

THE BENEFITS OF THE DOLLAR'S DECLINE

Maintaining an overvalued dollar means missed opportunity for U.S. economy and manufacturing

by Josh Bivens

The value of the U.S. dollar as of July 1, 2003 had fallen by 9.1% since its peak in February 2002.¹ The benefits of the falling dollar vastly outweigh the costs for the U.S. economy. The primary costs of the falling dollar are higher prices for imported goods and for American tourists traveling abroad. The primary benefit is increased price competitiveness of U.S. products, both for exports abroad as well as in the domestic market. The United States currently has an enormous trade deficit (importing more than it exports), which represents a significant drag on efforts to spur economic growth and create jobs, and has led to an accumulation of foreign debt that will have to be repaid in the future. Given this trade deficit, the benefits of greater international competitiveness prompted by the falling dollar greatly outweigh the costs.

This dollar decline has come largely in spite of the Bush Administration's stance in favor of a "strong dollar." The "strong dollar policy" (pursued by both the Clinton and Bush Administrations) has been deeply damaging to the U.S. economy, leading to significant job loss in the manufacturing sector and the accumulation of historically large trade deficits. This overvalued dollar policy should be reversed, and a larger (although orderly) decline in the dollar should be encouraged instead. In the long term, U.S. exchange rate policy should aim to avoid large trade deficits. This could be accomplished through international policy coordination that allows exchange rates to float within a flexible band, but prevents them from getting so overvalued that they generate large trade deficits.²

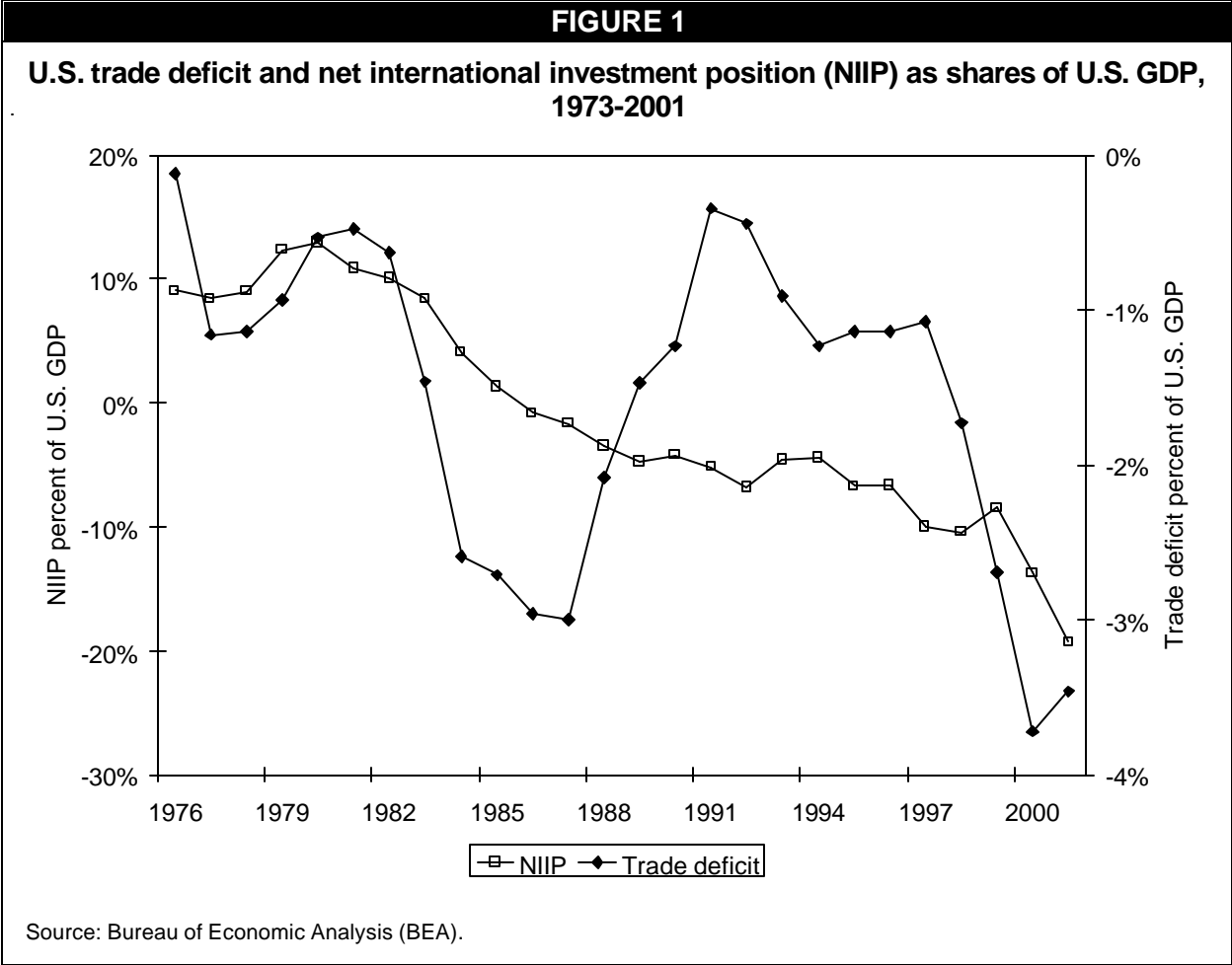
In recent weeks, the dollar has again risen against the euro. If the dollar is allowed to rise from its current value, this will be a squandered opportunity to generate growth and employment in the United States, especially in the manufacturing sector. If the recent fall in the value of the dollar is sustained, the U.S. economy will be effected in the following ways:

- Absent a reversal, the dollar's fall over the past 15 months is projected to add, all else equal, between \$98 billion and \$159 billion to U.S. gross domestic product across the next four to six quarters, owing to the increased competitiveness of net exports from the United States. This GDP growth should translate into job growth of between 333,000 and 530,000, concentrated in the manufacturing sector.
- This increase in U.S. GDP will come at the expense of several of its main trading partners, as demand for U.S. products made more competitive by the lower dollar will crowd out demand for foreign products. The pattern of this reallocation of demand is quite uneven; Canada and the euro area will see large reductions in demand for their exports, while China, Taiwan, and Malaysia will see no reduction (and maybe even a slight increase) in demand for their exports.
- Even the \$98 to \$159 billion improvement in the U.S. trade deficit is not enough for long-term sustainability; this represents only about 20% to 30% of the current trade deficit. Long-term sustainability requires not only that the dollar continue to fall, but that it fall against a broader range of currencies (especially the Chinese yuan) that are deliberately pegged at a competitive value versus the dollar. Current U.S. law requires the U.S. Treasury Department to act to keep other nations from manipulating their currencies for competitive advantage.

