

# The Dollar's Day of Reckoning

America's falling dollar and mounting international debt are not, as pundits often declare, the wages of profligacy and sin. They are the inevitable products of dysfunctional international financial arrangements—a system that now appears likely to come crashing down, with alarming implications for the American economy.

*by Robert Z. Aliber*

**T**he past three decades have been the most tumultuous period in international financial history. A complex series of economic developments set in motion decades ago, which can be conveniently marked by the collapse of the Bretton Woods system of fixed international exchange rates in 1971, now appears to be reaching a crisis stage with the rapid decline of the dollar in the foreign-exchange market. A number of other costly adjustments are likely still to come.

Since the late 1960s, there have been four extraordinary developments in the global economy. First, the values of the dollar and other national currencies have fluctuated over a much wider range than ever before, including the turbulent years between the two world wars.

Second, there have been three major asset price bubbles—most recently, in U.S. stocks; before that, in the real estate and stock markets in Thailand and other Asian countries; and before that, in the same markets in Japan and in the unlikely Nordic trio of Finland, Norway, and Sweden. Nothing like this number of sequential bubbles has ever been seen in monetary history.

Third, the national banking systems in more than 40 countries collapsed, includ-

ing those in Japan, Sweden, Mexico, and South Korea, as their banks' loan losses soared to amounts far in excess of their capital. The banks generally remained open only because their national governments explicitly or implicitly guaranteed bank deposits.

Fourth, the United States evolved from being the world's largest creditor country in 1980 to the world's largest debtor in 2000—a rapid reversal without precedent in financial history.

These four sets of extraordinary developments did not arise independently. They were systematically related, linked to one another by large and sudden cross-border flows of money and securities—capital “sloshing” from one country to another in search of higher returns. Funds generally flowed into a country when the investment community recognized that its economic prospects had improved, and the inflow accelerated the country's growth. But then a change in the economic environment or signs of distress led to a sharp reduction or reversal in the flow of funds, causing the country's currency to depreciate sharply.

These sudden shifts in money flows are responsible for the era's unusually wide





*The dollar's value is determined in currency exchange markets like this one at the Chicago Mercantile Exchange, where the underlying value of futures contracts traded in a day can approach \$80 billion.*

currency fluctuations. Economists almost always base their forecasts of changes in market exchange rates on differences between national inflation rates. If a country has a higher rate of inflation than its trading partners, its currency generally will decline in the foreign-exchange market. But in the past several decades, currency values have overshot and undershot these expectations by much wider margins than before. Since the late 1990s, for example, inflation rates in the United States, and in Germany, France, and most other member countries of the European Union, have been roughly similar. But after the euro was launched at the beginning of 1999, the new currency depreciated by 30 percent. Since touching bottom in 2001, it has appreciated by nearly 50 percent. Earlier, in the 1970s, the dollar lost more than half its value relative to the German mark and the Japanese yen as investors became increasingly skeptical about the seriousness of the

United States' commitment to subdue its rising inflation. But after the new Federal Reserve Board chairman, Paul Volcker, announced tough anti-inflation policies in October 1979, the dollar appreciated by 60 percent.

**I**n the past, asset price bubbles have been infrequent and usually solitary, except for the coincidence in 1720 of the South Sea Bubble in London and the Mississippi Bubble in Paris. Two of the three modern bubbles were linked to an inflow of foreign money and an increase in the value of the national currency. In these cases, the bubbles expanded as foreign capital flowed into the country, increasing the supply of credit available to select groups of borrowers.

The most recent bubble occurred in the U.S. stock market during the late 1990s—by some measures, a bigger bubble than the one that preceded the Great Depres-

sion. The dimensions of the American bubble were enlarged by the Asian financial crisis of 1997, which triggered a massive flow of funds to New York from Bangkok, Seoul, Taipei, and Hong Kong, and then by an influx of investment from Europeans eager to profit from the boom in the American economy and the surge in U.S. stock prices. The Asian crises resulted from the bursting of a bubble in real estate and stock prices that had been growing since the early 1990s, and that bubble had in turn followed the implosion of stock prices in Tokyo at the beginning of the 1990s.

