MEMORANDUM 9

TO: The President

FROM: CEA Chairman

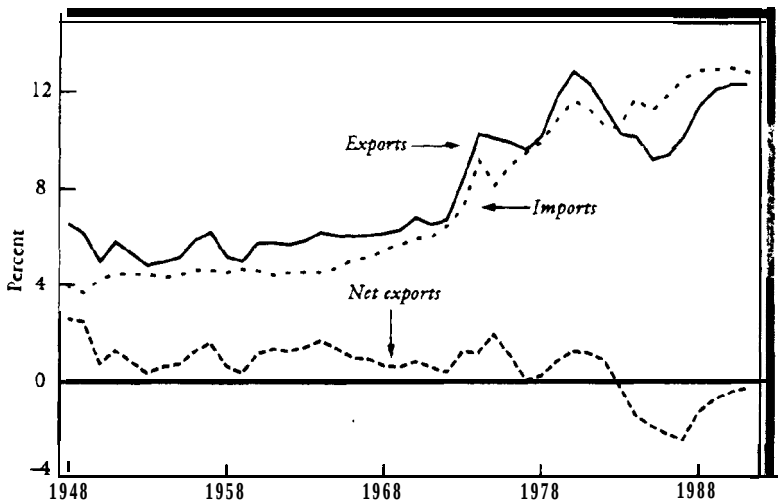
SUBJECT: **Exports, Imports, and International Investment**

During the past forty years, international trade in goods and services has become the most rapidly expanding sector in all the advanced economics. Exports and imports have grown twice as fast as GNP, and their share in GNP has doubled. Three major developments paved the way for this growth. First, improved technology and greater efficiency in transportation sharply lowered the cost of shipping goods, internally and across borders and oceans, thereby encouraging specialization and trade. Increasingly, producers with low costs and high quality could look to the world for their markets, and consumers around the world saw their living standards markedly improve.

Second, for more than four decades, the United States led the world in cajoling, bargaining, arm-twisting, and otherwise persuading other nations to operate under a system of free international trade. That system as it now exists is far from perfect; there arc many sinners and the United States is among them. Nevertheless, after more than four decades, trade barriers have steadily fallen in round after round of multilateral trade negotiations-almost always initiated by and kept alive by pressure from the United States. In 1947 the average level of tariffs in the major industrial countries was 40 percent; by the late 1980s the average level had declined to something in the neighborhood of 5 percent. US. leadership in this area constitutes a record of which the nation can well be proud.

The third principal source of the expansion of world trade was the trend toward the production of specialized, high-quality, and technologically

FIGURE 9-1. U.S. Exports, Imports, and Trade Balance as a Pcrccnt of GNP, 1948-90



sophisticated goods throughout the world. No longer do countries' trade advantages depend chiefly on their natural resources-soil, climate, or raw materials-and to a lessening degree on the availability of capital, but on the ability of individual firms and entrepreneurs to find a niche in making a specialized set of attractive, high-quality products. In most industrial countries, almost every advanced manufacturing industry is characterized by having large exports and large imports. Thus, the United States in 1989 exported $23 billion in office machines and computers and imported $26 billion in the same category of goods. In the same year, while Germany was exporting $43 billion worth of chemicals, it was importing them to the rune of $25 billion.

THE GROWTH OF U.S. INTERNATIONAL TRADE AND ITS MAJOR COMPONENTS

Figure 9-1 traces the rapid growth of U.S. exports and imports of goods and services, and the balance between them, over the last forty years. Trade grew much faster between 1960 and 1990 than did the rest of the

TABLE 9-1. Components of the U.S. Balance of Payments, Current Account Balance, 1979, 1990
Billions of dollars

Component	1979	1990
Goods	-28	-108
Services	3	26
Investment income	30	12
Other	6	-22
Current account balance	-1	-92

economy, and the value of exports and imports as a share of GNP more than doubled. One can easily see from figure 9-1 the effects of the large devaluation of the dollar that occurred after 1971 (exports soared), and of the huge dollar rise and subsequent fall in the 1980s (exports plummeted and then began rccovcring), and the fact that after three decades of modest surpluses of exports over imports, the United States in the 1980s began to import more than it exported, that is, its net export balance turned negative. One can also. see the effects of the two oil price shocks, in 1974 and again in 1979-81, when soaring oil prices sharply boosted the value of U.S. imports.

THE COMPONENTS OF THE U.S. BALANCE OF INTERNATIONAL PAYMENTS

The United States receives payments from-abroad for three kinds of exports. Correspondingly, America pays forcigncrs for three kinds of imports. The balance of receipts and payments on each of these three kinds of transactions are shown in the first three lines of table 9-l. One, the United States exports and imports *goods.* In 1990 WC exported and received from forcigncrs $390 billion for goods exported and paid $498 billion abroad for imports leaving a deficit of $ 108 billion-often referred to as the merchandise trade balance. America is a major net exporter of capital goods, industrial materials and supplies (excluding petroleum), and farm products, with a combined positive trade balance in these items of $89 billion in 1990. We are a major net importer of consumer goods

(including autos) and petroleum products, with a negative 1990 trade balance of $172 billion in these categories.

Two, the United States exports and imports *services* of all kinds: shipping charges and airline fares, insurance fees, payments for telephone calls and computer Icascs, and similar items arc part of the category of services. Expenditures of American tourists abroad represent U.S. imports of services, and spending by foreign tourists in this country is an American export. In 1990 we exported $133 billion of such services and imported $107 billion for a favorable balance of $26 billion.

Three, business firms, governments, and individuals also export and import the services of capital across international borders-Americans lend and otherwise invest capital abroad, and conversely foreigners lend and invest capital in the United States. The receipts of *investment* income from the capital invested abroad are a US. export, and the payments of interest dividends and other forms of capital income paid to foreigners for the capital they have invested here are an import.' In 1990 we received $130 billion from foreigners as income on U.S. investments abroad and paid out $118 billion, for a surplus of $12 billion. Ten years ago the United States had a much larger net surplus of investment income from abroad, but since then, Americans-business, government, and consumers-have borrowed and otherwise imported capital in such large amounts that our net investment income has fallen sharply. In fact, the United States is a net debtor abroad, and were it not that the United States, for various reasons, cams on average a higher rate of return on investments abroad than foreigners do in the United States, the U.S. investment balance would be negative.

We obtain foreign capital not only when foreigners buy our private and government debt instruments, but also as they make equity investments—buy U.S. stocks and real estate or directly invest funds in foreign-owned business firms in this country. To say that the United States is a net debtor country is a shorthand way of stating that the total amount of foreign assets we own is less than the amount of U.S. assets owned by foreigners.

In summing up total U.S. overseas payments and receipts, we have to add to the balance on exports and imports various overseas transfer payments—remittances of immigrants to their home countries, U.S. social security checks paid to beneficiaries who have retired abroad, and government grants to other countries. The net balance on these transactions (with a few technical statistical adjustments) came to a net negative balance of $22 billion in 1990.

The total balance of these receipts and payments, called the current ***account balance,*** amounted to a deficit of $92 billion in 1990 (down from a peak of $160 billion in 1987). In the years before 1982, the United States had seldom run significant current account deficits. But in the eight years from 1983 through 1990, the cumulative total of the deficits amounted to almost $900 billion.

