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The Dollar and Development

By Richard Sabot

Abstract

Global poverty and poverty reduction are right now, more prominent public issues in high-income countries than they have ever have been, but progress toward the eradication of global poverty is at increasingly grave risk due to global macro-economic imbalances. At the heart of the problem is the U.S. external deficit that has turned the U.S. into the world's largest debtor nation while developing countries, most notably in East Asia, are now among the world's largest creditors.

The impact of the adjustment of the U.S. external deficit on developing country economies will depend on U.S. macro-economic policy ahead, whether growth of U.S. exports or a decline in U.S. imports accounts for most of the reduction of the external deficit, how China, and by implication the rest of East Asia, respond to what happens in the U.S., and on the speed with which the U.S. deficit is closed.

A review of how the world economy came to find itself in this historically unprecedented situation is followed by three potential scenarios for the likely impact on developing country economies of a marked decline in the U.S. external deficit.

In the first scenario, the decline of the U.S. external deficit is fairly slow and steady and developing countries are able to substitute domestic demand growth for external demand growth and adjust without a recession.

In the second scenario, U.S. aggregate demand for imports declines more severely because of slower economic growth and a smaller contribution of U.S. export growth to the closing of the external deficit. Chinese import demand growth is adversely affected and developing countries face a decline both in U.S. and Chinese import demand.

In the third and last scenario, a sudden adjustment that generates a global financial tsunami, most likely triggered by a run on the dollar that leads to a spike in interest rates in the U.S. and a sharp drop in U.S. import demand, would transmit the downturn from the U.S. to the rest of the world.

THE DOLLAR AND DEVELOPMENT

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July 5, 2005

Foreword

Dick Sabot was a longtime friend, a co-author of mine over many years, and an active member of the Center's founding Board of Directors. He was finishing this paper when he died suddenly on July 6 of this year. I had visited him late in June, at his home in Williamstown, to discuss the outline for a new paper we were to write together, and to give him comments (and argue about!) this paper of his. Though I am sure he must have taught macroeconomics at some point in his many years on the faculty at Williams College, I believe this was his first written work as an economist on U.S. macroeconomic policy. He took the leap because of his conviction that current policy, particularly the collapse of U.S. public savings, was creating risks not only for the welfare of Americans but for the welfare of the world's poor in developing countries. On this point, as is clear from his text and as he told me himself, he was greatly influenced by the speech of Larry Summers on the public savings issue in the U.S. at the Institute of International Economics in the spring of 2004 (and by Summers' Per Jacobsson lecture in the fall) and by the analysis of William Cline, our own senior fellow, of the causes and implications of the current global imbalance (Bill's book *The United States as a Debtor Nation*, Center for Global Development and Institute of International Economics, 2005).

Dick recognized full well that on the risks for the U.S. and the world economy there is much disagreement among economists. But that disagreement is reflected in a highly technical and inaccessible form for most readers, and with the exception of Cline's work, has been heavily concentrated on the question of the risks for the U.S. and its major trading partners. He wanted to make the outlines of the broader debate more clear and accessible for more readers, and he believed the risks for the developing world needed much more attention.

The discussion in this paper is sober, measured, and balanced as well as accessible. It is mostly in the final paragraphs that Dick's excitement and passion about the topic, and his inveterate optimism, get their full airing. In his own words:

> The world economy is balanced on a knife edge. . . .If it falls one way . . . (then for) the first time in human history, the end of mass global poverty is not just a pipe dream but a feasible goal. However, if the world economy falls the other way . . . the number in poverty and all that implies for the sum of human suffering, will increase. The key determinants of which way the world economy falls off the knife's edge are the choices we make in the U.S. The rest of the world, and in particular the world's poor countries, have a big stake in what we choose to do. The U.S., as a world leader, has been tested before, and it has risen to the challenge. It has the capacity to do so again.

In his closing paragraphs, Dick captured the perspective the Center tries to bring to the broad policy debates – that policy choices in the rich world and at the global level, have tremendous implications for progress against poverty in the poor world. In emphasizing that point, this paper builds on and complements Cline's new book on the broader challenges posed by the U.S.'s current status as the world's largest debtor.

I know Dick would join me in thanking heartily two staff members of the Center. He was particularly grateful to Bill Cline for his comments on an earlier draft, as I am to Bill for his help in adjusting Dick's text in the light of Bill's own latest results. He mentioned to me several times in our several conversations in June, including during my last visit, what a pleasure it was working with Gunilla Pettersson, and how grateful he was to her for her insights, her wisdom about the value of data, and her generous help and energy. I add my own thanks to those of Dick to Gunilla; we would not have been able to finalize this paper, and certainly not so quickly, without her expert and generous help.

Nancy Birdsall
President
August 10, 2005

A. Introduction

Global poverty and the potential for its elimination are, right now, probably more prominent public issues in high-income countries than they ever have been.[1] The recognition, post 9/11, that poverty, ignorance and hopelessness provide fertile soil for the growth of alienation, militancy and terrorism, has only reinforced the sense of urgency.[2]

Often overlooked in the discussion about poverty eradication are four key points:

First, much progress has already been made toward this goal. The last decades have seen a marked reduction of global poverty from roughly 40 percent of the world's population to roughly 20 percent. Hundreds of millions of people are no longer poor.[3] This has largely resulted from the sustained, rapid, broad-based growth of East, and now Southeast Asian economies.[4]

Second, this remarkable progress has been achieved by development policies that create a stable economic environment, and a market-oriented set of incentives, that enable people in low-income countries to augment their human capital and harness their quite abundant entrepreneurial talents. While foreign aid may have contributed to the growth it has not played a decisive role. Rather this growth has been stimulated and sustained by private companies in Asia taking advantage of the competitive edge in foreign markets that the low cost of domestic labor gives them. Asian growth has been export-led and labor-demanding.[5]

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[1] Some of the credit should go to the UN and to Sachs (2005) and his team, to Prime Minister Blair and Chancellor of the Exchequer Brown of Great Britain, who placed global poverty at the top of the agenda of the G-8, and to such entertainers as Bono and Bob Geldof, whose production most recently of the Live8 concerts have heightened popular awareness of global poverty and the potential for eliminating it.

[2] CGD (2004).

[3] In Asia, where a 1 percent increase in household income is associated with a 2 percent decline in poverty, the number of poor dropped from roughly 920 million to around 690 million just over the period 1990 to 2002. Kuroda (2005).

[4] The economies of East Asia have consistently and dramatically out-performed the economies of Latin America and Africa as well as the high-income economies of Europe and North America and the oil-rich economies of the Middle East. The per capita incomes of these high performing economies have more than doubled every decade. And, because the benefits of growth have been relatively widespread within these countries, the opportunity for people to work their way out of poverty has been large. This phenomenon of rapid sustained growth began in Japan which was then emulated in the late 1960s by the Republic of Korea, Singapore, Hong Kong and Taiwan. The economies of Southeast Asia – Indonesia, Malaysia and Thailand then followed. China's growth began to accelerate some 25 years ago – its GDP in 2004 was 10 times what it was in 1979 – and India joined the rapid growth club much more recently. See World Bank (1993) and Birdsall and Sabot (forthcoming).

[5] Exports grew rapidly in the seven economies of East and Southeast Asia, excluding China: in 1965, they produced 3 percent of the world's exports, a figure that more than quadrupled to nearly 13 percent by 2003. Add China and India to this group and the share of the world's exports of the Asian economies rose from 5 percent to 19 percent (WDI, 2005). Since 1979, China's external trade grew by an average of 16.7 percent a year. Kuroda (2005).

Third, if China, other East Asian nations and India continue to grow rapidly, and other developing countries follow their example then this remarkable progress toward the elimination of global poverty can be sustained. The opportunity is there for economies in Africa and Latin America to emulate the performance of the Asian economies.[6] For example, the elimination of protection in high income countries against the products of low income countries, in particular agricultural goods and textiles and apparel would yield annual gains to low income countries that Cline (2004) estimates to be $100 billion annually.[7] Roughly three-quarters of the world's poor are located in rural areas and they would benefit from the higher prices they would receive for their agricultural products. Cline estimates that the reduction of agricultural protection in high-income countries would lift another roughly 200 million people out of poverty globally.[8]

Fourth, this progress toward the eradication of global poverty is at increasingly grave risk. Governments are not good at creating wealth. However, for private sectors to succeed at building wealth they must have a foundation, a crucial component of which is macro-economic stability, on which to build. The responsibility for laying this foundation is that of governments. If governments fail to do this not only can they inhibit growth but they can, quickly and perniciously, wipe out wealth. Currently the world economy is seriously out of macro-economic balance. If governments mismanage the necessary adjustment to the current imbalance then the progress in improving human welfare at the bottom of the pyramid might not only slow, it will be eroded

Both economic theory and history suggest that high-income countries should be net exporters of capital. To increase their rates of investment, and their rates of growth, low-income countries are more likely to supplement domestic savings by importing capital. Currently, global capital flows are running directly contrary to expectations: the U.S., clearly a very rich nation, has been borrowing heavily for the past two decades to finance its trade deficits and is now, by far, the world's largest debtor nation; developing countries, most notably in East Asia, have been exporting capital and now are among the world's largest creditors.

How long can this global macro-economic imbalance be sustained? Economists disagree. How will balance be reestablished? Will it happen slowly, in a relatively benign way, or will there be a sudden discontinuity that could generate a global financial tsunami that slams the financial markets and economies of both high and low-income nations? Again, economists disagree.

About one aspect of this situation there is little disagreement among economists, namely the inevitability of a reduction in the dependence of the U.S. on foreign capital.

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[6] This is not to imply that the problem of poverty is now confined to Africa and Latin America. In terms of absolute numbers of poor people, the poverty problem in Asia remains larger than the problem in Africa or Latin America. Kuroda (2005).

[7] Cline (2004). This gain is about twice the magnitude of annual development assistance provided by high income countries to low income countries.

[8] Cline (2004). Moreover, this reduction in protection would benefit consumers in high income countries who are currently paying higher prices for agricultural goods than they would be if the import taxes on those products were reduced or eliminated.

Precisely when and how, we do not know, but we do know that it will happen. Much attention has been paid to the implications of the reestablishment of balance, for the U.S., for Europe, for Japan and for China. Little attention has been paid to the implications, potentially profound, for the rest of the developing world.

I briefly review how the world economy came to find itself in this unorthodox and historically unprecedented situation, and then focus on the likely consequences for developing countries, both creditors and debtors, of a marked decline in the trade deficit of the U.S.

What will the costs be to the developing world if the U.S. deficit closes smoothly and slowly? What benefits might they derive from this adjustment? What will be the costs if the deficit closes quickly, as a result of a discontinuity? What are the determinants of whether the adjustment process is smooth or results in a financial tsunami? Just how much systemic risk are we facing? Is it declining or increasing? What U.S. policies would reduce the systemic risk and hence be simultaneously in the interest of the U. S. and "development friendly"? Which policies might developing countries adopt to minimize the costs and maximize the benefits of what promises to be a major shift in global trade and financial flows and macro-economic relationships?

B. The Problem and Its Causes: The U.S. Should Not Blame Others

High-income countries are characterized by an abundance of capital and a scarcity of labor; in low-income countries capital is scare and labor is abundant. Returns to labor should therefore be higher in high than in low-income countries and returns to capital should be higher in low than in high-income countries. Since labor and capital both seek high returns, labor should flow from low to high-income countries and capital should flow from high to low-income countries.[9]

In high-income countries the returns to labor are, indeed, a multiple of what they are in low-income countries. The average American worker earns much more in an hour than the average Chinese worker earns in a day. Yes, there are political and institutional constraints on the mobility of labor. Nevertheless, the Mexico-U.S. border confirms to even the casual observer that people want to move to where they are more richly rewarded for their work.

Capital flows are less constrained. Over the last century the tendency has been for financial capital to flow to where expected returns on capital are highest, from high to low-income countries. Historically, the U.S. certainly fit that pattern. In the 18th and 19th centuries, when the U.S. was still a relatively low-income, capital scarce country, capital, seeking higher returns, flowed in from Europe. The American railroads, for example, were largely built with foreign money. Once the U.S. had been transformed into a high-income country, the U.S. became a net exporter of capital. American investors, seeking

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[9] Phase model.

higher returns than they believed they could get at home, put money to work around the globe.