The collapse of Tokyo's financial markets ended the "mother of all asset price bubbles," which had ballooned in the latter half of the 1980s. Unlike the other bubbles, Japan's had its roots in the domestic economy. The Japanese bubble followed from the liberalization of financial regulations that had been in place since the 1950s. Those regulations were designed to keep interest rates for preferred borrowers extremely low and to allocate credit to firms that were considered likely "winners" in the global industrial competition. As a result, interest rates were low and investment levels exceptionally high.

The liberalization of the 1980s came partly at the urging of the U.S. government, which wanted American investment banks to gain access to the Tokyo markets on terms comparable to those that Japanese firms enjoyed in U.S. financial markets, and partly because by the 1980s Japanese firms were generating more cash from their operating activities to finance their own expansion.

**D**uring the 1980s, real estate prices in Japan increased by a factor of nine, and stock prices by a factor of six. Many of the firms whose stocks were traded on the Tokyo exchange were real estate holding companies, so the increase in real estate prices led to an increase in the value of their assets, and their stock prices accordingly rose. The surge in real estate prices fueled a construction boom, so the stock

prices of construction companies also climbed rapidly. Japanese banks owned shares in various industrial companies and a great deal of real estate, so the increases in prices of these assets led to rapid increases in their capital and, thus, the banks' lending capacity.

Because Tokyo had liberalized its financial regulations, the Japanese banks were able to increase their loans to real estate investors at rates that reached 30 percent annually. Moreover, many industrial firms then began to buy real estate, since the returns from these investments were much higher than the profit rate in industry. In some cases, the firms got their money from business loans that were really real estate loans "in drag."

The price increases in Tokyo's asset markets seemed like a perpetual motion machine—the bank loans to real estate investors led to sharp increases in real estate prices, which in turn pulled up stock prices. Bank capital grew as property and stock prices rose, so the banks were able to increase their loans to real estate and industrial borrowers. Some real estate investors had a "negative carry": Their rental income was significantly less than the scheduled interest payments they needed to make. These investors got the cash to pay the interest on their outstanding loans by increasing the amounts borrowed from the banks against properties they had purchased in previous years.

**T**he liberalization of regulations during the 1980s also enabled Japanese banks to establish numerous branches and subsidiaries in London, New York, Zurich, and other national financial centers. The new Japanese bank branches used funds borrowed in the offshore deposit markets in these centers to rapidly increase their loans; they wanted to grow their banking businesses to cover their costs. At the same time, regulations on borrowing in offshore markets by banks headquartered in Finland, Norway, and Sweden were relaxed, and these banks borrowed large amounts

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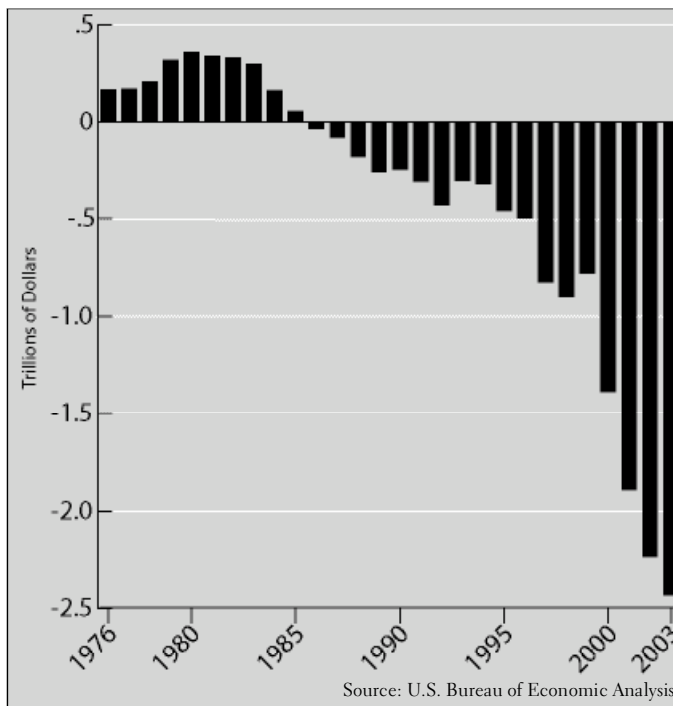
from the Japanese bank branches in London and Zurich. As a result, the currencies of the three Nordic countries appreciated, and stock and real estate prices in these countries grew by a factor of five.

