European Economic Community in 1984 and about one-fourth of their growth in 1985 were attributable to increased export sales in U.S. markets. In 1984-85, about 21% of the increase in exports from the EEC and about 82% of the increase in exports from Japan went to the U.S.¹⁹

For many developing economies, especially the indebted Latin American economies, the U.S. has become the buyer of last resort rather than the lender of last resort. Nearly 85% of the increase in the exports of the Latin American debtor countries during the 1981-84 period went to U.S. buyers.²⁰ Between 1980 and 1984, U.S. imports of manufactured goods from the developing countries more than doubled from \$34 billion to almost \$70 billion, while Japanese imports of such goods rose by only \$2 billion and European imports of such goods actually declined. By 1985, the U.S. purchased 62% of all of the industrialized country imports of manufactured goods from the developing countries.²¹

II. Alternative Paths of Adjustment

A. Macroeconomic Policy Coordination: Adjustment with Growth or Adjustment with Austerity?

The costs to the U.S. economy and the rest of the world of the required adjustment in the U.S. trade imbalance will depend very much on how it is realized. With growth, U.S. exports can increase to balance the U.S. trade deficit. With austerity, U.S. imports must decrease, cutting off demand for foreign producers. For all countries, adjustment of the U.S. trade imbalance in a growing world economy will be much less costly than adjustment with shrinking levels of world demand, production and trade. Adjustment need not necessitate a worldwide recession, but it may very well cause one if the U.S., along with the other countries of the advanced industrial world, fails to take actions to avoid it.

Although there is merit in U.S. arguments about the need for West Germany and Japan to take over the engine of world growth, fueled largely by U.S. deficit spending in the last several years, their reluctance to do so under current conditions is understandable. Without a credible commitment to fiscal deficit reduction in the U.S., any significant improvement in the U.S. trade imbalance resulting in a decline in foreign capital inflows would push U.S. interest rates upward, pulling foreign rates up along with them and choking off foreign investment. German and Japanese officials argue that if the U.S. addressed the imbalance of its own macro policies rather than the errors of their policies, U.S. and world interest rates would fall, further stimulating additional world demand and at the same time providing room for a substantial improvement in the U.S. trade imbalance. Under these conditions, West Germany, Japan and other countries would face a situation of declining world

interest rates, lower inflation and softer demand -- an ideal environment for introducing expansionary macro policies without running the risk of greater inflation.

Since there is merit to both sides of the debate about which country should do what to its macro policy mix, a coordinated strategy requires compromises on both sides. The recent agreement by Japan and West Germany to stimulate their economies in return for U.S. cooperation in joint efforts to stabilize the dollar's value has been hailed as a first step toward macro coordination. But as economic summits have revealed, the U.S., Germany, and Japan, as well as the other advanced industrial countries, are better at verbal promises of cooperation abroad than at delivering on such promises at home. It is true that the Japanese have eased monetary conditions with a cut in the discount rate, and that fiscal measures to stimulate demand are under discussion. The Germans have also cut their discount rate, and they are formally committed to a pro-growth tax reform to expand their economy. In both countries, however, there is a strong tradition of fiscal conservatism and a strong resistance to expansionary fiscal measures even during times of slack demand. So far, there is no evidence that attitudes have shifted in favor of reflation. The political climate in both countries suggests that when fiscal stimulus comes, it is likely to be too little and too late to reverse the slowdown already beginning as a result of slowing exports.

Greater stimulation abroad without reduction of the fiscal deficit at home is not a sound prescription for sustainable reductions in the U.S. trade imbalance. And so far there is little evidence that the U.S. is willing to make the hard economic and political choices required to solve its fiscal crisis. Resistance to a tax increase is the fundamental impediment to such a

solution. Given outstanding commitments on social security, defense and interest payments on the national debt, the only way to reduce the fiscal deficit significantly without reducing not only spending programs that promote the competitiveness of U.S. producers but almost all other discretionary programs as well is to increase revenues by some kind of tax increase.

