THE TICKING DEBT BOMB
Why the U.S. International Financial Position Is Not Sustainable

by Robert A. Blecker

For the last few years, most of the economic news in the United States has been glowing. The U.S. economy has grown at a healthy 4% average rate since 1997, with virtually full employment and almost negligible inflation, thus returning to macroeconomic conditions not experienced since the early 1960s. Two-and-a-half years after Federal Reserve Board Chairman Alan Greenspan warned of "irrational exuberance" on Wall Street, the New York stock market continues to climb to unparalleled heights. Meanwhile, more and more observers claim that we are now in a "new economy" that is immune to the forces that caused inflation and recessions in the past.

Yet in the midst of this celebratory environment, certain indicators regularly cast a pall over these otherwise sunny times. Month after month, year after year, the U.S. trade deficit sets new records. And as the United States borrows to cover the excess of its imports over its exports, the U.S. position as the world's largest debtor grows by leaps and bounds. Closely related to both of these trends is the drop in the U.S. private saving rate, which forces the country to continue borrowing from abroad in spite of the shift from a deficit to a surplus in the federal budget balance.
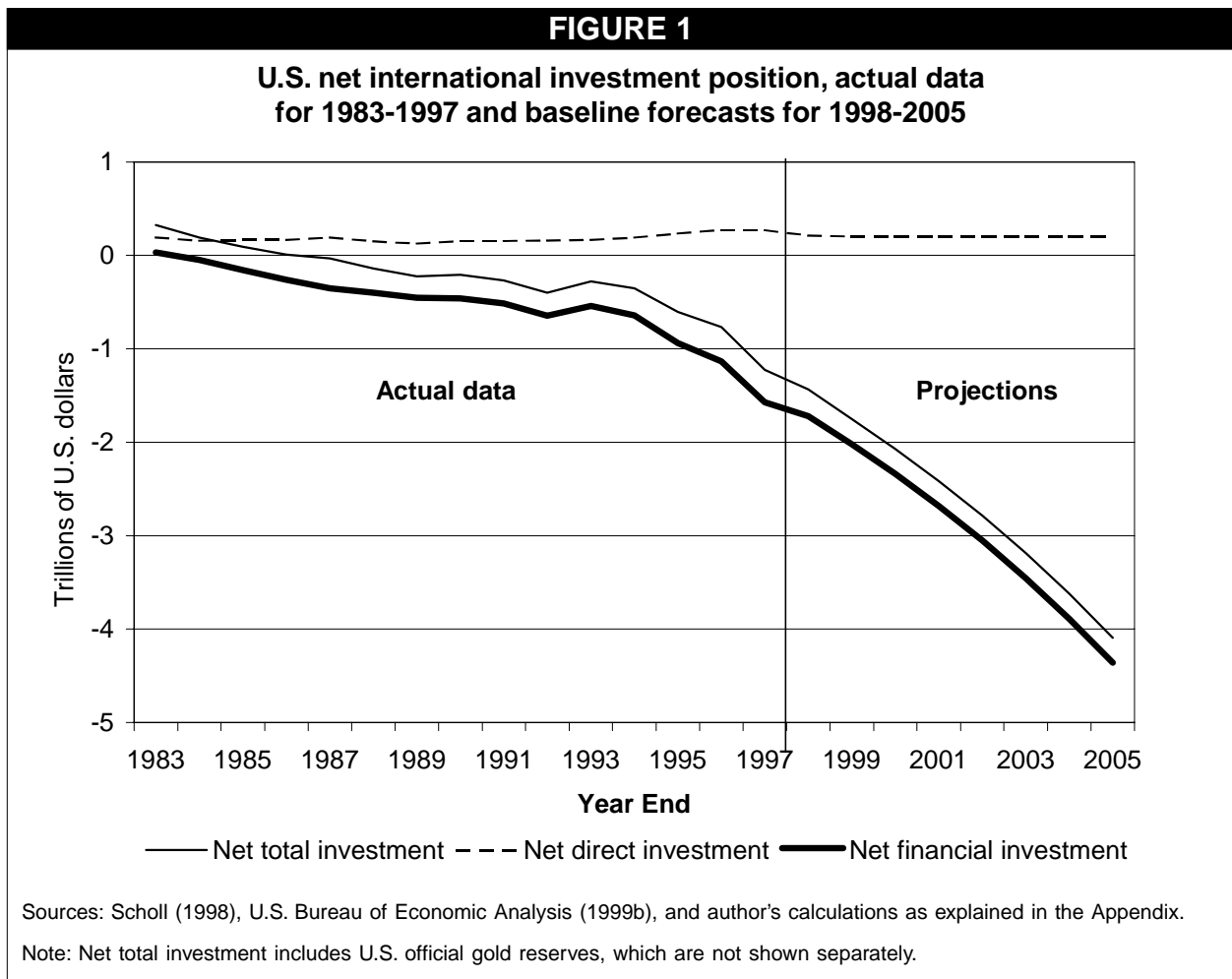
In fact, the U.S. economy's current prosperity rests on the fragile foundations of a consumer spending boom based on a domestic stock market bubble, combined with foreign bankrolling of the U.S. trade deficit. If present trends continue, the growth in U.S. international debt will not be sustainable in the long run. No country can continue to borrow so much from abroad without eventually triggering a depreciation of its currency and a contraction of its economy. The rising trade deficit and mush-

rooming foreign debt are thus warning signals of underlying problems that—if not corrected—could bring the U.S. economic boom crashing to a halt in the not-too-distant future.

Addressing the U.S. international debt situation will require action on two fronts: reducing the trade deficit and keeping interest rates low in order to reduce the burden of servicing the debt. Four specific policies that could help to avert a serious crisis over the next few years include: (1) promoting stimulus policies among U.S. trading partners with depressed economies in order to promote growth and to enable them to reduce their trade surpluses with the U.S.; (2) engineering a gradual depreciation of the dollar; (3) using a fiscal stimulus to keep the economy growing when the current consumption boom slows down; and (4) restructuring U.S. trade policy to promote more reciprocal market access and to stress the interests of U.S.-based producers exporting abroad.

The dimensions of the problem: trends and forecasts

Figure 1 shows the actual trends in the U.S. net international debt for 1983-97 along with baseline projections for 1998-2005, which are explained in more detail in the Appendix.[1] The United States was a

FIGURE 1

U.S. net international investment position, actual data for 1983-1997 and baseline forecasts for 1998-2005

Sources: Scholl (1998), U.S. Bureau of Economic Analysis (1999b), and author's calculations as explained in the Appendix.

Note: Net total investment includes U.S. official gold reserves, which are not shown separately.

net creditor country as recently as 1987 for total international investment, as it was for financial investment until 1983. But the borrowing required to cover chronic current account deficits since the 1980s has long since turned the United States from the world's largest creditor into the world's largest debtor (see Blecker 1991, 1998).[2]

As of the end of 1997, the total U.S. net international debt stood at $1.22 trillion.[3] Excluding official gold reserves held by the Treasury Department and direct foreign investment by multinational corporations, both of which are not liquid assets,[4] the net *financial* debt of the United States was $1.57 trillion at year-end 1997. This net financial debt represents the difference between the value of U.S. liquid financial assets (such as corporate stock, bank deposits, government securities, and other bonds) owned by foreigners and the value of similar foreign assets owned by Americans.