FINANCING THE CURRENT ACCOUNT DEFICIT— THE CAPITAL ACCOUNT

When the U.S. economy imports more than it exports or otherwise pays more abroad than it receives in payments from foreigners, then one way or the other it must obtain the necessary financing to do so. There arc only two ways: we can sell some of the overseas assets we own to get the foreign currency we need, or we can borrow (or otherwise obtain capital) from abroad. One way ***or the*** other, there must be a net inflow of capital to match the deficit in the U.S. current account balance.

Note the use of the word ***net.*** During the 1980s, when the United States was running a current account deficit and needed to import capital to finance it, many U.S. firms and individuals were still investing abroad. And so the total gross inflow of foreign capital had to be larger than the amount needed to finance the current account deficit-it had to cover both the current account deficit and the overseas investments of Americans.

To repeat, a country's current account deficit must be matched with a net inflow of foreign capital. Thus, from 1983 to 1990, the string of large U.S. current account deficits had to be financed by a corresponding net inflow of foreign capital. By 1990 the net overseas assets of the United States (U.S. assets abroad minus foreign assets in the United States) had declined by $620 billion. At the end of 1982, the United States was a net creditor abroad in the amount of $260 billion; by the end of 1990 America was a net debtor to the tune of $360 billion. While conceptually the nation's current account deficit ought to be exactly matched by the inflow of foreign capital and a corresponding decrease in America's net asset position, the statistical measures of these flows of transactions are far from perfect. Thus, as measured statistically, there is a discrepancy each year between the reported current account deficit and the net flow of foreign capital into the United States, as estimated from the net change

in our assets and liabilities to foreigners. Sometimes this statistical discrepancy is small, but once in a while it is embarrassingly large.

INFLUENCES ON EXPORTS AND IMPORTS

The major forces that produce changes in a country's exports and imports are changes in domestic and foreign ***output and income*** and changes in the ***price*** or quality of exports and imports. For simplicity we can talk about changes in quality-adjusted prices (defining a 1 percent increase in quality to be that change which increases exports by the same amount as a 1 percent fall in price).[2]

-Income. Everything else being equal, the faster the growth in national income and output among U.S. trading partners abroad, the faster the rise in U.S. exports. And correspondingly, the faster the growth in U.S. national income and output, the greater the demand for goods of all kinds, including those imported from abroad. Moreover, there is a tendency for exports and imports to respond somewhat more than proportionately to a growth in income here and abroad. According to one recent study, a 1 percent rise in income among other countries in the Organization for Economic Cooperation and Development (OECD) will typically generate a rise of something like 1.5 percent in American exports. And, according to the same study, a 1 percent rise in American income will lead to a rise of perhaps 2.5 percent in imports into this country.[3]

When Europe has a recession not shared by the United States, its income will fall, imports from the United States will decline, and the U.S. trade deficit will grow. Europe had a much slower recovery than did the United States from the recession of 1982; American exports to Europe experienced feeble growth, while U.S. imports rose sharply as recovery proceeded rapidly here. This difference in cyclical recovery patterns explains a little of the widening U.S. trade deficit of the **period.**

--Prices. A reduction in the quality-adjusted price of American-made "tradable" goods relative to prices charged by other producers around the world till stimulate U.S. exports and discourage imports into this country. Lower American prices will directly increase the competitiveness of American goods in the home markets of other industrial **countries** and improve the ability of American exporters to win out in the competition for **markets** in third world countries. At the same time, a fall in the relative price of American-made goods will make it harder for importers to

compete in the U.S. market. And of course a rise in the price of American goods relative to foreign prices will work in the opposite direction.

The prices of U.S. tradable goods can change relative to the price of foreign goods in two ways: first, and obviously, if the U.S. inflation rate is lower or higher than the average inflation rate of trading partners; and second, if there is a change in the value at which the U.S. dollar exchanges for other currencies.

-Inflation. More often than not, manufacturers of US. exports set their prices by applying a relatively fixed markup to their wage and raw materials costs. If inflation in the United States is proceeding more rapidly than elsewhere, those costs will be advancing faster here than abroad and the prices of American exports will begin rising above the prices of comparable products manufactured abroad, and American export sales will drop, typically more than proportionately to the rise in prices. In some cases, American goods arc sold in highly competitive markets where there is one world price. When costs rise in the United States faster than abroad, prices can't be raised to compensate, profit margins arc squeezed, and those firms become less interested in making export sales. In that case exports will drop. And by the same reasoning, imports will rise because the inflation in their costs of production is less than for the domestic American manufacturers with whom they compete. All of this works in the opposite direction when inflation in the United States is lower than it is abroad.

-Changes in the overseas value of the dollar. Whenever the value of the US. dollar rises (appreciates) relative to another currency, it takes more of that currency to purchase a given amount of dollars; it becomes more expensive for importers in the foreign country to buy goods made in America. For example, if a particular brand of American personal computer sells for $2,000 and it takes Fr 5 to buy $1 on foreign currency markets, a French wholesaler of computers has to pay Fr 5,000 to get enough dollars to buy that computer for sale in France. If the value of the dollar goes up, so that it now costs Fr 6 to buy $1, the French wholesaler will have to pay Fr 6,000 to purchase the same computer. Japanese or locally made French computers will now look more attractive. Sales of American computers to France will fall. The American computer manufacturer, faced with falling sales, may cut prices, but there is a limit on how much it can cut and still remain profitable.' And even if the price cuts do limit the fall in sales, export business is now less profitable and firms will put less effort into exports. One way or another, the rise in the value of the dollar will depress the sales of American exports. A fall in the

value of the dollar (a depreciation of the dollar) will work in the opposite direction to reduce the price of American goods to foreign buyers and boost U.S. export sales.

Imports into the United States will also be affected by a change in the overseas value of the dollar. When the dollar rises, so that Fr 6 buys a dollar instead of Fr 5, an American importer has to pay fewer dollars to buy French goods. The importer can now sell the French merchandise more cheaply in the United States, boosting the sale of French imports. And a dollar devaluation will work the other way, making French goods more expensive in the United States and depressing sales.

In any period, the change in the relative price of US. tradable goods in world markets is equal to the change in the exchange rate plus the differential inflation rate in the United States relative to the rest of the world. Thus, if in a particular year, the dollar appreciates by 10 percent and the U.S. inflation rate is 5 percent greater than the average in our trading partners, the relative price of U.S. goods will have risen by 15 percent. If, however, a 10 percent appreciation of the dollar is accompanied by a 10 percent lower inflation rate than elsewhere, it is a stand-off-there is no rise in US. relative prices, and no pressure on U.S. imports or exports in either direction. This measure-the change in the U.S. nominal exchange rate plus the differential U.S. inflation rate-is called the change in the *real exchange rate.* It combines the two main factors producing changes in the competitiveness of American goods around the world, our relative inflation rate and movements in our exchange rate.

During most of the past three decades, our inflation rate didn't vary much from the average inflation rate of our trading partners (it ran a little higher than in Germany and Japan, and lower than in England, France, and Italy). The real and nominal exchange value of the dollar moved rather closely together. And so from now on, WC will concentrate on changes in nominal exchange rates as the major influence on the competitiveness of U.S. goods around the world.[5]

EXCHANGE RATES AFFECT EXPORTS AND IMPORTS WITH LONG TIME LAGS

Although changes in the prices of one country's goods relative to those in other countries do affect the volume of its imports and exports, they do so only gradually. Prices for expensive capital goods may have been set at the time the good was ordered, which often precedes the actual

export of the finished good by a long time. Rather than lose markets, importers faced with a rise in the price of foreign goods may, at least for a while, absorb some of the increase so that the price to the customer doesn't change as much as might have been expected. If the value of a currency has risen and remained high for some time, and that country's exporters have suffered a loss in sales over several years, they may have dismantled part or all of their distribution channels abroad. Since getting back into markets is often expensive, once lost, a fall in the country's currency to its old level may not induce a reentry of those exporters into foreign markets for some time—until they have become convinced the new exchange rate is more than a temporary fluke.

