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Remarks by  
Alan Greenspan  
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Among the major forces that will help shape the euro's future as a world currency will be the international evolution of the euro area's key financial counterparty, the United States. I will leave the important interplay between the euro and the dollar--and particularly forecasts of the dollar-euro exchange rate--to more venturesome analysts. My experience is that exchange markets have become so efficient that virtually all relevant information is embedded almost instantaneously in exchange rates to the point that anticipating movements in major currencies is rarely possible.<sup>1</sup>

I plan this morning to head in what I hope will be a more fruitful direction by addressing the evolving international payments imbalance of the United States and its effect on Europe and the rest of the world. I intend to focus on the eventual resolution of that current account imbalance in the context of accompanying balance-sheet changes.

I conclude that spreading globalization has fostered a degree of international flexibility that has raised the probability of a benign resolution to the U.S. current account imbalance. Such a resolution has been the general experience of developed countries over the past two decades. Moreover, history suggests that greater flexibility allows economies to adjust more smoothly to changing economic circumstances and with less risk of destabilizing outcomes.

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<sup>1</sup>The exceptions to this conclusion are those few cases of successful speculation in which governments have tried and failed to support a particular exchange rate. Nonetheless, despite extensive efforts on the part of analysts, to my knowledge, no model projecting directional movements in exchange rates is significantly superior to tossing a coin. I am aware that of the thousands who try, some are quite successful. So are winners of coin-tossing contests. The seeming ability of a number of banking organizations to make consistent profits from foreign exchange trading likely derives not from their insight into future rate changes but from making markets and consistently being able to buy at the bid and sell at the offering price, pocketing the spread.

Indeed, the example of the fifty states of the United States suggests that, with full flexibility in the movement of labor and capital, adjustments to cross-border imbalances can occur even without an exchange rate adjustment. In closing, I raise the necessity of containing the forces of protectionism to ensure the flexibility needed for a benign outcome of our international imbalances.

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The current account deficit of the United States, essentially net exports of goods and services, has continued to widen over the past couple of years. The external deficit receded modestly during our mild recession of 2001 only to rebound to a record 5 percent of gross domestic product earlier this year. Our persistent current account deficit is a growing concern because it adds to the stock of outstanding external debt that could become increasingly more difficult to finance.

These developments raise the question of whether the record imbalance will benignly diffuse, as it largely did after its previous peak of about 3-1/2 percent of GDP in 1986, or whether the resolution will be more troublesome.

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Current account balances are determined mainly by countries' relative incomes, by product and asset prices including exchange rates, and by comparative advantage. To pay for the internationally traded goods and services that underlie that balance, there is a wholly separate market in financial instruments the magnitudes of which are determined by the same set of asset prices that affects trade in goods and services. In the end, it is the balancing of trade and financing that sets international product and asset prices and global current account balances.

The buildup or reduction in financial claims among trading countries--that is, capital flows--are hence exact mirrors of the current account balances. And just as net trade and current accounts for the world as a whole necessarily sum to zero, so do net capital flows. Because for any country the change in net claims against all foreigners cumulates to its current account balance (abstracting from valuation adjustments), that balance must also equal the country's domestic saving less its domestic investment.

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In as much as the balance of goods and services is brought into equality with the associated capital flows through adjustments in prices, interest rates, and exchange rates, how do we tell whether trade determines capital flows or whether capital flows determine trade? Answering this question is difficult because the balancing process is simultaneous rather than sequential, so that there is no simple unidirectional causality between trade and capital flows. For example, increased demand for dollar assets may lower interest rates and equity premiums in the United States and thus engender increased demand for imports. But the need for import financing may raise domestic interest rates and thereby attract the required additional capital inflows to the United States.

Nonetheless, as the U.S. current account deficit rose from 1995 to early 2002, so too did the dollar's effective exchange rate. Evidently, upward pressure on the dollar was spurred by rising expected rates of return that resulted in private capital investments from abroad that chronically exceeded the current account deficit. The pickup in U.S. productivity growth in the mid-1990s--the likely proximate cause of foreigners' perception of increased rates of return on capital in the United States--boosted investment spending, stock prices, wealth, and assessments

of future income. Those favorable developments led, in turn, to greater consumer spending and lower saving rates.