The U.S. still has a net positive (creditor) position in *direct* investment, since U.S. multinational corporations own more assets abroad than foreign multinationals own in the United States. However, this position has been relatively small and stable, and it is likely to stabilize at $200 billion starting in 1999. In contrast, the net *financial* investment position is negative (i.e., foreigners own more liquid financial assets in the U.S. than Americans own abroad), and this net financial debt is much larger and increasing rapidly.
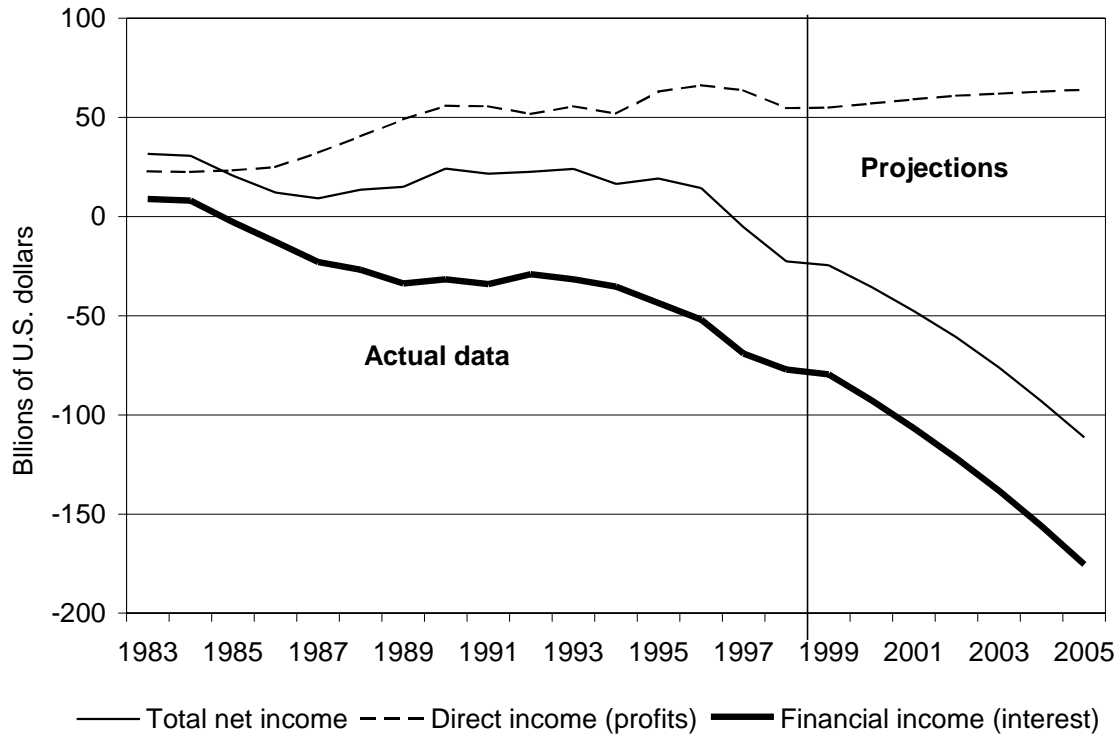
According to the baseline forecast, the U.S. net financial debt increased to $1.72 trillion in 1998, and it will rise further to $2.02 trillion during 1999, $2.34 trillion in 2000, and a mammoth $4.36 trillion by 2005 (or an estimated 36.4% of gross domestic product at that time).[5] Adding back the positive net position in direct investment and the value of U.S. gold reserves, the total net debt is also projected to grow rapidly: from $1.22 trillion in 1997 to $1.43 trillion in 1998, $1.75 trillion in 1999, $2.07 trillion in 2000, and $4.09 trillion by 2005 (or an estimated 34.2% of GDP in that year).

The corresponding projections for U.S. net investment *income* balance—the difference between the inflows of profits, dividends, and interest received from U.S. investments abroad and the outflows of profits, dividends, and interest paid out on foreign investments in the U.S.—are shown in **Figure 2**. In spite of the U.S. turn to an overall net debtor position in the mid-1980s, total net investment income remained positive in the early 1990s because the rate of return on direct investment (in which the U.S. has a net creditor position) exceeded the rate of return on financial investments (in which the U.S. is a net debtor).[6] However, in the last few years the sheer volume of the net financial debt has begun to overwhelm the difference in rates of return, and the net investment income balance has been negative since 1997.[7]

In the baseline forecast, the net outflow of financial income (interest and dividends) jumps from an actual $77.1 billion in 1998 to an estimated $175.3 billion in 2005—a net outflow greater than the U.S. goods and services trade deficit in 1998. Including net direct investment income, which is assumed to remain positive (see Appendix for details), total net investment income jumps from an actual deficit of $22.5 billion in 1998 to a projected deficit of $111.3 billion by 2005. These deficits in investment income in turn worsen the overall current account balance, on top of the underlying deficit for trade in goods and services and net transfers[8] (which is assumed to be 3.0% of GDP in the baseline scenario). Thus, by 2005, the total current account deficit is projected to be 3.9% of GDP.

FIGURE 2

U.S. net international investment income, actual data for 1983-98 and baseline forecasts for 1999-2005

Projections

Actual data

Bilions of U.S. dollars

——— Total net income   – – – Direct income (profits)   ▬▬▬ Financial income (interest)

Sources: DiLullo (1998), U.S. Bureau of Economic Analysis (1999a, 1999b), and author's calculations as explained in the Appendix.

Like all economic forecasts, this baseline projection is conditioned on the assumptions that drive the analysis, in this case, the persistence of an underlying trade deficit of 3% of GDP and the continuation of moderate interest rates (averaging 4.25%)[9] through 2005. These are actually very conservative assumptions given that the Federal Reserve is now (as of June 1999) leaning toward raising interest rates and many analysts fear larger trade deficits in the next few years. Yet even these conservative assumptions show the net financial debt rising to $4.36 trillion (or 36.4% of GDP) and the current account deficit reaching $470.6 billion (or 3.9% of GDP) by 2005.

By altering these assumptions, we can make a series of alternative forecasts that illustrate a range of possible outcomes for the U.S. net foreign debt and net interest burden. **Table 1** summarizes the results of several alternative forecasts for 2005, the final year of the projections (the baseline scenario shown in this table corresponds to the forecasts depicted in Figures 1 and 2). Using these alternative forecasts, we can better assess the prospects for a hard or soft landing for the U.S. dollar and the U.S. economy.

The *improving trade balance* scenario assumes that the underlying trade deficit drops to 2.0% of GDP in 2000 and then falls gradually to 1.0% in 2005, perhaps because foreign economies recover from their current doldrums (and thus buy more U.S. exports) or because the dollar depreciates (i.e.,

TABLE 1
Alternative forecasts of U.S. net interest outflow,
current account deficit, and net international financial debt for 2005

Scenario	Net financial income (interest) inflow (+) or outflow (-)	Current account surplus (+) or deficit (-)	Net financial credit (+) or debt (-) position
	In billions of dollars		
Baseline (moderate trade deficit, 4.25% interest rate)*	-175.3	-470.6	-4,360.3
Improving trade balance**	-135.1	-190.8	-3,273.5
Worsening trade deficit***	-215.6	-750.3	-5,447.1
2% interest rate	-74.7	-370.0	-3,918.7
7% interest rate	-326.8	-622.1	-4,980.3
10% interest rate	-535.9	-831.2	-5,774.7
	In percent of GDP		
Baseline (moderate trade deficit, 4.25% interest rate)*	-1.5	-3.9	-36.4
Improving trade balance**	-1.1	-1.6	-27.3
Worsening trade deficit***	-1.8	-6.3	-45.5
2% interest rate	-0.6	-3.1	-32.7
7% interest rate	-2.7	-5.2	-41.6
10% interest rate	-4.5	-6.9	-48.2

*   The baseline assumes that the underlying trade deficit for goods and services plus net transfers remains at 3% of GDP from 2000 to 2005.
**   The improving trade balance scenario assumes that the underlying trade deficit falls to 2% of GDP in 2000 and then gradually declines to 1% of GDP in 2005.
*** The worsening trade deficit scenario assumes that the underlying trade deficit rises to 4% of GDP in 2000 and then gradually rises to 5% of GDP in 2005.

Note: Both alternative trade balance scenarios assume a 4.25% interest rate. All alternative interest rate scenarios assume the baseline underlying trade deficit of 3% of GDP.

See Appendix for more details.

foreign currencies recover, and U.S. products become more price competitive). In this optimistic scenario, the net financial debt grows more slowly to $3.27 trillion, or 27.3% of GDP, in 2005. The total current account deficit is also more moderate in this scenario, rising only to $190.8 billion in dollar terms, and falling to 1.6% of GDP in percentage terms. If this happens, the U.S. external debt and deficits would become sustainable and a soft landing for the economy would be assured.

In contrast, the *worsening trade deficit* scenario assumes that the underlying trade deficit

jumps to 4.0% of GDP in 2000 and then rises gradually to 5.0% in 2005, perhaps because foreign economies (especially in Asia, Europe, and Latin America) become more depressed or because the dollar appreciates further (i.e., foreign currencies sink even more than they have in recent years, and U.S. products become even less price competitive than they are at present exchange rates). In this pessimistic scenario, the net financial debt explodes to $5.45 trillion or 45.5% of GDP by 2005, while the current account deficit hits $750.3 billion or 6.3% of GDP—levels that would almost guarantee the outbreak of a financial panic. These simulations reveal how strongly the U.S. external financial position depends on what happens to the underlying trade balance.