The study of American manufactured exports and imports referred to above estimated that a year after a change in import prices, only half of the effect on import volume would have been felt. The lag estimated for the export response was even longer-only about a third of the response would be felt by the end of the first year; even by the end of eighteen months, less than half of the eventual volume change would have occurred. Thus the exchange rate of the dollar peaked in early 1985, but the volume of U.S. net exports began a substantial recovery only in 1987.[6]

THE J-CURVE

As we have just seen, when the dollar's exchange rate rises or falls, the resulting changes in exports and imports take time to develop. But the effect on the dollar value of imports is immediate. Suppose the value of the dollar falls. The effect of that devaluation in depressing the volume of imports is delayed. But the prices that importers have to pay for most imported goods are fixed in foreign currencies-Fr 500, let's say, for a case of French wine. As soon as the value of the dollar falls, say from Fr 6 to the dollar to Fr 5, the importer has to pay more dollars for foreign goods; the dollar price of the case of wine goes from $83 dollars (500 ÷ 6) to $100 (500 ÷ 5). Thus, the immediate effect of a dollar depreciation is to raise the dollar value of imports and push the current account balance in a negative direction. But eventually the higher dollar price of imports reduces the volume of imports, and the current account balance recovers from its earlier fall and moves in a positive direction. And so, when the value of the dollar falls, the American current account balance traces the shape of a J. The opposite reaction occurs when the dollar rises; the

current account first moves in a positive direction and then gradually turns toward the negative, forming an inverted J.

Earlier, estimates were cited showing that an equal rise in national income in the United States and abroad seems to produce a growth of American imports faster than the growth of American exports. If these estimates are even roughly correct, they would support a controversial hypothesis that has been debated for some time, namely, that to keep the United States from running an increasingly large trade deficit U.S. trading partners must grow faster than America, or, lacking such differential growth rates, a small but continuing depreciation of the dollar must take place to keep American firms competitive in world markets.' In the years before 1980, the long-term growth of the Japanese and most European economies was a good bit larger than that of the United States, helping to keep the United States from running sustained deficits in international payments. But as noted, foreign growth slowed relative to U.S. growth during much of the 1980s, helping to produce the trade deficits of the period.

NOTES

1. Foreign holdings of U.S. government bonds are much larger than American holdings of foreign government bonds. There is a substantial net outflow of government bond interest from the United States to foreign owners of Treasury securities ($38 billion in 1990). Until rcccntly, the national income account statisticians did not consider the interest payments on government bonds as a service and excluded them from investment income payments and receipts in calculating exports and imports. However, a comprehensive picture of the American balance of international payments, as shown in table 9-1, has to include this net outflow. For this reason and several other less important ones, the net export figure in the national income accounts (shown in figure 9-1) is more positive (less ncgativc) than the more comprehensive balance shown in the table.

2. A common way to measure the change in quality is to ask how much more consumers would be willing to pay for the extra quality. If the producer introduces a quality improvement for which the consumer is willing to pay an extra 10 percent, but charges the same price as before, that is cquivalcnr to a 10 percent price cut.

3. These estimates exclude petroleum products and computers, which have several special features not shared by the broad run of other goods and services. Robert Z. Lawrence, "U.S. Current Account Adjustment: An Appraisal," *Brookings Papers on* Economic *Activity* 2: 1990, pp. 343-82.

4. The problem is compounded for the exporter because most countries have antidumping laws that prohibit a foreign firm from selling in the foreign country at prices below what it charges at home. So the exporter has to cut prices on its sales everywhere.

5. Admittedly, for most goods, the available measures of inflation arc not corrected for quality changes, and such changes may have played a role in influencing the pattern of exports and imports. But even if that is true, changes in the quality of U.S. goods relative to those of other countries are likely to be a slow and gradual matter, and unlikely to have produced the dramatic swings in the U.S. competitive position that we will bc discussing. See Lawrence, "U.S. Current Account Adjustment."

6. Of course, if the dollar exchange rate had remained at its fantastic peak of early 1985, the U.S. trade deficit would have reached a much higher level than it eventually did. So the effect of the decline in the exchange rate on the improvement of the trade balance, in comparison with what it otherwise would have been, came about more quickly than it appears from the dates cited in the text.

7. This proposition is known as the Houthakker-Magee hypothesis, named for the two economists who first proposed it in 1969.

MEMORANDUM **10**

To: The Prcsidcnt

FROM: CEA Chairman

SUBJECT: **Exchange Rates, the Trade Balance, and the U.S. Economy**

Throughout the 1980s many senators, congressional representatives, and business and labor leaders argued, and they still do, that America's trade deficits were importantly the result of the "unfair" trade practices of other countries, especially Japan. Trade barriers of various kinds were proposed to deal with the trade deficit, and as devices to increase jobs for American workers. But my main message in this memo is'that such approaches will not achieve these objectives. Trade policies and practices, here and abroad, are important. They can affect the composition of national output and employment, but not its level. They can affect the volume of exports and imports, but not the balance between them. They can affect living standards, but not by providing more aggregate cmploymcnt. Aggrcgatc demand, national output, and employment and the size of a nation's trade balance arc determined by macroeconomic conditions, especially by the relationship between national saving and domestic investment opportunifics.

WHAT DETERMINES EXCHANGE RATES?

Until 1973 the major trading countries operated under an agreement that fixed the exchange rates of their currencies relative to one another. Bates were indeed changed. But the changes were major events that usually required international agreement and came at infrequent intervals. Given the rapid postwar recovery and increasing compctidvcncss of Japan and Europe, the exchange rate of the dollar was getting more and more

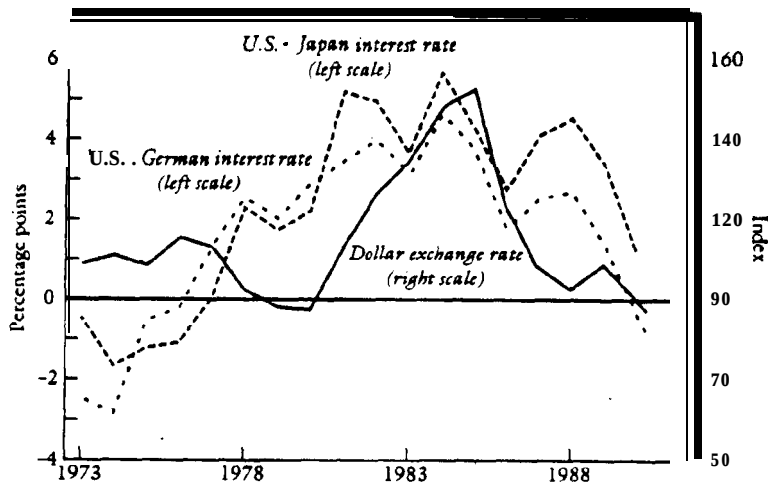
to buy in international markets what could be bought for one dollar, the exchange rate of DM to dollar would be 2 to 1. If, because of relatively high inflation, American prices doubled relative to German prices, so that a dollar would now buy only what one DM would buy, the dollar exchange rate with the DM would fall to 1 -to- 1. Thus, under the purchasing power parity interpretation of exchange rates, differences among inflation rates among countries-because they lead to divcrgcnccs in price levels—would be dominant in explaining exchange rates. Exchange rates would move until they offset the effects of divcrgcnccs in domestic price levels and restored the parity among currencies in terms of what chcy could buy on international markets. This theory has oneserious flaw-it doesn't fit the facts.