The resulting widening gap between domestic investment and domestic saving from 1995 to 2000 was held partly in check by higher government saving as rising stock prices drove up taxable income. When, in 2002, that effect reversed and the federal budget slipped back into deficit, and as the U.S. economy emerged from its downturn, the gap in the current account balance widened further. After contracting in the aftermath of the U.S. stock market decline of 2000, private capital from abroad was apparently again drawn to the United States in substantial quantities by renewed perceptions of relatively high rates of return. In addition, during the past year or so the financing of our external deficit was assisted by large accumulations of dollars by foreign central banks.

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Even before the productivity surge of the late 1990s, the United States had become particularly prone to current account deficits and rising external net debt because of the historical tendency on the part of U.S. residents to import, relative to income, at a significantly higher rate than our trading partners, at least for U.S. goods and services.<sup>2</sup> If all economies were to grow at the same rate, such differential propensities would produce an ever-widening trade deficit for the

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<sup>2</sup>This anomaly was first identified more than three decades ago; see H.S. Houthakker and Stephen P. Magee, “Income and Price Elasticities in World Trade,” *The Review of Economics and Statistics* vol. 51 (May 1969), 111-25.

United States and a corresponding surplus for our trading partners, failing offsetting adjustments in relative prices.

In the 1960s or 1970s, because our trading partners were growing far faster than we were, a trade gap did not surface. When, in the 1980s, the difference in growth rates narrowed while the dollar rose, our trade and the associated current account deficits widened dramatically. By the late 1980s, we had become a net debtor nation, ending seven decades as a net creditor. While most recent data reaffirm our above-average propensity to import, there is evidence to suggest that its magnitude has diminished.

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There is no simple measure by which to judge the sustainability of either a string of current account deficits or their consequence, a significant buildup in external claims that need to be serviced. Financing comes from receipts from exports, earnings on assets, and, if available, funds borrowed from foreigners. In the end, it will likely be the reluctance of foreign country residents to accumulate additional debt and equity claims against U.S. residents that will serve as the restraint on the size of tolerable U.S. imbalances in the global arena.

Unlike the financing of payments from export and income receipts, reliance on borrowed funds may not be sustainable. By the end of September 2003, net external claims on U.S. residents had risen to an estimated 25 percent of a year's GDP, still far less than claims on many of our trading partners but rising at the equivalent of 5 percentage points of GDP annually. However, without some notion of our capacity for raising cross-border debt, the sustainability of the current account deficit is difficult to estimate. That capacity is evidently, in part, a function

of globalization since the apparent increase in our debt-raising capacity appears to be related to the reduced cost and increasing reach of international financial intermediation.

The significant reduction in global trade barriers over the past half century has contributed to a marked rise in the ratio of world trade to GDP and, accordingly, a rise in the ratio of imports to domestic demand. But also evident is that the funding of trade has required, or at least has been associated with, an even faster rise in external finance. Between 1980 and 2002, for example, the nominal dollar value of world imports rose 5-1/2 percent annually, while gross external liabilities, largely financial claims, also expressed in dollars, apparently rose considerably faster.<sup>3</sup>

This observation does not reflect solely the sharp rise in the external liabilities of the United States that has occurred since 1995. For other OECD economies, imports rose about 2 percent annually from 1995 to 2002; external liabilities increased 8 percent.

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<sup>3</sup>Gross liabilities include both debt and equity claims. Data on the levels of gross liability have to be interpreted carefully because they reflect the degree of consolidation of the economic entities they cover. Were each of our fifty states considered as a separate economy, for example, interstate claims would add to both U.S. and world totals without affecting U.S. or world GDP. Accordingly, it is the change in the gross liabilities ratios that is the more economically meaningful concept.

Less-comprehensive data suggest that the ratio of global debt and equity claims to trade has been rising since at least the beginning of the post-World War II period.<sup>4</sup>

From an accounting perspective, part of the increase in finance relative to trade in recent years reflects the continued marked rise in tradable foreign currencies held by private firms as well as a very significant buildup of international currency reserves of monetary authorities. Rising global wealth has apparently led to increased demand for diversification of portfolios by including greater shares of foreign currencies.

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<sup>4</sup>For the United States, for example, the ratio of external liabilities to imports of goods and services rose from nearly 1-1/2 in 1948 to close to 2 in 1980. The comparable ratios for the United Kingdom can be estimated to have been in the neighborhood of 2-1/2 or lower in 1948 and about 3-3/4 in 1980.



More generally, technological advance and the spread of global financial deregulation has fostered a broadening array of specialized financial products and institutions. The associated increased layers of intermediation in our financial system make it easier to diversify and manage risk, thereby facilitating an ever-rising ratio of domestic liabilities (and assets) to GDP, and gross external liabilities to trade.<sup>5</sup> These trends seem unlikely to reverse, or even to slow materially, short of an improbable end to the expansion of financial intermediation that is being driven by cost-reducing technology.