Background

The U.S. trade deficit is the difference between its exports and imports. In 2002, this deficit reached \$488 billion, meaning that the United States imported (consumed) \$488 billion more than it exported (produced). This represents almost 5% of total U.S. GDP. Like a household that consumes more than it earns, a nation can only continue to outspend what it produces by borrowing money. For a nation, this borrowing comes largely from foreign investors. U.S. borrowing from abroad has swelled in the years coinciding with the overvalued dollar.

The most common metric measuring this accumulated stock of foreign borrowing by the United States is known as its net international investment position (NIIP). This measure has risen from zero to over 20% of total GDP in the past 10 years. The increase has been especially rapid in the past five years because the NIIP has risen from 5% to 20% of GDP during this time. This spiraling debt increase cannot be sustained; eventually investors will doubt the ability of the United States to pay back these loans and will withdraw their capital to look for safer investments elsewhere. This process of investors selling U.S. assets may have already begun, as the dollar's value has declined significantly in the past year.



While this will probably not lead to a full-blown financial crisis like the one that has gripped Argentina for the past two years (where the nation’s GDP shrank almost 11% in 2002) the mounting debt implies a steady drain on the American economy as resources are devoted to paying interest on it. A conservative measure of this debt service burden predicts that, absent improvement in the trade balance, almost 2% of GDP annually will be devoted to foreign debt service.³ To understand the magnitude of this debt, this much GDP devoted to servicing foreign debt amounts to about 10 times what the federal government spent on primary and secondary education in 2000.

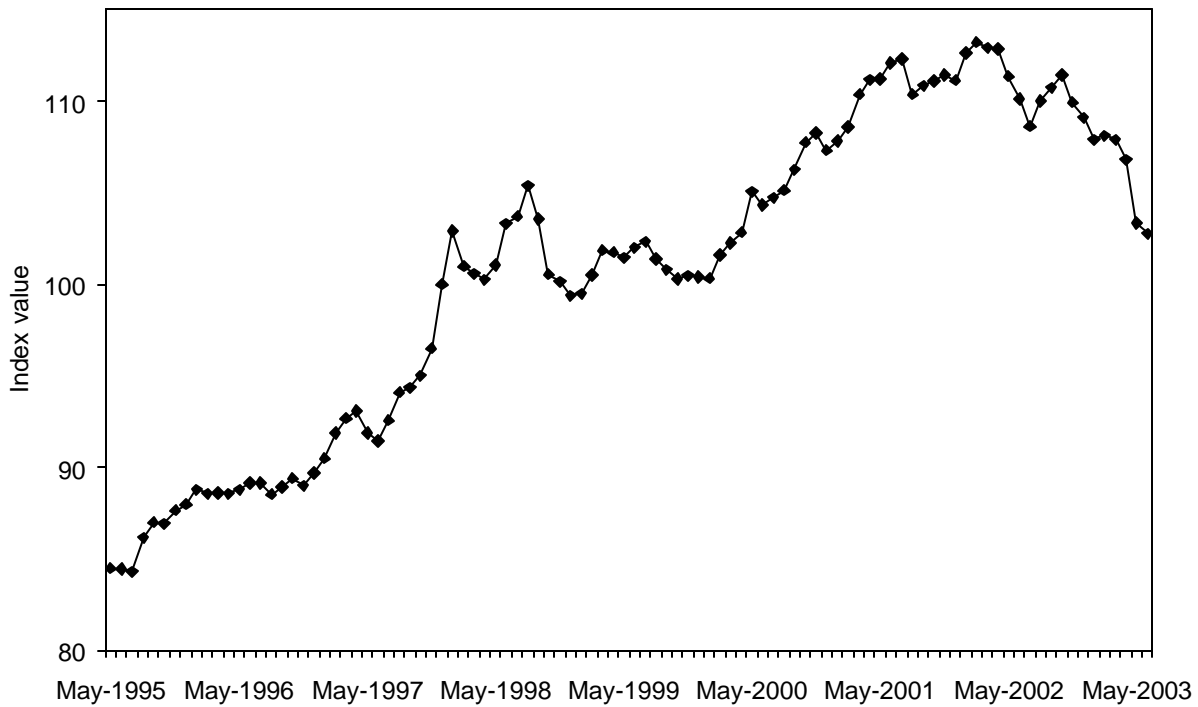
Exchange rates

There are many different measures of the dollar exchange rate. This fact has led to some confusion about the true magnitude of the dollar’s decline over the past 12 to 15 months.

The dollar trades on a bilateral basis with many different nations. Many of the news reports highlighting the declining dollar have focused on the bilateral dollar/euro exchange rate. While important, this only captures a small part of the total story because trade with euro area countries represents only about one-fifth of total U.S. trade. Further, most reports of bilateral exchange rates

FIGURE 2

Index of real, broad, trade-weighted dollar index (March 1973 = 100)



Source: Federal Reserve.

do not take into account differences in inflation between the two regions. This omission means such reports are only reporting the *nominal*, not the *real* (inflation-adjusted) rate. The difference between nominal and real can have potentially large effects. If, for example, the nominal U.S./euro exchange rate is constant but prices in the United States rise faster than in the euro countries, then the purchasing power of the euro is being eroded vis-à-vis the United States, leading to an appreciating value of the dollar even as nominal rates remain unchanged.