B. Measures to Ease the Debt Crisis in Developing Countries

Adjustment of the U.S. trade imbalance in a growing world economy also requires measures to ease the demand-restricting effects of outstanding debt in the developing countries. As long as the flow of new capital to LDC debtor countries is curtailed, as it has been since 1982, they will need to continue export drives, targetted mainly at U.S. markets, and to limit imports, largely from U.S. suppliers. As much as one quarter of the deterioration in the U.S. trade imbalance in 1984 was the result of the debt crisis in Latin America,²² which had been a growing market for U.S. exports of manufactured goods between 1976 and 1981. Given traditional U.S. trading patterns, a revival of growth in Latin American markets and in the markets of other developing countries would have a much larger effect on the U.S. trade imbalance than an equivalent revival of growth in Germany and Japan. Indeed, the IMF estimates that a one-percent annual increase in economic growth in Germany and Japan, sustained over three years, would cut the U.S. trade deficit by at most \$10 billion.²³ A recent report by the Democratic staff of the Joint Economic Committee suggests that the effects of an equivalent expansion in Latin American growth on the U.S. trade imbalance would be twice as large.²⁴

A coordinated expansion by the developed countries, fueled by an appropriate mixture of monetary ease and fiscal contraction, especially in the U.S., would loosen the external financing constraints of the developing countries. The further decline in real interest rates occasioned by such a policy mix would further ease their debt service burdens, and the depreciation in the dollar's value likely to accompany this macro environment would probably improve LDC terms of trade and would promote their exports to Western Europe and Japan, thereby offsetting lower import demand in the U.S.

Even under these improved circumstances, however, additional measures of debt relief will be required. Despite strong adjustment efforts since 1982, the debt-service ratios of most of the indebted developing countries have not declined. And adjustment has been achieved at the expense of growth. Nor have the realized external improvements encouraged a net inflow of new money on a voluntary basis. The 1985 external deficits of the developing countries, although relatively low in historical perspective, did not result in an increased willingness of commercial creditors to roll over existing debt, much less to increase the flow of new lending.

The recent recurrence of debt repayment difficulties in Brazil and Argentina, following the massive 1986 rescheduling of the Mexican debt, demonstrate that the debt crisis has not yet been solved. A permanent solution requires real debt relief in the form of debt write-downs, reduced interest rates, and more generous repayment periods along with the infusion of substantial amounts of new capital.

A combined program of debt relief and credit expansion in the Third World requires cooperation between the U.S., the other industrial countries, and the multilateral institutions, especially the IMF and the World Bank. Unless the U.S. commits itself to fiscal policies that reduce its demand on world savings and to giving Japan and West Germany a greater say in the IMF and the World Bank, these countries will be reluctant to cooperate in policies to recycle part of their excess savings into a multilateral debt-relief program. And without such cooperation, it will be impossible to finance the infusion of new capital needed for a permanent solution to the debt crisis and a reversal of its deleterious effects on the U.S. trade balance.

C. Adjustment and Protectionism

Growing concern over the impact of the trade deficit on the U.S. economy has rekindled protectionist pressures. Labor's traditional support for free trade has been decimated, and cries of unfair competition have spread from the smokestack, capital-intensive industries of the Midwest to the sunrise, high-technology industries of Silicon Valley. Even as the share of U.S. trade subject to some kind of protection has increased, U.S. workers, producers, and political leaders have talked increasingly of the need for a "level playing field" in international trade.

There is little doubt that restrictions on world trade have become more widespread in recent years, and that the playing field facing any group of national producers, including those of the U.S., has become more uneven. As the volume of world trade has grown, GATT coverage has declined significantly. In part, this reflects the changing nature of world trade, especially the growing share of service trade in total trade. In part, it reflects the rising trade share of developmental states, such as Korea, Taiwan and the other NICs, which do not adhere to GATT regulations. More fundamentally, "fairness" in international trade has become more difficult to define and to police, because the developmental states, Japan among them, have made conscious use of a variety of domestic policies to promote targeted industries. Are such policies fair, even when they do not include formal or informal limits on import competition? There is no answer to this question because there are no agreed-upon international rules on the use of such policies and on appropriate multilateral responses to their effects on international markets.