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<sup>5</sup>For the United States, for example, even excluding mortgage pools, the ratio of domestic liabilities to GDP rose at an annual rate of 2 percent between 1965 to 2002. For the United Kingdom, the ratio of debt liabilities to GDP increased 4 percent at an annual rate during the more recent 1987-2002 period.

Uptrends in the ratios of external liabilities or assets to trade, and therefore to GDP, can be shown to have been associated with a widening dispersion in countries' ratios of trade and current account balances to GDP.<sup>6</sup> A measure of that dispersion, the sum of the absolute values of the current account balances estimated from each country's gross domestic saving less gross domestic investment (the current account's algebraic equivalent), has been rising as a ratio to GDP at an average annual rate of about 2 percent since 1970 for the OECD countries, which constitute four-fifths of world GDP.

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<sup>6</sup>If the rate of growth of external assets (and liabilities) exceeds, on average, the growth rate of world GDP, under a broad range of circumstances the dispersion of the change in net external claims of trading countries must increase as a percent of world GDP. But the change in net claims on a country, excluding currency valuation changes and capital gains and losses, is essentially the current account balance. Of necessity, of course, the consolidated world current account balance remains at zero.

Theoretically, if external assets and liabilities were always equal, implying a current account in balance, the ratio of liabilities to GDP could grow without limit. But in the complexities of the real world, if external assets fall short of liabilities for some countries, *net* external liabilities will grow until they can no longer be effectively serviced. Well short of that point, market prices, interest rates, and exchange rates will slow, and then end, the funding of liability growth.

The long-term increase in intermediation, by facilitating the financing of ever-wider current account deficits and surpluses, has created an ever-larger class of investors who might be willing to hold cross-border claims. To create liabilities, of course, implies a willingness of some private investors and governments to hold the equivalent increase in claims at market-determined asset prices. Indeed, were it otherwise, the funding of liabilities would not be possible.

With the seeming willingness of foreigners to hold progressively greater amounts of cross-border claims against U.S. residents, at what point do *net* claims (that is, gross claims less gross liabilities) against us become unsustainable and deficits decline? Presumably, a U.S. current account deficit of 5 percent or more of GDP would not have been readily fundable a half-century ago or perhaps even a couple of decades ago.<sup>7</sup> The ability to move that much of world saving to the United States in response to relative rates of return would have been hindered by a far lower degree of international financial intermediation. Endeavoring to transfer the equivalent of 5 percent of U.S. GDP from foreign financial institutions and persons to the United States would presumably have induced changes in the prices of assets that would have proved inhibiting.

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<sup>7</sup>It is true that estimates of the ratios of the current account to GDP for many countries in the nineteenth century are estimated to have been as large as, or *larger*, than we have experienced in recent years. However, the substantial net flows of capital financing for those earlier deficits were likely motivated in large part by specific major development projects (for example, railroads) bearing high expected rates of return. By contrast, diversification appears to be a more salient motivation for today's large net capital flows. Moreover, gross capital flows are believed to be considerably greater relative to GDP in recent years than in the nineteenth century. (See Alan M. Taylor, "A Century of Current Account Dynamics," *Journal of International Money and Finance*, 2002, 725–48, and Maurice Obstfeld and Alan Taylor, "Globalization and Capital Markets," NBER Working Paper 8846, March 2002.)

There is, for the moment, little evidence of stress in funding U.S. current account deficits. To be sure, the real exchange rate for the dollar has, on balance, declined more than 10 percent broadly and roughly 20 percent against the major foreign currencies since early 2002. Yet inflation, the typical symptom of a weak currency, appears quiescent. Indeed, inflation premiums embedded in long-term interest rates apparently have fluctuated in a relatively narrow range since early 2002. More generally, the vast savings transfer has occurred without measurable disruption to the balance of international finance. In fact, in recent months credit risk spreads have fallen and equity prices have risen throughout much of the global economy.

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To date, the widening to record levels of the U.S. ratio of current account deficit to GDP has been seemingly uneventful. But I have little doubt that, should it continue, at some point in the future adjustments will be set in motion that will eventually slow and presumably reverse the rate of accumulation of net claims on U.S. residents. How much further can international financial intermediation stretch the capacity of world finance to move national savings across borders?