EXCHANGE RATES AND INTERNATIONAL CAPITAL FLOWS

As noted in memo 9, the real exchange rate is a measure that corrects the nominal exchange rate for differences in inflation rates between the United States and its major trading partners. If most ofthc movement in exchange rates simply reflected differences in price movements among countries, as the purchasing power parity doctrine predicts, the real exchange rate would be flat-it would move very little. In fact, the real exchange rate has moved up and down sharply over the years. Although differences in inflation rates among countries can and do lead to changes in the exchange rates of their currencies, most of the major recent movements in the dollar exchange rate have not been associated with differential inflation rates. And that shows exchange rates can and do move substantially apart from the level needed to preserve the parity of purchasing power among countries.

The key reason why exchange rates often move sharply in ways that cannot be explained by the concept of purchasing power parity is that individuals and business firms often want to obtain a foreign currency not to buy imports of goods and services but to invest in the financial or other assets of the foreign country. The net demand for a currency, therefore, is determined not only by the flows of paymcnn and receipts for the export and import of goods and services—as implied by the purchasing power parity concept-but also by the demand for that currency From investors who want to use it to buy assets denominated in that foreign currency. A German investor seeking to buy a U.S. Treasury bond or a

FIGURE 10-I. Interest Rate Differentials and the Exchange Rate for the Dollar



corporate stock has to sell his DM for dollars in order to make the purchase-he cannot buy those securities directly with marks.2 Even if a country's current account is in balance, the demand for that currency may greatly exceed or fall short of the supply available, depending on whether investors are trying to increase or decrease their holdings of that country's assets.

A chief reason why the citizens of one country, say Germany, would want to invest in dollar assets is bccaux they believe they can earn a higher return on their money by so doing. The investment demand for dollars will be high when interest rates or other returns to investment in the United States are higher than they arc in Germany, and vice versa. Thus, differential interest rates, as well as differential inflation rates, move exchange rates. (From now on WC will, for the sake of simplicity, use the term "interest rates" as shorthand to mean the yield on assets of various kinds; but remember that while most foreign investment is in interest-bearing assets, foreign firms and individuals also pur their money in stocks, real estatc, and direct investment.) Figure 10-l shows how movements in the exchange for the dollar during the 1980s were linked with movements in U.S. interest rates relative to those in Germany and Japan. The massive rise in the dollar's exchange rate in the first half of the 1980s

occurred in response to the large upsurge in U.S. interest rates relative to those available abroad. (Before 1971, the dollar exchange rate had been fixed for many years and had become far too high to be consistent with the U.S. competitive position in the world. During the period immediately after exchange rates were cut loose to float in 1973, the dollar was gradually adjusting to the new situation and for a while its movements didn't parallel the movement of interest rate differentials as they did later).

THE GROWING MOBILITY OF INTERNATIONAL CAPITAL AND ITS CONSEQUENCES

In the past fifteen years or so, world financial markets have evolved significantly-financial capital has become highly mobile. Because computers can keep track of massive, complicated transactions, institutional and private investors are now able to shift huge sums inexpensively from financial investments denominated in one currency to those denominated in another, as actual and expected interest rates and other financial returns change among countries. As recently as 1980, the combined total of foreign bonds bought and sold by U.S. citizens and U.S. bonds bought and sold by foreigners was in the neighborhood of $40 billion. In 1989 that total substantially exceeded $1 trillion dollars! And in the New York financial markets on a typical day some $130 billion in foreign currencies changes hands. Increasingly, fluctuations in exchange rates have occurred because of changes in the investment demand for currencies connected with differences in interest rates among countries.

The total return that can be earned from investing in assets denominated in a foreign currency depends on the foreign interest rate *plus* or *minus any gain or loss experienced because of movements* in *the exchange rate* during the time the foreign assets are being held. For example, if interest rates on a five-year bond are 5 percent in Japan and 8 percent in the United States, a Japanese pension fund will earn an extra 15 percent over the five years on any funds it places in a U.S. five-year bond. But if the exchange rate for the dollar in yen falls by 15 percent over this period, all of the extra earnings will be wiped out when the pension fund converts the dollars back into yen. And of course if the dollar should fall by more than 15 percent, the pension fund will have done worse by investing in dollar rather than yen securities. And so *the demand by* international *investors for a foreign currency will depend on the height of* its *interest* rates

relative to those in *other major financial centers* minus any *expected decline* in *the exchange* value of that *currency*.

When a country's interest rates go up relative to those abroad, investors around the world increase their demand for that country's currency. But there is, at that moment, no increase in the supply of that currency available to satisfy the new demand. That currency's exchange rate begins to rise; people have to pay more units of foreign currency per unit of the favored currency. Thus in 1980 it took DM 1.8 to buy $1 of U.S. currency. But by 1985, after a period of very high U.S. interest rates, it took 2.9 DM to purchase $1. The currency of a high-interest-rate country will keep rising until it gets high enough that investors begin to worry it will fall again by enough to wipe out any extra earnings they might have made from the higher interest rates. At that point the value of the currency stops rising; the extra interest yield is now matched by the expected future loss from currency depreciation.

The rix in a country's exchange rate produced by an increase in its interest rates relative to those abroad will gradually lead to a fall in its exports, a rise in imports, and a worsening of its international payments balance.

This view of what drives the exchange rate mechanism-and it is the standard explanation widely accepted by economists and financial experts-highlights cxpectadons about the future value of a currency. Expectations can bc volatile, and speculation can at times play a major role. Those who deal professionally in foreign currency markets, like those who deal in stocks, can make money if they can anticipate what others arc going co believe about the future value of an exchange rate, regardless of whether those beliefs arc consistent with the underlying economic forces that will ultimately dctcrminc the movement of the exchange rate. Moreover, the preceding analysis of the exchange rate mechanism is a good surface description of what drives exchange rates but not a deep one-it doesn't tell us what determines at any moment whether an exchange rate is above or below its likely long-term value. Economists have not yet produced a fully satisfactory analysis of the determination of exchange rates. Nevertheless, a good bit about how interest rate differentials can drive exchange rates is understood.

INTERACTIONS WITH THE DOMESTIC ECONOMY

When an economy is operating with a great deal of slack, when uncmploy ment is high and plenty of producnvc capacity is idle, any development

that raises exports or causes a substitution of domestic goods for imports will expand U.S. aggrcgatc demand and lead to an expansion of output and employment. An increased growth of GNP and income abroad or a fall in the exchange value of the dollar will move the economy in that direction. And, conversely, U.S. aggregate demand, GNP, and employment will fall when economic growth among U.S. trading partners sags or the dollar appreciates in value. Changes in the economic fortunes of other countries and developments affecting the exchange value of the dollar, like changes in domestic consumption and investment spending, also can alter aggregate demand relative to potential GNP and thereby produce fluctuations in GNP, employment, and income for the American economy.