Although it is reasonable to be concerned about the long-run effects of trade restrictions and foreign developmental policies on U.S. trade performance, it is unreasonable to think that much of the deterioration in the U.S. trade imbalance in recent years has been the result of greater unfairness in international markets. Except for the tightening of domestic market access and the encouragement of exports by Third World debtors, necessitated by changing capital market conditions, there has been no increase in the severity of foreign protectionist measures in recent years. Indeed, if anything, continued U.S. pressure on Japan may have improved the access of U.S. producers to certain Japanese markets. Moreover, the U.S. has extended its own protectionist restrictions, most notably in autos since the early 1980s, yet the U.S. trade imbalance has continued to deteriorate.

Just as it is unlikely that an increase in foreign protectionism was a major factor in the worsening of the U.S. deficit during the last five years, so is it unlikely that an increase in U.S. protectionism could be a major factor in its improvement. Protectionist measures, if applied in a wholesale way, run the risk of causing a sharp curtailment in world trade that would aggravate the costs to the U.S. and the rest of the world of the required adjustment in the U.S. trade position. Such measures would also run the risk of interrupting debt service from Third World debtors.

Fundamentally, the real arguments against wholesale protectionism as an answer to the U.S. trade and debt problems are political and military in nature. Wholesale protection is essentially a declaration of war, and one cannot declare economic war on one's allies and still expect to have them as allies. Gross protectionist measures directed against countries running large current account surpluses would necessarily target Japan, Germany, and Taiwan,

three critical military and security allies. Put bluntly, protectionism is inconsistent with America's status as a superpower running a worldwide military alliance.

D. Adjustment and Direct Foreign Investment

Initially, most of the additional foreign lending to the United States took the form of investments in short-term financial assets, such as Treasury bills and commercial paper. Such investments are the easiest to make when investors unexpectedly have hundreds of billions of dollars to invest. Although they do not yield the highest possible returns, they are attractive because of their relatively low risk and their liquidity. If bought in small amounts, they have both of these characteristics but when purchased in large amounts neither of these advantages really exists. One simply cannot get out without severely reducing the value of what one is trying to sell. And if the investor gets paid back in dollars that are worth less than those he lent his investments are not really low risk or liquid in any meaningful sense.

Given the passage of time, there has been a growing shift in the pattern of foreign investment toward purchases of U.S. stocks and toward direct purchases of U.S. real estate and plant and equipment. Such investments simultaneously earn higher rates of return and provide a hedge against any inflation caused by declines in the dollar's value.

Foreign purchases of U.S. equities and U.S. land and capital, like foreign purchases of U.S. short-term financial assets, provide the resources necessary to maintain U.S. consumption levels above U.S. production levels. But these borrowed resources are not costless -- in the former case, they give rise to a flow of earnings and dividends abroad while in the latter case they give rise to a flow of interest abroad. In either case, the claim on future U.S. incomes reflects the costs of borrowing to sustain current U.S. consumption.

While a flow of dividends abroad reduces the U.S. standard of living just as much as a flow of interest payments, there are several possible advantages to the former from a U.S. perspective. To the extent that foreign investments take the form of new investments rather than purchases of existing assets, they can be self-liquidating. The dividends owed can be financed by the new goods and services produced by the new plant and equipment made possible by foreign investment.

Initially, such investment is most likely in sectors where foreign production is being displaced by a lower value of the dollar and foreigners want to maintain their market positions. Automobiles and semiconductors are two sectors that come to mind. Such investment could serve to increase internal price competition in the United States and limit future inflation. In addition, to the extent that foreigners have production technologies not existing in the U.S., such technologies might be brought to the United States and could improve America's technical knowledge.

Eventually, if the dollar falls far enough foreign direct investment might also be made in export industries. Foreign firms could make America an offshore production base just as American firms in the 1980s made foreign countries offshore production bases to service the American market.

There is an important additional cost associated with direct foreign investment, however. Past evidence on such investment around the world indicates that top headquarter managerial jobs, research and development jobs, and design jobs tend to be disproportionately held in the home country of the controlling firms. Those Americans who might wish to hold such jobs would find themselves competing for a smaller supply of the very best high paying jobs if American firms lose out to foreign firms as American producers.