Since 1980, however, the U.S. has broken the pattern. For nearly every year over the past 25 years the U.S. has, in effect, been borrowing from the rest of the world. The cumulative impact of that borrowing has been to turn the U.S., the world's richest nation, from the world's largest creditor into the world's largest debtor. U.S. foreign debt, net, is now over $3 trillion, or roughly 30 percent of GNP. In 2004 the U.S. added more than $600bn net, roughly 5.5 percent of GNP, to its total borrowings from overseas, increasing aggregate foreign debt by 25 percent. Gross, the U.S. now has to borrow at the rate of $5 billion every working day.[10] The large size of the U.S. economy – over 20 percent of global GNP – amplifies the impact on global capital markets of the substantial borrowing requirements of the U.S.: the borrowing required to finance the U.S. current account deficit absorbs roughly two thirds of the aggregate current account surplus of all the world's surplus countries.[11] Much of that borrowing is from relatively poor countries.[12]

What explains the transformation of the U.S. from the world's biggest external creditor to its biggest debtor?

First, the U.S. trade deficit is, in part, simply a reflection of the greater economic dynamism here than abroad. The U. S. imports 16 percent of GDP and exports 11 percent of GDP. So, even if economic growth is the same elsewhere than as in the U. S., the trade deficit will worsen.[13] The slower growth of our key trading partners than of the U.S. implies that U.S. imports will grow still more rapidly than U.S. exports, further increasing the trade deficit. While attention has focused on the American trade deficit with China and on China's extremely rapid growth, the reality is that the volume of U.S. trade with the slow-growing G-6 countries – Japan, Germany, France, Italy, Britain and Canada – is four times as large as the trade with China and India combined.[14]

Faster growth of the G-6 would undoubtedly increase American exports.[15] Commenting on the announcement that the American trade deficit set a new record in February, with an annual run rate of over $700 billion, Secretary of the Treasury Snow pointed to the sluggishness of our biggest trading partners and urged them to overcome their structural impediments to more rapid growth.[16] But, given what a small increment to

[10] Bergsten (2005).
[11] BIS (2005), p. 90. As Roubini and Setser (2005a), p. 8 put it, the U.S. trade deficit "is large absolutely, large relative to U.S. GDP, large relative to the United States' small export base and large relative to the world's current account surplus."
[12] The current account surplus of China which, despite its rapid growth, is still a poor country will be over $100 billion in 2005, about 6 percent of its GDP and is growing very rapidly. Korea, Taiwan, Hong Kong, Singapore and Malaysia are also relatively low-income countries with large surpluses. Bergsten (2005).
[13] Conversely, the exports of the U.S. have to grow roughly 50 percent faster than imports to keep the trade deficit at the same level.
[14] Gross, NYT, 04/17/05.
[15] For the authors of the Economic Report of the President, 2004 this is the key determinant of the growth of the trade deficit: "The rapid growth of imports relative to exports largely reflects faster growth in the U.S. than among our trading partners…." CEA (2005), p. 37.
[16] Becker, NYT, 02/11/05.

the demand for American exports results from an increase in the output and incomes of our biggest trading partners,[17] even if they reduced their labor market rigidities, high taxes and constraints on innovation, and bettered the U.S. growth rate by 25-30 percent, the increase in imports from the U.S. would not be sufficiently large to make a big dent in the U.S. trade deficit.[18]

There is a less desirable link, one that Secretary Snow did not mention, between the growth of our trading partners and the U.S. trade deficit. Slow growth in Europe and Japan helps explain why, despite rapid growth in the U.S., India, China and elsewhere in East Asia, medium and long term interest rates, and the rate of inflation, have remained so low. If investment and growth were to accelerate in our largest trading partners, so would interest rates and the rate of increase of the prices of commodities, such as oil, and finished products. The growth of the U.S. would slow, perhaps markedly, as would the growth of American imports. In seeking the solution to the American trade deficit in the growth of our trading partners, Secretary Snow should take note of the cliché, "be careful of what you wish for."

The second determinant of the U.S. shift from creditor to debtor is also associated with the most optimistic view of American reliance on foreign capital. The culture of innovation in the U.S. distinguishes its economy from virtually all others. The U.S. is incomparable both with regard to its technological prowess and to the pace at which teams of entrepreneurs and venture capitalists convert technical advances into new products and businesses. The pace of innovation could be offsetting diminishing returns to the accumulation of capital. The result: the returns to capital may be higher here than in many low-income countries where capital is in relatively much scarcer supply.

The 1990s provided support for this hypothesis. This was a time of extraordinary technological innovation, an investment boom and a closely related surge in the value of technology stocks. Foreigners wanted to invest here to take advantage of the perceived high returns and so large flows of foreign private capital flooded U.S. financial markets further driving up the value of equities and of the dollar. The exceptionally strong dollar reduced the competitiveness of our exports and made imports a bargain. During the 1990s it appeared as though the American trade deficit, and the capital inflows needed to fund it, were signs of American innovation and economic strength. And if, indeed, the returns to capital are higher in the U.S. than elsewhere there should be no problem servicing the foreign debt and sustaining these foreign capital inflows.

Unfortunately, when the stock market tech bubble popped in 2000, what happened contradicted the optimistic view of chronic American trade deficits. The steep drop in the value of American equities led foreigners to re-evaluate where the returns on

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[17] See Summers (2004). Mussa (2005), p. 1, asserts "[f]or the United States, estimates of the marginal propensity to spend on imports are in the range of one-fifth to no more than one-third…. For the [rest of the world], the marginal propensity to spend on U.S. goods and services is no more than one-tenth."

[18] In fact, contrary to the view that faster growth of our leading trading partners is necessary to reduce the U.S. current account deficit, the last time the U.S. needed to close a large external deficit, during the late 1980s, the reduction in the current account deficit was associated with a slowdown of growth in the G-6 from 5.3 percent in 1988 to 2.2 percent in 1991. See Cline (forthcoming).

capital are highest. Private foreign capital inflows reached a maximum of roughly $1 trillion in 2000. "They exceeded private U.S. outflows by about $450 billion or more than enough to cover the current account deficit of about $415 billion."[19]

While the current account deficit continued to balloon, from $400 billion in 2000 to $600 billion in 2004, private capital inflows declined by half, from $1 trillion to $500 billion. U.S. private capital outflows also fell somewhat. Nevertheless, from funding nearly all of the U.S. deficit in 2000, net private capital inflows were only sufficient to fund only a little more than a third of the U.S. current account deficit in 2004. At the end of this four-year period of recession and recovery, the tech heavy NASDAQ index was not even half of what it was at the beginning. The expectations of foreign investors regarding the returns to capital in the U.S. had been diminished. There is little to suggest in this story that the foreign appetite for U.S. assets, whetted by America's unique technological prowess and capacity to innovate, was the key causal factor driving the American trade deficit.

If private capital inflows were declining sharply as a share of the deficit, then how was the U.S. current account deficit being financed? While the dollar fell in value relative to a trade-weighted basket of currencies during the 2000-2004 period, another question raised by the decline in the share of the current account deficit funded by foreign private capital inflow is "why didn't the dollar plummet?" Who was buying the ever more abundant dollars made available on foreign exchange markets by the growing gap between American imports and American exports?

Figure 1 provides the explanation. They were being bought by the central banks of Asian countries, predominantly by the central banks of China and Japan. Their purchases of dollars increased ten-fold over this period, from roughly $40 billion in 2000 to a historically unprecedented $400 billion in 2004.[20] These bankers financed roughly two-thirds of the massive American current account deficit in 2004. They converted most of their holdings of dollars into U.S. Treasury securities. By September 2004 foreign central banks held $1.85 trillion of U.S. public debt, a rather stunning 43 percent of the total.[21]

If foreign private investors were no longer convinced that returns on capital were higher in the U.S. than elsewhere, why did a handful of Asian central bankers step in and make the purchases of American financial assets that private foreign investors no longer wanted to own? We will answer this question below. First it is necessary to understand why, during the late 1990s the simultaneous decrease in the budget deficit and increase in the trade deficit did not, in fact, imply that the two deficits are not closely connected. And understanding this will also bring us to a 3rd, and fundamental, determinant of chronic

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[19] Cline (forthcoming).

[20] Roubini and Setser (2005a), p. 12, claim that official U.S. data actually understates dependence on foreign central bank financing and that the data provided by the Bank for International Settlements is more accurate. Their data indicate central banks provided the US roughly $485 billion of reserve financing in 2003 and roughly $465 billion in 2004, for a total of nearly $1 trillion over two years.

[21] Cline (forthcoming).

American dependence on foreign capital: low rates of private and public savings in the U.S.

During the late 1990s the budget deficit declined sharply. Tax rates had been raised and the stock market boom was generating extraordinary tax revenue on capital gains. Indeed the federal budget actually shifted from deficits to large surpluses. And yet the trade deficit, and foreign capital inflows, continued to increase. At least to some analysts,[22] this was strong evidence that federal budget deficits are not directly linked to trade deficits and capital inflows. The question these skeptical analysts ask is: if the fiscal and trade accounts are "twin deficits" why didn't a marked decline in the former result in a decline, rather than an increase, in the latter?

The simple answer is that there are more than two variables involved in the relationship. To understand how the trade and budget deficits move in relation to each other it is also necessary to know what is happening to investment and private savings. To the extent that domestic investment exceeds domestic savings, both public (as measured by the federal budget deficit) and private, there is a domestic resource gap that can only be filled by drawing on savings from other countries. The foreign savings inflow is identical to the excess of imports over exports.

The explanation for why, from 1992 to 2000, the current account went from near balance, -0.5 percent of GDP, to large deficit, -3.9 percent of GDP, while the federal budget moved from a deficit of –2.4 percent of GDP to a surplus of 4.4 percent of GDP, representing a massive 6.8 percentage point increase in public savings, is to be found in what happened to investment in the U.S. and to private savings. See Table 1.[23]

There was a boom in investment and a decline in private savings and the two trends were probably linked. Over this eight year period, which coincided with the birth and expansion of companies associated with the Internet, net private investment increased by 3.5 percentage points, from 4.1 to 7.6 percent of GDP. The sharp increases in the value of equity portfolios, which made households feel wealthier, may have contributed to the –4.1 percentage point decline in household savings. So despite the big increase in public savings, as the federal budget moved from deficit to surplus, the domestic resource gap actually increased. More foreign savings were required to fund the addition to investment and to substitute for the decline in private savings, and so the current account deficit rose.

Had the fiscal situation not improved as much as it did over this period, while private savings and investment remained as observed, the domestic resource gap and the

[22] CATO Institute. For example see Reynolds (2004).
[23] Cline (forthcoming) observes that this negative correlation between the two deficits is the rule rather than the exception. Over the past 20 years the two deficits move in the same direction only 30 percent of the time. See also Truman (2004).

current account deficit at the end of the period would have been larger than it actually was. There is no escaping the link between the budget and current account deficits.[24]

What happened during the 2000-2004 period only reinforces this point. The Federal Budget moved back from a surplus of 2.4 percent of GDP, into deficit, -3.6 percent of GDP. The deterioration in the fiscal accounts during the first term of President Bush, -6 percentage points, was nearly as great as the 6.8 percentage point improvement during the Clinton administration, but it happened in only half the time. And only 0.9 percent of GDP of that deterioration could be accounted for by the recession that followed the boom of 1999-2000.[25] The rest was due to policy choices, increases in public spending and reductions in taxes.

The impact of the marked fiscal deterioration on the resource gap was only partly offset by a 1.1 percentage point drop in investment and 1.3 percentage point increase in private savings. Net, the resource gap increased by 3.2 percentage points. As a result, between 2000 and 2004 the current account deficit rose to roughly 6 percent of GDP.

This was one of the few occasions over the last 20 years that an increase in the budget deficit translated directly into an increase in the trade deficit. It is clear that the decline in public sector savings has played an important role in the increase in the U.S. current account deficit. Since investment in the U.S. actually declined during this period, the implication is that the increased foreign capital inflows were being used to finance public consumption. If foreign capital is not financing high return investments then that raises questions both about the ability of the U.S. to service the debt and about the sustainability of the foreign capital inflows.

The fact that, at the margin, foreign capital inflows have, over the past four years, been financing public consumption rather than private investment also helps explain the decline in the flow of private capital into the U.S. and the increase in the purchase of dollars by foreign, read Asian, central banks. Private capital simply flows to where the risk-adjusted returns are highest. Central bankers have motives other than return maximization for acquiring American assets.

In particular, over the past four years central bankers in China and Japan acquired hundreds of billions of dollars as a means of putting a ceiling on the value of their currencies relative to the dollar. The conventional wisdom is that by keeping the renminbi from rising, the prices of Chinese exports in the U.S. remain competitive.[26] China has

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[24] The assertion by Levey and Brown (2005a) that there is only a tenuous link between the budget deficit and the current account deficit is not correct. The link is a powerful one. However, it is not a simple one. It is necessary to take account of a few other variables to understand it.