Table 1 also shows the results of varying the assumptions about interest rates.[10] If interest rates fall to an average of 2.00% from 2000 to 2005 (perhaps because of central bank efforts to prevent a global depression or deflation), the growth in the U.S. net financial debt is somewhat attenuated, but this debt still rises to $3.92 trillion or 32.7% of GDP by 2005. If interest rates are increased, however (perhaps because of renewed fears of inflation or efforts to prevent currency collapses), the U.S. net financial debt rises more sharply, to $4.98 trillion (41.6% of GDP) with a 7% interest rate and $5.77 trillion (48.2% of GDP) with a 10% rate.

The impact of alternative interest rates on U.S. international debt service payments is even more striking. At the low 2% interest rate, net financial income (interest) outflows fall to $74.7 billion in 2005, slightly lower than the actual level in 1998 ($77.1 billion), even though the foreign debt continues to rise in this scenario. On the other hand, higher interest rates generate alarming increases in net interest payments, reaching $326.8 billion in 2005 at a 7% interest rate and $535.9 billion with a 10% rate (accounting for 2.7% and 4.5% of GDP, respectively).[11] Financing such large net interest outflows would put a serious squeeze on U.S. income, as it has in debtor nations in the developing world.

Thus, these alternative forecasts forcefully demonstrate the importance of reducing the U.S. trade deficit and keeping interest rates down in order to prevent explosive growth of the nation's international debt position and debt service burden, and thereby lessen the risk of a hard landing. With a reduced trade deficit and/or a lower interest rate, the U.S. foreign debt could stabilize in relation to GDP and become sustainable with moderate continued borrowing. But with increased trade deficits and/or higher interest rates, the external debt could quickly reach a level that would be likely to spark a negative reaction from international investors, and hence be unsustainable.

How investors may react

The question of the sustainability of the U.S. international debt revolves around two closely related issues. First, will confidence in the U.S. economy remain strong enough for foreigners to continue to desire to invest hundreds of billions of dollars a year in U.S. financial assets, in order to cover our annual current account deficits? And second, will foreign creditors continue to be willing to hold the large portfolios of liquid U.S. financial assets that they have already accumulated? Note that these issues mainly concern the state of investors' psychology rather than economic models of whether a given debt trajectory is theoretically stable.[12]

If foreign investors cease to extend new loans to the United States, or if they sell off their existing portfolios of U.S. liquid assets, the debt growth projected in the baseline forecast (and in the more pessimistic alternative forecasts) could not occur. By refusing to extend new credits or selling off existing assets, foreign investors could force painful adjustments on the U.S. financial sector and the domestic real economy. Moreover, it is not only the reaction of foreign investors that matters. U.S. investors could also help to precipitate a financial crisis if they decided to move more of their assets offshore (what in developing countries is known as "capital flight").[13] Of course, a flight from U.S. assets requires other attractive locations to which investors could flee. While this may seem unlikely at present, an economic turnaround in Europe, Japan, or the emerging market nations over the next few years could create one or more alternative poles of attraction for international money managers.

The notion of an eventual U.S. financial crisis may seem far-fetched at a time when the U.S. economy is the envy of most of the world. Yet recent economic history is full of episodes in which confidence in a particular economy has changed dramatically and quickly—witness the 1994-95 crash in Mexico, which followed the pre-NAFTA euphoria about the booming Mexican economy, or the rash of crises in East and Southeast Asia in 1997-98, which followed many years of touting Asia's "miracle" economies and emerging financial markets. These experiences show that spending booms fueled by overly optimistic expectations can lead to the creation of unsustainable financial positions, including speculative bubbles in asset markets and real overvaluation of exchange rates, eventually leading to a revision of expectations and an inevitable crash (see Blecker 1998, 1999).
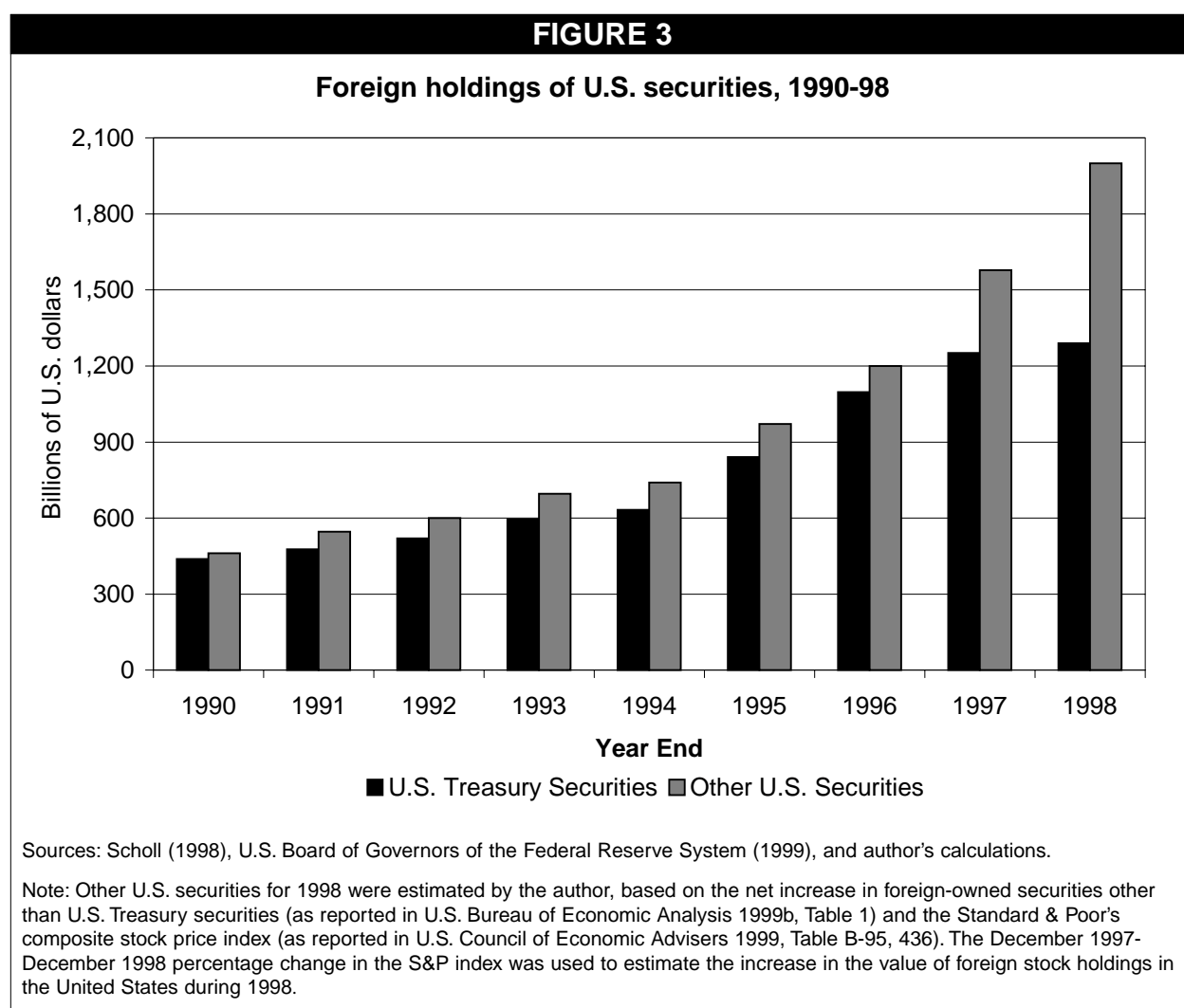
The United States has not been immune to losses of international confidence in the past. In 1978-79, confidence in the United States plummeted, forcing the dollar to depreciate and inducing the Fed to launch an infamous experiment with high interest rates to squelch inflation at the cost of high unemployment. (These high interest rates also led to an eventual dollar overvaluation in the early 1980s, which in turn contributed to the rise in the U.S. trade deficit and the shift to net debtor status later in that decade.) Earlier, the post-World War II Bretton Woods monetary system was brought down in large measure by fears of a "dollar overhang" in Europe, which led European governments to try to convert their dollar holdings to gold in the late 1960s. This in turn helped motivate the Nixon Administration to end the convertibility of dollars into gold, abandon pegged exchange rates, and let the dollar depreciate in the early 1970s.[14]

The problem in the late 1960s was an accumulation of large amounts of U.S. dollar reserves by foreign central banks, which engendered a fear of dollar depreciation that eventually became a self-fulfilling prophecy.[15] The problem in the late 1990s is an accumulation of large amounts of U.S. financial assets of all kinds—including private holdings of stocks and bonds as well as official central bank reserves (which are largely held in the form of U.S. Treasury securities). This situation runs the risk of creating a fear of dollar depreciation that could again become a self-fulfilling prophecy, only this time not so much through the actions of foreign central banks but through those of private international investors and banks (both domestic and foreign).