When American capitalists sell existing assets to foreigners, the future price that must be paid is much higher than when foreigners invest in the creation of new assets in the U.S. The sale of existing assets to the rest of the world in exchange for a higher immediate standard of living means that in the future Americans will have fewer claims on the goods and services produced in America, and foreigners will have larger claims on the goods and services produced in America. To convert loans into equity may extend the period of time during which U.S. consumption can exceed U.S. production, but only at the price of magnifying the eventual decline that must occur in the country's average standard of living.

E. The Role of Exchange Rate Changes

To date, most of the expected improvement in the U.S. trade imbalance has been linked to changes in the dollar exchange rate. Just as the sustained and dramatic deterioration in the U.S. trade position during the 1981-84 period can be linked to the dollar's spectacular rise, so can a period of protracted, sharp decline in the dollar's value be expected to lead to an improvement in the U.S. trade position. There are several reasons, however, why there are no simple, predictable links between the exchange rate and the trade balance.

First, the exchange rate itself is not an independent variable but is determined by complex interactions among a number of factors. Economists like to talk of exchange rates as driven by certain "market fundamentals" as if to suggest that our understanding of exchange rate behavior is exact when it is quite inexact. Even in terms of market fundamentals, there are two sets of forces at work driving the exchange rate -- capital market forces and so-called purchasing-power-parity forces. During the 1981-85 period,

capital-market forces are widely believed to have determined exchange rate movements. The dollar was pushed upward as a result of growing foreign demand for U.S. financial assets.

As a result of capital market fundamentals, exchange rates diverged sharply from purchasing-power-parity levels, and the trade balance deteriorated accordingly. Over the long run, however, it is widely believed that exchange rates are determined by the trade balance -- the causality imputed to the most recent period is reversed, and exchange rates are assumed to adjust to restore sustainable long-run trade positions. Although there is widespread agreement that exchange rates adjust to trade conditions in the long run, there is little agreement on just how long the long run is. Moreover, the increasingly tight links among national capital markets, driven simultaneously by deregulation and new telecommunications technology, mean that capital market forces have become significantly more important influences on exchange rates, swamping purchasing-power forces for longer and longer periods of time.

To make matters even more complicated, expectations can also exercise a critical influence on exchange rates, causing them to diverge from what might be predicted on the basis of both capital-market and purchasing-power fundamentals. As an illustration, many economists believe that the continued appreciation of the dollar through early 1985 was the result of self-fulfilling expectations about a further increase in the dollar even when market fundamentals suggested a decrease. Exchange-rate expectations are weakly held and subject to large, rapid swings. As a result, exchange rates can exhibit marked volatility in the short run, and they tend to overshoot levels that seem to be consistent with longer-term market fundamentals.

Even if exchange-rate changes could be predicted with a reasonable degree of precision, their effects on the trade balance could not. As the period of dollar decline since 1985 indicates, there are many uncertainties concerning the pace and extent of import price changes in response to changes in the exchange rate and the pace and extent of changes in import demand in response to such price changes. During this period, import prices have not adjusted as much as expected. Between February 1985, when the dollar began to depreciate, and November 1986, import prices excluding petroleum prices rose only 4%,²⁵ which suggests that foreign firms have chosen to reduce profit margins rather than lose their market share in the United States. In particular, Japanese and German firms have not raised their dollar export prices nearly as much as the shift in currency values would indicate. Instead, they have allowed the substantial profit margins they realized during the period of dollar appreciation to erode, in an effort to hold the market shares they won during this period.

To make matters more complicated, changes in demand and supply patterns occasioned by the protracted period of dollar overvaluation appear to have changed the underlying responsiveness of the trade imbalance to exchange-rate adjustments. More simply, because many foreign suppliers have expanded their capacity to satisfy the U.S. market, because many domestic suppliers have offshored or subcontracted more of their production abroad, and because domestic demanders have changed their tastes toward new, previously unknown and unavailable foreign goods, a given exchange-rate change is likely to have a smaller impact than it had under earlier supply and demand conditions.