[25] Cline (forthcoming).

[26] While the euro has increased in value relative to the dollar by some 55 percent since the dollar's peak in March of 2002, the value of the renminbi has not changed at all relative to the dollar. In fact, on a trade-weighted basis, it depreciated by 11 percent because of the dollar's decline. The yen rose by some 30 percent against the dollar over the same period, substantially less than it would have risen had the Japanese central bank not been buying dollars. And the yen rose much less on a trade-weighted basis. See Cline (forthcoming).

been experiencing sustained rapid export-led growth that is enriching millions of its citizens, pulling tens of millions more out of poverty and transforming the country into a great economic power. Chinese leaders do not want this growth to be interrupted. Other central banks, in Asia and elsewhere, followed the Chinese and Japanese lead so as to maintain their capacity to compete against the Asian economic giants in the American market.[27]

Central bank intervention in currency markets is seen, particularly by the Bush administration, as a 4th important determinant of the U.S. current account deficit. There is no doubt that if the Chinese and Japanese, and other, central bankers had not intervened, the dollar would have fallen against the yen, the renminbi and other Asian currencies and that, as a consequence, the American trade deficit would have been smaller. But this is where the conventional wisdom may not have it right. And where American policy makers pressuring the Chinese to allow their currency to float, and rise to the level determined by the market, might, if they had their way, be in for a rude shock.

The facts are that many Chinese goods are so much less expensive than U.S. manufactured substitutes and that many other Chinese goods no longer have close U.S. manufactured substitutes that even sharp increases in the prices of Chinese manufactured exports may have very little impact on the demand for them. If so, the increase in their prices could actually worsen rather than improve the balance of trade between China and the U.S.[28]

Why then assert that a sharp rise of the renminbi would result in a reduction of the U.S. current account deficit? Because if the Chinese and other central banks markedly reduce their purchases of American dollars the U.S. domestic resource gap will not be adequately funded. And it will have to narrow.[29] Exactly how that would happen cannot be forecast with precision but, as one example, a marked decline in the purchase of dollars by central banks would also mean a sharp decline in the purchase of U.S. Treasury securities. Interest rates would rise, potentially triggering a recession in the U.S. A decline in U.S. incomes would lead to a decline in investment, hence in the domestic resource gap. This is one potential route to the hard landing, the discontinuity, the global financial tsunami that so many analysts fear.

The Asian central bank intervention in currency markets may be sustaining their export-led growth not so much by keeping their exports price competitive but by

[27] Hong Kong and Malaysia also fixed their currencies relative to the dollar while the currencies of Thailand, Singapore and Taiwan increased by only about 10 percent and actually depreciated on a trade-weighted basis. Cline (forthcoming).

[28] Because the demand for oil is so insensitive to the price of oil – price inelastic – this is precisely what happens when the price of oil rises.

[29] The abundance of savings in East Asia, together with the willingness by central bankers in the region to make savings available to the U.S. may be a necessary condition for sustaining the U.S. current account deficit but it is not a sufficient condition, as Bernanke (2005) and Wolf, FT, 06/13/05, suggest. If the US resource gap was smaller, so would be the current account deficit, irrespective of the willingness of the Asian central banks to buy dollars. The availability of savings in East Asia did not lead to current account deficits in Europe.

allowing Americans to continue to live beyond their means.[30] If Chinese central bankers succumbed to the pressure of American, and other foreign, economic policy makers the result would, most likely, be a reduction of the American trade deficit but by a mechanism far more painful than the one envisaged. Again the cliché, “be careful of what you ask for” appears to be relevant.[31]

This leads to a more general point about the current account deficit and the value of the dollar. The dollar has declined in value substantially over the past two years. But the American trade deficit continues to grow and to set new records. This may be due, in part, to lags, as purchasers take time to find lower priced alternatives. It may also reflect a more fundamental reality: declines in the value of the dollar, while necessary to achieve global macro-economic balance, are not sufficient.[32] Without a reduction in the U.S. domestic resource gap, which means either an increase in U.S. savings or a decrease in investment, a change in the relative prices of domestic and foreign goods will not have much impact on the U.S. current account deficit. A revaluation of the renminbi must be a part of the process of reestablishing global macro-economic balance but it is far better for it to be done in conjunction with policy changes in the U.S. that increases savings.

C. The Argument So Far

The conclusions we reach from our brief assessment of why, contrary to what theory and history would lead us to expect, the capital abundant U.S. has become the world’s largest external debtor, while a group of capital scarce low income countries have become major external creditors are, we think, clear:

1) The slow growth of the biggest trading partners of the U.S. is a factor explaining the American trade deficit, but not a big one.

2) While there was a brief period, during the 1990s, when growth of the U.S. trade deficit could be explained by the inflow of foreign private capital in

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[30] East Asian economies also built up reserves following the financial crisis of 1997-98 as security against another crisis. But the buildup is way in excess of what a crisis might require. The ratio of reserves to imports in these countries has surged. It is likely that the goal of the continued buildup of reserves is to sustain export led growth. See Cline (forthcoming).

[31] There is another possible geopolitical explanation for the sustained purchase of dollars by Asian central banks. They are a means of ensuring that the U.S. does what, China and Japan agree, is necessary militarily to keep Middle East oil flowing onto the world market and fuelling their industrial growth. Asian central bank loans to the U.S. government are, indirectly, helping to fund the U.S. military budget. If there is substance to this explanation then it follows that President Bush I struck a much better deal arranging for foreign financing of the 1990 Persian Gulf war than did President Bush II of the current Persian Gulf war. President Bush I persuaded foreign governments to provide grants to fund the first war while, implicitly, the best President Bush II could do, was arrange for foreign loans.

[32] Without a reduction in the domestic resource gap, a decline in the dollar is likely to have negative feedback effects that would diminish the impact of the decline of the currency on the trade deficit. The stimulus to aggregate demand, hence to imports, that a currency decline would induce, is one such feedback effect.

response to high investment and high expected returns to capital in the U.S. that certainly has not been the case over the past four years.

3) Since 2000, the share of the U.S. external deficit financed by private foreign capital has declined sharply while the share financed by the purchase of dollars by Asian central banks has surged.

4) While Asian central bank intervention has contributed to the U.S. external deficit by keeping Asian currencies at artificially low levels, the contribution is not large, and stopping that intervention is as likely to trigger a downturn in the U.S. as it is to close the U.S. trade gap by changing the relative prices of imports and exports.

5) More generally, a decline in the dollar, no matter how marked, will not, by itself eliminate the U.S. trade deficit. The domestic resource gap must also be reduced.

6) The low rate of savings in the U.S. is the most important factor contributing to the domestic resource gap, hence the U.S. external deficit. The U.S. is becoming increasingly dependent on foreign savings to fund its investment, and more worrying, to finance government consumption.

7) Low household savings rates are a chronic problem in the U.S., the origins of which are only poorly understood.

8) There was a sharp decline in U.S. public sector saving over the past four years, as government expenditures rose and tax revenues fell as a percentage of GDP and this decline was largely responsible for the growth of the U.S. external deficit over this period.

9) The current U.S. administration shifts between denying that the growing foreign indebtedness of the U.S. is a problem, and asserting that the cause of the problem is to be found in other countries. Our conclusion is that the problem is big and it is growing. Other countries will have to help us find a solution, but the locus of responsibility for the problem is right here in the U.S.

D. Reestablishing Global Macro-Economic Balance: Alternative Paths

We noted that there is little disagreement among economists about the inevitability of a decline in the dependence of the U.S. on foreign capital. Little, of course, does not mean none. Some sophisticated analysts believe that those who voice their concern about this growing dependence are Cassandras.[33] It appears as though they believe that "everything is for the best in this best of all possible worlds". Jeremy Siegel,

[33] See Levey and Brown (2005a).

a leading academic expert on U.S. equity markets has committed to just such a Candidean perspective. He predicts that the current global macro-economic imbalance will be sustained for decades. And in a way that is not destabilizing but actually allows the global economy to continue to prosper and grow. It is the transformation of the poor countries of the world, whose populations are much younger than the currently rich countries, into newly rich countries that will enable this to happen. We quote:

> "…I posed the fundamental question facing the developed world over the next half century: who will produce the goods that the retirees need, and who will buy the assets that they sell during their retirement? We have found the answer: … workers and investors from developing countries. The aging populations (of high income countries) will import the goods and services they need, and finance these purchases by selling their stocks and bonds to the investors in the developing world.[34]
>
> These coming patterns of world commerce will cause increasing trade deficits in both the United States and the rest of the developed world. But these deficits are not necessarily a cause for concern…. They will arise as part of the inevitable demographic trends that dictate the exchange of goods for assets that are part of the global solution.
>
> As most of the world's output will be produced by the developing nations, eventually most of the assets in the United States, Europe, and Japan will be owned by investors in the developing world. By the middle of this century, I believe the Chinese, Indians, and other investors from these young (sic.) countries will gain majority ownership in most of the large global corporations."[35]

This is a grand and intriguing vision and, who knows, it may come to be realized. There are, however, some obvious questions raised by this means of sustaining American trade deficits for decades. Will the American people agree to allow the sale of a trillion or more dollars a year in assets to the newly rich of China, India and other developing nations? Are they prepared to cede the economic, diplomatic, even military, power that such a transfer of assets would inevitably entail? Will they place political obstacles in the way of the transfer of the wealth of the U.S. to the formerly poor countries of the world?[36]

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[34] Implicit in this forecast is the suggestion of another determinant of why the U.S. has shifted from being a creditor to being a debtor and why low-income countries in Asia have emerged as external creditors: the difference between them in demographic profiles.

[35] Siegel (2005), pp. 218-19. In addition to the impediments to the fulfillment of this vision mentioned below, because of the aggressive implementation of "the one child policy" in China and rapidly increasing life expectancy, the population there is aging much more rapidly than in other developing countries.

[36] As the New York Times, 06/26/05 said in an editorial triggered by the $18.5 billion all-cash takeover bid by the state-controlled China National Offshore Oil Corporation for the American oil company Unocal, "with China on a buying binge for raw materials to feed its ever-expanding economy, it was inevitable that it would eventually … make a grab for something the United states really cares about…. And it raises the interesting question of whether the CNOOC can have it both ways: playing by Chinese rules at home while taking advantage of American rules abroad to buy an American business. After all, this is a government-owned company operating in an authoritarian state that limits the ability of foreign companies to take their

There is a more immediate practical issue that casts doubt on the realization of this vision. As we have already seen, the huge purchases of dollars by Asians are not being made by the newly rich in that part of the world but, to a large extent, by Asian central banks. Constraints on capital outflows are one reason for this. But even in countries where capital is free to leave the newly rich are not choosing to invest in the U.S. in any substantial way.

This may be due to the fact that at the margin foreign capital inflows are now funding government consumption rather than investment in the U.S. Hence the expected returns on that capital cannot be high. At the same time returns to investment in the newly emerging industrial countries have been quite high. Siegel (2005) provides some counter-examples: the acquisition of IBM's personal computer division by Lenovo of China; the acquisition of LTV Corp. and Bethlehem Steel by an Indian steel manufacturer. The pace of such acquisition would have to greatly increase to enable the U.S. dependence on foreign capital to be sustained. In the meantime the central banks are carrying the burden.[37] And the key question is whether that burden is becoming too heavy to continue to bear?

Let's not dismiss the Siegel vision but rather consider it a potentially appealing long shot and say that its chances of being realized are 1 in 20 or even, more optimistically, 1 in 10. That still leaves us to assess what happens in the much more likely case that foreign private capital flows are not sufficient to sustain the American trade deficit? Will Asian central banks, which have acquired roughly a trillion dollars over the past four years going to be willing to acquire many trillions more dollars? That they would be is difficult to conceive.[38] If they are not then the U.S. will have to wean itself from dependence on foreign capital inflows. This means that the chronic U.S. trade deficits will have to be substantially reduced.

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profits out of China…. The CNOOC bid… deserves examination above and beyond the regulatory scrutiny normally given to corporate mergers and acquisitions."

[37] Levey and Brown (2005a) predict that "official Asian capital inflows should soon be supplemented by a renewal of private inflows". Krugman, NYT, 06/27/05 agrees: "there's nothing shocking per se about the fact that Chinese buyers are now seeking control over some American companies…. Power usually ends up in the hands of those who hold the purse strings. America…has been living for years on borrowed funds, and lately China has been buying our I.O.U.s…. But bonds yield neither a high rate of return nor control over how the money is spent…. At this point China's reserves of dollars are so large that a speculative attack on the dollar looks far more likely than a speculative attack on the yuan. So it was predictable that, sooner or later, the Chinese would stop buying so many dollar bonds. Either they would stop buying American I.O.U.s altogether, causing a plunge in the dollar, or they would stop being satisfied with the role of passive financiers, and demand the power that comes with ownership. And we should be relieved that at least for now the Chinese aren't dumping their dollars; they're using them to buy American companies." Note, to have foreign purchases of American corporate assets fully fund the American trade deficit would require more than 40 Unocal size transactions every year. This is more than a bit hard to imagine.