Possible triggers for a crisis

Although we can clearly see the risks of such a crisis of confidence developing in the future, there remains the question of what could be the "trigger" that would set it off. One possibility is that either the current account deficit or the net international debt will become so large as to create self-fulfilling expectations of an inevitable depreciation of the U.S. dollar. In recent crises (Mexico in 1994, Thailand in 1997), current account deficits that surpassed about 5% of GDP became seen as signals of a necessary currency devaluation. The U.S. current account deficit could easily become this large, as shown in some of the more pessimistic scenarios considered above (i.e., with a larger underlying trade deficit or a higher interest rate, compared with the baseline forecast). Alternatively, a growing net financial debt—reaching over 35% of GDP by 2005 in the baseline forecast, and between 40% and 50% of GDP in some of the more pessimistic forecasts—could ring alarm bells for international investors.

What matters for foreign investors is not just the *net* U.S. financial debt but also the *gross* amount of U.S. assets that they hold in their portfolios. **Figure 3** shows the dramatic surge in

FIGURE 3

Foreign holdings of U.S. securities, 1990-98

Sources: Scholl (1998), U.S. Board of Governors of the Federal Reserve System (1999), and author's calculations.

Note: Other U.S. securities for 1998 were estimated by the author, based on the net increase in foreign-owned securities other than U.S. Treasury securities (as reported in U.S. Bureau of Economic Analysis 1999b, Table 1) and the Standard & Poor's composite stock price index (as reported in U.S. Council of Economic Advisers 1999, Table B-95, 436). The December 1997-December 1998 percentage change in the S&P index was used to estimate the increase in the value of foreign stock holdings in the United States during 1998.

foreign ownership of U.S. securities since 1995. The series for U.S. Treasury securities includes both official holdings by foreign central banks and private holdings by other foreign investors, in roughly equal proportions. The series for other U.S. securities includes corporate and other bonds as well as corporate stocks, valued at current market prices. This surge in foreign security holdings has been driven in part by the speculative expectation that these assets will rise in price (especially the stock market boom), and in part by foreign investors searching for safe havens for their wealth while their own countries are in turmoil (especially U.S. Treasury securities). The foreign holdings of nearly $1.3 trillion of U.S. Treasury securities in 1998 account for fully 35% of all Treasury obligations outstanding at that time (about double the percentage in the early 1990s).[16]

Once foreigners own such large amounts of U.S. financial assets, they need to be concerned about their value—not only in dollar terms, but also in terms of foreign currencies. If investors begin to perceive that the assets themselves are overvalued and fear a collapse of U.S. stock or bond prices (e.g., due to a decline in the New York Stock Exchange), then they will move to sell off their U.S. stocks or bonds, which will push those markets down further and depreciate the dollar in the process. If investors perceive that the dollar is overvalued, they will fear a depreciation, with the same result.

There are no hard-and-fast rules for how big a current account deficit, net debtor position, or gross foreign asset ownership has to be in order to generate self-fulfilling expectations of a currency depreciation. But it is simply inconceivable that these variables could continue to increase indefinitely without engendering such an investor reaction at some point.

Indeed, there is one sign that international investors already expect a dollar depreciation sometime in the near future: the fact that money market interest rates are higher in the United States than in most other major industrialized countries. In the first quarter of 1999, U.S. money market interest rates averaged 4.73%, while the corresponding rates in the euro area averaged only 3.09% and in Japan a mere 0.15% (International Monetary Fund 1999a, 47). According to the theory of "uncovered interest arbitrage," when the interest rate on one country's bonds is lower than that on another's, investors will be willing to hold the first country's bonds only if the lower interest rate is compensated by an expected appreciation of that country's currency.[17] Thus, the persistence of lower interest rates in Europe and Japan compared with the United States suggests that international investors expect the European currencies and the Japanese yen eventually to appreciate relative to the U.S. dollar. This is not surprising, since both Europe and (to a much larger extent) Japan have trade surpluses with the U.S.

The trigger for a U.S. external financial crisis does not have to come from its international trade deficit or rising foreign debt, however. Any problems in domestic financial markets—such as a collapse of the New York stock market or a banking crisis resulting from overlending to consumers in an economic downturn—could precipitate a loss of confidence and drive international investors overseas. But even if the external debt is not the trigger, it makes the U.S. economy more vulnerable to a loss of confidence. If confidence is lost for any reason, foreign investors will react by selling off their portfolios of U.S. assets, which will exacerbate the decline in U.S. asset markets and put downward pressure on the value of the dollar. Moreover, if foreign investors refuse to lend more, they will force the U.S. to reduce its trade deficit, either through a massive depreciation of the dollar, a painful contraction of the domestic economy, or some combination of both.

How hard a landing—and what kind?

If there is a loss of confidence in the dollar in the near or medium term, there is still a question of whether the dollar will have a "hard landing" or a "soft landing." One factor that mitigates against a hard landing is that, unlike in Mexico in 1994 and various Asian economies (plus Russia and Brazil) in 1997-99, the U.S. dollar has a floating exchange rate. In contrast, the countries that underwent currency crises over the past several years all had some kind of pegged or fixed exchange rate, which their governments vainly tried to defend when investors lost confidence and began to pull their assets out. Especially in the original crisis countries (Mexico and Thailand), the governments spent billions of dollars of hard currency reserves in failed efforts to defend their pegs, and then eventually had to devalue anyway once they were virtually out of reserves.

Since the dollar has no official target value that the U.S. monetary authorities (the Treasury Department and the Federal Reserve) are obligated to uphold, it is possible that the dollar could decline gradually, essentially reversing its ascent since 1995 in a relatively smooth fashion. In an optimistic scenario, this could engender a soft landing for the real economy as well, by restoring the competitiveness of U.S. traded goods. This increased competitiveness would help lower the trade deficit and reduce the rate of increase in the net foreign debt (as in the optimistic scenario for an improving trade balance, discussed above). An improvement in the trade balance could then help the current economic expansion to continue, if the current sources of domestic stimulus (which are mainly related to consumer spending) begin to weaken, as most analysts expect. Something analogous occurred in the 1985-89 period, when a falling dollar helped the U.S. economy keep growing after the stimulus from the increased budget deficits of the early Reagan years had worn off.

But it is important not to be lulled into thinking that such a soft landing is assured. As we move into a situation where the country that issues the world's main reserve currency has such large foreign debts, we are moving into uncharted waters. The possibility of a dramatic reversal in confidence in the U.S. economy cannot be ruled out, especially in the case of a rupture in the stock market bubble. Moreover, floating exchange rates do not always depreciate gradually, but can collapse abruptly—as the dollar did in 1985-87 and numerous other currencies have since. If self-fulfilling expectations of a dollar depreciation do break out, investors could panic and try to sell off massive amounts of U.S. assets in a hurry, thus precipitating a sharp decline in the dollar's value.

Another factor often cited as precluding an Asian or Latin American-style crisis for the United States is the fact that this country can borrow in its own currency, while other countries generally have to borrow in foreign currencies such as Japanese yen or U.S. dollars. Thus, the U.S. does not have to worry about having adequate international currency reserves or export earnings to service its debts—and in a pinch, the Fed can always print more dollars to ensure adequate liquidity for debt service. Furthermore, the fact that the United States can service its debt in dollars means that a dollar depreciation would not force the U.S. to devote an increased proportion of its national income toward servicing its existing international debts, as other countries have to do when their currencies depreciate (essentially because it takes more of their own currency to meet debt service obligations that are fixed in foreign currency terms).

While there is some truth to this argument, the ability to borrow in its own currency does not completely insulate the U.S. economy from a possible currency collapse or other adverse consequences of a loss of confidence, especially in the long run. The world's willingness to lend to the U.S. in dollars is predicated on the expectation that the dollar will maintain its value (or, as noted above, that the U.S. will offer an interest rate high enough to compensate for any expected depreciation of the dollar). If there is a loss of confidence in either the U.S. as an investment location or the dollar's ability to hold its value, foreigners may become unwilling to continue lending to the U.S. in dollars—at least, not without a major hike in interest rates or some kind of indexing of debt service to the value of the dollar. In the extreme, the U.S. could someday be forced to borrow in euros or some other foreign currency.