Finally, how the trade balance responds to a change in the exchange rate depends in part on how domestic producers adjust their prices in response to

such a change. Empirical evidence from past periods of dollar depreciation suggests that U.S. producers are quick to respond to higher import prices by adjusting their own prices upwards. This vitiates some of the competitive gains of an exchange-rate decline and reduces the anticipated improvement in the trade balance.

With all of these complications in the relationship between exchange rate changes and the behavior of the trade balance, what can be said about the effects of the recent dollar decline or future declines on the trade balance? First, the trade deficit has adjusted much more slowly to the dollar's decline than even the most pessimistic economic forecasts predicted. Without a \$20 billion reduction in oil imports due to lower oil prices, the U.S. trade deficit in 1986 would have been approximately \$190 billion.²⁶ The continued growth of the non-oil trade imbalance despite a protracted period of dollar decline has engendered growing skepticism about the assumed strength of the links between the exchange rate and improvements in the U.S. trade position.

Second, to the extent that past or future declines in the dollar's value do eventually improve the trade balance without an accompanying reduction in the fiscal deficit, the result will be an increase in U.S. interest rates and a decline in the U.S. investment rate. This must be the case because the improvement in the trade imbalance will be matched by a reduction in foreign capital inflows, and at current rates of private saving and government dissaving in the U.S., the result will be a growing financing gap.

Third, a further sharp drop in the dollar will tend to be deflationary in the rest of the world. As the dollar continues to fall, foreign products will gradually become unacceptably expensive on U.S. markets. In Europe, Canada and Japan this will mean the loss of millions of jobs. While old-fashioned

Keynesian monetary and fiscal stimulus could be used to expand domestic demands to replace American demands, the new demand would come in very different industries from the present export industries. As a result these countries would face a major change in their industrial structures and during the transition from export industries to domestic industries, it is likely that unemployment would increase. Unemployment would probably also be higher than necessary given the traditional reluctance of both Japan and Germany to vigorously employ Keynesian anti-recessionary policies. In the past both countries have been slow to use expansionary policies when faced with recessions or deflationary circumstances.

In the Third World a falling dollar would make it easier to pay dollar denominated loans, but much of this effect would be offset by the higher interest rates that would have to be paid on these loans if U.S. interest rates rose as foreign lending to the United States diminished. The Third World would also find it harder to offset the jobs they lose to a falling dollar since structural shifts from one industry to another get progressively harder the poorer a country.

Inside the United States, a falling dollar would have several effects. First, as noted earlier, interest rates would tend to rise. Second, some inflation would occur as the prices of imports rose. The magnitude of the resulting inflation would depend on the extent that the dollar must fall to balance exports and imports. If the dollar falls 30% and 12 percent of GNP is imported, then 3.6 percentage points ($.30 \times .12$) of inflation would directly flow from imports in the short run. If rising import prices led domestic producers to raise their prices, as is usually the case, then this direct inflationary effect would be combined with an indirect inflationary

effect. Historically, the indirect inflationary effects of external inflationary shocks have usually been bigger than the direct inflationary effects.

Little inflation has thus far been produced by the falling dollar for two reasons. Falling oil, raw material and food prices have offset most of the price effects of the falling dollar, and thus far foreign producers have not raised their prices as much as one would have expected given the rising value of their currencies. But neither of these factors can indefinitely offset the inflationary effects of a falling dollar. Indeed, oil prices have already begun to rise, and disappearing profit margins have begun to force a number of suppliers to raise their prices. After substantial declines in the first nine months of 1986, prices of goods and services from abroad rose at an annual rate of 9.1% in the final quarter of 1986.²⁷ Eventually, increases in import prices will show up in higher inflation rates, in excess of the 4% rate that would have prevailed in the U.S. in 1986 but for the temporary fall in imported oil prices. To some extent, an acceleration of inflation rates from the decline in the dollar is inevitable. During the past several years, the U.S. inflation rate was artificially low as a result of the unsustainable appreciation of the dollar. The U.S. will have to pay back some of the temporary inflation gains it borrowed from the future during this period.

Since the current U.S. trade imbalance is outside the range of historical experience, no one knows or can easily estimate how much the dollar would have to fall to rebalance America's international accounts. As the following calculations indicate, however, the number is apt to be very large -- indeed, large enough to scare everyone.