But even when high employment has been achieved and maintained, changes in the world economy or in the value of the dollar can affect other aspects of the American economy. To be more precise, let's assume that the Federal Reserve successfully manages monetary policy to keep aggregate demand approximately equal to potential GNP-raising interest rates to damp down demand when aggregate demand is cxccssivc and lowering rates to stimulate additional spending when demand is weak. In that case, an expansion of demand and spending in one sector of the economy requires a contraction somewhere else. How does a change in net exports then affect the national economy, and conversely how do changes in aggrcgatc demand clsewhcrc in the economy affect net exports?

In memo 4, WC examined this situation by looking at the relationship between national saving on the one hand and the sum of domestic and foreign investment (= net exports) on the other. Suppose, for example, that the sum of consumer and govcmmcnt spending increases relative to national income-in other words, national saving declines. Since we cannot as a nation invest at home and abroad more than we save, WC know what the end result must bc; either domestic investment spending must decline, or net exports must fall, or some combination of the two must occur. We can now use what WC lcamcd in the previous memos to understand the process that forces this outcome to occur.

Because the supply of saving has fallen below the demand for saving by investors, interest rates will naturally rise. But this rise in rates will not normally be enough to insure that aggregate demand remains within the bounds of potential GNP. The Federal Rcscrvc will have to act to push rates up enough to produce the requisite fall in investment. We saw in memo 7 on domestic investment that higher interest rates will reduce

various components of domestic investment. And memo 9 explains that higher interest rates in the United States will also reduce net exports. The higher rates make investment in U.S. securities attractive to foreigners, the overseas value of the dollar rises, American exports become more expensive abroad and foreign imports cheaper here, exports fall while imports nsc, and so the net export balance moves in a negative direction. In a similar vein, an expansion of investment relative to saving will produce the same result-a rise in interest rates that will choke off some of the surging investment demand and reduce net exports. And of course one can see these developments in reverse: a fall in consumer and government spending or a decline in domestic investment demand will produce a fall in interest rates, a depreciation of the dollar, and an expansion of American net exports with some reversal of any initial decline in investment.

When saving declines relative to investment and interest rates rise, how much of the adjustment takes the form of a fall in domestic investment and how much shows up as lower net exports? The mix of the two effects is different now than what it was fifteen or twenty years ago. Since exchange rates were fixed by international agreement in the 1950s, 1960s, and early 1970s, differences in interest rates between the United States and other counaics did not lead to major appreciation or depreciation of the dollar and had little effect on American net exports. Hence when the saving rate changed up or down, the accompanying changes in interest rates had their major effect on domestic investment-changes in saving were pretty closely matched by changes in domestic investment. More recently, however, with exchange rates free to fluctuate more or less as market forces dictate, a substantial fraction of any change in national saving, perhaps a third to a half, is likely to show up as a change in net exports, and the remainder as a change in domestic investment.' Thus, when the U.S. national saving rate fell from roughly 8.2 percent of national income in the period prior to 1980 to 3 percent in 1989–90, 3 percentage points of the fall were reflected in a decline in domestic investment and 2.5 percentage points in a decline in net exports as a share of national income. (Net exports shifted from a small surplus to a big deficit; correspondingly, a positive U.S. net investment abroad was converted into substantial net borrowing from abroad.) Figure 4-4, in memo 4, summarizes these developments.

There is another way to view this phenomenon. When a country greatly expands public and private consumption relative to income, and aggregate

demand is kept within the bounds ofpotential GNP, the society can adjust in two possible ways: first, spending for domestic investment purposes can be cut to make room for the extra consumption spending; or second, the economy can maintain its domestic investment spending, import more than it exports, run a trade deficit, and thereby spend in the aggregate more than it produces. (The excess of imports over exports is equal to the excess ofdomestic spending over domestic production.) In the 1980s, as already mentioned, the United States did some of both-boosted public and private consumpdon partly at the cxpcnsc of domestic invcstment and partly by spending more than it produced, through the expedicnt of importing more than it exported.

Because WC can cut national saving and still maintain domestic invcstment spending does not mean that WC have found the secret to attaining Nirvana. As WC have seen, a deficit in our balance of payments has to be financed by issuing debt or other obligations to foreign investors. Running large net export deficits year after year, as a means of supporting a high level of consumption, produces a rapidly mounting overseas debt on which WC will have to pay debt service out of our future national income. Thus a large reduction in national saving will inevitably penalize future living standards in one of two ways: to the extent WC adjust by cutting domestic invcstmcnt in productive assets, the growth of national income will slow down. To the extent WC maintain domestic invcstmcnt and spend more than WC produce by running a large trade deficit, WC will have to devote an increasing share of future national income to debt service payments abroad.

During much of the ninctccnth century the United States spent more than it produced and ran substantial balance-of-payments deficits. However, the extra spending and the overseas borrowing was devoted to greater domestic invcstmcnt in railroads, steel mills, and the like, not in increased consumpaon. The additional national income made possible by the extra investment could be used to pay the debt service, and since the return to the domestic investment was higher than the interest rates WC had to pay, WC came out ahead on the operation.

GOVERNMENT POLICIES TOWARD EXCHANGE RATES

Since, as WC have seen, changes in interest rates can greatly influence exchange rates, government policies that affect interest rates can also affect exchange rates. But govcmmcnts sometimes try to alter exchange

rates, in the absence of policy actions that change interest rates, by making large sales or purchases of a currency. Thus, in September of 1985, Secretary of the Treasury James Baker secured the agreement of other major financial powers to cooperate in a program of driving down the very high exchange value of the dollar through a program of concerted sales of dollars (for other currencies) by other governments, most importantly Japan and Germany. This move was the famous Plaza accord (named for the New York hotel where the meeting took place). Whether such "exchange intervention" can significantly alter currency values is a disputed question. The amount of U.S. dollar-denominated financial assets held privately by foreigners exceeds $1 trillion, and the daily volume of currency transactions runs into the hundreds of billions. If all governments do is buy and sell a few billion or even tens of billions of dollars for other currencies—while no change has occurred in monetary policies or other fundamentals affecting exchange rates—it is unlikely that in most situations intervention alone can have any long-lasting effects on currency values. The dollar's value did indeed decline after the Plaza accord. But it had begun declining some months earlier and some economists believe that the fundamental economic forces at work would in any event have pushed the dollar down.

To the extent that intervention in the exchange market is accompanied by changes in monetary policy that alters interest rates, currency values can be altered. And the intervention may be a signal to financial markets that speeds up the response of currencies to the interest rate action. Moreover, from time to time a heavy speculative element may be at work in foreign exchange markets, pulling currency values a good bit away from a level warranted by underlying economic forces. Conceivably, a coordinated and publicized decision by governments to intervene in the market with the announced aim of altering a currency's value may be able to take some of the speculative element out of the market and so alter currency values. But of course no one really knows the extent to which a currency's value at any one moment is or is not in line with longer-term fundamentals, and there is no basis in history for markets to assume that governments are any better than private currency holders in judging that question. Agreement on this subject is hard to come by. Nevertheless it would be wise to discount the possibility of exchange intervention alone to bring about large and lasting changes in a currency's value, although intervention may prove useful when employed with other, more basic, policy changes, and in the presence of heavy speculative activity, intervention may conceivably be useful on its own.