[38] While central banks have goals other than maximizing returns on their investments those returns are not irrelevant to their behavior. The more dollar denominated securities they own the greater the potential loss when the inevitable revaluation of their currency does occur. And the interest they are earning on the loans they are making to the U.S. is lower than the returns they could be making. And accumulating dollars can also lead to increases in the domestic money supply, hence to inflationary pressures.

How will that happen? And what are the implications for developing countries? The answers depend on:

1) U.S. macro-economic policy in the years ahead;
2) Whether the growth of U.S. exports or the decline of U.S. imports accounts for most of the reduction of the external deficit;
3) How China, and by implication the rest of East Asia, respond to what happens in the U.S.;
4) On the speed with which the U.S. external deficit is closed.

Since the mid-1990s the economy of the U.S. has been more dynamic than those of other high income countries and, therefore, has been, by far, the largest contributor among that group to the growth of global aggregate demand and of the global demand for exports. Between 1992 and 2002 the share of the U.S. economy in world GDP increased from 26.2 percent to 29.9 percent.[39] U.S. imports more than doubled over the decade. They totaled $669 billion in 1992 and $1,433 billion in 2002. The $764 billion increase in U.S. imports annually represented a substantial stimulus to the demand for goods and services produced in the rest of the world.[40]

The current account deficit was $48 billion in 1992 and roughly $542 billion in 2002, a more than ten-fold increase. If in 2002 imports were only as large as exports then imports would have been more than a third less than they actually were. In other words, the growth of the current account deficit has accounted for a substantial portion of the U.S. stimulus to the growth of global demand. In 2002 the U.S. current account deficit accounted for roughly 2 percent of rest-of-world GDP.

But, as Cline (forthcoming) points out, the growth of the U.S. current account deficit had a much bigger impact on demand in low than in high income countries: Over the decade 1992-2002 the trade surplus of high income countries with the U.S. rose from about 0.3 percent of their GDP to 0.8 percent. Over the same period, the trade surplus of low income countries with the U.S. increased from 1 percent of their GDP to 4.7 percent.[41] The impact of the growing trade deficit of the U.S. on demand in low income countries was more than 9 times its impact in high income countries. And for some developing countries the increase in demand from a growing trade surplus with the U.S. was larger still. The increase in Mexico's trade surplus with the U.S. over the decade to 2003 was equivalent to an increase of 8 percent of aggregate demand. Likewise, China's rapidly growing trade surplus with the U.S. over the decade to 2003 added 4.9 percent to aggregate demand.[42]

It is clear that a narrowing of the U.S. trade deficit will reverse this process. Rather than providing a demand stimulus to the rest of the world, the U.S. will, other things equal, be reducing what has been an important component of rest-of-the-world

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[39] Cline (forthcoming).
[40] See Table 2.
[41] Cline (forthcoming).
[42] Cline (forthcoming).

aggregate demand. And while it is not possible to forecast how that reduction of demand will be allocated among regions or countries, it is likely that the effect of the reduction will be much greater in low than in high income countries and that there will be some developing countries that will be hard hit.

Moreover, everything else will not remain equal. In particular, whether U.S. demand for imports, in the aggregate, continues to grow, or declines, as the U.S. trade deficit narrows, will have an important influence on how big an adjustment low income countries will have to make to the reduction in demand stimulus from the U.S. At one extreme, the U.S. demand for imports, in the aggregate, continues to grow, implying that U.S. export growth accelerates relative to import growth and accounts for all of the closing of the U.S. external deficit. At the other extreme, the closing of the external deficit is largely accounted for by a decline in imports. Needless to say, the latter alternative will pose a much greater challenge for developing countries than the former.

What happens to China's economy as the U.S. closes its external deficit will also have a big influence on the nature and magnitude of the adjustment that other developing countries will have to make. China has been the second engine of growth powering the world economy. China's rapid growth combined with a steady rise of imports (and exports) as a percentage of GDP has resulted in rapid growth of demand for the products and services of other countries. For example during the period 1999-2003 Chinese GDP increased by 42 percent and imports as a share of GDP increased from 19 to 32 percent. The result: Chinese imports increased from 190 billion dollars in 1999 to about $450 billion in 2003, a 136 percent increase.[43] Thus, by 2003 China was adding roughly $260 billion in export income to rest of the world compared to its purchases in 1999.[44]

At one extreme, China's economy and its demand for imports continue to grow as the U.S. external deficit narrows. At the other extreme, the closing of the external deficit of the U.S. triggers an economic downturn in China which results in a decline in how much China imports. Again, the latter alternative will pose a much greater challenge for developing countries than the former. Clearly, if the imports of both the U.S. and China continue to grow during the period in which the U.S. is closing its external deficit, other developing countries will find it much easier to adjust than if the imports of both the U.S. and China are declining.

The speed with which the U.S. closes its external deficit will also influence how challenging it will be for developing countries to adjust. If the slowing of the growth, or the absolute decline, in American demand for the exports of developing countries is spread over a number of years the impact in any given year will be smaller. Moreover, the speed with which the U.S. closes its deficit has implications for both how the deficit will close and for China. A relatively slow closing makes it feasible for the U.S. to close the gap by increasing exports and to continue to increase aggregate imports throughout

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[43] World Bank (2005). Over the period 2001-2003, China's imports from Asia have risen by an average annual rate of over 31 percent, see Kuroda (2005). China is the dominant engine of growth in the rest of Asia.

[44] Over the period 1999-2003 US imports also rapidly.

the process. It also makes it feasible for China to continue to grow rapidly and steadily increase its imports.

By contrast, if the U.S. closes, or is forced to close, its external deficit suddenly, then there is no way that the closing can be accomplished by an acceleration of the growth of exports. A decline in imports would have to account for the bulk of the reduction of the deficit. This reduction in demand for foreign goods would, in turn, increase the likelihood that China's exports to the U.S. would also decline, slowing, or even halting, growth there and slowing or halting the growth of China's imports. A rapid closing of the U.S. external deficit would mean that both the engines of growth that have been propelling the world economy would be grinding to a halt. And the developing world would have very little time to adjust to the potentially enormous reduction in demand that this would imply.

The likely impact on exports and interest rates in developing countries will depend on how the narrowing of the external deficit of the U.S. occurs and on China's response to that narrowing. Here we consider briefly three different scenarios.

In the first scenario, the decline of the U.S. external deficit is relatively slow and steady and its impact on China and the rest of the world is relatively benign. For this to happen will require substantial changes in policy, principally in the U.S., and it will require international cooperation. The dollar will have to continue to decline, in particular relative to Asian currencies. This will require China to allow its currency to rise against the dollar and for other Asian countries to do the same. The U.S. savings rate will have to increase. Since not much can be done about household or corporate savings, this will, require an increase in public savings (a decrease in public dissavings). Given the constraints on cutting expenditures, a substantial portion of the reduction in the budget deficit will, it appears, have to come from raising taxes.[45, 46]

Assuming these changes in policy occur, then the U.S. current account will close over a number of years. Economic growth in the U.S. can be sustained. The demand stimulus from the narrowing of the external deficit offsets, at least in part, the deflationary impact of raising taxes. In aggregate U.S. imports continue to grow, just not as fast as exports. Interest rates in the U.S. rise only modestly. Under these circumstances

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[45] In the words of Gene Sperling, former economic advisor to President Clinton, "spending restraint alone will not be enough to close the hole that the administration's policies are blowing in the budget. According to an analysis by the committee for Economic Development, The Concord Coalition, and Center on Budget and Policy Priorities, eliminating deficits of the magnitude we will be facing through spending reductions alone would require cutting Social Security by 60 percent, defense spending by 73 percent, or all programs outside defense, homeland security, Medicare and Social Security by 40 percent." See Center for American Progress website, http://www.americanprogress.org/site/pp.asp?c=biJRJ8OVF&b=14382, December 11, 2003.

[46] Mussa (2005), p. 3, points out that "all fiscal tightenings are not the same." While an increase in tax rates will depress spending on imports it will also reduce demand for domestic goods, jeopardizing growth. A carbon tax will likewise reduce household income and reduce spending generally but it will reduce purchases of hydro-carbons, which are disproportionately sourced abroad, disproportionately. Per dollar of revenue generated, the carbon tax should be a more effective means of reducing the current account deficit than a general tax increase. And it offers the side benefit of helping to reduce global warming.

the adjustment required by China is not that large. In addition to allowing the renminbi to rise, it will also have to substitute domestic demand stimulation for the modest decline in stimulus that comes from U.S. demand for its exports.[47] China's external surplus with the U.S., and most likely with the rest of the world as a whole will decline and interest rates will rise moderately. Growth can continue at a fairly rapid clip and imports will, likewise, continue to rise.

Other developing countries will feel the impact of slower growth in the U.S. and China and the reduction of the U.S. external deficit. They will also experience moderately higher interest rates. Assuming that they, too, are able to substitute some domestic demand growth for the growth of external demand, they should be able to adjust to the closing of the U.S. external deficit without a recession.[48]

There are potential benefits to many developing countries of this relatively benign way of reducing the reliance by the U.S. on foreign capital. First, China has actually been increasing its competitiveness by riding the dollar down against other currencies. In this way, it has achieved a trade-weighted depreciation of about 10 percent over the past three years.[49] This has made it more difficult for manufacturers of labor intensive products in countries like Lesotho, to compete in international markets and slowed the growth of their export oriented manufacturing sectors.[50] A rise in the renminbi, and in other Asian currencies that have felt compelled to match the decline of the renminbi, would be a boon to the export sectors of many low income countries.

Second, while over the longer term the U.S. fiscal deficit reduces U.S. and global savings, the U.S. current account deficit merely redistributes saving from the rest of the world to the U.S.[51] That process will be reversed as the U.S. external deficit narrows, making more of the world's savings available for investments in low income countries.

Lowering the negative economic impact on poor countries of U.S. adjustment is a third benefit of starting the U.S. adjustment process as soon as possible, before creditors force the U.S. to adjust, and spreading the process over a number of years. If the external deficit keeps on rising until the ratio of external debt to GDP reaches 40-50 percent then the needed adjustment is likely to happen more rapidly, is likely to result more from a

[47] The emergence of a middle class in China has resulted in a boom in domestic demand for consumer goods. More refrigerators were sold in China in 2003, roughly 11 million, than in the US. But the penetration rate is much lower in China, at 43 percent of Chinese households, than in the US at nearly 100 percent. Clearly potential growth in demand for refrigerators is much higher in China than in the US. The same is true for other consumer goods. See Bernstein & Co. (2005), p. 7.
[48] Catherine Mann, (1999), p. 5 writing about the US Trade deficit six years ago, when it was about a third of what it is now, was hoping for a slowdown in import growth and an acceleration of export growth as the most attractive route back to external balance. But she noted, realistically, that "such a rapid change in the growth differential has occurred only rarely, and it could be associated with difficult economic adjustments in the United States."
[49] Bergsten (2005), p. 2.
[50] See Wines, NYT, 03/12/05.
[51] Truman (2004), p. 11.

reduction of U.S. incomes and imports than from an increase in U.S. exports, and is therefore likely to cause greater disruption to low income economies.[52]

The second scenario is a more challenging one for developing countries. As in the first scenario, the dollar declines relative to Asian currencies and the U.S. implements the fiscal policies necessary to close the current account deficit. But in this scenario the U.S. aggregate demand for imports declines because of some combination of slower economic growth, which could be triggered by higher interest rates than in the first scenario, and a smaller contribution of export growth to the closing of the external deficit. China would, most likely, be adversely affected by a decline in the U.S. demand for imports. Its growth and, therefore, its demand for imports would then slow. By how much would depend on how effective China is in stimulating domestic demand without triggering a surge in inflation.

In this scenario, developing countries would be confronted with a decline in U.S. demand and a marked slowdown in the growth of demand from China. The growth of exports from other developing countries would decline. By how much would influence whether economic growth, and poverty reduction, would continue, but at a slower pace, or whether many developing countries would slip into recession. The ability of other developing countries to stimulate demand would also influence whether recession could be avoided.