Consider the value of the yen to the dollar. In 1979-80 both Japan and the United States had balanced current accounts. Remembering that currency values affect trade balances with about a one-year lag, the currency values of 1978-79 produced the trade balances of 1979-80. In 1978-79 the yen stood at 210 to the dollar. Between then and 1985, however, there was 40 percent more inflation and 15 percent less growth in manufacturing productivity in the United States than in Japan.²⁸ This means that the dollar would have to fall 55 percent from its 210 yen level to restore the relative production costs of 1979-80. This means a value of about 100 yen to the dollar.

As noted earlier, without the agricultural trade surpluses that existed in 1979-80, however, the U.S. also needs to export substantially more manufactured products in the future than it needed to export then. This will require a dollar low enough to generate the manufactured exports needed to replace the earlier agricultural exports and means an equilibrium value for the dollar of something less than 100 yen to the dollar.

In 1979-80 the United States also had a \$15 billion trade surplus with Latin America. As a result of external financing constraints, Latin America must now run a \$15 billion trade surplus with the United States. Here again the dollar must fall enough for the United States to sell an extra \$30 billion in manufactured goods outside of Latin America to replace the exports that the Latin American economies used to take.

A lower price for oil helps both the Japanese and the American balance of payments since both countries are net importers, but it helps Japan much more than it helps the United States since the U.S. still produces more than 60 percent of its own oil.²⁹ The net result is a yen that has to rise further

in U.S. living standards and foregone output and consumption. domestic demand can improve the U.S. trade imbalance but with a far lower cost dollar's value and a worsening in the U.S. terms of trade, or a recession in better quality products and innovations, like wage cuts, a decline in the on productivity growth and technological change. Higher productivity growth, increasing rather than cutting the real wages paid to American workers depends The ability of U.S. producers to compete in world markets while

the real incomes of the U.S. population. to sell abroad and to maintain balanced trade while simultaneously expanding sufficiently low exchange rate. Rather they are concerned about the ability about the ability to sell abroad and to maintain balanced trade at some manufacturing. Those concerned about competitiveness are not simply concerned about the international competitiveness of U.S. producers, especially in The erosion in the U.S. trade imbalance has produced growing concern

E. Adjustment and Policies to Restore U.S. Competitiveness

enough to generate the necessary surplus. size of interest payments eventually owed, the dollar will have to fall far surplus to earn the interest that it owes its foreign lenders. Whatever the but today it is the world's largest debtor and will eventually require a trade for 14 percent of its imports with the earnings from its foreign investment.³⁰ 1979-80 the United States was the world's largest net creditor and could pay The shift in debtor-creditor relationships amplifies the same trends. In would have to rise if the Japanese were still buying expensive oil. vis-a-vis the dollar to bring the Japanese accounts back into balance than it

Effective policies to stimulate faster U.S. productivity growth and to bolster U.S. technological performance would reduce the burden of the required adjustment of the U.S. trade imbalance in the coming years. Such policies might include policies to promote research and development and the diffusion of new technology among user industries, policies to improve the quality and flexibility of the workforce, policies to increase industrial investment, policies to augment export incentives and to offset incentives abroad, policies to open closed foreign markets, and policies to speed the transition of resources from declining firms, sectors or regions to expanding ones.

All of these policy directions are desirable and most of them are now receiving attention by the President and the Congress as concern about the underlying competitiveness of the U.S. economy grows. None of them, however, are likely to have a dramatic effect on U.S. productivity and technological performance over short periods of time. Just as the erosion in the U.S. competitive position was a long-run phenomenon reflecting years of policy inattention and failure, any improvement in this position from changes in policy will only be felt gradually. Therefore, to the extent that the U.S. attempts or is forced by its creditors to cut back its trade deficit quickly -- the so-called hard-landing scenario -- it is inevitable that this will result in a significant fall in U.S. real incomes, occasioned by a sharply falling dollar. Moreover, if rapid adjustment in the trade imbalance occurs in a recessionary world environment, as seems likely, then the fall in real incomes will be even greater, encompassing both the terms-of-trade effects of the falling dollar and the employment and output effects of depressed world demand.