The Japanese bubble also touched off booms in South Korea and Taiwan, which supplied many industrial firms in Japan, and even in Hawaii, a warm-weather destination that is for the Japanese what Florida is for New Yorkers.

The Japanese bubble and economic boom began to collapse in the opening months of 1990, when the new governor of the Bank of Japan, concerned that soaring housing prices would prevent families from purchasing homes, instructed the banks to limit the expansion of their real estate lending in the hope of cooling the market. Suddenly, some Japanese borrowers could no longer obtain the cash to pay the interest on their outstanding loans, and they became forced or distressed sellers of real estate. Real estate prices began to fall. A snowball effect quickly set in as more and more properties hit the market, and real estate and stock prices slumped to 30 percent of their values at the late-1989 peak. They are currently in the same ballpark as they were 20 years ago. Virtually all Japanese financial institutions—banks, trust companies, life insurance companies, cooperative banks—would have been formally bankrupt if Japanese regulators had required them to value their loans at the prices they could be sold for in the market.

Just as economic booms always occur during the expansion phase of a bubble, so the implosion of a bubble always has a deflationary impact. When stock and real estate prices in Tokyo began to tumble in 1990, Japanese households increased their

## America's Net Foreign Debt



*Once the world's largest creditor, the United States became an international debtor in 1986. It is now the world's largest debtor.*

saving to compensate for the decline in their wealth. Japanese industrial firms sharply reduced new investments, and, as the growth of domestic demand slowed, they diverted more of their products to foreign markets. As Japan's exports increased relative to its imports, the yen appreciated, which eroded the competitive position of the Japanese factories in global markets. Japanese firms then rapidly increased their investments in China, Thailand, and other Asian countries to take advantage of lower labor costs. Just as America's industrial heartland was devastated by the dollar's rapid appreciation in the early 1980s, so parts of the Japanese economy were "hollowed out" by the strong yen, even as Japanese money was creating new bubbles elsewhere in Asia.

The Japanese banks were in such serious financial distress that business firms, fearing that the government might close the banks, began to move funds to non-Japanese banks in Tokyo and to foreign financial centers, adding to the exodus of capital.

The flow of money from Japan and other

developed countries to Thailand, Malaysia, Indonesia, and other developing Asian countries strengthened their currencies and pushed their trade deficits up to five or six percent of their gross domestic products. (The U.S. trade deficit currently amounts to nearly six percent of GDP.) Their international indebtedness increased more rapidly than their GDP. The surge in foreign investment in Thailand and other Asian countries fed economic booms. Prices of real estate and stocks soared; in 1993, stock prices doubled in most of these countries.

In February 1997, an American newspaper ran a story about Hong Kong property prices that could have been written about Tokyo real estate a decade earlier. I decided to visit Hong Kong, where I arranged to meet with a group of individuals involved in various aspects of the real estate market.

I posed three questions to the group:

“What is the rental rate of return?”

“Three percent,” they answered.

“What is the mortgage interest rate?”

“Seven percent.”

“How can you make money if you earn three percent and pay seven percent?”

Their answer: “Real estate prices always rise.”

The responses to these questions were more or less the same in both Kuala Lumpur and Bangkok, and it was clear beyond the shadow of a doubt that a massive asset price bubble had developed throughout the region.

There were two non-sustainable elements in the financial patterns of these Asian countries. Just as in Tokyo, some real estate investors had a “negative carry.” Their rental income was less than their scheduled interest payments, and, just as in Tokyo, these investors got the cash to pay the interest by borrowing more. A similar pattern emerged in the external payments of the countries: They obtained the cash to pay the investment income to their foreign creditors in the form of new foreign investments from foreign creditors.

In the winter of 1997, foreign lenders became concerned about the large losses Thailand's banks were suffering on their consumer loans, and thus about the banks' stability. The flow of money to Thailand

slowed. The Thai central bank could no longer finance the country's large trade deficit, so it stopped supporting the baht in the foreign-exchange market, and the currency depreciated sharply. A contagion effect set in, and foreign investors sharply curtailed their new loans to borrowers (not only in Thailand but in Malaysia, Indonesia, and many other Asian countries) and sought repayment of their outstanding loans. The lenders anticipated—correctly—that the Asian currencies would depreciate sharply, reducing the value of their loans. The losses of the local banks in these countries were significantly larger than their capital, and they would have been forced to close if their depositors had not been convinced their money was fully insured.