The most appropriate single measure of the dollar's value is the real, broad, trade-weighted index compiled by the Federal Reserve. This measure tracks the dollar's value against a large basket of world currencies and adjusts for the impacts of inflation. Since it weights currency changes by a country's share of current U.S. trade, it is not prone to overestimating the impact of large movements in any one single currency. Because it adjusts for inflation, it avoids the problems posed by just looking at nominal changes. This more comprehensive measure of the dollar's value declined by 9.1% from its peak in February 2002 to July 2003.

This is not a trivial change. The last time the index declined by this much over the preceding 15-month period was in December 1988. The most recent decline should lead to a significant short-term boost for the U.S. economy by making U.S. products more cost competitive in world

markets. Absent any reversal, last year's fall in the dollar should lead to a \$95 billion to \$137 billion increase to U.S. GDP across the next six quarters.⁴

A rule of thumb in economics, known as Okun's Law, states that a 1% increase in GDP leads to a 0.4% increase in employment. This implies that between 416,000 and 676,000 jobs could be created by the GDP boost resulting from the falling dollar. However, since many of the jobs created will be in the high-paying manufacturing sector, Okun's Law likely overestimates the number of jobs created. As described below, the employment impact of the falling dollar should range from 330,000 to 530,000 new jobs.

Projected income and job growth by industry

The benefits of the lower value of the dollar will be felt predominantly in the manufacturing sector, as it accounts for more than 80% of traded goods in the United States. This means that the positive effects of the falling dollar are concentrated in the sector that has suffered most in the recent recession. The U.S. manufacturing sector has shed 2.1 million jobs since the onset of the recession in March 2001, accounting for nearly all job loss during this time.

Given that most of the dollar's fall has been against the currencies of the euro area and Canada, the manufacturing industries most affected by international competition from these areas should expect to reap the greatest benefits from the lower dollar. A crucial determinant of how fast employment in those industries will pick up is the level of inventory accumulation. If an industry has a large stock of inventory, it can meet increased demand by selling off accumulated backlog without ramping up employment. So, industries that are exposed to euro and Canadian competition and have relatively low inventory levels will see the greatest employment boost spurred by the falling dollar because demand for U.S. products will grow fastest in these areas.

Table 1 shows broad manufacturing industries ranked by their exposure to euro and Canadian trade, their current inventory measured as a percentage of annual sales, and the percentage change in this ratio over the past two years. The industries that provide the bulk of U.S. exports to the euro area and Canada are essentially the same: transportation equipment, computer and electrical products, chemicals, and industrial machinery (except electrical). These industries provide 70% and 60% of U.S. exports to the euro area and Canada, respectively, and should reap the largest gains from the falling dollar. It should also be noted that these industries represent the bulk of U.S. *imports* from these nations as well, so domestic suppliers would also be relieved of competitive pressure in the U.S. market as these currencies rise. Additionally, these sectors should see the greatest increase in prices resulting from the falling dollar, as foreign-made products become more expensive.

These same industries provide the bulk (68%) of U.S. exports to China and would enjoy an even greater resurgence if the Chinese currency rose against the dollar, as discussed in detail in the next section. (Note that for Canada, China, and the euro area, the transportation equipment industry has been broken down further into its two most important components, autos and aerospace.)

TABLE 1
Export and import shares and inventory levels and changes by manufacturing industry, 2002

Industry	I/S ratio 2002	Change I/S ratio	Share of exports	Share of imports
Euro area				
Transportation equipment	1.22	-11.0%	20.4%	21.4%
Computer and electrical products	1.46	0.0	20.4	9.5
Chemicals	1.52	4.0	17.6	20.9
Machinery, except electrical	1.69	-4.0	10.9	10.7
Miscellaneous manufacturing	1.88	0.0	5.3	4.5
Electrical equipment	1.51	1.5	2.9	2.6
Fabricated metal products	1.51	-3.9	2.3	2.6
Tobacco and beverage	1.84	17.0	0.7	2.6
Aerospace	3.64	1.9	14.0	6.3
Autos and parts	0.66	-0.9	5.7	15.4
Total			80.4	74.5
Canada				
Transportation equipment	1.22	-11.0%	30.0%	30.3%
Machinery, except electrical	1.69	-4.0	10.9	4.4
Chemicals	1.52	4.0	10.3	5.3
Computer and electrical products	1.46	0.0	9.1	4.1
Fabricated metal products	1.51	-3.9	4.7	2.3
Food	0.99	0.4	3.6	3.2
Plastic and rubber products	1.17	-3.9	3.6	2.6
Electrical equipment	1.51	1.5	3.4	1.8
Oil and gas		0.0	0.4	11.3
Paper	1.33	4.4	2.7	5.4
Primary metal	1.69		3.4	5.1
Wood products	1.17		0.9	4.7
Aerospace	3.64		2.1	3.2
Autos and parts	0.66		26.6	26.1
Total			83.1	80.5
China				
Computer and electrical products	1.46	0.0%	21.3%	26.6%
Miscellaneous manufacturing	1.88	0.0	0.9	16.4
Leather and allied products		0.0	0.4	10.4
Electrical equipment	1.51	1.5	2.5	8.4
Apparel and accessories		0.0	0.1	7.4
Furniture and fixtures		0.0	0.1	5.5
Machinery, except electrical	1.69	-4.0	13.7	4.5
Fabricated metal products	1.51	-3.9	1.8	3.9
Plastic and rubber products	1.17	-3.9	1.1	2.7
Transportation equipment	1.22	-11.0	18.9	1.8
Chemicals	1.52	4.0	14.3	1.7
Food	0.99	0.4	3.8	0.6
Paper	1.33	4.4	3.0	0.7
Aerospace	3.64	1.9	1.8	1.5
Autos and parts	0.66	-0.9	16.7	0.7
Total			81.9	90.6

Source: Census Bureau Foreign Trade Statistics and Bureau of Economic Analysis.