The third scenario is the least ambiguous and the most negative for the U.S., for China and for other developing countries. Often what happens when there is an imbalance in a foreign exchange market is that the adjustment happens suddenly.[53] Such a discontinuity would generate a global financial tsunami. Both high and low income economies would be hit. The tsunami would, most likely, be triggered by a loss of confidence in, and a run on, the dollar.[54] Unwillingness by American policy-makers to adopt the changes in fiscal policy necessary to reduce both the internal and the external deficits could be the cause of the loss of confidence.

The flight from the dollar, in turn, would lead to a spike in interest rates in the U.S. and elsewhere and a sharp economic downturn. The “over-heated” real estate market in the U.S. is particularly vulnerable to a rise in interest rates.[55] And tapping into the

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[52] Roubini and Setser (2005a), p. 14; Truman (2004), p. 2. Levey and Brown (2005b), p. 199, seem to miss this fundamental point when they argue that there is no urgency about reducing the US budget deficit because “tighter US monetary policy and growing bipartisan attention to the fiscal trajectory will eventually raise the savings rate….”

[53] Summers (2004) points to 5 incidents of prolonged macro economic imbalance over the past 15 years, each of which resolved itself with a costly discontinuity.

[54] If dollars are sold what currencies would be bought? The euro, the yen and the renminbi are the top candidates, though the financial markets in Europe, Japan and China are not nearly as large and deep as those in the U.S. This is another factor that may postpone the day of reckoning.

[55] Fed Chairman, Alan Greenspan, recently warned that the housing market has become “frothy” and that the market is in “an unsustainable underlying pattern.” He pointed to the rapid increases in prices and a number of signs that they are being driven, in part, by speculation in real estate. His warning on housing is not dissimilar to his 1996 warning that equities markets were suffering from “irrational exuberance.” It took another four years for that bubble to pop. See Andrews, NYT, 05/21/05. The Wall Street Journal

equity in their homes has been a means by which Americans have been able to increase their consumption while, for many, earnings have stagnated.[56] The U.S. trade deficit would decline as American incomes and investment dropped. The sudden sharp drop in the demand for imports together with the rise in interest rates globally would transmit the downturn from the U.S. to the rest of the world.[57]

Michael Mussa, former chief economist of the IMF, quantifies what such a sudden adjustment might look like for the U.S. and the rest of the world:[58]

> "[I]t is possible that the U.S. current account deficit could be substantially reduced by a sharp reduction in U.S. expenditure, without any change in the real exchange rate. For example, assuming a U.S. marginal propensity to spend on imports of one-quarter, a 10 percent drop in [U.S. expenditure] would, holding [U.S. income] constant, improve [the U.S. current account] by just about 2.5 percent of [national income]. But, 7.5 percent of the 10 percent drop in [national expenditure] would fall on domestic demand for domestic goods and services. Leaving aside for the moment what is happening in the [rest of the world], this exogenous drop in demand would have to be met by a fall in [U.S. income] of (about) 7.5 percent, and by further declines in [national expenditure] and [national income] through the usual multiplier process. Working through this multiplier process (still assuming that nothing happens in the [rest of the world] and U.S. exports are therefore unaffected) yields under plausible assumptions a drop an U.S. output of 15 percent, a drop in [national expenditure] of 20 percent and an improvement in [the current account] of 5 percent of (initial) [national income]. **But, a 15 percent drop in [national income] means a massive U.S. recession on a scale not seen since the 1930s.**
>
> Moreover, working through the standard analysis of the effects in the [rest of the world] from such large drops in [U.S. expenditure] and [U.S. income], we find

(Hagerty and Simon, 05/23/05), notes that it is increasingly common for people to borrow against the equity in their home to speculate on another property, which is the real estate equivalent of buying stocks on margin.

[56] In 2004, by refinancing, homeowners extracted roughly $700 billion from the equity in their homes, up from roughly $250 billion in 2000. See Hagerty and Simon, WSJ, 05/23/05. If interest rates spike the number and value of refinancings will decline, squeezing consumption (and construction, and employment in the construction sector). The fact that, when re-financing, many homeowners, are taking out interest only or flexible rate loans, increases the concern because a sharp rise in interest rates would markedly increase the mortgage payments of those who have already refinanced and squeeze their capacity to buy consumer goods. Krugman, NYT, 05/20/05.

[57] Roubini and Setser (2005a), p. 11, state the issue clearly: "over time, U.S. imports either have to fall back to the level of U.S. exports, or U.S. exports have to rise to the level of U.S. imports. The last thing the U.S., or the world, should want is for the U.S. to be forced to make an adjustment of that magnitude suddenly. Sudden adjustment typically comes from a fall in imports, not an increase in exports – and likely implies a sharp global and U.S. recession."

[58] Mussa (2005). The assumption here is that all of the reduction in the current account deficit is accomplished by a decline in U.S. expenditures, without any change in the real exchange rate or any impact on trade flows of a change in the exchange rate. If the adjustment happens suddenly then this is a plausible assumption because any change in the exchange rate that might occur, and might actually trigger the crisis, will not have time to have an impact on either imports or exports.

significant drops in [rest of the world income] and [expenditure]. For example, **if [the rest of the world] is roughly three times the size of the U.S., we might expect [rest of the world income] to fall by nearly 6 percent and [rest of the world expenditure] to fall by about 4 percent.** This yields a worsening of the [rest of the world] current account by about 1 2/3 percent of initial [rest of the world income] - which would correspond to the improvement in [the U.S. current account] by 5 percent of initial [U.S. income]."[59]

As part of this process, China would be hard hit. It is difficult to imagine how China could compensate quickly for the loss of external demand. More likely, China would fall into recession and it, too, would experience a sharp drop in the demand for imports. The combination of the world's two leading engines of growth simultaneously moving from fast forward into reverse would have a big adverse impact on developing countries. There is nothing in their policy arsenals that could markedly reduce the negative impact of what is likely to be a global economic downturn.

E. A Benign Unwinding Versus a "Financial Tsunami": The Role of U.S. Fiscal Policy

It is in everyone's interest to follow the relatively benign path to re-establishing global macro-economic balance. Because it is so much in their interest to do so, other countries, China notable among them, will undoubtedly be willing to cooperate by changing policies influencing exchange rates and the level and composition of demand. But the locus of the problem is in the U.S. Changes in foreign economic policy, on their own will not fully correct the problem. To help resolve the problem in a relatively benign way, these countries will require U.S. leadership. This raises a key issue. What if that leadership is not forthcoming? Granted, that is hard to imagine, since it is so much in the interest of the U.S. that a crisis be avoided. And because the world is so accustomed to the U.S. taking the lead when there is a major global economic problem that must be resolved.[60] But imagine it we must, if only because over the last four years the Bush administration has declined to assume global leadership on this issue.

To assess the probability of following a benign path to the re-establishment of global macro-economic balance relative to achieving balance via a sharp, sudden discontinuity, we need to clarify what will be the key determinant of which path will be followed. For the U.S. to reduce its dependence on foreign capital by following the benign path will require time and substantial additional foreign capital. At present, what is protecting the world economy from a discontinuity is the demand for dollars generated by a few Asian central bankers. The key determinant then has to do with what it will take to sustain substantial, though diminishing, foreign capital inflows into the U.S.

In a word that determinant is "credibility." If those who control foreign capital—whether central bankers or private investors—are convinced that the U.S. is on the path to reduced dependence on foreign capital then the time and the money necessary to follow

[59] Mussa (2005), p. 2.
[60] It was the U.S. that took the lead in Mexico in 1994 and in East Asia in 1997.

the benign path is likely to be made available. If, on the other hand, those who control foreign capital come to believe that the U.S. is not taking the actions necessary to reduce its dependence on foreign capital and may even be taking actions that will increase it, then they will be likely to come to view a discontinuity as inevitable.[61] The belief in that inevitability will then become a self-fulfilling prophecy if it leads them to try to protect themselves by reducing their appetite for dollars.[62]

While a factual analysis of the ability of the U.S. to sustain the growth of foreign debt will have an influence on the appetite of foreigners for dollars and American assets, perhaps more important than the reality itself will be the perception by foreigners of what that reality is. This has two implications. First, if the U.S. faces a financial crisis, in the form of a run on the dollar, it is less likely to be a crisis of solvency than a crisis of liquidity. In other words, the crisis will not be determined by a precise calculation that the U.S. is insolvent or that the rate at which it is accumulating debt is not sustainable.[63] Rather, it will be determined by a more amorphous assessment of the future magnitude of U.S. foreign debt and the value of the dollar.

Second, if all this sounds rather subjective, that is because it is. How foreign holders of capital perceive the burden of U.S. foreign debt – and how Europeans view how the Chinese perceive U.S. foreign debt—is more important than any objective assessment of that burden.[64] This need to take into account the subjective perceptions of foreign investors is, in itself, a symptom of the problem. For the past 100 years or more, the financial strength of the U.S. was so great as to be self-evident. American assets were

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[61] As Truman (2004), p. 18 puts it: "It is difficult to imagine how the United States could achieve a substantial correction of the external deficit and still maintain a large fiscal deficit because of the size of the implied drop in the rate of domestic investment that would be involved."

[62] Gramlich (2004) discusses a "credibility range" within which the external deficit does not have a large impact on asset prices, interest rates or exchange rates. Truman (2004) suggests that when the external deficit becomes sufficiently large or has been expanding, the credibility range narrows, confidence in U.S. financial policy is undermined and the risk of a crisis rises.

[63] These are not simple calculations to make. At present U.S. foreign debt is over 30 percent of GDP, and rising. The danger zone for developing countries is when debt exceeds 40 percent. The U.S. appears to be fast approaching that mark. But, on the optimistic side, allowance has to be made for the fact that most U.S. foreign debt is denominated in dollars rather than in a foreign currency whereas the debt of developing countries is largely denominated in dollars. A depreciation of the currency of a developing country, which should contribute to a reduction of its external deficit, also, unfortunately, increases the value of its foreign debt. For the U.S. this is not true. Moreover, the evidence suggests that the U.S. earns a substantially higher return on its foreign investments than foreigners earn on their investments in the U.S. Just comparing the flows of earnings on foreign assets suggests that that the U.S., net, is not as heavily indebted as a comparison of foreign assets does. Both these factors suggest that the burden of foreign debt on the U.S. economy may be lower than commonly thought. See Cline (forthcoming). On the other side, some analysts argue that if you take account of the unfunded liabilities of the federal government the true level of government debt, hence the amount of debt that will have to be funded by foreigners, is currently in excess of the value of US assets, implying that the US has a negative net worth and is currently insolvent. See Peterson (2004); Bernasek, BYT, 05/01/05.

[64] As Fallows (2005) p. 56 puts it, hyperbolically, "if any of the Asian countries piling up dollars began to suspect that any other was about to unload them, all the countries would have an incentive to sell dollars as fast as possible, before they got stuck with worthless currency."

appealing in part because foreigners did not perceive any systemic risk in the U.S.[65] Now, in addition to assessing the risk associated with any particular American investment, foreigners have to be concerned about systemic risk, no matter how small they may perceive it to be.