**T**he pattern is similar in all the episodes of boom and collapse surveyed here, as well as in Mexico (1994), Russia (1998), Brazil (1999), and Argentina (2001). The growth rate of each country's indebtedness (or the indebtedness of a large sector of its economy) was substantially higher than the growth rate of its GDP, and significantly higher than the interest rates the country paid on the borrowed funds. The difference between the two rates of growth was not sustainable. Borrowers in these countries obtained the cash to pay the interest to their creditors by borrowing even more, often from the same creditors. Some incident then suddenly changed investor sentiment and reduced the flow of cash to the borrowers, and, in the process of adjustment to the reduction, a large number of the borrowers fell into bankruptcy.



**T**his pattern of boom, bust, and massive international flows of money provides an explanation of the fourth unusual financial event of the past three decades: the unprecedented transformation of the United States from the world's largest creditor country in 1980 to its largest debtor today. The United States now owes foreign creditors nearly \$3 tril-

lion—an amount equal to about 25 percent of America’s GDP.

America’s transformation from creditor to debtor was not the result of a U.S. consumption boom, or inadequate American savings, or any of the other causes commonly advanced as part of the conventional wisdom. It did not come about because American firms and the U.S. government borrowed in a foreign currency. Rather, it occurred because the demand of foreign governments and firms for U.S. securities and real assets surged, especially during the boom and bust crises. Their purchases increased the value of the dollar in the foreign-exchange market, which led to a rise in America’s imports, sluggish growth in exports, and growing trade deficits.\*

The vast sums of foreign money that have flowed into this country came because the United States plays a unique role in the global economy. For nearly 100 years, it has served as a balance wheel for the world economy. Its international accounts have adjusted more or less automatically to provide global consistency for the payments balances of all countries as a group. If the world’s other countries wish to run trade surpluses, for example, the United States automatically develops a trade deficit that generally corresponds to the sum of the trade surpluses of all other countries as a group.

America’s special role in the world economy is rooted in the unique function that fell to the dollar beginning in the early 20th century. During World War I the United States, which had already become a significant factor in world trade as a supplier of industrial raw materials to Europe, became a safe haven for foreign money. This development was sped along by the fact that Great Britain and other countries had applied controls on international payments at the beginning of the war, while

money balances held in the United States were not constrained. When the war ended, America emerged as the world’s biggest and most stable economy and occupied the leadership role in the global economy that Great Britain had held during the previous century. The dollar acquired several singular international roles, which continue today. It is a “vehicle currency” used by foreign central banks when they buy and sell their own currencies in the foreign-exchange market. The dollar is also a “quotation currency,” used as the unit of account for expressing the prices of petroleum, gold, copper, and other commodities. Finally, the dollar is a “reserve currency”: About 70 percent of the international reserve assets of foreign central banks are denominated in dollars.

But the United States did not assume global economic leadership by design, and it has imposed virtually no design in its role as the international financial system’s key power. A rare attempt at systemic action came at the end of World War II, with the establishment of the Bretton Woods system of fixed exchange rates in 1944. In this environment, most other developed countries designed policies to influence the flow of trade and capital, but the United States by and large did not. Because foreign trade was such a small part of its economy for so many years, and because of its commitment in principle not to interfere in markets, the United States generally took a passive approach to changes in its international balance of payments and balance of trade.

In the early 1950s, for example, Germany and many other countries were eager to buy U.S. dollar securities to add to their holdings of international reserve assets, which had been severely depleted during and immediately after World War II. The dollar was much the strongest currency, and the United States held 60 percent of the world’s gold reserves. As a result, these countries earned the international reserve assets they wanted from the United States, which they used to purchase gold from the U.S. Treasury. American gold holdings declined from \$27 billion at the end of 1949 to \$11 billion at the end of 1969. Because

\*In reporting on the U.S. trade deficit, the news media almost always get the story backwards, suggesting that the United States is lucky that other countries are willing to fund its trade deficit. In fact, the financing came first, in the form of the foreign purchases of U.S. securities and assets that induced the appreciation of the dollar and a rise in U.S. imports.