THE SAVING-INVESTMENT BALANCE, NOT TRADE POLICY, DETERMINES A COUNTRY'S TRADE BALANCE

As noted in memo 4, the balance between a nation's saving and its domestic investment demand, not its trade policies, is the principal determinant of a nation's balance-of-payments deficit or surplus. This memo has explained the mechanism that produces this result. Suppose, for example, that the United States began to levy a heavy tariff on Japanese imports. Initially, to be sure, Japanese exports to the United States would fall, and Japan's trade surplus with the United States would start to shrink. As long, however, as the underlying saving-investment balance in the two countries and their relative interest rates remained unchanged, Japanese investors would remain as interested as they ever were in buying U.S. securities. If U.S. imports from Japan were to fall significantly, there would be fewer dollars available for Japanese investors to buy; the dollar would become scarcer and its value would rise, making American exports more expensive and Japanese imports chcapcr, offsetting some of the effects of the import surcharge. Dollar and yen exchange rates with third countries would also change, in a way that penalized American compctidvcncss with those countries. In the end, there might bc some reduction in the Japanese trade surplus with the United States, but the overall trade balances of Japan and the United States with the rest of the world would tend to move back toward their original levels. There would be fewer Japanese imports into the United States but also fewer American exports into Japan and probably clxwhcrc. The overall volume of American trade with the rest of the world, both exports and imports, might well decline but not the balance between them.

Changes in trade laws, policies, and practices can change the composition of trade flows and influence the level of exports and imports for good or for ill but cannot produce important alterations in countries' overall uadc balance. It is alleged, and some fairly strong evidence supports the allegation, that various Japanese business practices make it difficult for other countries to export manufactured goods to Japan. Changes in those practices would undoubtedly expand the volume of foreign imports into Japan. The value of the Japanese yen would fall. Both imports into Japan and exports from Japan would rise. Living standards in Japan and elsewhere would expand; Japanese consumers would benefit from consuming many foreign goods now discouraged from entry, and consumers throughout the world would enjoy more high-quality Japanese goods. But as long as the Japanese save far more than they can profitably

invest at home, and without any major changes in the saving-investment balances in Japan's trading partners, the overall Japanese trade balance is not likely to shrink significantly.

FLOWS OF REAL AND FINANCIAL CAPITAL

When, as in the 1980s, U.S. national saving fell relative to its domestic investment demands and U.S. interest rates rose relative to those abroad, the market mechanism started to work to transfer foreign saving into this country. Foreign investors increased their demand for American securities. But as a savings-short country, WC needed the resources. We were trying to spend, on consumption and domestic investment together, more than we were able to produce. We could not literally use DM or yen or British pounds or the other pieces of paper, which the foreign investors had to offer. What happened, as we have seen, is that the increased demand for dollars by foreign investors raised the value of the dollar and gradually reduced U.S. exports while increasing impom. The United States began running trade deficits, thereby importing more goods and services than it exported. The initial financial flows were thus translated into a flow of real resources into the United States, allowing the nation to spend on consumer and investment goods together more than it produced of those goods. Other countries with an excess of saving relative to domestic investment-for cxamplc, Japan-used their own real resources to "invest" in the United States; they received our IOU's and in the future will be receiving debt service payments for the excess of U.S. imports over U.S. exports that they provided us.

What such a course of events portends for the future depends on whether WC were using the resources furnished from abroad to augment our consumption spending (public and private) or were using those resources to add to domestic investment that would increase our income in the future. The U.S. trade deficits of the 1980s were an example of the former. The trade deficits that we frequently ran in the nineteenth century were an example of the latter.

A FINAL REMINDER

In chinking about the relationships between domestic spending, trade balances, and international capital flows, one must realize that all of the following magnitudes arc the same:

☆ **Excess** of domestic **spending over domestic** production

equals: Excess of **domestic investment over national saving (equivalently: shortfall of national saving below domestic investment)**
equals: **Net export deficit**
equals: **Inflow of international capital**

NOTES

1. When the U.S. inflation rate is higher than average, the prices of imported goods fall **relative to** those of domestically produced goods. The volume of imports expands. Empirical studies suggest that the rise in volume will approximately offset the fall in prices. The dollar volume of imports will remain approximately unchanged. The changes in the current account balance thus come mainly on the export side.

2. This sentence is not quite correct. Some firms, and some governments, issue bonds denominated in the currency of a foreign government. A Swedish municipality might issue yen bonds in Tokyo, receiving yen proceeds when the bonds are sold and obligating itself to pay interest and principal in yen rather than Swedish kronor. Technically speaking, we **should talk about** the demand not for foreign assets but for "assets denominated in a foreign currency." But this technical nicety would only make the text more clumsy and so we will talk simply about the demand and supply of foreign assets.

3. See, for example, Andrew Dean and others, 'Saving Trends and Behaviour in OECD Countries," *OECD Economic Studies, vol.* 14 (Spring 1990), p. 18, table 2.

EXCERPT
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III. What's The Basic Put-nose of Internat'l Trade

The reasons why the professionals believe that trade is "good," and their views about the ways in which national economies and international trade interact, often seem highly counter-intuitive, even to the intelligent and politically engaged lay person, This appears to be true not just in the United States but throughout the world. As a consequence, even trade policies which produce what the professionals would agree are good results are usually promoted and sold for the wrong reasons: "NAFTA will create hundreds of thousands of jobs" is the latest example. It is a testament to the underlying strength of democratic government that, despite this fact, the advanced countries of the world have gradually put in place, over the past 50 years, trade policies which succeeded in expanding the volume and scope of international trade, contributing substantially to postwar growth in standards of living. On the other hand, it has been a precarious process; the political battles have been divisive, the victories close-won, and individual instances of backsliding and counterproductive trade practices have been many.

The Purpose of Trade

If you only paid attention to press reports and campaign rhetoric -- here and abroad -- the primary goal of national trade policy would appear to be to maximize a country's exports. There is a grain of truth in that view, but only a grain, along with a bushel of errors. The essential goal of international trade is to improve national living standards by taking advantage of the productivity gains which come from *specialization.* At bottom that is no different from the great importance of specialization in the domestic economies of the advanced countries as an explanation for their high living standards. For cities, states, tor individuals, trying to be a jack-of-all-trades is a sure way to insure a low standard of living.

Michael Jordan and Emmett Smith are both far above average in strength and physical conditioning. They could be much more productive than most other people at any kind of manual labor, like landscaping or yard work. But obviously

they are a lot better off economically by concentrating on what they do really well -- professional sports -- and buying their landscaping and yard work from someone else, even if thye someone else is less efficient at it than they are. Not only will Jordan and Smith gain, so also will those who do the landscaping and gardening, so long as they too are engaged in what they do best.

International trade is simply a way of extending the benefits of specialization across national borders. In effect, it allows a country to extend the high productivity of its best industries and firms to the acquisition of other goods it wants to consume but which it produces relatively inefficiently. It is thus a device to increase the average productivity and livings standards of nations that engage in trade, both advanced and less-developed countries. Each country can expand its most productive industries and lines of activity to produce an "excess" of what it does relatively well and exchange that excess for goods in whose production it is realtively less efficient.