III. Sectoral Implications of Adjustment

As our earlier discussion indicated, America's trade imbalance can only be rectified by a growing surplus in manufactured goods. If trade flows were an important impetus of the deindustrialization of America in the last several years, they are equally likely to be an important impetus to its re-industrialization when the U.S. trade imbalance adjusts. This observation, however, does not mean that adjustment will bring the recovery of all U.S. manufacturing. Nor does it mean that a recovery of U.S. manufacturing output will be accompanied by a recovery of U.S. manufacturing employment. Nor does it mean that wages paid in manufacturing jobs will necessarily be higher--indeed, without an improvement in underlying competitiveness, they will be lower in real terms. And finally, it does not tell us how the profits of U.S. manufacturing will be distributed among domestic owners and foreign owners, since that depends on the extent and composition of foreign direct investment in the U.S. economy during the adjustment period.

What matters to U.S. workers and owners of capital is not just a general recovery in manufacturing but a recovery in the high value-added, high-wage part of manufacturing. Foreigners, too, have a strong desire to keep exactly the same industries. As manufacturing inevitably moves from Europe and Japan to the United States, they will want to see the high wage industries stay at home and low wage industries move to the U.S.

What actually happens depends in part upon American policy choices. High wage industries are usually capital-intensive, knowledge-intensive industries employing highly skilled workers using the latest technologies. If capital is cheaper in America than it is in the rest of the world, if Americans are more skilled than workers in the rest of the world, and if new products and

production processes are first developed in America, then high wage, high value added industries will lead the expansion of American manufacturing. If none of these three factors is present then low wage, low value added, industries will lead the recovery.

If one examines these three factors there is cause for concern. Given low American savings rates, the U.S. stands at a handicap when it comes to the cost of capital. Capital is more expensive here than it is abroad. Capital costs suggest that capital intensive production processes will tend to remain abroad.

The other two factors are more mixed. The U.S. has a larger pool of college educated workers, but also has a very different mix of such workers. It educates many fewer engineers, a slightly larger number of scientists, and many more people in the liberal arts and professions such as accounting. Among non-college graduates, the U.S. product is clearly inferior when it comes to either general academic achievements or to more specialized job skills.

When it comes to R&D the U.S. is still by far the world's leader in developing new products, but has fallen behind when it comes to new production processes for producing either old or new products. Total spending on civilian R&D is also now below that of Germany, France, and Japan as a fraction of the GNP. The U.S. spends slightly less than 2 percent of its GNP on civilian R&D while its competitors spend slightly more than 2 percent of their GNPs on the same activities.

Since high wage manufacturing tends to be based on engineering expertise, America's relative lack of engineering manpower would seem to point to problems in expanding high tech industries. This problem is compounded by the

absorption of such people in U.S. defense efforts. Neither Germany nor Japan, America's two principal competitors, employs many of their engineers in such activities.

As these observations suggest, if America does nothing, it is not likely that the recovery in U.S. manufacturing will occur in the highest wage or value added sectors of manufacturing. To the extent that these have gone abroad they are likely to stay abroad, and they may continue to expand abroad even in the face of a falling dollar. To hold America's position in high wage industries will take more than a falling dollar. It will take the kinds of long-run competitiveness policies described earlier.

IV. Conclusions

Actions have inevitable consequences. Once in place a large trade deficit or surplus and the resulting international indebtedness affect the future patterns of world trade. Every industrial country in the world is going to experience the pull of the black hole created in the world economy by those surpluses or deficits. While the effects cannot be avoided, it is possible to minimize the adverse consequences. This will, however, require coordinated actions on a scale unprecedented in economic history.

If such actions are not taken, sooner or later some American leader will point out to the American public that if they look to their narrow economic self interest and ignore foreign ramifications, some combination of protectionism and inflation may result in a smaller reduction in their standards of living than depreciating currency values and increasing foreign ownership of U.S. assets. The temptation for the U.S. to simply inflate its way out of its debt problem, as many other large debtors have done in history, under such circumstances will be very strong, perhaps irresistible. American borrowing differs from the borrowing of all other countries in that America borrows in its own currency (dollars) while all other countries borrow in foreign currencies —usually dollars. Since the American government prints dollars, it is possible for the U.S. simply to print enough dollars to pay off its foreign debts.