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of its role in providing global consistency, the United States developed payments deficits that mirrored the payments surpluses of these foreign countries.

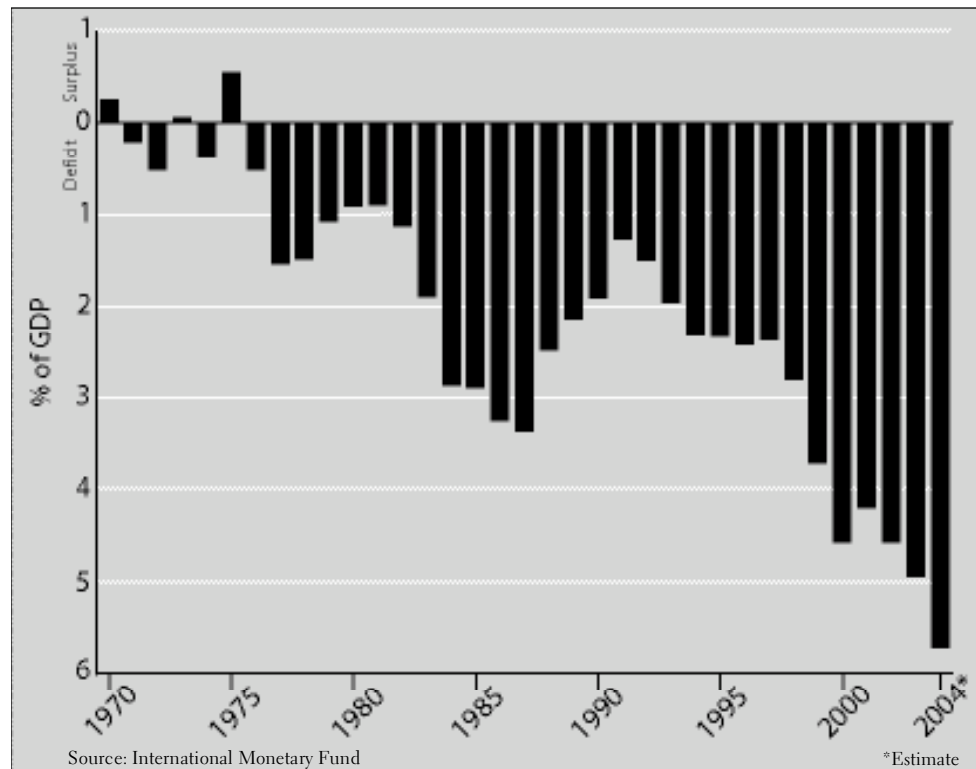
By the end of the 1960s, however, after U.S. gold holdings shrank and the Japanese and German economies began to grow faster than the U.S. economy, foreign central banks became reluctant buyers of U.S. dollar securities. Fearing Washington's wrath, however, they were hesitant to use their dollars to buy gold from the U.S. Treasury, even when the risk of a devaluation of the U.S. dollar became more apparent: They held more dollars than they wanted.

In the second half of the 1970s, the acceleration of the U.S. inflation rate led to a run on the dollar. Investors were concerned that the increase in inflation would lead to a lower value for the dollar in the foreign-exchange market, which would re-

duce the value of their holdings. Their sales of the dollar produced the very result they feared.

This decline in the value of the dollar during the late 1970s is one more example of the way that cross-border transactions in money and securities drive changes in the foreign-exchange value of national currencies and induce changes in a country's trade balance. When real interest rates on U.S. dollar securities declined during the late 1970s, investors wanted to move from them into securities denominated in the German mark and other European currencies. First, however, they had to sell dollars and buy German marks. Their sales caused the dollar to depreciate sharply. As dollars flowed in and marks flowed out, the United States developed a capital account deficit. To fulfill its role as the balance wheel of international finance, the United States needed to develop a trade surplus that

### America's Growing Trade Imbalance (Current account as a percentage of GDP)



America's rapidly growing trade deficit was on pace to exceed \$600 billion at the end of 2004.