TABLE 2
Projected employment growth by industry

Industry	Employment high	Employment low
Transportation	166,159	114,694
Machinery, except electrical	67,303	40,306
Chemicals	58,711	36,425
Miscellaneous manufacturing	39,368	20,908
Fabricated metal	25,729	14,723
Computers and peripherals	22,178	12,800
Rubber and plastic	20,761	11,787
Electrical machinery	20,631	12,119
Primary metal	15,850	10,415
Apparel	15,477	9,392
Wood	13,786	9,833
Paper	13,232	8,350
Leather	11,444	4,126
Furniture	9,302	5,036
Nonmetallic mineral products	9,131	5,481
Textile and fabrics	8,645	4,882
Printing, publishing	7,706	4,335
Textile mill products	2,855	1,490
Beverages and tobacco	2,326	1,705
Petroleum and coal products	2,243	1,569
Total	532,839	330,376

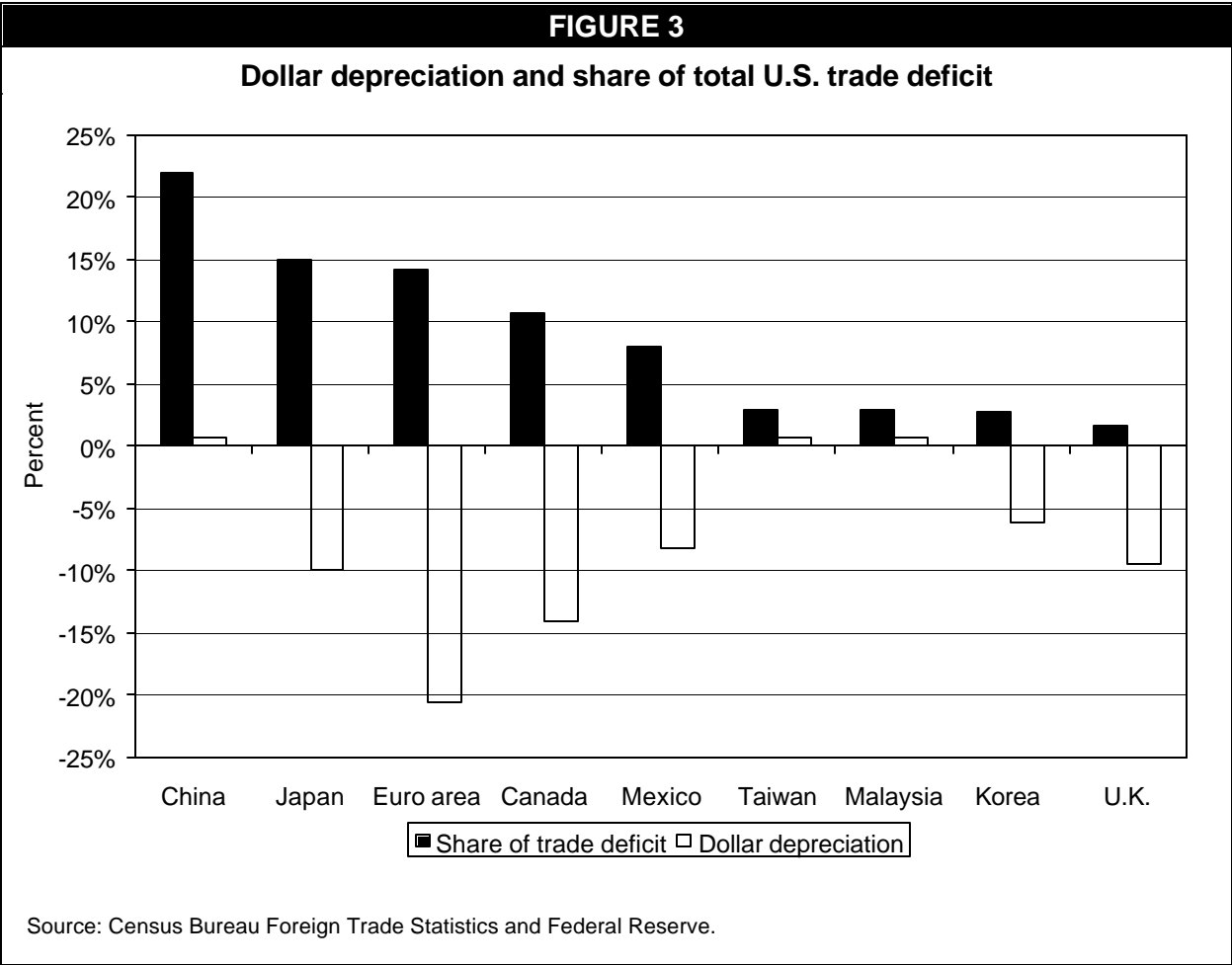
Source: Author's calculations.

In general, current inventory levels in most manufacturing industries are not out of line with recent historical averages (food and beverages seems to be an exception), as can be seen in the relatively small changes in inventory stocks that have occurred in the past two years. This is encouraging because it indicates that increases in demand for industry output will probably be translated relatively quickly into increases in output.

Therefore, absent a reversal, the falling dollar should spur employment growth in a range of manufacturing industries. **Table 2** shows projections of employment growth by major manufacturing sectors as a result of the falling dollar (the derivation of these projections is described in the technical appendix). The largest employment gains are projected to come in transportation equipment, machinery (except electrical), and chemicals.