Moreover, the Fed would be very reluctant to print dollars to satisfy external obligations. Increasing the dollar money supply in order to facilitate external debt service would be viewed as inflationary and would therefore be likely to engender precisely the kind of loss of confidence in the dollar that the Fed would be trying to avoid. Inflating away external debts, while always a possible strategy, would be the surest way to ensure that the dollar would lose its preeminent role in the international monetary system. Thus, if the U.S. ever tries to take undue advantage of its ability to service debts in dollars, it would undermine its power to do so in the future.

The current willingness of foreigners to lend to the U.S. in its own currency thus does not avoid, and in a sense only tightens, the constraints placed upon domestic monetary policy in order to maintain "confidence" in the dollar. While other countries are more free to let their currencies depreciate in order to improve their external competitiveness and solve their payments deficits, the United States cannot allow the dollar to depreciate too much if it wants to preserve the role of the dollar as the world's pre-dominant international reserve currency and the primary vehicle for international lending activity. As a result, current international monetary arrangements can force the United States to keep the dollar at an exchange rate that is overvalued from the standpoint of balancing U.S. trade, and which therefore results in chronic large trade deficits and persistent foreign debt accumulation.

Even if the United States succeeds in avoiding a hard landing for the dollar, it may not be able to avoid one for the real economy. In fact, efforts to rescue the dollar could well backfire and make matters worse for domestic workers and firms. If the dollar starts to fall and the government wants to prevent a rapid collapse in the dollar's value, the most likely reaction would be an increase in interest rates by the Fed in order to reassure wary investors (just as the U.S. advised Mexico, Korea, Brazil, and other countries to raise their interest rates in the aftermath of their financial crises). High interest rates would be likely to slow the economy, especially by raising the costs of consumer and business borrowing and thus stemming the current rapid growth of consumption and investment spending.

If interest rates are increased, however, the existence of large debt burdens, both domestic and foreign, creates vulnerabilities that are generally ignored in standard economic models. With consumer debts rising to record levels in relation to household income,[18] a rise in interest rates would increase household debt service burdens[19] and could push financially strapped families over the edge into bankruptcy (especially if unemployment begins to rise as a result of higher interest

rates). The same is true for corporations that have become highly leveraged—regardless of whether they borrowed for productive investments or for mergers, acquisitions, and buyouts. If interest rates spike upward while sales growth slackens and cash flow shrinks, highly indebted firms could become illiquid and the risk of corporate bankruptcy would increase. And if personal and business bankruptcies rise, banks that have lent heavily to consumers and corporations could be in serious trouble—as they were in the Asian crisis countries. Furthermore, the existence of complex derivative contracts and unregulated hedge funds has allowed investors to create highly leveraged financial positions that could be difficult to unwind without significant losses in the event of a general financial panic in the U.S.

Moreover, as shown earlier, higher interest rates would imply greatly increased net outflows of interest payments to foreign creditors, which would worsen the current account deficit and depress U.S. national income. Thus, the large domestic and foreign debts of the United States could potentially turn a soft landing into a hard one. This could happen if bankruptcies rise, banks fail, and domestic incomes have to be squeezed to permit greater outflows of net interest payments. Even the International Monetary Fund, while projecting a gradual slowdown of U.S. growth in its baseline forecast, and normally relatively optimistic in its outlook, warns ominously of the possibility of a hard landing for the U.S. economy:

> The willingness of foreign investors to continue financing the rapidly growing external deficit of the United States at current interest rates may not continue, in which case downward pressure on the dollar might be another cause of higher interest rates. All these factors could give rise to larger and more abrupt adjustments in private sector behavior, and a more abrupt economic slowdown, than envisaged in the baseline. (IMF 1999b, 26)

How big a "hit" could the U.S. economy take in the event of such a crisis? Some simple calculations reveal that a serious economic depression could easily result. Suppose that the U.S. was forced by a withdrawal of net foreign lending to balance its current account. Conservatively, this would require shrinking the current account deficit by 3% of GDP, or about $270 billion at current prices (given a GDP of approximately $9 trillion in 1999). Suppose further that the dollar falls only by enough to eliminate half of this gap. It can easily be estimated[20] that to close the rest of the gap (i.e., to reduce the trade deficit by $135 billion) via income adjustment, national income would have to fall by about 6% in real terms.[21] This would be an adjustment on the order of magnitude of what has been felt in crisis countries such as Brazil, Mexico, Korea, and Thailand in recent years, and much larger than the drop in output in any recent U.S. recession. That a depression of this magnitude would be needed to eliminate even half of the U.S. current account deficit via income reductions is a result of the U.S. economy's extreme openness to imports, which requires a major income squeeze to achieve a significant reduction in the volume of imports.

Is the U.S. borrowing to finance investment?

Some commentators have claimed that the growth in the U.S. foreign debt position is benign, because the United States has been borrowing to finance increased investment rather than to pay for a government budget deficit or a consumer spending boom.[22] But such a claim is mistaken on several counts. Of course, by definition U.S. international borrowing constitutes "net foreign investment" in the United States, but much of this "investment" is simply in paper assets such as stocks and bonds and does not necessarily translate into increases in productive investments in plant and equipment.

It is true that the government deficit has turned into a surplus in recent years, so that it can no longer be labeled a "twin" of the trade deficit (as it was rather misleadingly called in the 1980s—see Blecker 1992 and Morici 1997). Investment demand has been strong in the current economic expansion, but is not unusually high for this point in the business cycle. What *is* unusual about the current period is that *consumption* is abnormally high relative to national income (GDP).

As **Table 2** shows, productive investment spending (defined as gross private domestic investment in the national income and product accounts—essentially, business expenditures on plant and equipment plus new residential construction and inventory accumulation) was 16.1% of GDP in 1998, which is slightly higher than the 15.2% level recorded at the peak of the last business cycle (1989), but below the investment rates recorded at the peaks of the 1970s business cycles (17.6% of GDP in 1973 and 18.8% in 1979).[23] Consumption, on the other hand, accounted for 68.2% of GDP in 1998, and has been around 68% of GDP every year since 1993.

This is an unusually high proportion of consumption in GDP, as can be seen from the comparisons with the earlier years shown (and it is also high compared with the non-peak years omitted from the table). As a result, the private saving rate (which includes both personal and corporate saving) plummeted to 12.8% of GDP in 1998, down from 15.0% in 1989 and 17.5% in both 1979 and 1973. Indeed, as Godley (1999) notes, it is mainly the boom in consumer spending that has kept the U.S. economy growing so rapidly (and hence supported the increased demand for imports that has driven the increases in the trade deficit). At the same time, other traditional sources of economic stimulus, especially government spending and net exports, have been depressed.

As can be seen in Table 2, government expenditures on goods and services accounted for only 17.5% of GDP in 1998, the lowest level in many decades (and certainly in the 25 years covered by this table). The government budget surplus, by either of the definitions shown in Table 2, was a higher (positive) percentage of GDP in 1998 than at any time in the last 25 years.[24] Yet net exports (the trade balance in goods and services) remained in a deficit of -1.8% of GDP in 1998, while net foreign investment (the equivalent of the current account balance in the national income accounts) was -2.5% of GDP (a negative number indicating net U.S. borrowing from abroad).[25]

These data suggest the need for a serious rethinking of the conventional wisdom on the so-called "twin deficits." Back in the 1980s, it was argued that the government's increased fiscal deficit caused "crowding out" to some extent of both domestic investment and net exports (see, e.g., Branson 1985 or Dornbusch 1985). According to some proponents of the twin deficit hypothesis, mostly net exports were crowded out in the short run—due to the rise in the dollar (hence the run-

TABLE 2

Consumption, investment, government spending, the budget balance, the trade balance, and saving rates as percentages of GDP, in business cycle peak years since 1973 compared with 1998

	1973	1979	1981	1989	**1998**
Expenditures on:					
Personal consumption	61.6	62.3	62.3	66.1	**68.2**
Private domestic investment[a]	17.6	18.8	17.9	15.2	**16.1**
Government consumption and investment[b]	20.8	19.8	20.3	20.1	**17.5**
Government budget balance[b] as measured by:					
Surplus or deficit on current expenditures[c]	1.6	1.3	-0.1	-0.3	**2.6**
Government net lending or borrowing[d]	0.5	0.2	-1.1	-1.7	**1.7**
Trade balance as measured by:					
Net exports of goods and services	0.0	-0.9	-0.5	-1.5	**-1.8**
Net foreign investment in the U.S.	0.6	0.1	0.2	-1.7	**-2.5**
Saving rates:					
Private saving[a]	17.5	17.5	18.7	15.0	**12.8**
National saving[e]	17.9	17.8	17.6	13.3	**14.5**
Memorandum:					
Public investment[b]	3.5	3.3	3.3	3.4	**2.8**

Source: Author's calculations based on data from the U.S. Department of Commerce, Bureau of Economic Analysis, as published in U.S. Council of Economic Advisors (1999), and updated from the *Survey of Current Business*, various issues.