The outstanding burden of external debt poses one challenge to maintenance of U.S. credibility. When, under Ronald Reagan, the U.S. began to run large external deficits, U.S. external debt, net, was zero and U.S. assets as a share of foreign investment portfolios was very small. In 1980 it would be hard to imagine a more credit-worthy borrower. If the U.S. wanted to borrow, foreigners were more than happy to lend. Not only has the annual amount that the U.S. asks foreigners to lend surged from next to nothing in 1980 to over $700 billion in 2005, but that borrowing is now on top of existing net borrowings of over $3 trillion. Dollar denominated assets as a share of foreign investment portfolios have also risen sharply.[66] Moreover, even without any increases in the external deficit, the net external liabilities of the U.S. are on a path to more than double over the next four years, to $7.4 trillion at the end of 2008.[67]

Perhaps a more important challenge to maintaining credibility than the history of borrowing are forecasts of how much borrowing the U.S. may need to do decades in the future. The U.S. has a serious long-term fiscal problem.[68] This is well known. The aging of the population of the U.S. population is a major contributing factor. The Congressional Budget Office forecasts that, without any change in policies, the federal government deficit will rise from an estimated 3.6 percent deficit in 2004 to a striking 14.4 percent deficit in 2050.[69] Less than 20 percent of the increase in the deficit would be due to the Social Security financing deficit. Nearly 80 percent of the increase is expected to result from high medicare and medicaid expenditures.[70]

Few believe that the deficit will actually rise to 14 percent of GDP, but neither does anyone yet know the policy changes that will be implemented as a means of lowering that deficit, nor how effective they will prove to be. The fact that the U.S. is currently perceived by both citizens and foreigners to be on a dangerous path can only

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[65] Indeed, this may be one reason why returns on foreign holdings on U.S. assets are so much lower than returns on American holdings of foreign assets. Because the U.S. has been such a safe market, foreigners may place the low-risk, low-return portion of their portfolios there while U.S. residents place the higher-risk, higher return portion of their portfolios in less safe foreign markets. Cline (forthcoming).
[66] Over the decade 1992-2002 U.S. external liabilities rose from rough 5.7 percent of the value of the gross financial assets of the rest of the world to roughly 13.2 percent. Cline (forthcoming).
[67] Roubini and Setser (2005a), p. 13.
[68] Fallows (2005), p. 53, summarizes the message of the Government Accountability Office (GAO) on this subject:" the basic operating costs of the federal government (interest payments, Social Security, and Medicare and Medicaid – the unglamorous long-term payments it is legally committed to make) is growing, and the money to cover them is not."
[69] CBO (2003). Again, this forecast does not take account of changes in tax laws that have yet to be adopted.
[70] In 2003 Congress added prescription-drug coverage to Medicare, without much consideration of its long term fiscal impact, thereby adding nearly $13 trillion to the government's long-term commitments and prompting the government's comptroller to say that 2003, also a year in which tax cuts were passed," was the most reckless fiscal year in the history of the Republic." See Fallows (2005), p. 54.

undermine the attempt to maintain credibility as the U.S. seeks to borrow larger and larger sums from foreigners. To get off that dangerous path will require considerable political will and bi-partisan cooperation. The increase in partisanship, and the decline in cooperation and compromise, in American politics and government must be a source of growing concern to foreigners. It must plant a seed of doubt that the U.S., without being forced by outsiders, has the ability to do what must be done.

How well the U.S. deals with its current fiscal challenge will undoubtedly influence the assessment by foreigners of the capacity of the U.S. to deal with its much larger long-run fiscal challenge. The current fiscal challenge is a test that is being closely watched by foreign investors. We noted that between 2000 and 2004 there was a large, 6 percent, fiscal deterioration in the U.S., from a surplus of 2.4 percent to a deficit of 3.6 percent. Some of that deterioration was accounted for by increases in federal government spending, which rose from 18.4 to 19.9 percent of GDP.[71] Most of deterioration was the result of a decline in tax revenues from 20.9 to 16.2 percent of GDP, the lowest tax revenues have been as a percentage of GDP since 1959.[72] This 6 percent reduction in public savings, in turn, accounted for nearly all of the increase in the domestic resource gap and in the U.S. current account deficit.

With a large stock of external debt and, unless policies are changed, borrowing requirements a few decades in the future that will dwarf the borrowing the U.S. has done in the past, means it will not be a simple matter for the U.S. to maintain its financial credibility. Essential to doing so will be the demonstration to the rest of the world that the U.S. has the will and the means to substantially reduce an external deficit that has been steadily growing over the past four years. And to reverse the trend in the external deficit, there really is no policy alternative: the fiscal deterioration of the last four years will have to be reversed.

The Bush administration, at least implicitly, recognizes this. The administration claims it will reduce the budget deficit as a share of GDP. In the words of the President, "I have pledged to cut the deficit in half by 2009, and we are on track to do so."[73] The CBO foresees nearly a halving of the annual budget deficit by 2010, to 1.9 percent of GDP. Unfortunately, there are two serious problems with this forecast. First, the forecast is not realistic because it is inconsistent with other stated policy goals of the administration. For example, the CBO's forecasts do not take account of three initiatives, each of which, if enacted, will have a large adverse impact on the federal government deficit: making the tax cuts of 2001 permanent, reducing the impact of the alternative

[71] Because of declining interest rates, federal government interest expense on the national debt actually fell by 0.9 percent of GDP implying that other government expenditures actually increased by 2.4 percent of GDP. Cline (forthcoming).

[72] While that decline was largely due to cuts in tax rates, some of it was due to the reduction in revenues from capital gains taxes that resulted from the popping of the stock bubble in 2000. The Economic Report of the President in 2005 asserts, incorrectly, that only 25 percent of the fiscal deterioration is due to the tax cuts. CEA (2005).

[73] CEA (2005).

minimum tax on middle-income groups and introducing a private account alternative within the current Social Security system.[74]

Unfortunately, forecasts by independent analysts that take account of at least some of the policy changes proposed by the Bush administration predict that with regard to the deficit, the administration will fail to do what it says it will do. Rather than a decline in the budget deficit as a share of GDP, they see the deficit remaining in the 3.5-4.5 range until 2014.[75] The implication is clear: if public savings do not increase then, in the absence of a rise in private savings or a decline in investment, which are only likely to occur if there is an economic downturn, then the domestic resource gap and the external deficit will not decline as a share of GDP. If it remains constant, and the economy sustains growth of 3 percent a year, then within ten years the annual external deficit of the U.S. will rise from the current $700 billion to over $1 trillion.

The second problem with the Bush administration deficit reduction goal is that, even if it could be achieved, it is doubtful that it is sufficiently ambitious. Cline (forthcoming) has developed a formal computable general equilibrium model that links the U.S. fiscal balance to balance in the current account.[76] And here is what he concluded:

> "Various simulations with the model show that fiscal adjustment of a given amount tends to yield a trade balance adjustment that is about 40 percent as large; that an exogenous initial decline in the dollar by itself has only a limited effect on the current account; and the most effective external adjustment occurs when an exchange rate decline is accompanied by a sizable fiscal adjustment. The main thrust of the analysis is to emphasize the crucial role of fiscal adjustment. With the assumed parameters, the model estimates indicate that the size of the fiscal adjustment would need to be 4 percent of GDP, even if accompanied by a 20 percent decline in the dollar and a modest temporary acceleration in foreign growth, in order to curb the trade deficit from its initial level of 5.2 percent of GDP to 3.1 percent."[77]

The Bush administration goal of reducing the fiscal deficit to 1.9 percent of GDP will make only a small dent in the current account deficit. It will require a reduction in the fiscal deficit, 2-2.5 times what the administration hopes to accomplish, to cut the external deficit, by roughly one third, to 3.5 of GDP. At a minimum, to substantially reduce the external deficit it is necessary to once again move the federal government

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[74] Under the present system, money flowing into the Social Security system helps pay current retirees. Because money that flows into private accounts won't be available to current retirees, trillions of dollars of government borrowing will be required to fund the transition to the new system, if adopted.
[75] See Gale and Orszag (2004) and Cline (forthcoming).
[76] Among its equations are "the national accounts identity; the relationship of consumption to disposable income; investment as a function of the interest rate and GDP; the real exchange rate as function of the interest rate and domestic relative to foreign growth; the interest rates as a function of the size of the fiscal deficit, the excess of GDP over its potential, and the price level; and the price level as a function of the level of GDP and the level of the real exchange rate." Cline (forthcoming).
[77] Cline (forthcoming).

budget from large deficits to surpluses. But there is no plan to do that. Even if there was, it is not clear whether reducing the current account deficit from roughly $700 billion a year to roughly $470 billion, year after year after year, is sufficient to maintain U.S. financial credibility.[78]

What is disturbingly clear is that the combination of the Bush administration's modest goal for reducing the fiscal deficit, together with the high likelihood that even that goal will not be achieved means that, without a crisis, little or no progress will be made in reducing the U.S. current account deficit. Cline (forthcoming) forecasts external deficits rising from 5.7 percent of GDP in 2004 to about 7.5 percent by 2010, and other analysts are even more pessimistic. If there aren't major changes in U.S. policy they see the external deficit growing to 8-12 percent of GDP by 2010.[79] This means that the U.S. will, in fairly short order, require well over $1 trillion a year to fill its domestic resource gap. If indeed the financial credibility of the U.S. depends on making substantial progress toward reducing its dependence on foreign capital, then this growing reliance on foreign capital, in turn, implies that U.S. financial credibility will be seriously at risk.

F. A Crisis: Potential Triggers

What happens if, in the eyes, of foreign investors the U.S. does lose financial credibility? Clearly the risk of a discontinuity in foreign exchange markets, of a run on the dollar and all that that implies, rises. There are a number of factors that, alone or in unison, could trigger such a run. First, the central banks of Asia could begin to lose their appetite for dollars despite the fact that currently there is what Summers calls "a balance of financial terror." The short run cost to Asian economies of a financial tsunami could be as high as the cost to the U.S., giving the central bankers a powerful reason to sustain the dollar and avoid a recession in the U.S. for as long as possible.

That said, the central banks have, with respect to dollars, in effect, become the source of demand of last resort. The more dollars they accumulate the greater the financial loss to them when the "inevitable" decline of the dollar does occur.[80] Perhaps even more important, accumulating dollars can result in a too rapid increase in their domestic money supply, fuelling inflation. At some point these costs may outweigh the benefits of supporting the dollar. It is unlikely that the bankers would do anything draconian. Rather they would be likely to try to let the dollar down gently, but may trigger a run and lose control of the situation.

[78] Roubini and Setser (2005a), p. 9 agree. Their analysis indicates that a reduction of the external deficit to 3.5 percent is not sufficient. Rather to keep the ratio of U.S. debt to GDP from rising, it will be necessary to cut the external deficit to 1 percent. See also Truman (2004), p. 9. Again, to achieve this will require that the federal budget be in surplus.
[79] Summers (2004); Mann (2004).
[80] "A 20 percent increase in the value of the [renminbi] against the dollar would reduce the value of China's roughly $450 billion in dollar reserves by about $100 billion – 6 percent of China's GDP. In four years, if nothing changes, Chinese dollar reserves could reach $1.4 trillion, raising the costs of a falling dollar to $300 billion – some 12 percent of China's GDP". See Roubini and Setser (2005b), p. 196.

If the U.S. external deficit remains constant as a share of U.S. GDP, and foreign private capital continues to shun the U.S., then the number of dollars the Asian central banks will have to accumulate will steadily rise. If the current account deficit grows as a share of GDP then the number of dollars they will have to accumulate is that much larger. Further compounding the problem is the fact that many American investors (and foreign private investors with American holdings), seeing the writing on the wall, are reallocating their portfolios and increasing the share of assets not denominated in dollars.

A few notable examples: over the past two years Warren Buffet, one of the country's most savvy investors, has shifted over $12 billion out of dollars into assets denominated in other currencies.[81] Likewise, the Harvard University endowment, one of the nation's most successful institutional investors, has substantially increased the share of its $20 plus billion portfolio that it is allocating to foreign investments.[82] And, because it believes the dollar will decline and that the expected returns on foreign equities are higher than on American equities, Alliance capital is recommending that a higher share of the $400 billion it has under management be invested abroad.[83] This reallocation by private investors increases the number of dollars that Asian central banks, as the demanders of last resort, will have to accumulate if they are to continue to stabilize the dollar.[84, 85]

When will the Asian central banks approach their limit with regard to the accumulation of dollars? No one knows. But the more they are asked to buy the sooner that day will come. To trigger a decline in the dollar the banks do not need to sell dollars they simply need to accumulate them at a rate slower than they are being made available. Recently the Korean central bank indicated that it was considering holding new reserves in currencies other than the dollar. They were not proposing to sell dollars. The currency market immediately drove down the value of the dollar, until the Koreans indicated that they had been "misunderstood."[86] Might this be a sign of what is to come?[87]

The growing dependence of the U.S. on "loans" from foreign central banks, wittingly or unwittingly, involves a transfer of power.[88] There is little doubt that China's leaders not only want their country to be wealthy, they want it to be, and to be recognized as, a great power. There are hard-liners inside the Chinese government who believe that

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[81] Reuters, NYT, 03/08/04.
[82] Fabrikant, NYT, 05/22/05.
[83] Bernstein & Co. (2005).
[84] In aggregate, Americans bought more foreign stocks than foreigners bought American equities in both 2003 and 2004. The result in 2004: a net equity outflow of $160 billion that had to be financed, in addition to the current account deficit of $666 billion. See Roubini and Setser (2005), p. 13.
[85] Should the U.S. truly lose credibility, convincing investors that a further large decline in the value of the dollar is inevitable, the reallocation out of dollar denominated assets could markedly increase.
[86] Dougherty and Fuerbringer, NYT, 03/23/05 and Korea Times, 04/10/05.
[87] Summers (2004), p. 10 has warned that quasi fixed exchange rate systems which require heavy central bank intervention "have enormous capacity to create an illusory sense of stability that could be shattered very quickly. That is the lesson of Britain in 1992, of Mexico in 1994, of emerging Asia in 1997, of Russia in 1998, and of Brazil in 1998."
[88] As Truman (2004), p. 13 says "…countries that are large international debtors find it more of a challenge to exert leadership in political as well as economic spheres".