International pattern of adjustment

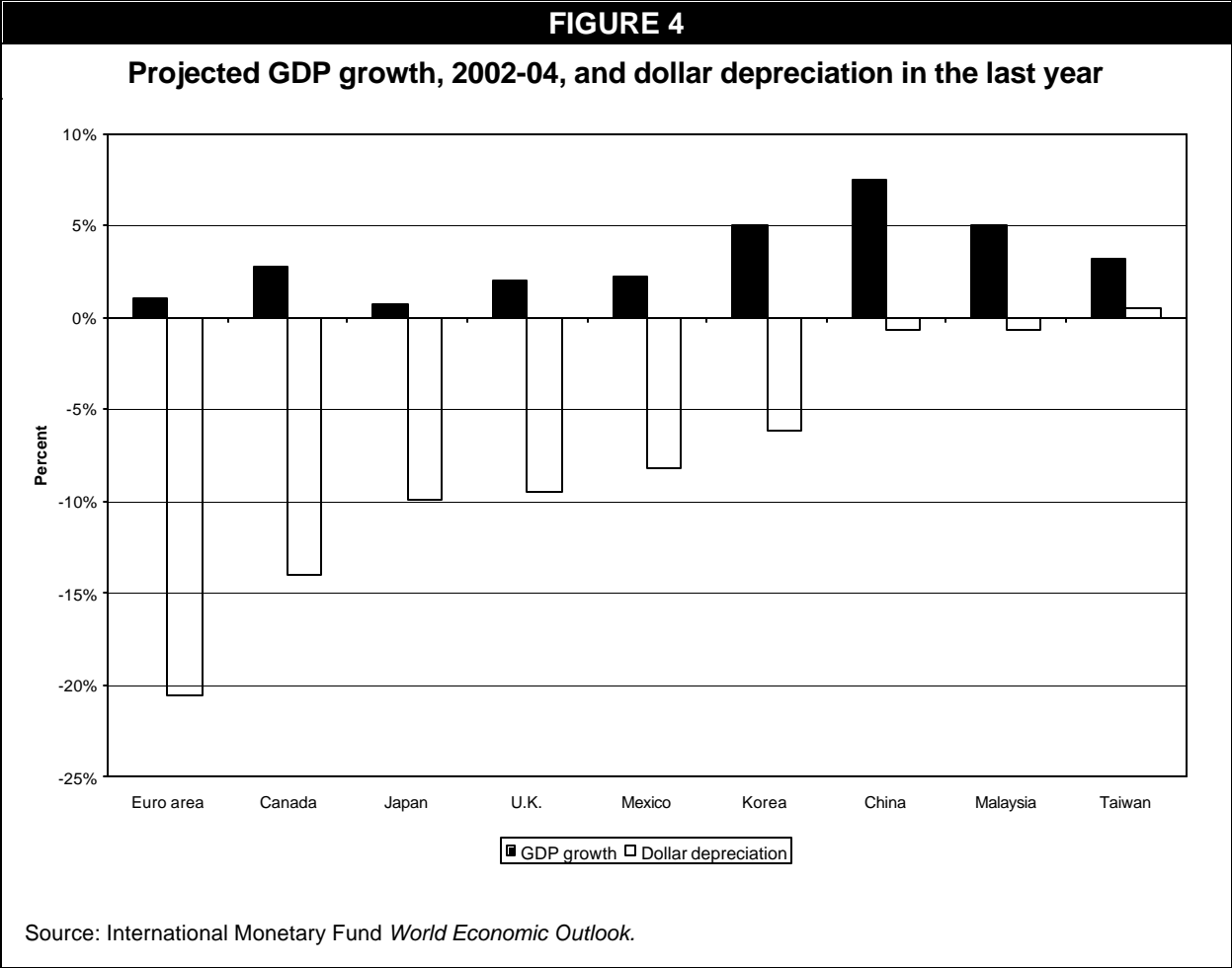
The boost in demand for U.S. goods will come at the expense of other nations' exports. The magnitude of this "crowding out" depends on the extent that the dollar has depreciated vis-à-vis each individual nation's currency.



To date, the euro and the Canadian dollar have seen the largest climb against the U.S. dollar. The euro has appreciated by over 20% against the U.S. dollar, while the Canadian currency has gained around 15% (adjusted for inflation). The Japanese yen and Mexican peso have appreciated by 12% and 9%, respectively.

The most notable feature in the pattern of currency appreciations is that China, the nation running the largest bilateral trade surplus (i.e., exporting to more than they import) with the United States, has seen no appreciation. The Chinese government actively pegs the value of the Chinese yuan at a predetermined level to make Chinese products more competitive against U.S. goods. Two other nations, Malaysia and Taiwan, also actively set their currencies to the U.S. dollar, allowing almost no movement in their value.

This pattern of currency changes implies that none of the increase in U.S. GDP in the short term will come at the expense of China, Malaysia, or Taiwan. Rather, the bulk of the adjustment to the lower value of the dollar will be borne by the euro area, Canada, Mexico, and Japan. Thus, the bilateral depreciation of the dollar to date has not been in proportion to the U.S. bilateral trade deficit. This pattern is shown in **Figure 3**.



This is a far from optimal pattern of adjustment. The euro area is one of the slowest growing economic areas in the world, yet it will bear much of the burden of relieving the pressure of U.S. trade deficits. This will deprive the euro area of demand for domestic products at a time when such demand is necessary to forestall a full-blown recession. China, Malaysia, and Taiwan, on the other hand, are three of the fastest growing economic areas in the world; however, none of these nations will bear any burden of reconciling the U.S. trade deficit, although they could easily afford it. Their rapid domestic growth means that they have demand to spare, and should be expected to absorb some U.S. exports in the effort to unwind the U.S. trade deficit. By refusing to allow their currencies to adjust, China, Malaysia, and Taiwan are able to shift the burden of adjustment to slower-growth economies. **Figure 4** shows projected GDP growth and the extent of dollar depreciation for this group of countries.

These three nations together represent about 30% of the entire U.S. trade deficit, with China alone accounting for 22%. It is therefore imperative that these currencies be adjusted to contribute some portion to the unwinding of the U.S. trade deficit. Clearly, each of these nations manipulates its currency to keep it from rising against the U.S. dollar. Evidence of this can be seen in the

combination of two factors: the currency does not budge against the value of the U.S. dollar over time, and each nation has accumulated reserves of U.S. currency at a rapid rate in the last seven years, as shown by Blecker (2003). These nations buy dollars on world currency markets whenever the value of their own currency threatens to rise, and this props up the dollar's price relative to their own currency.