## The China Bubble

“In the future, everyone will be famous for 15 minutes,” Andy Warhol once predicted. There is a corollary to Warhol’s notion that helps explain the unusual economic events of recent decades: Every country grows rapidly for 15 years. The classic case is Japan, which enjoyed extraordinary growth in the 1950s and ’60s as industrial firms invested heavily to repair the devastation of World War II. When a country experiences such rapid growth, interest rates and business profits are high (unless they are regulated). Foreign capital flows into the country as outsiders seek to purchase its securities and assets, and its currency therefore tends to appreciate.

Then, when the country’s growth rate slows, the supply of capital exceeds the opportunities for productive investment at home, and the country shifts from being an importer of foreign funds to an exporter of its own funds. The dampening of Japan’s rate of economic growth in the 1970s and, especially, the ’80s was accompanied by a decline in business investment relative to household saving. When Tokyo relaxed financial regulations in the 1980s, there was a rapid increase in the flow of funds leaving the country. In the first half of the decade, Japanese investors bought lots of U.S. Treasury securities and real estate. Later, Japanese firms became big purchasers of American companies: Sony bought Columbia Records and then Columbia Pictures, and its rival Matsushita bought MGM Universal. The implosion of Japan’s asset price bubble in the early 1990s further reduced attractive investment opportunities at home and only served to accelerate the outflow of funds from Japan. One result is that Japan now owns 39 percent of all outstanding U.S. Treasury securities.

The pattern in most of the other countries on the Asian rim—Singapore, Hong Kong, Taiwan, Thailand, Malaysia, South Korea—follows Japan’s. They have become large buyers of U.S. dollar securities as their growth rates have slowed.

China’s economic transformation is the most recent in Asia, and in its pace, it is even more remarkable. Each country’s strategy has been to grow the economy by using a low value for its currency to increase exports, and the yuan has been kept even cheaper than other Asian currencies. But China’s bubble has been caused chiefly by the character of the Chinese financial system, which is dominated by four large government-owned banks. Because China is such a big country, management of its banks is very decentralized; branch managers in the provincial cities are less responsive to headquarters than to local politicians and governments that constantly press them to provide loans for investment in enterprises and infrastructure. To these banks, profitability and solvency are alien concepts. China is the land of “evergreen finance,” where lenders are willing to include the future interest payments in the loan amount, and where there is little expectation by borrowers or lenders that bank loans will be repaid. As a result, there is too much investment in China’s capacity to produce goods relative to the growth in domestic household demand for these goods.

The experience in other Asian countries suggests that, when China’s bubble implodes, its rate of economic growth will slow, probably dramatically, as business investment declines. Household savings will increase, and the growth of consumer spending will slow. More Chinese money will flow into U.S. securities and real assets (China already is the second-largest owner of U.S. Treasury securities after Japan.) China’s trade surplus will swell as business firms increase their exports in response to the reduction of growth at home. And just as the U.S. trade deficit increased after bubbles burst in Japan and Southeast Asia, so it will surge again when the Chinese trade surplus increases.

—R.Z.A.



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would produce offsetting receipts in German marks. No decision was made. The weaker dollar made it easier to sell American products overseas.

Then, soon after U.S. Federal Reserve chairman Paul Volcker announced his tough new anti-inflation policy in 1979, investors became convinced that the U.S. inflation rate would decline sharply. Now they wanted to sell securities denominated in the mark and other European currencies and buy U.S. dollar securities—but first they had to buy dollars in the foreign-exchange market. Their purchases caused the dollar to appreciate (even though the U.S. inflation rate was higher than the rates in Germany and other countries). As the American capital account swung back into surplus, the U.S. trade balance correspondingly went into deficit.



Nearly every one of the foreign financial crises of recent decades, from Mexico's in the early 1980s to Argentina's in 2001, has led to an increase in the U.S. trade deficit. The story is straightforward.

Before the crisis, money tended to flow toward these countries because their rates of economic growth were impressive and the anticipated rates of return on capital were high. When the first crisis hit Mexico and other developing countries in the early 1980s, the sharp depreciation of their currencies led to a marked increase in their exports relative to their imports, and the U.S. trade deficit climbed to provide global consistency. When the Japanese bubble imploded at the beginning of the 1990s, the Japanese trade surplus surged, and the American trade deficit again grew correspondingly. Most dramatically, the sharp depreciation of the Thai baht and other Asian currencies in 1997 was mirrored by a rise in the value of the dollar, and it led to a very rapid improvement in Asian countries' combined trade balances of \$155 billion annually. Correspondingly, the U.S. trade deficit increased by \$155 billion.