China is vying with the U.S. for leadership in Asia and a confrontation with the U.S. is likely. One way for China to assert that leadership, and have it widely recognized, would be to take Taiwan by force and, should the U.S. threaten to intervene, for China to threaten to sell dollars.[89] If the U.S. backed down, the world would know. If it did not, the U.S. could find itself simultaneously in a military conflict and in a sharp economic downturn. Just how far-fetched is this scenario is unclear, but it does illustrate the fact that, to a disconcerting extent, the economic welfare of the American people, is now in the hands of a few Communist Chinese central bankers. And that in a political conflict with the U.S. it will be tempting for China to play its ace in the hole, its dollar card.

An "accident" in the trillion dollar a day market for derivatives—forward markets that allow corporations, banks, and investors to hedge currency or interest rate risks or to speculate—could be another trigger. To cover bets that went wrong a speculator in the forward market for dollars, for example, could be forced to sell large quantities of dollars on the spot market, stimulating a run on the dollar. Because the markets for derivatives are so complex and so large and so unregulated, not enough is known about them to gauge the risk. But it is another source of concern.

It is probably the case that the trigger would be some event that we have not imagined. If trends continue as they are the international financial system will become increasingly unstable. An event which a decade ago would not have much of an impact will come to have the potential to tip the entire system into crisis.

G. In Conclusion: To Help the Poor, Stop Playing Russian Roulette With the U.S. Economy

Generally, when evaluating risk associated with a social or economic problem or a policy, the public tends to be more negative in its assessment than the experts who are most familiar with the issues. For example, the risk the public assigns to nuclear power generation is much higher than the risk assigned by the scientists and engineers who work in the nuclear power industry or in academia and have better command of the facts and their implications. The relative ignorance of the public makes them more fearful.

With respect to the issues regarding global macro-economic imbalance, the opposite appears to be the case. The public is worried about the American economy, despite strong growth and low inflation and interest rates: in a May, 2005 survey "only one in three Americans think the national economy is in good shape."[90] And they are concerned about the budget deficit. But they do not seem to understand the link between the budget and the current account deficit and the full extent of the risk that these deficits

[89] James Fallows (2005) suggests another scenario. An attempted coup in Venezuela fails. Chavez blames the U.S. and imposes an embargo on oil exports to the US. (The Amuay refinery in Venezuela satisfies one eighth of the U.S. demand for gasoline.) The resulting oil shock triggers a run on the dollar, reinforced by the decision of China's central bank to no longer aggressively support the dollar.
[90] Pew Research Center for the People and the Press as reported in AP, June 2, 2005.

pose. The public's fear is diffuse.[91] The public does not appear to know enough about the issues, which are quite complex, to focus their fear on U.S. foreign indebtedness.[92]

Another reason for the lack of serious concern by the public may be the fact that the Bush administration has not emphasized the problem of the U.S. external imbalance. The Economic Report of the President, page 31, notes that in 2004 the trade deficit "rose in the third quarter to a record high as a percentage of GDP," and acknowledges that a decline in the savings rate is a contributing factor. However, it is quite sanguine about how a decline in the dollar, faster growth of U.S. trading partners and slower growth in the U.S. will reduce the deficit. There is no discussion about whether the President's goal of reducing the budget deficit by half is sufficient with regard to its impact on the current account deficit. Nor is there any discussion of the risks associated with rapidly growing foreign debt, and the role of Asian central banks.

A third reason for the lack of serious concern about the growing U.S. debt to foreigners has to do with the bond market. Under ordinary circumstances, if there were insufficient domestic savings to fund investment in the U.S. and the federal budget deficit, and foreign private investors were unwilling to fill the gap, then the dollar would fall and interest rates would rise. But the current circumstances are anything but ordinary. The dollar is being kept above what the foreign exchange market would determine and interest rates are being kept below what the bond market would determine if they were free to do so, by the purchases by Asian central banks of dollars and government securities. These markets are like canaries in a coal mine. They provide early warning of danger. But in this case foreign intervention in these markets have in effect, removed the canaries. And so the public and the media are lulled into complacency.

By contrast professional economists are much more seriously concerned.[93] They have a better understanding of the complexity of the situation and understand why the early warning canaries are not fulfilling their role. The Economist recently surveyed a random sample of the referees of the American Economic Review, the scholars that screen the pieces submitted for publication in perhaps the nation's most distinguished scholarly economics journal. Admittedly economists tend to be rather fiscally conservative. 75 percent of those surveyed considered the fiscal policy of the Bush administration to be a serious problem and 20 percent characterized U.S. macro-economic imbalance as a "crisis."[94]

And the international financial institutions charged with maintaining global macro-economic stability are also concerned. The IMF issued on May 25 its "Concluding Statement of the IMF Mission" from its "consultation with the United States

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[91] Some commentators explain the poor performance of the stock market in 2005, despite apparently sound fundamentals, on the sense that big macro-economic problems are looming just over the horizon. See White, Washington Post, 04/03/05; Fallows (2005).

[92] CEA (2005), pp. 37-38.

[93] Kolbert, The New Yorker, 05/02/05 reports that, like with global macro-imbalance and contrary to the usual pattern, with regard to global warming it is the experts who are most deeply concerned. The public is either oblivious or assumes that the problem will be solved.

[94] The Economist, 10/07/04.

of America." They say "external imbalances present a significant risk to the global economy. The U.S. current account deficit and its counterparts elsewhere in the world are widely viewed as unsustainable. A gradual adjustment of the U.S. external position and exchange rate remains the most likely scenario, especially if it involves stronger growth in the rest of the world. The challenge is to support the adjustment by stronger U.S. national saving to avoid the burden falling on investment and growth, both in the U.S. and abroad. Moreover, there will be limits to the global demand for U.S. assets, and there is a risk that an abrupt and disorderly shift in investor preferences could have a significant adverse effect on interest rates and global capital markets."[95]

The Basel-based Bank for International Settlements, the central bankers' bank, just issued its annual report in which it said that is impossible to predict when international economic imbalances would unravel in a disorderly manner but "time might well be running out." The BIS urged the U.S. to act to correct imbalances. They noted that the ever widening external deficit of the U.S. "could eventually lead to a disorderly decline of the dollar, associated turmoil in other financial markets, and even recession."[96]

Peter G. Peterson, Commerce Secretary under Nixon, concurs that the problem is a serious one. He said, in language less measured than that used by the IFIs "… I think these unprecedented twin deficits are great risks that a great country should not be taking. And I am not simply talking about the economic risk, I am talking about the national security risk, of betting how long the biggest debtor and the biggest borrower can also be a great leader and a great super power."[97] And Robert Rubin, Treasury Secretary under Clinton has written:

> "…Dangerously, if markets here and abroad begin to fear long-term fiscal disarray and our related trade imbalances, those markets could then demand sharply higher interest rates for providing long-term debt capital and could put abrupt and sharp downward pressure on the dollar. These market effects…could seriously undermine our economy…. Of course, we can continue to close our eyes and hope for the best. There's no way to predict whether that will work for another few month or for many more years. But…we place ourselves at great peril by not facing these realities."[98]

With regard to timing Paul Volcker, Greenspan's predecessor as the head of the Federal Reserve, is more specific, saying that, unless there is a marked change in policy, the probability of a financial crisis within the next five years is 75 percent.[99] The Financial Times asserted that U.S. external debt "is starting to resemble a pyramid scheme." And, perhaps most ominously, at the World Economic Forum in Davos, in

[95] IMF (2005).
[96] BIS (2005), p. 145 and p. 144.
[97] In a roundtable discussion at the Institute of International Economics, August 9, 2004.
[98] Rubin, NYT, 05/13/05.
[99] Krugman, NYT, 09/10/04.

2005, Fan Gang, the director of the National Economic Research Institute, an influential nongovernmental organization in China, warned that "the U.S. dollar is no longer seen as a stable currency."[100] Paraphrasing Churchill, and alluding to the lack of concern by the government and the public about the U.S. macroeconomic problem, Larry Summers, also Treasury Secretary under Clinton, asserted "the only thing we have to fear is the lack of fear itself."[101]

The Center for Global Development and Foreign Policy magazine have developed the Commitment to Development Index which ranks 21 of the world's richest countries based on their dedication to policies that benefit the 5 billion people living in poorer nations worldwide. In 2004 the U.S. ranked seventh, a quite creditable ranking. Moving beyond standard comparisons of foreign aid volumes, the index also rates countries on the quality of foreign aid, openness to developing-country exports, policies that influence investment, migration policies, support for creation of new technologies, security policies and environmental policies.[102, 103]

In the trade category, the U.S. scores first because its tariffs on agricultural goods are relatively low and because of relatively low tariffs on, and high imports of, manufactured goods from developing countries.[104] The index does not take account of a country's rate of growth of imports from developing countries. If it did, the overall ranking of the U.S. would undoubtedly be higher because of the U.S. role as an engine of growth for both high and low income countries.

How the U.S. reduces its dependence on foreign capital will be a test of the U.S. commitment to development. If the U.S. changes course and reduces its domestic resource gap by increasing public savings by more than the administration has, to date, promised, then the likelihood of a relatively benign reduction of global macro-economic imbalance increases. The additional foreign capital the U.S. will need during the potentially lengthy transition to lower trade deficits will be made available, by both high and low income surplus countries. If this happens, there is a good chance that the growth of poor economies and reductions in the number of the poor will continue. Following this path is good for the U.S. and good for the developing world. Leading the world down this path will strengthen the perception, worldwide, that the U.S. is seriously committed to benefiting the poor of the world.

If the U.S. does not succeed in substantially increasing public savings and continues, therefore, to be highly dependent on foreign capital and the result is a loss of financial credibility, a run on the dollar and sharply higher interest rates, the story is not a

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[100] The Financial Times and Fan Gang are both quoted in Fallows (2005).
[101] Summers (2004).
[102] The U.S. is near the bottom of the ranking with regard foreign assistance as a proportion of GNP. The European Union has committed to doubling its assistance to 0.7 percent of GNP by 2015. The U.S. currently only gives 0.18 percent of GNP.
[103] Foreign Policy (2004).
[104] "Three fourths of the trade score is based on barriers to exports from developing countries—tariffs, quotas, and subsidies for farmers in rich countries. Higher barriers yield lower scores. The remainder measures how much rich nations import from developing countries." See Foreign Policy (2004).

happy one. The progress that low income countries are making with regard to poverty reduction will grind to a halt. A decline in imports by the U.S. from low income countries will be a contributing factor and will weaken the position of the U.S. in the Commitment to Development Index. But, irrespective of what the index says, if the U.S. is seen to be responsible for derailing progress toward the elimination of global poverty, and pushing poor countries into a potentially deep and long recession, the U.S. reputation for being committed to development will be left in tatters and George Bush's assertion that "my job as the president is to lead this nation into making the world a better place" will be seen as cynical empty rhetoric.[105]

I emphasize again that the interest of China and other developing countries in the benign resolution of the global macro-economic imbalance is so strong that, if the U.S. leads the way and does the right thing these countries, too, are likely to do the right thing. They will agree to adjust their exchange rates and stimulate domestic demand as a substitute for diminished foreign demand.

They are much less likely to do the right thing if the U.S. fails to do the right thing, and continues to lecture them about their responsibility to do the right thing. There has been a notable contradiction over the past five years between U.S. foreign policy—unilateralist and disdainful of our friends—and U.S. foreign economic policy—turning to our trading partners as a supplicant, tin cup in hand. But even those countries most perturbed by the new "go it alone" foreign policy stance of the U.S., and amazed by the contradiction between U.S. foreign policy and U.S. foreign economic policy, recognize that it is in their interest to work with the U.S. to avoid a global financial tsunami.

One way to look at a financial trend such as a rapid rise in stock or real estate prices, that no longer appears to be driven by the usual fundamentals, is simply to extrapolate the recent history of the trend and conclude that it is likely to continue into the indefinite future. The expectation that the rise will continue is seen as a money-making opportunity: buy now when prices are high and sell later when they are still higher. That the continuation of the trend requires ever higher ratios of stock prices to earnings or real estate prices to rents, is dismissed by assumptions that there is some new, not fully understood, fundamental determinant that is now driving the market.[106] This extrapolation of prices is not fully rational; it provides the hot air necessary to inflate a speculative bubble.[107]

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[105] Quoted in Mallaby, The Washington Post, 04/19/04.