This government intervention in the currency markets keeps exchange rates from moving to equalize trade between the United States and these nations. In the case of China, U.S. imports from China are seven times the magnitude of exports to China.

The need for a deeper and broader fall in the dollar

The projected improvement in the trade deficit resulting from the dollar's fall to date is not trivial: it equals about 45% to 75% of the stimulus afforded by the most recent tax cuts over the next two years.⁵ Further, given the unfavorable composition of these tax cuts for economic stimulus (skewed toward the wealthy, who tend to save, not spend marginal income gains) the decline in the value of the dollar will likely have an effect on economic growth in this period comparable to the tax cut.

However, this level of dollar depreciation will still leave the United States with a historically high trade deficit that needs further reduction to stabilize the accumulation of foreign debt. Even the high-end estimates of net export growth imply that the trade deficit will be reduced by less than one-third of its current value. It is crucial that the value of the dollar falls against the currencies of China, Taiwan, and Malaysia, as well as the other nations against which it has already lost value, in order to ensure long-term sustainability of the U.S. foreign trade position.

This fall can only happen if China, Malaysia, and Taiwan realign their currencies and stop manipulating value to keep their exports cheap. This currency manipulation harms manufacturing employment in the United States because products in industries where the United States should be expected to have a comparative advantage are rendered uncompetitive by exchange rates.

This manipulation also imposes substantial costs on citizens of each nation. It means that a nation's consumers have their purchasing power curtailed relative to their productive capacity. The U.S. trade deficit indicates that the United States is consuming more than it produces, which provides short-term benefits but cannot be sustained in the long run. The Chinese trade surplus, for example, shows that, as a nation, China is consuming less than it produces, meaning that Chinese workers are not enjoying the full fruits of their productivity.

It could be argued that by consuming less than they are producing, Chinese citizens are saving money that can be put to use in productive investment. While this could be true, the accumulation of enormous dollar reserves directly works *against* the broad goal of increasing investment. Holding dollar reserves is far from costless. In fact, the opportunity cost of holding international reserves is the marginal product of capital in China. Put more simply, the accumulation of enormous international reserves of dollars means that this money is sitting unproductive, earning miniscule rates of interest. The cost of this arrangement is all the investment projects that are unfunded due to the lack of capital that, absent the accumulation of reserves, would have been

forthcoming. This is potentially an enormous cost. A conservative estimate of the marginal productivity of human and physical capital in the United States is 8%.⁶ Reserve holdings typically earn a return of between 1% and 2%, as they are generally held in the form of short-term bonds. This means that the opportunity costs of holding international reserves for China can be conservatively estimated at 6% to 7% annually. This is an extremely conservative estimate, as it is generally assumed that the returns to capital investment in developing nations are much higher than in advanced countries.

China's stockpile of international reserves were about \$210 billion higher in 2002 than in 1995, when the nation still ran a substantial trade surplus with the United States. The opportunity costs of these additional reserves consequently total between \$12.6 to \$14.7 billion annually.⁷ Taiwan and Malaysia saw an increase in reserve holdings of 125% and 212% in the 1995-2001 period, respectively.

Winding down these reserves and ending the competitive pegging of these currencies to the dollar would benefit all nations.

What can be done?

The experience of the United States during the 1990s shows the problem of adhering to a "strong dollar" policy, and in allowing the dollar to become so overvalued. The Treasury Departments under both the Clinton and Bush Administrations adhered to a policy of ignoring the risks of a rising dollar and publicly praising its benefits, while making no attempt to coordinate exchange rate policies with major U.S. trading partners. While the overvalued dollar policy provided some benefits in terms of lower prices for foreign imports in the U.S. markets and American tourists traveling overseas, these benefits were undermined by the damage done to U.S. manufacturing and the accumulation of foreign debt resulting from trade deficits.

There are short-term and long-term remedies to the problems posed by the U.S. trade deficit that resulted from the overvalued dollar policy. In the short term, the U.S. dollar must fall against a broader range of currencies, especially those that are currently pegged to the dollar (China, Malaysia, and Taiwan). In the long term, the United States should adopt exchange rate policies that keep large trade deficits from recurring.

Current U.S. law contains a remedy for the currency manipulation that has kept the dollar from falling against some of the nation's most important trading partners. Under the auspices of the 1988 Omnibus Trade and Competitiveness Act, the Treasury Department is bound to submit a biannual review of international economic and exchange rate policy to the U.S. Congress. In it, the Treasury Department is required to investigate whether U.S. trading partners manipulate their currencies for competitive advantage.

If a country is found to have done so, the Treasury Secretary is bound to enter into negotiations with that country if it has "material global current account surpluses and significant bilateral trade surpluses with the United States" to arrange for a more even currency playing field.

The Chinese aggregate current account surplus has averaged slightly less than 2% of its GDP between 2001 and 2003 (projected). That its bilateral trade surplus with the United States is

“significant” seems beyond dispute. Yet, the most recent report of the Treasury Department to Congress in May 2003 found “no evidence” that “any trading partner” of the United States had engaged in currency manipulation. Given the constant exchange rates and rapidly multiplying international reserve holdings of China since 1995, this finding is hard to believe.

Taiwan and Malaysia ran global current surpluses of 9.1% and 7.7% of GDP in 2002. Both of these nations accounted for 3% of the total bilateral U.S. trade deficit in 2002 and have exhibited the same pattern as China of perfectly stable exchange rates and rapidly multiplying reserve holdings across the past five years.

A dollar-value appreciation of the economies of China, Malaysia, and Taiwan would help the United States unwind from its unsustainable trade deficit and ensure that the recessionary economies of the euro area do not bear a disproportionate burden of this adjustment. Further, the appreciation would increase purchasing power for consumers within these nations, and the enormous accumulation of dollar reserves there could be put to more productive use.