Why? Because the Asians used virtually all of their \$155 billion in new export earn-

ings to repay U.S. dollar loans and to buy U.S. dollar securities. That provided the equivalent of a flow of \$155 billion in foreign savings to the United States. This inflow could have produced three results: an increase in U.S. domestic investment, a reduction in domestic saving, or an increase in the federal government's deficit. The operation of the invisible hand ensures that all of the changes would add up to \$155 billion.

Business investment may have increased by \$30 billion, or even \$40 billion, as a result of the decline in the cost of capital (in the form of lower interest rates). And the U.S. government's deficit disappeared during the late 1990s because tax revenues soared in the economic boom. Therefore, most of the impact of the surge in the flow of foreign saving led to a reduction in American saving.

The much-lamented decline in the U.S. saving rate during the 1990s was the inevitable result of the surge in the flow of foreign savings to the United States. It worked this way: The Americans who sold securities to foreign investors used the cash to buy other securities from other American investors, and the transactions necessarily occurred at higher prices. Those investors then used *their* cash to buy securities from other Americans at still-higher prices, and so on. As stock prices and household wealth increased, more and more Americans achieved their wealth objectives, so they reduced their saving from current income and spent more on cars, computers, and vacations.

When the implosion of the bubble in U.S. stock prices in 2000 reduced household wealth, the Federal Reserve sharply and aggressively reduced short-term interest rates—to keep consumers spending, and thereby counter the deflationary effects of the implosion.

Today, the U.S. saving rate remains low because of the continued displacement of American saving by foreign saving. But America's reliance on foreign saving is excessive: The nation's international indebtedness is increasing at much too rapid a rate. The inevitable adjustment will require that Americans' household saving rate increase as reliance on foreign saving declines.



Few of the overseas investors who found the dollar so attractive in the 1980s and '90s were concerned that their investments in the United States might move America into a non-sustainable international financial position—a position that would ultimately lead, among other things, to significant losses in the domestic value of their U.S. dollar securities. But that is precisely what is happening.

The United States today is in a position similar to that of Mexico in 1980, Norway in 1987, and Thailand and Mexico in the early 1990s. These countries paid the interest on their international indebtedness with some of the funds received from the inflow of new foreign investments. The United States is now doing the same thing. It is engaging in Ponzi finance, and the game will soon be up.

By the end of 2004, America's net international indebtedness had increased by some \$500 billion for the year, reaching \$3 trillion. Its international indebtedness has been increasing at an annual rate of 16 percent, while its GDP has been growing at a six percent rate. In the long run, international indebtedness simply cannot increase more rapidly than GDP. If it did, foreigners would, in theory, eventually end up owning all the assets and securities in the United States. As a practical matter, policy adjustments or the market will ensure that this does not happen.

Predicting the timing and pace of the unavoidable transition to a sustainable situation is hazardous. Yet such a transition is inevitable. The needed adjustments in the United States and other countries could occur without significant effects on employment and inflation or major disruptions in the foreign-exchange market, but the likelihood of such a "soft landing" is small.

The primary variable that must change is the U.S. trade deficit. It must decline to between \$100 billion and \$200 billion a year from its current level of around \$600 billion. The purpose of paring back the trade deficit is to reduce the growth rate of America's foreign indebtedness. The target value for the trade balance is deter-

mined by the difference between the maximum sustainable growth rate of that debt (i.e., the growth rate of America's GDP) and U.S. net payments of investment income to foreign creditors. Back-of-the-envelope calculations suggest that the necessary reduction of the trade deficit amounts to between \$350 billion and \$450 billion, a significant drop from today's level of \$600 billion. Because U.S. net external liabilities increase year after year, the longer the delay before the trade deficit is reduced, the larger the needed reduction.

The decline in the trade deficit must be matched by a comparable increase in annual savings (and therefore slower growth in Americans' consumption) and in U.S. production of trade-able goods. While the longer-term results will be positive, the process of achieving them may be extremely painful, including rising rates of inflation, interest, and unemployment, and possibly a severe economic recession. Consider these changes:

— Since the annual flow of foreign savings to the United States will decline by, say, \$400 billion, domestic savings must increase by the same amount. This means that the rate of growth of household consumption spending will slow.