Notes: All variables are measured on a national income and product account basis in current dollars and expressed as percentages of gross domestic product (GDP).

[a]Investment and saving are measured on a gross basis, i.e., including depreciation ("consumption of fixed capital").
   Private investment includes business fixed investment, residential investment, and inventory accumulation.
   Private saving includes personal saving of households plus gross corporate saving.
[b]Includes federal, state, and local governments.
[c]Current government revenues minus government consumption expenditures.
[d]Includes the surplus or deficit on current expenditures plus government depreciation ("consumption of fixed capital") minus government investment.
[e]Equals the sum of private saving and the government budget surplus (net lending).

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up in the trade deficit up to 1987)—while investment was crowded out in the long run (late 1980s and early 1990s; see Feldstein 1992). The implication was that, if the federal government balanced its budget, the trade deficit would disappear and private investment would boom. The data in Table 2 show that after the emergence of government budget surpluses in the late 1990s, the promised "crowding in" of domestic investment and net exports did not occur. The investment rate was slightly higher in 1998 compared with 1989, but the trade deficit was also larger, and the most notable change between these two years is the boom in consumption spending.

Of course, U.S. borrowing from abroad does allow us to *maintain* current levels of investment spending in spite of the decline in the private sector saving rate. However, these data show that U.S.

international borrowing has *not* financed a significant increase in the investment rate, but rather has permitted a striking increase in the *consumption* rate, contrary to what is claimed by those who view the U.S. trade deficit as benign.

However, even if the United States were borrowing more for investment and less for consumption, this would not necessarily preclude a future financial crisis. An investment boom that rested on excessive accumulation of foreign debt could still be unsustainable in the long run. Borrowing for investment purposes is no guarantee of future stability, as the Asian crisis amply demonstrated. Thus, the consumption-led boom is not a problem simply because it is consumption led, but rather because it rests on the fragile foundations of wealth effects (the stock market bubble) and increased borrowing (rising consumer debt at home and rising international debt to make up for the domestic saving shortfall), neither of which can persist indefinitely.

Policy implications

The rising trade deficit and international debt of the United States are sustainable only as long as foreign investors are willing to continue lending this country the hundreds of billions of dollars annually required to cover the underlying trade deficit and service the increasing foreign debt. This dependency on international borrowing makes U.S. policy making vulnerable to the decisions of both domestic and foreign investors about whether they want to keep their funds pouring into U.S. financial markets or prefer to send those funds elsewhere. Moreover, the projections in this paper show that in just a few years, under a range of plausible assumptions, the U.S. external debt burden could rise to a level that would be likely to alarm financial investors and cause a sudden withdrawal of funds from U.S. financial markets and dollars. In that event, confidence in the U.S. dollar would plummet, and the United States would be forced to accept a major dollar depreciation or to raise interest rates sharply to prevent one. Either way, the U.S. economy could be put through a painful economic contraction.

The issue, then, is not whether the U.S. can sustain large increases in its foreign debt position, but rather when and how the country will make the adjustments needed to correct the underlying problems. The worst-case, hard-landing scenarios do not have to happen if policy measures are taken soon to prevent them. Just as the Federal Reserve's interest rate cuts in the fall of 1998 helped to stabilize global financial markets and to prevent a U.S. recession, additional policy interventions both in the U.S. and abroad could help to slow down the growth of the U.S. foreign debt and prevent a future financial meltdown. But time is growing short, and—as recent experiences in Asia and elsewhere show—the longer action is delayed, the more difficult it can be to prevent a major economic downturn once a financial crisis erupts.

As the simulations in this paper reveal, alleviating the U.S. international debt burden requires action on two fronts: reducing the trade deficit in order to lessen the need for future borrowing, and keeping interest rates low in order to reduce the burden of servicing the debt. While there is no magic cure for U.S. indebtedness, there are several measures along these lines that could help to ensure a "soft landing" and avert a serious crisis over the next few years:

- First, the U.S. cannot act alone, and it cannot continue to serve as the world's "consumer of last resort" indefinitely. Thus, significant domestic stimulus policies are needed in our major trading partners with depressed economies: Europe, Japan, other Asian countries, and Latin America. This is a win-win strategy, which will benefit our trading partners and relieve trade tensions by boosting their growth and reducing their surpluses with the U.S. Without such foreign demand expansion, it will be much harder for the United States to reduce its trade deficit at a socially acceptable cost. The types of stimulus policies that are needed vary from country to country. In Europe and Latin America, standard monetary and fiscal stimuli would probably suffice (although in Latin America, debt relief would also help). In Japan and other Asian countries, structural reforms to increase consumption and liberalize imports are also necessary.

- Second, the dollar needs to come down gradually to a level that is more consistent with balanced trade. Engineering a gradual depreciation rather than a collapse will not be easy, but keeping interest rates low and cutting them further would be useful for this purpose as well as to mitigate the debt service burden. Recovery in Europe, Japan, and other areas would also help by boosting confidence in their economies, thus sparking appreciation of foreign currencies. In the long run, target zones with crawling bands should be used to stabilize the dollar's value at a lower level (Blecker 1999). Capital controls and foreign exchange restrictions (such as a "Tobin tax" on currency transactions) could be used to prevent speculators from pushing the dollar down too far, too fast. However, if there is a loss of confidence and the dollar falls—and especially if international cooperation has been lacking—it would be better to let the dollar drop than to raise interest rates through the roof and sacrifice jobs and incomes to maintain a strong currency. If a hard landing is unavoidable, it is better to have one for the dollar than for the real economy.[26]

- Third, raising the incomes of U.S. workers and reducing economic inequality could help by allowing families to finance their consumption expenditures more out of current income and with less borrowing, leading to a recovery of the personal saving rate. This in turn would require labor market policies such as strengthened minimum wage laws and union organizing rights, as well as a commitment by the Fed not to raise interest rates and slow the economy in response to workers' gains (see Palley 1998). In addition, when the consumption boom slows down, as it inevitably will, the U.S. government needs to be prepared to use a fiscal stimulus (such as an increase in public investment spending); trying to preserve a budget surplus in a slowing economy would be a recipe for turning a mild recession into a severe, 1930s-style depression. Tax cuts are less preferred than government investment spending, since they would probably only boost consumption and contribute to further shrinkage of the public sector in the future.

- Fourth, U.S. trade policies need to be reoriented to promote more reciprocal market access. These policies should stress the interests of U.S.-based producers exporting abroad rather than the rights of U.S. multinational firms investing abroad, especially when the latter are investing in

export platforms targeting the U.S. import market or in sales of goods produced in third countries. For example, U.S. trade negotiators should be more concerned about steel than bananas, and more concerned about labor rights than intellectual property rights. New and more effective methods of stemming import surges should be instituted, instead of relying on the time-consuming and legalistic anti-dumping laws. And the U.S. needs to stop signing trade agreements that do more to help U.S. businesses operating abroad than to help U.S. workers seeking good-paying jobs at home.

If these kinds of policies are not adopted by the U.S. and its trading partners, the debt bomb will keep ticking, eventually going off with unpredictable consequences both at home and abroad.