[106] Just before the stock market bubble deflated in 2000, after having nearly tripled in value over the previous six years to reach 11,000, a book was published with the title, *Dow 36,000: The New Strategy for Profiting From the Coming Rise in the Stock Market*", which offered reasons for a further tripling of the market. See Glassman and Hassett (2000). Today, after one of the great real estate booms in American history, it is not difficult to find tracts explaining why the real estate price rise will continue and explaining how to cash in on it.

[107] Shiller (2004), p. 2 sees "irrational exuberance", a term taken from Greenspan's 1996 speech, as the psychological basis for a speculative bubble. He defines a speculative bubble as "a situation in which news of price increases spurs investor enthusiasm, which spreads by psychological contagion from person to person, in the process amplifying stories that might justify the price increases and bringing in a larger and larger class of investors, who, despite doubts about the real value of an investment, are drawn to it partly through envy of others' successes and partly through a gambler's excitement."

Simply extrapolating a price trend is the equivalent of concluding that the longer the trend continues, the higher the probability that it will continue for the next month or year.[108] The alternative is to conclude that the longer a trend continues, and the wider the gap between the trend in the price and the trends in key determinants, the sooner the trend will cease.[109] The skeptics are often the first to admit that they do not know precisely when the trend will cease. Directly contrary to those who are irrationally exuberant, the skeptics are convinced that the longer the trend continues the higher the probability that, within the next month or the next year, or the next three years, it will end.

What does this discussion of speculative bubbles have to do with the U.S. dependence on external capital and the solution to that problem? After all, bubbles are the consequence of the beliefs and the behavior of individual investors, not the beliefs and actions of governments. But that is precisely the point. Over the past several years, the U.S. government has, on a number of key occasions, behaved as if it is an irrationally exuberant investor rather than as an analytically astute and skeptical steward of the public good, its appointed and historic role.

For example, in 2001, the administration forecast an aggregate budget surplus of $5.6 trillion between 2001 and 2010. It seemed only fair to reduce this surplus and lower taxes. Moreover, if the surplus was not reduced, it was argued, it could cause financial problems. After all, between the nation's founding and 2001 the U.S. had only accumulated $3.2 trillion in debt. An aggregate surplus in excess of government obligations means the retirement of all government debt and the end of the government bond market as we know it. So in addition to being fair, reducing taxes as a means of reducing the surplus seemed to be a prudent thing to do. Alan Greenspan agreed and leant his moral authority to the tax cut proposal. A dozen Democrats in the Senate joined the Republicans in passing legislation that would reduce tax revenues by far more than required for fiscal stimulus to counteract the recession.

The problem was that the forecast of a $5.6 trillion surplus had about as much merit as the forecast of the Dow reaching 36,000. The surplus forecast was essentially an extrapolation of the recent trend in tax revenues. Those revenues were rising sharply, from 17.5 percent of GDP in 1994 to nearly 21 percent in 2000 partly because of higher tax rates and partly because of revenue generated by taxes on capital gains accumulated as the speculative bubble inflated.[110]

Once the bubble burst in 2000, any small town accountant would tell you that, based on experience with clients, the revenue generated by taxes on capital gains was about to plummet, as in fact it did, to 16 percent of GDP, for the simple reason that capital gains themselves had already plummeted. But the government chose to ignore the

[108] After all, those who forecast that the trend would end sometime over the past year were proved to be wrong.
[109] There were bears who, in 1998 and 1999, believed that what was happening in the market for tech stocks was sheer folly. They stayed on the sidelines. The opportunity cost of doing so was substantial but, then again, when the bubble burst, they did not suffer the 90 percent declines in their portfolios that the bulls did.
[110] Fallows (2005), p. 53.

fundamentals and claimed that the trend of rising revenue would continue. In this case it was the government, who had preferential access to the necessary information that ignored the fundamentals and simply focused on the trend. It was the government that was irrationally exuberant.[111]

And something similar seems to be happening today with regard to the accumulation by the U.S. of external debt. Listen to the administration and this is what you hear:

> Foreigners have been lending to us and will continue to do so. Simply extrapolate the trend in foreign capital inflows and there is no problem with the growing and persistent trade deficit. After all, the U.S. is the most attractive place in the world in which to invest. In any case, the deficit is the responsibility of our trading partners who are saving too much, growing too slowly or manipulating their exchange rates. Our budget deficit does not really matter and is not directly related to our current account deficit. If our trading partners fix their problems all will be well. If they do not they will have to continue to lend to us because the cost to them of not doing so is just too high.

The gap between the fundamentals that generally determine how much foreigners will be willing to lend to the U.S. and the trend in the accumulation of foreign debt is widening. Why? Because new debt is coming on top of trillions of existing debt; the returns to American assets have declined relative to returns on the assets of other countries; the appetite of private foreign investors for dollar denominated assets has sharply declined and been replaced by demand generated by central banks; there are limits to how many dollars foreign central banks will be willing to accumulate. The financial credibility of the U.S. is being widely called into question.

Without a change in U.S. policy, a global financial tsunami is inevitable. The question is not if, but when. To put it bluntly and to change metaphors, by ignoring the fundamentals and doing nothing to correct American policy, the U.S. administration is playing Russian roulette with the American economy. Correct that, it is playing Russian roulette with the world economy. The U.S. may be hard hit by the crisis when it comes but so will the rest of the world. And poor countries may be hardest hit of all, as both the U.S. and China, the most dynamic sources of external demand for their products, sink into recession. Most concerning, is the fact that the administration, driven by its irrational exuberance, continues to pull the trigger. By advocating policy changes that actually widen the U.S. budget deficit, hence the current account deficit, they are further undermining U.S. financial credibility, thereby increasing the probability that the flow of foreign capital into the U.S. will diminish, provoking a crisis.

[111] Once it became clear that revenues would be less than forecast and that the economy was headed into recession, the tax cut was rationalized as providing needed economic stimulus. To reduce a $5.6 trillion surplus that would accumulate over a decade it made sense to spread the tax cut over the decade. A tax cut spread over a decade did not make sense when what was required was short-term stimulus.

Niall Ferguson, a scholar, at Harvard, of British imperial history has recently argued that a large external debt should be viewed as a perk of empire.[112] But the historical evidence to which he refers suggests that perk may come at a high price. Prior to going heavily into debt to foreigners, Great Britain was a pre-eminent economic, diplomatic and military power, and the pound sterling was the world's leading reserve currency. As Ferguson notes, 20 years later the dollar had assumed sterling's role as a reserve currency and Britain's position in the world was markedly diminished. However, few British subjects, then or now, would question the wisdom of the borrowing by Churchill's government. The cause was noble and the stakes incredibly high. The British were fighting to prevent their conquest by the Nazis, and then to liberate Europe. Churchill did what he had to do.

How will Americans 60 years from now judge the current massive accumulation of foreign debt by the U.S.? Seeing that it was largely due to fiscal deficits for which no compelling reason could be found, and recognizing that, as a consequence, the dollar had been replaced by the euro, the yen and the renminbi as the leading reserve currency, that the position of the U.S. in the world was markedly diminished, and that the historic opportunity to eliminate mass global poverty had been lost, their judgment is likely to be harsh. They are likely to ask, "What was the Bush administration thinking?"

The world economy is balanced on a knife's edge. If it falls one way the tremendous progress the world has made over the past few decades in reducing global poverty can be sustained. For hundreds of millions, even billions, of people it means replacing illness with good health, it means longer lives and fewer children with more and better education and brighter futures, it means hope rather than despair, an adequate supply of the necessities rather than material deprivation. For the first time in human history, the end of mass global poverty is not just a pipe dream but a feasible goal.

However, if the world economy falls the other way, what is now a feasible goal will, once again, appear to be unachievable. The number in poverty, and all that implies for the sum of human suffering, will increase. The key determinants of which way the world economy falls off the knife's edge are the choices we make in the U.S. The rest of the world, and in particular the world's poor countries, have a big stake in what we choose to do. The U.S., as a world leader, has been tested before, and it has risen to the challenge. It has the capacity to do so again.

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[112] See Ferguson, NYT, 03/13/05.

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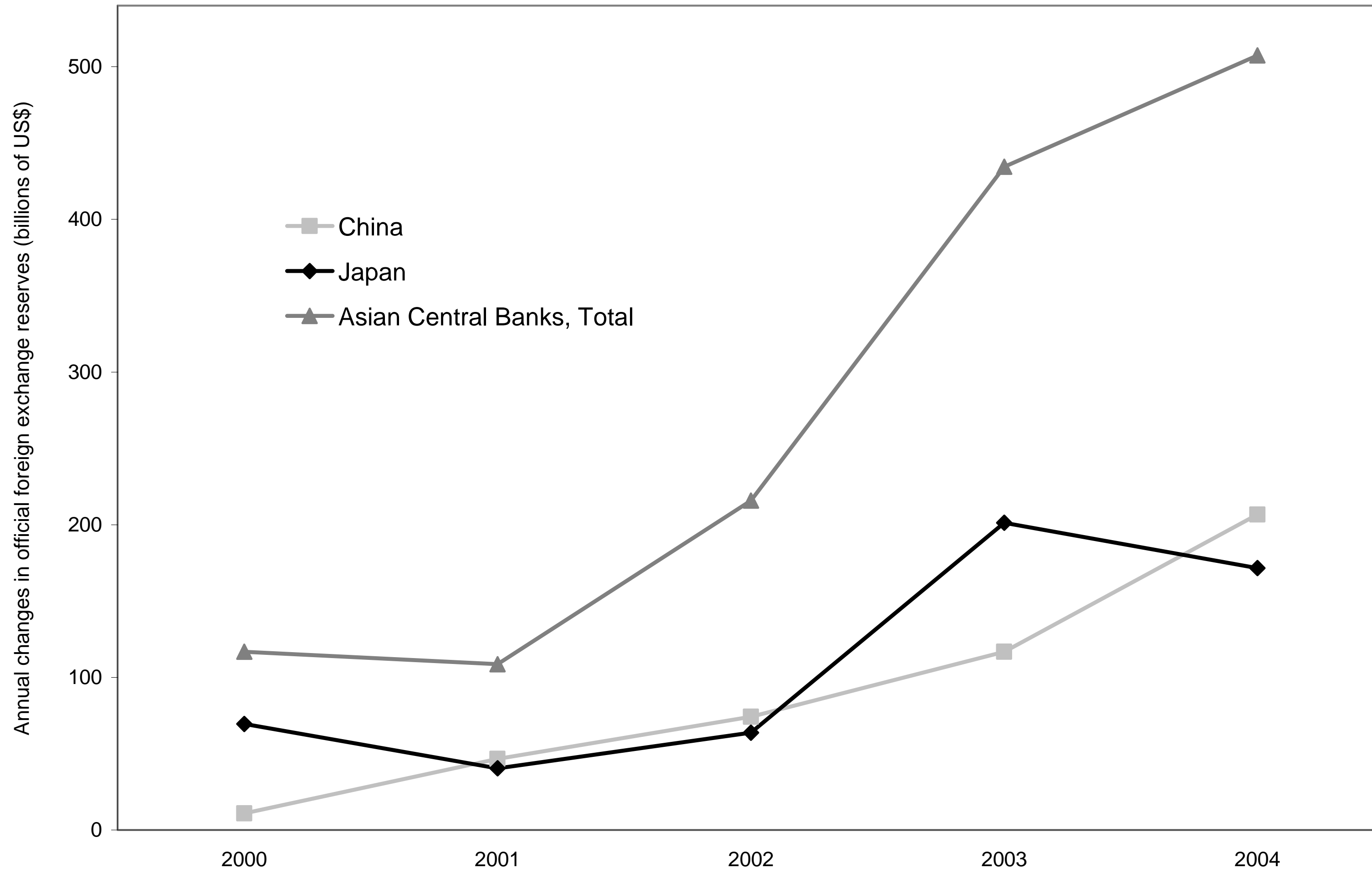
Figure 1

Annual changes in official foreign exchange reserves in China, Japan and Asia 2000-2004
(billions of US$)



Note: Asian Central Banks, Total includes China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan and Thailand.
Source: BIS (2005).

Table 1

U.S. private investment and private saving 1992-2000

	Net private investment (percent of GDP)	**Personal saving** (percent of GDP)
1992	4.1	5.8
1993	4.9	4.3
1994	6.0	3.5
1995	5.8	3.4
1996	6.3	2.9
1997	7.1	2.6
1998	7.5	3.2
1999	7.7	1.7
2000	7.6	1.7

Source: BEA (2005), author's calculations.

Table 2

U.S. imports of goods and services 1992-2002

	(billions of US$)
1992	669
1993	721
1994	815
1995	904
1996	965
1997	1,057
1998	1,116
1999	1,252
2000	1,476
2001	1,402
2002	1,433

Source: WDI (2005).