— The production of tradable goods in the United States—exports and import-competing goods—must increase by \$400 billion. As the trade deficit grew from \$200 billion in 1997 to \$600 billion in 2004, \$400 billion of productive resources shifted from the production of tradable goods (such as cars, foodstuffs, and aircraft) to the production of nontradable goods (such as retail trade, education, and food services). That shift will be reversed. Since jobs in the tradable goods sector generally pay better, the number of relatively well-paid jobs will inevitably increase.

— The increase in the production of tradable goods eventually will lead to an increase in federal tax revenues. There are two reasons for this. First, the value added per employee is higher in the tradable goods sector than in the nontradable goods sector, so employees will have more taxable income. Second, as new investment enlarges the tradable goods sector, unem-

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ployment is likely to decrease.\*

Global consistency requires that the trade and current account surpluses of the countries that now have such surpluses must decline by \$400 billion. The problem is that it is hard to find a country that believes its trade surplus is too large or that its holdings of international reserve assets are too large. Indeed, the implication of the slower growth that lies in store for China and other Asian countries is that their demand for U.S. dollar securities will increase—and so will the U.S. trade deficit. But that can't happen, because the capacity of the United States to adjust to the excesses in foreign countries is nearly exhausted. There is great potential for more conflict between the United States and its trading partners.

**T**he key to achieving a soft landing is a steady decline in foreign demand for U.S. dollar securities of perhaps \$100 billion a year for the next three to four years. If the decline is too rapid, the value of the dollar could plummet, while inflation and interest rates on U.S. dollar bonds surge.

Although the value of the dollar has been declining in the foreign-exchange market for much of the past three years, that decline has not yet reduced either the flow of foreign savings to the United States or the growth rate of America's net international indebtedness. A modest increase in the pace of dollar depreciation might lead to a soft landing. But there are a multitude of other scenarios. For example, an initial modest

\*The increase in the U.S. government's deficit in recent years is partly a product of the growth of America's trade deficit. The trade deficit has had three different effects on the government's deficit. The first is transitional in nature: As the trade deficit increases, resources that had been employed in the tradable goods sector become unemployed before they shift to the non-tradable goods sector, thus reducing the tax base. The second effect is longer lasting: When these resources become re-employed, the likelihood is high that people in the new jobs in the non-tradable goods sector will have lower wages and thus pay less in taxes. The third effect works in the opposite direction: The flow of foreign saving to the United States means that the interest rates on U.S. Treasury securities are lower than they otherwise would have been, and so the cost of servicing the government's debt is reduced. However, the negative influence of the first and second effects is significantly larger than the third.

depreciation of the U.S. dollar could seem to hedge-fund managers and momentum traders like a clarion call to "short" the U.S. dollar, by betting on further declines. The central banks in Asia and Europe would then find themselves between the proverbial rock and a hard place. They would feel tremendous pressure from their politicians to buy dollars to prevent the value of their own currencies from rising quickly, and thus hurting exports and domestic employment. But the banks would also recognize the risk in this course: The more Treasury bonds and other U.S. securities they held, the more they would stand to lose as the dollar dropped in value. If this fear were to rule, the dollar could fall far and quickly, inflicting heavy damage on the American economy and others as well.

**H**ow this latest episode in monetary history plays out is largely beyond anybody's control. The outlook is far from encouraging. But it is within our means to ensure that the next several decades are not as tumultuous as the past three have been.

A longer-term perspective on monetary history suggests that periods of monetary stability—with low inflation rates and stable prices for currencies in the foreign-exchange market—alternate with periods of instability. The periods of instability are transitions from one type of international financial arrangement to another. The 19th century brought an era of stability based on a gold standard that was managed by the Bank of England. The period between the two world wars was a time of unprecedented instability associated with the transition in monetary stewardship or hegemony from Great Britain to the United States, which culminated after World War II in the Bretton Woods system of fixed exchange rates. The 1950s and '60s were decades of remarkable growth and monetary stability. Since the early 1970s, when the Bretton Woods system collapsed, we have been in another transition, and the turmoil will continue until we devise a new global financial architecture that is better suited to the realities of the contemporary world economy. □