In the long term, international economic coordination is needed to forestall a recurrence of large U.S. trade deficits. The current value of the dollar is unsustainable for the United States because of accumulating foreign debt; in addition, a high dollar value is destabilizing for the world economy because any attempts to reduce it will harm growth prospects for U.S. trading partners. The last time the major economic nations entered a recession in tandem was the early 1990s. The drivers of that recovery were strong growth in the United States combined with rising trade deficits that exported aggregate demand to the euro area and kept Japan afloat. This cannot be the solution for the current economic slowdown. The United States cannot run a larger trade deficit; therefore, it cannot export any further aggregate demand abroad even if its domestic economy recovers. For a range of reasons, in fact, the United States is now dependent on the rest of the world to help it out of its own economic doldrums. The burden for U.S. economic relief should be spread more equally than it is at the moment.

Once the current high deficit is unwound, international coordination should aim to keep it from rising to destructive levels again. There are several proposals that could achieve this goal.⁸ All of them involve some sort of international coordination to manage the value of exchange rates within a reasonably flexible band, as in the European Monetary System (EMS), which was the precursor to the European Monetary Union. Relying solely on international currency markets to set exchange rates can have adverse consequences. It is now generally acknowledged that these markets are prone to irrational speculation and destructive herd behavior that is unaffected by economic fundamentals. International coordination can provide reasonable flexibility while avoiding the enormous overvaluations that are so damaging.

International currency markets have begun the process of realigning the value of the dollar to more reasonable, sustainable levels. Economic policy makers should encourage this process by putting systems into place that ensure that trade deficits do not balloon to such destructive levels again.

July 23, 2003

Technical appendix

The projections in Figure 3 of import and export growth by various countries are derived from calculations of import and export growth over the next four to six quarters. Import growth depends on the relative price of foreign goods (which is crucially affected by the exchange rate) and income growth in the United States. As incomes rise, demand for goods of all types, including imports, also rises. Export growth depends on the relative price of U.S. goods (also affected by the exchange rate) and income growth abroad. Fast growth abroad implies the demand for U.S. exports will rise.

Four crucial parameters are needed to project import and export growth for the U.S. economy: the exchange rate elasticity of imports, the exchange rate elasticity of exports, the income elasticity of imports, and the income elasticity of exports.

The exchange rate elasticity of imports measures how strongly imports grow in response to a change in the exchange rate. The technical definition is the absolute value of the percentage change in imports divided by the percentage change in the exchange rate. If, for example, a 1% decline in the value of the dollar leads to a 2% increase in imports, this implies that the exchange rate elasticity of imports is 2.

The income elasticity of imports measures how strongly imports grow in response to a change in domestic income. The technical definition is the absolute value of the percentage change in imports divided by the percentage change in U.S. GDP. If, for example, a 1% increase in the U.S. GDP leads to a 2% increase in imports, this implies that the income elasticity of imports is 2.

The values for income elasticities were taken from a survey of the relevant literature by economist Robert Blecker (1995). The average elasticities of six different studies were used: 1.65 for imports and 2.1 for exports. For exchange rate elasticities, two different scenarios were examined, based on the wide variance of these parameters in the extant literature.⁹ The high estimate of exchange rate changes on imports and exports assumed an elasticity of 1, while the low estimate assumes a value of 0.6. These values seem to bracket the consensus estimates of this parameter in the empirical studies.

To get an estimate of import and export growth in the United States, it is necessary to have information on current imports and exports, the projected growth rate of U.S. GDP, the projected growth rates of U.S. trading partners, and changes in the U.S. exchange rate. Data on projected growth rates of the U.S. and its trading partners was obtained from the International Monetary Fund (IMF) *World Economic Outlook* (2003). Data on exchange rate changes were collected from the Federal Reserve. The exchange rate data were adjusted for inflation to get real exchange rate changes.

Formally, the import and export demand functions can be written:

$$(1) M = R^{-a} Y_h^b$$

$$(2) X = R^g Y_f^d$$

Where M is imports, X is exports, R is the real exchange rate, Y is income, the subscripts h and f refer to home and foreign, respectively, and the parameters a, g, b, d refer to the exchange rate elasticity of imports and exports and the income elasticity of imports and exports, respectively.

Growth in imports and exports can be expressed:

$$(3) \hat{M} = -a\hat{R} + b\hat{Y}_h$$

$$(4) \hat{X} = g\hat{R} + d\hat{Y}_f$$

Where a “hat” over a variable represents the range of change.

Table A1 represents the projected changes in imports and exports between the United States and a group of its major trading partners resulting *only from the decline in the dollar*. This group comprises over 80% of both imports and exports for the United States. Estimates for import and export demand growth that take into account

TABLE A1
Projected bilateral import and export growth
(millions of dollars)