June 1999

Appendix

The projections of the U.S. net international investment position and net investment income in this paper are based on a simple dynamic model of the current account balance and net international borrowing or lending. The current account balance for each year t (CAB_t) is determined by

(A1) $CAB_t = TB_t * GDP_t + INVINC_t$

where TB_t is the (assumed) ratio of the "underlying" trade balance (for trade in goods and services plus net transfers) to GDP, GDP_t is the (projected) nominal gross domestic product, and $INVINC_t$ is the total net investment income balance of the country, for each year from 2000 through 2005 (the treatment of 1998 and 1999 is discussed separately below). The net financial investment position ($NETFIN_t$) for each year is assumed to change by the amount of the current account balance, i.e., the entire net borrowing required to cover the current account deficit is assumed to be done through the accumulation of financial debt. Thus,

(A2) $NETFIN_t = NETFIN_{t-1} + CAB_t$

Net financial income (interest and dividend) payments ($FININC_t$) are assumed to be paid at a given interest rate each year (INT_t) on the average level of net financial assets or debts for the year, which is simply the mean of the current and one-year lagged net financial position:

(A3) $FININC_t = INT_t * 0.5 * (NETFIN_t + NETFIN_{t-1})$

The total net investment position ($NETINV_t$) is determined by the identity:

(A4) $NETINV_t = NETFIN_t + NETDIR_t + GOLD_t$

where $NETDIR_t$ is the net direct investment position and $GOLD_t$ is the value of U.S. gold reserves. Finally, by another identity, total net investment income ($INVINC_t$) equals the sum of the financial net income ($FININC_t$) and direct net income ($DIRINC_t$):

(A5) $INVINC_t = FININC_t + DIRINC_t$

Using exogenously set forecasts for TB_t, GDP_t, INT_t, $NETDIR_t$, $GOLD_t$, and $DIRINC_t$, as well as an initial lagged

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value of $NETFIN_{t-1}$, these five equations solve for the time paths of the five endogenous variables CAB_t, $NETFIN_t$, $NETINV_t$, $FININC_t$, and $INVINC_t$. Note that since each year's value for $NETFIN_t$ depends on itself (since $NETFIN_t$ depends partly on interest payments that are a function of current $NETFIN_t$), the model has to be solved using an iterative procedure (which was done using the Excel spreadsheet program).

The exogenously forecast variables are specified as follows. We assume that the underlying trade balance is a deficit of 3% of GDP for 2000-05 (i.e., $TB_t = -.03$) in the baseline scenario, and then vary this percentage for the alternative trade balance scenarios as discussed in the text. This baseline assumption is consistent with current predictions about the level of the U.S. trade deficit for the next few years. We assume that nominal GDP grows at a 5% annual rate each year, starting from the actual 1998 level (i.e., $GDP_t = 1.05 * GDP_{t-1}$), since the actual growth rate of nominal GDP has been approximately 5% in the last few years.

The interest rate is set at 4.25% in the baseline scenario ($INT_t = .0425$), which is approximately the mid-range of the implicit "interest rate" on U.S. international financial assets and liabilities over the past few years (actually, this "interest rate" includes both interest on bonds and bank deposits and dividends from corporate stock and other securities). This rate is determined by taking the gross inflows and outflows of financial investment income as proportions of the stocks of international financial assets and liabilities, respectively. This method yields the following implicit interest rates (in percent) for the last four years for which complete data are available:

Implicit interest rate on:	1994	1995	1996	1997
U.S. financial assets abroad	4.16	4.72	4.15	4.22
Foreign financial assets in the U.S. (U.S. liabilities)	4.48	4.70	4.27	4.28

Source: Author's calculations based on data in DiLullo (1998) and Scholl (1998).

A 4.25% interest rate is assumed in all scenarios for 1999; alternative interest rates are assumed for 2000-05 in the other interest rate scenarios as discussed in the text.

Since U.S. gold reserves are essentially constant in real terms at approximately 261.6 million fine troy ounces, their value varies only as a result of fluctuations in gold prices. We used the actual decrease in the market price of gold from $290.20 at year-end 1997 to $287.80 at year-end 1998 (International Monetary Fund 1999a, 42), to estimate the value of U.S. gold reserves at $75.3 billion for 1998. For 1999, based on a report in the *Financial Times* (June 9, 1999, 26), which forecast a price in the range of $250-$275 per ounce by the end of 1999, we used the mid-range forecast of $262.50 to estimate the value of U.S. gold reserves at $68.7 billion for this year, and then assumed that this value remains constant for 2000-05.

For the net direct investment position ($NETDIR_t$) and net direct investment income ($DIRINC_t$), we make *ad hoc* forecasts based on extrapolation from recent trends (see Figures 1 and 2). For the position, we start with the actual net direct investment position of +$272.0 billion at year-end 1997 and subtract the actual net direct investment inflow of $60.5 billion for 1998 (from U.S. Bureau of Economic Analysis 1999b) to get +$211.5 billion at year-end 1998 (ignoring valuation adjustments, which tend to be minimal for direct investment measured at current cost). Actual net direct investment flows have been quite variable in recent years, with net inflows in some years and net outflows in other years, and are hard to predict *ex ante*. We therefore assume that the net direct investment position levels off at +$200 billion in 1999 and remains constant at that level through 2005. Direct investment income also fluctuates, depending on levels of economic activity and rates of return at home and abroad and on the exchange rates at which U.S. investment income from abroad is converted into dollars. Actual net direct investment income fell from $63.7 billion in 1997 to $54.7 billion in 1998 as a result of the economic slowdown abroad and the fact that most other currencies depreciated against the dollar. We assume that net direct investment income is $55.0 billion in 1999, increases by $2 billion each year from 2000 to 2002, and then increases by $1 billion each year from 2003 to 2005, thus recovering to $64.0 billion (or approximately its 1997 level) by 2005.

The complete model as specified in equations (A1) to (A5) is used for the years 2000-05. For 1998 and 1999, the model is modified to take account of the additional information that is available for these years. For 1998, the actual level of net investment income (total, direct, and financial) is available from the balance of payments statistics. These actual data are therefore used for $INVINC_{98}$, $DIRINC_{98}$, and $FININC_{98}$, and equation (A3) is not used for 1998 (although it is used for 1999). Also, we do not use equations (A1) and (A2) for 1998 or 1999. For 1998, actual balance-of-payments data can be used to determine how much the net financial investment position in-

creased over the previous year. U.S. net financial inflows for 1998 were $149.3 billion, including both official and other financial assets (but excluding direct investment).[27] Again ignoring valuation adjustments (since fluctuations in stock markets in the U.S. and abroad were highly correlated in 1998, and therefore changes in values of domestic and foreign stocks roughly cancel out, and the dollar did not substantially rise or fall in value between December 1997 and December 1998), we therefore compute the net financial position for year-end 1998 as $NETFIN_{98} = NETFIN_{97} - \$149.3$ billion. For 1999, we assume that net financial inflows are $300 billion, i.e., $NETFIN_{99} = NETFIN_{98} - \$300$ billion.[28]

Endnotes

1. The likely growth in the U.S. net international debt over the next several years is projected using currently available information about the U.S. balance of payments, the value of the dollar, and asset market conditions in 1998-99, as well as by extrapolating from current economic conditions and forecasts. The baseline scenario assumes that the underlying deficit for trade in goods and services plus net transfers equals 3% of the gross domestic product from 2000 through 2005. However, the total current account deficit (and thus the amount of net international borrowing) is larger than this underlying trade deficit because it also includes the net outflow of investment income (interest, dividends, etc.). The assumptions about the trade deficit and international borrowing for 1998 and 1999 are based on currently available data and forecasts and are discussed in detail in the Appendix. The baseline scenario also assumes that GDP grows by 5% per year in nominal terms and that the interest rate on international financial assets and liabilities stays at 4.25% from 1999 through 2005.

2. The U.S. net debt increases by the amount of net borrowing from abroad during each year, which should in principle equal the current account deficit. However, in practice there are always "statistical discrepancies" in the actual balance-of-payments statistics. Also, adjustments are made each year for the effects of changes in asset values (especially stock market share prices) both at home and abroad, as well as for the effects of changes in foreign currency values on the dollar value of U.S. assets abroad.

3. All U.S. international debt data used in this paper are taken from Scholl (1998). The net debt figure cited here includes direct foreign investment (DFI) valued at current cost, i.e., the replacement cost of the investment goods (plant and equipment) owned by U.S. firms abroad and by foreign firms in the United States. The Department of Commerce also reports a series that includes DFI valued at market value, i.e., the stock market value of corporate equity in each country. The latter measure fluctuates much more in the short run, due to the volatility of the stock market indexes used to measure the market value of DFI. Thus, we prefer to use the series with DFI valued at current (replacement) cost, which is more stable over time and better reflects a country's long-term DFI position. All data used in this paper include DFI at current cost where relevant.

4. U.S. gold reserves, although technically included as an international asset for the United States, cannot legally be sold to service other U.S. obligations, and are therefore irrelevant to the ability of the U.S. to service its debts. DFI is usually based on long-term competitive strategies of multinational business firms and—as recent experiences in Latin America and East Asia have demonstrated—is usually not liquidated during a financial panic. Hence, DFI can also be regarded as illiquid and should be excluded in calculating the financial debts of the United States.

5. All debt or credit figures cited are measured at the end of the year. In contrast, the figures for net investment income flows, discussed below, are measured for entire calendar years. These are standard procedures for measuring financial variables—stocks of assets or liabilities are measured at a point in time, while financial flows are measured over periods of time.