Such a strategy is essentially a strategy for deliberately inducing a sharp burst of inflation to make the value of foreign held U.S. bonds worthless. One of the consequences of this strategy, however, is that it would also make the value of U.S. held financial assets worthless. Fortunately or unfortunately, there is no way to reduce the value of foreign

held financial assets without at the same time reducing the value of U.S. held financial assets. In the aftermath of such a strategy, real interest rates would probably be very high. Foreigners would not want to lend, domestic demands would have to be cut back to levels consistent with domestic saving, and investment would sag.

If one were simply a forecaster, it is not difficult to be pessimistic. Wishful thinking about services and agriculture will be combined with measured doses of protection and inflation. Requests will be made for coordinated economic policies, but the U.S. will not increase its taxes and balance its fiscal budget any more than Japan or Germany will speed up their growth. The debt crisis will not be resolved, and Third World countries will continue to be strangled by a lack of credit. The probability of continued arrears or outright default by a major debtor nation and spillover effects on the stability of the international financial system will remain high. Foreign investors in the U.S. will increasingly be met with xenophobia, and the fall of the dollar will lead to competitive depreciations. The U.S. will talk about accelerating its productivity growth and competitiveness but it will do little of what needs to be done. And future living standards will fall as we are forced to pay back the resources we borrowed to live beyond our means in the first half of the 1980s.

9. This includes imports of business services and imports of other goods and services. Source: same as footnote 8.
10. Ibid.
11. Survey of Current Business, March 1986, pp. 30 and 36.
12. Ibid.
13. Economic Report of the President, 1987, p. 356.
14. Ibid.
15. Economic Report of the President, 1987, p. 149.
16. United States Department of Commerce, United States Trade: Performance in 1985 and Outlook.
17. Economic Report of the President, 1987, p. 276.
18. Ibid.
19. Information on dependence of Europe and Japan on U.S. markets from United States Department of Commerce, United States Trade: Performance in 1985 and Outlook.
20. Morgan Guaranty, World Financial Markets, October/November 1984 and May 1985.
21. Source same as footnote 19.
22. Council of Economic Advisers, Economic Report of the President, 1984.

23. IMF estimate cited in Jerry Sanders and Sherle Schwenninger, "The Democrats and a New Grand Strategy: Part II," World Policy Journal, Winter 1986-87.
24. Democratic staff of the Joint Economic Committee, Trade Deficits, Foreign Debt and Sagging Growth: An Analysis of the Cause and Effects of America's Trade Problem, September 1986.
25. Federal Reserve Bank of Cleveland, Economic Trends, November 1987.
26. Economic Report of the President, 1987, p. 360.
27. New York Times, Wednesday, February 4, 1987, p. 27.
28. International Monetary Fund, International Financial Statistics, February 1987, pp. 295 and 513.
29. Survey of Current Business, May 1986, p. S-27.
30. Economic Report of the President, 1987, p. 358.

Footnotes

1. United States Department of Commerce, International Trade Administration, U.S. Foreign Trade Update, January 30, 1987.
2. Council of Economic Advisers, Economic Report of the President, 1987, p. 361.
3. Based on 1985 and 1986 trade patterns by geographic area reported in Council of Economic Advisers, Economic Report of the President, 1987, pp. 256 and 290.
4. At the end of 1985, the U.S. debt to the rest of the world was estimated at \$107 billion. United States Department of Commerce, United States Trade: Performance in 1985 and Outlook, 1986.
5. Economic Report of the President, 1987, p. 244.
6. This calculation assumes the U.S. has a debt of \$250 at the beginning of 1987 and a trade deficit of \$150 billion during 1987.
7. Economic Report of the President, 1987, p. 244.
8. The \$55 billion in service exports includes exports of business services and exports of other goods and services and excludes international investment income and exports of military hardware. The figures for service exports and total imports are from United States Department of Commerce, United States Trade: Performance in 1985 and Outlook, and Survey of Current Business, March 1986.