	Imports	Current exports	Balance	Imports	Projected exports	Balance	Adjustment
Low							
Canada	\$193,945	\$148,664	-\$45,281	\$176,795	\$161,810	-\$14,984	\$30,297
China	\$121,038	\$19,955	-\$101,083	\$121,040	\$19,955	-\$101,085	-\$2
Euro area	\$160,816	\$97,105	-\$63,711	\$140,301	\$109,493	-\$30,808	\$32,903
Japan	\$113,082	\$47,328	-\$65,754	\$105,859	\$50,351	-\$55,508	\$10,246
Korea	\$33,634	\$20,519	-\$13,115	\$32,246	\$21,365	-\$10,881	\$2,234
Malaysia	\$22,764	\$9,616	-\$13,148	\$22,764	\$9,616	-\$13,148	\$0
Mexico	\$125,886	\$90,139	-\$35,747	\$119,179	\$94,942	-\$24,237	\$11,510
Taiwan	\$30,651	\$16,951	-\$13,700	\$30,630	\$16,963	-\$13,667	\$33
U.K.	\$38,377	\$30,714	-\$7,663	\$36,029	\$32,593	-\$3,436	\$4,227
Total	\$857,546	\$490,841	-\$366,705	\$784,843	\$517,089	-\$267,754	\$98,951
High							
Canada	\$193,945	\$148,664	-\$45,281	\$165,361	\$170,575	\$5,213	\$50,494
China	\$121,038	\$19,955	-\$101,083	\$121,041	\$19,955	-\$101,086	-\$3
Euro area	\$160,816	\$97,105	-\$63,711	\$126,624	\$117,751	-\$8,873	\$54,838
Japan	\$113,082	\$47,328	-\$65,754	\$101,044	\$52,367	-\$48,677	\$17,077
Korea	\$33,634	\$20,519	-\$13,115	\$31,321	\$21,930	-\$9,392	\$3,723
Malaysia	\$22,764	\$9,616	-\$13,148	\$22,764	\$9,616	-\$13,148	\$0
Mexico	\$125,886	\$90,139	-\$35,747	\$114,707	\$98,144	-\$16,563	\$19,184
Taiwan	\$30,651	\$16,951	-\$13,700	\$30,616	\$16,970	-\$13,645	\$55
U.K.	\$38,377	\$30,714	-\$7,663	\$34,464	\$33,846	-\$618	\$7,045
Total	\$857,546	\$490,841	-\$366,705	\$747,943	\$541,154	-\$206,789	\$159,916

Source: Author's calculations.

projected income growth rates are available from the author upon request. The income effects generally work in the opposite direction as the exchange rate effects, as the United States is projected to see faster income growth than many of its trading partners whose currencies have declined. The projections are definitely, however, of the same order of magnitude.

These tables show the high and low projections of net export growth in the United States stemming from currency depreciation vis-à-vis this set of countries. What these projections show is a clear pattern of the bulk of total adjustment in the U.S. trade deficit being borne by Canada and the euro area, with China, Malaysia, and Taiwan actually increasing their own surpluses against the United States.

The projections for industry employment growth assume that the increase in bilateral net exports occurring due to movements in the dollar will be allocated to industries with the same weight that they have in current trade. That is, if net exports to Canada are projected to increase by \$100 next year, and transportation equipment made up 40% of current net exports, then it is assumed that transportation equipment will see a \$40 increase in volume the following year.

Given the dollar change in net exports, the job figures were derived using the employment requirements tables of the Bureau of Labor Statistics (BLS), which show how much employment in an industry is supported by a given amount of sales. These sales figures are denoted in 2000 dollars and were corrected for inflation to yield the employment numbers in this analysis.

References

- Bahman-Oskooee, Mohsen, and Taggart Brooks. 1999. Cointegration approach to estimating bilateral trade elasticities between the U.S. and her trading partners. *International Economic Journal*. Vol. 13, No.4.
- Bayoumi, Tamim. 1996. "Estimating trade equations using aggregate bilateral data." International Monetary Fund, Working Paper. Washington, D.C.: IMF.
- Baker, Dean. 1996. "Trends in corporate profitability: getting more for less." Economic Policy Institute, Technical Paper No. 211. Washington, D.C.: EPI.
- Baker, Dean, and Kurt Walentin. 2001. "Money for nothing: the high cost of international reserves." Center for Economic Policy Research, Working Paper. Washington, D.C.: Center for Economic Policy Research.
- Blecker, Robert. 1995. "The Trade Deficit and U.S. Competitiveness." In Blecker, ed., *U.S. Trade Policy and Global Growth*. Washington, D.C.: Economic Policy Institute.
- Blecker, Robert. 2003. *Benefits of a lower dollar*. Briefing Paper. Washington, D.C.: Economic Policy Institute.
- Blecker, Robert. 1998. *Taming Global Finance*. Washington, D.C.: Economic Policy Institute.
- Blecker, Robert. 1999. *The ticking debt bomb*. Briefing Paper. Washington, D.C.: Economic Policy Institute.
- Congressional Budget Office. 2003. "An analysis of the president's budgetary proposals for fiscal year 2004: an interim report." Washington, D.C.: Congressional Budget Office.
- Feldstein, Martin, and Lawrence Summers. 1977. "Is the profit-rate falling?" Brookings Paper on Economic Activity. Washington, D.C.: Brookings Institution.
- International Monetary Fund. 2003. *World Economic Outlook*.
- Marwah, Kanta, and Lawrence Klein. 1996. Estimation of J-curves: the U.S. and Canada. *Canadian Journal of Economics*. Vol. XXIX, No. 3.
- Rose, Andrew, and Janet Yellen. 1988. Is there a J-curve? *Journal of Monetary Economics*. Vol 24.
- Weller, Christian, and Laura Singleton. 2002. *Reining in exchange rates*. Briefing Paper. Washington, D.C.: Economic Policy Institute.
- Williamson, John. 1999. *Crawling bands or monitoring bands: how to manage exchange rates in a world of capital mobility*. Policy Brief. Washington, D.C.: Institute for International Economics.
-

Endnotes

1. When measured with the real, broad, trade-weighted index calculated by the Federal Reserve.
2. For more discussion on some of these proposals, see Weller and Singleton (2002).
3. This projection comes from Blecker (1999).
4. The derivation of these numbers is explained in the technical appendix.
5. See the Congressional Budget Office (2003) for the size of the stimulus afforded the recent round of tax cuts enacted by Congress and President Bush.
6. See Baker (1996) and Feldstein and Summers (1977) for estimates of the returns to capital.
7. For more on reserve holdings of U.S. trading partners and cost of holding international reserves, see Blecker (2003) and Baker and Walentin (2001).
8. See, for instance, Weller and Singleton (2002), Williamson (1999), and Blecker (1998).
9. Rose and Yellen (1988), Klein and Marwah (1996), Bahmani-Oskooee and Brooks (1999), and Bayoumi (1996) provide a representative range of these parameters for the United States.