6. Some analysts suspect that the magnitude of the net inflow of direct investment receipts may be exaggerated by the fact that foreign multinationals in the United States are more likely to take their profits out in the form of high transfer prices for inputs sourced from their home countries, while U.S. multinationals are more likely to bring their foreign profits home in the form of explicit accounting profits. If this suspicion is true, the upward bias this imparts to the investment income balance is exactly matched by a downward bias to the trade balance, with no net effect on the current account as a whole. See Godley and Milberg (1994).

7. All balance-of-payments data used in this paper are taken from DiLullo (1998) and the Department of Commerce's international transactions statistical release of March 11, 1999 (U.S. Bureau of Economic Analysis 1999a), except as otherwise noted. Major revisions to the U.S. international transactions accounts for 1982-98, released on June 17, 1999 (in U.S. Bureau of Economic Analysis 1999b), were issued too late to be fully incorporated in this paper, but information from the latter release was used in the forecasts as cited in the Appendix.

8.   Net transfers are unrequited inflows and outflows of funds, such as foreign aid and private remittances (e.g., funds sent to relatives overseas by immigrants). In 1998, the United States had a net transfers deficit of $41.9 billion, in addition to a goods-and-services deficit of $169.1 billion and a net investment income deficit of $22.5 billion.

9.   An interest rate of 4.25% is assumed as the baseline because the implicit interest rates on U.S. international financial assets and liabilities have mostly been in the range of about 4.00% to 4.50% for the last several years (see Appendix), and thus this rate represents a continuation of current interest rate policies at home and abroad.

10.   All of the alternative interest rate scenarios assume that the interest rate is 4.25% in 1999; the scenarios differ in what they assume for 2000-05. All of these scenarios also assume the same underlying trade deficit for the United States (3% of GDP) as assumed in the baseline, although the total current account deficits are larger because they include the net outflow of investment income.

11.   Note that these forecasts ignore other effects of changes in interest rates (e.g., effects on demand and income) and their repercussions for the trade balance, effects that would have to be incorporated in a more complete model. In particular, high interest rates would probably stifle growth or cause a recession, which in turn would reduce the underlying trade deficit and thus ameliorate the increase in the debt.

12.   As discussed in more detail in Blecker (1999), new economic theories recognize that self-fulfilling expectations of investors can cause an economic situation to be unsustainable even if it would be sustainable under a different (i.e., more optimistic) set of expectations. These theories have been confirmed by recent experiences in the Asian financial crisis, in which "contagion effects" caused collapses of some currencies that did not otherwise have to be devalued (or which might have required more modest devaluations without the speculative attacks). Of course, when an economic situation is truly unsustainable, smart speculators will perceive this, often forcing sharp corrections in advance of when they would occur in the absence of the speculation.

13.   In recent financial crises, such as those in Mexico in 1994 and Thailand in 1997, it was often domestic investors who led the rush to the exits, since they were the most aware of their countries' problems.

14.   Another motive was the rise of U.S. merchandise trade deficits, which prompted a belief that the dollar was overvalued in the Bretton Woods system of adjustable exchange rate pegs.

15.   This problem was known as the "Triffin dilemma," after Triffin (1960), which has been described as follows in Caves et al. (1990):

    If the United States was allowed to continue running [overall] balance of payments deficits, eventually there would be a crisis of confidence, as foreigners all tried to cash in their dollars for gold before it was too late, and thereby exhausted the U.S. gold reserves. On the other hand, if steps were taken to end the U.S. deficit, then the rest of the world would be deprived of sufficient liquidity in the form of a steadily growing stock of [dollar] reserves. (480)

16.   Calculated by the author using data from U.S. Board of Governors of the Federal Reserve System (1999, Table L.209).

17.   Econometric evidence suggests that strict uncovered interest parity (interest rate premiums equal to expected rates of depreciation) does not generally hold (see Blecker 1998 for discussion and citations). However, the measurement of exchange rate expectations is a problem in all such studies, and there is still a presumption that interest rate differentials at least reflect the expected *direction* of exchange rate changes.

18.   According to Mishel et al. (1999, Table 5.12, 275), total household debt (both consumer and mortgage debt) as a percentage of personal income climbed from 57.6% in 1973 to 84.8% in preliminary data for 1997. At the same time, the household debt *service* burden rose only from 15.5% of disposable income in 1973 to 17.0% in 1997, due to low interest rates and more generous repayment terms (e.g., longer-term mortgages). See also International Monetary Fund (1999b, Figure 2.18, 103), which gives similar figures.

19.   This problem would be mitigated by the existence of long-term consumer debt with fixed interest rates, especially mortgage loans. Only consumers with flexible-rate loans or who take out new loans would be affected by the higher rates. However, if interest rates spike upward, the value of securitized fixed-rate mortgages could plummet, which could wreak havoc in financial markets.

20.   This estimate also assumes that foreign income stays constant, so that exports are unchanged, and that the income elasticity of import demand is approximately 2 (i.e., imports rise by 2% for every 1% increase in income). Many studies have found income elasticities of import demand for the U.S. over 2 (see Blecker 1996). However, most of these studies include only merchandise imports or some subset thereof (often, non-petroleum imports, and sometimes non-computer, non-petroleum imports). With imports of all goods and services included, the income elasticity is likely to be somewhat lower, and we use 2 as a ballpark figure.

21. Using the advance gross domestic product estimates for the first quarter of 1999, the chain-type price index for imports of goods and services is 89.1 (=100 x (1,154.0/1,295.0), where nominal imports are $1,154.0 billion and "real" (1992 dollar) imports are $1,295.0 billion). Dividing $135 billion by 0.891 yields $151.5 billion in 1992 dollars, which is 11.7% of $1,295.0 billion. With an income elasticity of 2 (see previous note), real income needs to fall by ½ of 11.7%, or 5.9%, in order to reduce real imports by $151.2 billion. Data are from *Survey of Current Business* (May 1999, Tables 1.1-1.2, D-2).

22. See, for example, the statements of Gary Hufbauer, Richard N. Cooper, Claude Barfield, Isaiah Frank, and Daniel T. Griswold in the *International Economy* (1999), who state slightly different versions of this proposition. However, other individuals in that symposium express views closer to those argued here (especially Martin Feldstein, Clyde Prestowitz, Ulrich Ramm, and Charles P. Kindleberger).

23. Those who claim that investment has been unusually high in recent years generally cite data on "real" investment at chained 1992 prices, rather than the current price data used here (see, e.g., U.S. Council of Economic Advisers 1999, 69-73). The "real" data do show higher investment rates: in real terms, the share of gross private domestic investment in GDP rose to 17.6% in 1998, up from 14.2% in 1989 and 15.2% in 1973. But this appearance of an increased "real" investment rate is due entirely to the fact that prices of investment goods have been rising more slowly than prices of consumer goods (and some investment goods—especially computers and other electronic products—have fallen in price). While this increase shows that business firms spending on productive investment are getting relatively more bang for their bucks, compared with consumers, it does not gainsay the fact that such investment spending has not increased as a share of total domestic expenditures when measured at current prices.

24. Note that this increase in public sector saving has not been matched by an increase in public investment; on the contrary, at only 2.8% of GDP in 1998 (see Table 2), public investment has shrunk to its lowest level in more than a generation. This dramatic contraction of the public sector's role in the economy is a direct result of the obsession with balancing the federal budget and shrinking the size of government, and is leading to emerging shortfalls of public investment in many areas (see Palley 1998).

25. These were not the largest trade deficits in the period covered by Table 2; both peaked in 1987, when net exports were -3.0% of GDP and net foreign investment was -3.3% (not shown in the table, since 1987 was not a business cycle peak year).

26. This is analogous to Jeffrey Sachs' argument (e.g., in Sachs 1999) that Russia, Brazil, and the East Asian countries should not have used high interest rates in efforts to keep their currencies from depreciating.

27. In the newly revised balance-of-payments data in U.S. Bureau of Economic Analysis (1999b), what is now called the total "financial account" balance for 1998 was +$209.8 billion; subtracting net direct investment inflows of $60.5 billion yields net financial inflows (as defined in this paper, i.e., for liquid assets) of $149.3 billion.

28. The total projected net capital inflow for 1999 is slightly larger due to the assumed net direct investment inflow of $11.5 billion, implying a total current account deficit of $311.5 billion or about 3.5% of GDP (which we project to be $8,936.6 billion). This is consistent with current projections that the U.S. current account deficit will be 3.5% of GDP in 1999 (IMF 1999b, Table 2.6, 67).

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