As Paul Krugman put it, the only reason we need to export is because other countries are inconsiderate enough to demand payment for the goods we want from them. The fewer exports we have to give up as a nation to secure a given amount of imports, the higher our standard of living will be. It is also true, however, that if other countries put formal or informal barriers in the way of our exports we will end up getting a lower price for them. And that in turn will harm our living standards. That is the grain of truth in the popular view that the goal of our international trade policy is to expand American export markets. But the grain of truth should not be taken as anything like the whole truth. Barriers to American exports are harmful to us not because they force us to produce too few exports but because, in effect, they reduce the amount of imports we can "buy" with the resources we devote to our export industries. And, of course, American trade policies that erect barriers to imports accomplish precisely the same harmful consequences -- as a nation we have to work harder to get less.

Unfortunately, when we engage in bilateral bargaining with another country in order to get that country to dismantle some of its trade barriers, the major bargaining weapon at our disposal is to threaten to penalize the imports of the

offending country. In the case of international trade, shooting one's self in the foot can also cause harm to the country you are negotia ir.g with, and can hence be used as a bargaining threat.

The attraction, and historical record of success in the postwar years, from virtually continuous rounds of multilateral trade negotiations, is due to the fact that when many countries negotiate at the same time, they are able to hold out the carrots of further market-opening rather than the self-flagellating sticks of market-closing as inducements for each other to undertake trade liberalization. r prickly trade relationship with Japan over the past ten to fifteen years arises from our perceptions --sometimes accurate and sometimes not --that Japanese customs and trade practices (as opposed to governmental laws which can be more easily negotiated) make imported goods less saleable in Japanese markets and thereby worsen the terms on which we trade with them.

Other benefits from International Trade

There are indirect benefits from the liberalization of international trade which, in the long run are probably equally or more important than the expanded scope of specialization.

First ,an open world trading system vastly expands the degree of competition among industries and firms, and there is nothing like vigorous competition to promote efficiency and spur innovation, both of which bring major benefits to consumers.

- e.g. American automobiles

We get other economic gains from removing the barriers to the free flow of investment across national borders. That helps raise living standards because it accelerates the speed with which new inventions, new technologies and managerial techniques diffuse throughout the world. Living standards are again increased.

Transition Costs

While specialization, technological advance, and the free flow of trade, at

home and internationally, raise American living standards, those gains come at a cost. Changes in technology and trade can cause painful job losses and transition adjustments for firms, workers, and communities that are specialists in "losing" firms or industries.

The economic adjustments that stem from domestic events like changes in technology and in consumer prefemces and from the competitive jostling among American firms, are far larger than the adjustments coming from international trade. But whatever their cause -- domestic or international -- the existence of such transition costs raises difficult issues for national policy: how do we reduce the pains of economic change without stifling incentives and initiative? Providing a decent safety net for American workers is the right direction to go. Attempts to minimize transition costs by putting roadblocks in the way of either technological advance or international trade, however, are virtually guaranteed to undermine American living standards. And that conclusion that is reinforced by looking at the long history of how political pressures from special interest groups tend to dominate such efforts.

"American Competitiveness" -- A Phrase in Search of a Meaning

Over the past ten years, promoting American "competitiveness" has become a buzzword, and a wide range of policies both good and bad are peddled as ways to improve it. The term has real meaning when applied to Apple vs. IBM, GM vs. Ford and Chrysler, or American Express vs. Visa and Mastercard. But the term makes little sense when applied to the economic relationships among countries. GM, Ford and Chrysler are indeed struggling over market share, and to an important extent the more one succeeds the greater the harm to the others. The successful development of an attractive new model by one company, for example, can seriously depress the income of the other two. But the auto companies are not engaged in trading a wide range of goods and services with each other; indeed the three companies do not even buy and sell auto parts and components among themselves. They are almost purely rivals. But the whole point of international trade among nations is the purchase and sale of goods from and to each other.

What is good for one country need not at all be bad for the others; indeed the opposite is much more likely to be the case. The United States almost always gains when the productivity (and therefore the real incomes) of its trading partners rises; the markets for American exports expand and we can sell them on better terms. In the long runm we are also likely to gain when one of our trading partners designs and successfully markets some new and improved product, even though that may sometimes come at the expense of the markets of an American firm.

Overwhelmingly, our living standards depend upon our own productivity. Higher productivity in the 88 percent of American output sold domestically benefits us directly by giving us more goods and services to enjoy per hour of our labor we put in. Higher productivity in the 12 percent of our production that we export benefits us indirectly, because for each hour of work we can buy more imported products. And expansion of the scope of international trade can help improve our overall productivity through the benefits of specialization. In theory our living standards can also be affected by any developments that raise the prices that we can get for our exports or or lower those we have to pay for imports. ports. In actual fact, over the long run such changes in America's "terms-of-trade" have historically proved to be a very minor factor in determining American living standards.

Macro-economic Developments, Not Trade Policies or Practices, Determine a Country's Trade Balance

By far the most counter-intuitive proposition put forth by economists is that the existence and size of a country's trade deficit or surplus is determined not by its trade policies and practices (or those of its trading partners), but by macro-economic conditions within its own economy, specifically by the difference between what the country saves and what it wants to invest domestically.

By definition, a country's output is equal to its income. Its total saving is simply that part of its output (and income) that it does not consume publicly and privately. That part of our national production that we refrain from consuming, can be devoted to two purposes: First, it can be invested domestically in the

form of new housing or new business plants and equipment. If a country invests at home exactly what it saves, then the sum of its spending on consumption and domestic investment will exactly equal its output. End of story. But suppose, as has been true of Japan for many years, that a country refrains from consuming -- that is, saves -- more of its output and income than it wants to invest at home. It will, therefore, be producing more than it purchases at home for purposes of consumption and domestic investment. Necessarily this means that the country will export more than it imports; it will run a trade surplus.* In the process it will acquire foreign currency from other countries in excess of what it needs to pay for its imports. That excess will be invested in foreign stocks and bonds or directly in the equity of the companies it owns abroad. In short, a country which saves more than it wants to invest at home will wind up running a trade surplus, thereby investing the "excess" savings in foreign assets. Foreign investment is thus the second use to which a nation's saving can be devoted.

By the same token, a country which invests domestically more than it saves (e.g. the United States over the past fifteen years) will be spending more on the sum of consumption and domestic investment than it produces. It can do so only by importing the difference; its imports will exceed its exports; it will necessarily run a trade deficit. In the process, it finances the deficit by borrowing from abroad.[2] America's $150 billion dollar deficit in its current international accounts (2 percent of our GDP) is a mirror image of the fact that our country's national saving is so low compared to our domestic investment opportunities.

In sum, a country's saving (the excess of its production over its public and

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'You may ask why the excess production doesn't simply go into unsold inventories; why does it have to flow abroad. The reason is that inventory accumulation is counted as part of domestic investment. Hence, when we say that consumption plus domestic investment exceeds production we have already included any inventory buildup in investment.

[2]Actually, a country can raise the funds to finance its trade deficit not only by issuing debt to foreigners but also by other forms of finance: issuing stock to foreigners or having foreigners re-invest in the United States the earnings in the enterprises they own here. But one way or the other, running a trade deficit means that the U.S. is obligating itself to pay interest, dividends, or profits to foreigners in return for getting the foreign currency we need to finance that deficit.

private consumption) will be used for some combination of two purposes: domestic investment or investment abroad, which takes the form of a trade surplus. Investment abroad can be negative, however, when a country invests more at home than it saves, runs a trade deficit, and finances that deficit by borrowing from foreigners.

It is thus the excess (or deficiency) of a country's saving relative to its domestic investment, not its trade policies or practices; that determines the overall size of its trade surplus (deficit). The details and specific of trade policies and negotiations can powerfully affect the composition of a country's exports and imports; and they can affect the size of its international trade flows -- achieve an increase or decrease in both exports and imports; but they can't substantially affect the size of its overall trade balance.

In a world of relatively open capital markets exists a powerful set of mechanisms which operate to enforce the proposition outlined above -- namely, that a country's trade deficit or surplus is determined by the balance between its saving and domestic investment. Those same mechanisms also operate to produce the result that changes in a country's trade policies won't affect its trade balance. Let's look at an example.

Imagine that pressure from the United States and other countries, or domestic political developments in Japan, were successful in altering the web of mainly private practices that tend to discourage imports of manufactured products into Japan. But also assume there is no change in the excess of national saving relative to domestic investment opportunities that characterizes Japan. With import liberalization there would arise an initial tendency for imports to expand and the Japanese export surplus to shrink. With their exports to Japan expanded, foreigners would need to borrow fewer Japanese yen to finance their shrinking trade deficits with Japan; there would be fewer dollars, German marks, and British pounds seeking Japanese yen. But Japanese banks and other financial institution would still have the same old excess of savings trying to find foreign loans and bonds in which to invest. The demand by the Japanese for dollars,

marks, and other currencies would quickly begin to exceed the supply of those currencies seeking to be exchanged into yen. The price of those foreign currencies would be bid up in terms of yen; the yen would fall in value.[3]

With a lower value of the yen, imports into Japan would become more expensive and the cost of Japanese exports to other countries would fall. The initial rise in imports into Japan would be attenuated (but not reversed) and Japanese exports would rise. This process would continue until the old value of the Japanese trade surplus was re-established. At that point the continuing "excess" of Japanese savings that was seeking investment outlets abroad would again be matched by a demand for yen on the part of foreign countries to finance their own import surplus from Japan. The result of this process would be: (1) a lower value for the Japanese yen; (2) higher Japanese exports; (3) higher Japanese imports; and (4) an unchanged overall Japanese trade surplus (although some rearrangement in bilateral surpluses with Japan's different trading partners might emerge).

The change in Japanese trade and other practices influencing imports would not have altered the overall Japanese trade balance. But Japan would have more of both exports and imports. Trade liberalization would have made Japan and its trading partners better off. Both Japan and other countries would become more specialized in doing what each does best. Average productivity in Japan and in other countries would probably rise a little because of the increased specialization. Japanese consumers would be better off, enjoying improved access to goods that, in terms of quality and price, were better than could be had from Japanese producers. And consumers in the rest of the world could enjoy additional high-quality goods at lower prices from Japan. On average, the citizens of all countries would be better off. But so long as the Japanese continued to save more than they wanted to invest in Japan itself to the same extent as before, the Japanese trade surplus would not shrink.

'Since participants in financial markets around the world understand how these events would unfold, the value of the yen ought to change very quickly, as soon as financial markets became convinced that the changes in Japanese practices and policies were indeed going to occur.

Tongue-in-cheek, but nevertheless accurately, one can say that the problem with the Japanese economy is that it doesn't export enough, despite a long history of policies and attitudes that tended to concentrate effort and resources into favored export industries! If Japan "fixed" its customs and policies that still tend to depress imports it would end up increasing its exports as well as its imports.[4] This example tells us three things: (1) It illustrates why a liberalization of trade policies and practices can't change a country's overall trade balance. (2) It shows that trade liberalization can nevertheless improve standards of living in the affected countries. And finally, (3) it illustrates that national living standards can be improved by policies which deliberately set out to expand imports. The fact that trade negotiations can't do for the United States what their proponents often claim -- reduce the American trade deficit -- does not mean they have no value.

Should we worry about the size of the trade deficit?

The United States trade deficit is not so much a problem itself as it is a symptom of a deeper problem. As we just explained, the U.S. trade deficit mirrors the deficiency of U.S. saving relative to domestic investment. The trade deficit that arose in the 1980's did not come about because investment boomed, but because we began consuming a larger fraction of our income and saved less.. In the three decades before 1980 net national saving was relatively steady at 8 percent of national income. By the early 1990's it had fallen to 3 percent. Lately it has recovered a little bit. Part of the decline was due to a decrease in the private saving rate, and part to the rise in the budget deficit. There were two consequences: a fall in domestic investment and the creation of a large trade deficit. Both consequences are bad for U.S. future living standards. Lower domestic investment reduces the growth in American productivity, income, and

[4] Indeed, in 1994 the U.S. exported a slightly higher fraction of its GDP than did Japan (11.2 vs. 10.9 percent) despite the fact that Japan has to earn foreign currency to buy abroad a much higher fraction of its raw material needs than does the U.S. Ironically, the Japanese policies and practices that concentrated resources into favored export industries were counteracted by the effects on the value of the yen of another set of policies and practices which depressed imports.

real wages. And the trade deficit has to be financed by borrowing from abroad; out of the slower growth of income we will have to pay an increased flow of interest and dividends to foreign holders of American financial assets. Given the decline in American saving, it is probably better that some of it resulted in a trade deficit, rather than having all of it be matched by a decline in domestic investment. All in all, whether the trade deficit is "bad" is not a particularly good question. What we need to ask is whether or not we like the changes in domestic saving and investment which created the trade deficit.

Trade Policies Don't Create Jobs

Proponents of liberalized trade often try to sell it with arguments that it will create jobs. Opponents counter with the charge that "cheap foreign imports" will destroy American jobs. The debate over NAFTA was replete with studies and counter-studies about how many American jobs would be created or lost. But the essential fact about international trade in general and exports in particular is that it changes the composition, not the total number, of jobs in the economy.

The specific provisions of trade policies can of course affect the fortunes, and the employment, of individual industries. And, as we just saw, trade liberalizations will tend to increase both exports and imports by the same amount without changing the balance between them. Even more importantly, the Federal Reserve runs monetary policy based on a set of objectives about unemployment and inflation. Developments that tend to raise unemployment above levels consistent with the Fed's objectives -- whether those developments come from the 12 percent of the economy engaged in international trade or the 88 percent devoted to satisfying domestic demand -- will be countered by changes in monetary policy seeking to bring the economy back to the overall employment and inflation goals sought by the Fed. The Fed's efforts won't be perfectly on target from quarter to quarter, and it may either over- or undershoot a little bit. For all practical purposes, then, the best answer to the question about how many jobs this or that trade initiative will create or destroy is "none".

The Costs of Trade Expansion

As I pointed out early in this paper, the benefits of expanded trade do not come without transition costs, which for some workers and communities can be substantial. In recent years the nature of technological progress has strongly favored workers with good education, skills, and abilities relative to those less well-endowed. In the United States expansion of international trade has also favored and depressed the fortunes of the same groups -- although the bulk of the research on the subject gives trade a distinctly subordinate role in this process relative to the effects of technological progress. The adjustment costs of trade expansion are substantial for many of those affected. To the extent that sensible adjustment policies can be designed that do not strongly penalize economic incentives, the vast majority of Americans who gain from trade ought to be willing to finance the costs of easing the pains of the minority who suffer transition losses. That principle, however, ought to be applied not just to the 10 or 20 percent of the adjustment problems which come from trade liberalaization, but.also to the 80 or 90 percent of the transition pronblems stemming from technolical advances and other economic developments.