A major inhibitor appears to be what economists call “home bias.” Virtually all our trading partners share our inclination to invest a disproportionate percentage of domestic savings in domestic capital assets, irrespective of the differential rates of return.

People seem to prefer to invest in familiar local businesses even where currency and country risks do not exist. For the United States, studies have shown that individual investors and even professional money managers have a slight preference for investments in their own

communities and states. Trust, so crucial an aspect of investing, is most likely to be fostered by the familiarity of local communities.

As a consequence, home bias will likely continue to constrain the movement of world savings into its optimum use as capital investment, thus limiting the internationalization of financial intermediation and hence the growth of external assets and liabilities.<sup>8</sup>

Nonetheless, during the past decade, home bias has apparently declined significantly. For most of the earlier postwar era, the correlation between domestic saving rates and domestic investment rates across the world's major trading partners, a conventional measure of home bias, was exceptionally high.<sup>9</sup> For OECD countries, the GDP-weighted correlation coefficient was 0.97 in 1970. However, it fell from 0.96 in 1992 to less than 0.8 in 2002. For OECD countries excluding the United States, the recent decline is even more pronounced. These declines, not

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<sup>8</sup>Without home bias, the dispersion of world current account balances would likely be substantially greater.

<sup>9</sup>See Martin Feldstein and Charles Horioka, "Domestic Saving and International Capital Flows," *The Economic Journal*, June 1980, 314-29.

surprisingly, mirror the rise in the differences between saving and investment or, equivalently, of the dispersion of current account balances over the same years.

The decline in home bias probably reflects an increased international tendency for financial systems to be more transparent, open, and supportive of strong investor protection.<sup>10</sup> Moreover, vast improvements in information and communication technologies have broadened investors' scope to the point that foreign investment appears less exotic and risky. Accordingly, the trend of declining home bias and expanding international financial intermediation will likely continue as globalization proceeds.

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It is unclear whether debt-servicing restraints or the rising weight of U.S. assets in global portfolios will impose the greater restraint on current account dispersion over the longer term. Either way, when that point arrives, what do we know about whether the process of reining in our current account deficit will be benign to the economies of the United States and the world?

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<sup>10</sup>Research indicates that home bias in investment toward a foreign country is likely to be diminished to the extent that the country's financial system offers transparency, accessibility, and investor safeguards. See Alan Ahearne, William Grier, and Frank Warnock, "Information Costs and Home Bias" Board of Governors of the Federal Reserve System, International Finance Discussion Paper No. 691, December 2000.

According to a Federal Reserve staff study, current account deficits that emerged among developed countries since 1980 have risen as high as double-digit percentages of GDP before markets enforced a reversal.<sup>11</sup> The median high has been about 5 percent of GDP.

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<sup>11</sup>Caroline Freund, “Current Account Adjustment in Industrialized Countries,” Board of Governors of the Federal Reserve System, International Finance Discussion Paper No. 692, December 2000.

Complicating the evaluation of the timing of a turnaround is that deficit countries, both developed and emerging, borrow in international markets largely in dollars rather than in their domestic currency. The United States has been rare in its ability to finance its external deficit in a reserve currency.<sup>12</sup> This ability has presumably enlarged the capability of the United States relative to most of our trading partners to incur foreign debt.

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Besides experiences with the current account deficits of other countries, there are few useful guideposts of how high our country's net foreign liabilities can mount. The foreign accumulation of U.S. assets would likely slow if dollar assets, irrespective of their competitive return, came to occupy too large a share of the world's portfolio of store of value assets. In these

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<sup>12</sup>Less than 10 percent of aggregate U.S. foreign liabilities are currently denominated in nondollar currencies. To have your currency chosen as a store of value is both a blessing and a curse. Presumably, the buildup of dollar holdings by foreigners has provided Americans with lower interest rates as a consequence. But, as Great Britain learned, the liquidation of sterling balances after World War II exerted severe pressure on its domestic economy.



circumstances, investors would seek greater diversification in non-dollar assets. At the end of 2002, U.S. dollars accounted for about 65 percent of central bank foreign exchange reserves, with the euro second at 15 percent. Approximately half of private cross-border holdings were denominated in dollars, with one-third in euros.

More important than the way that the adjustment of the U.S. current account deficit will be initiated is the effect of the adjustment on both our economy and the economies of our trading partners. The history of such adjustments has been mixed. According to the aforementioned Federal Reserve study of current account corrections in developed countries, although the large majority of episodes were characterized by some significant slowing of economic growth, most economies managed the adjustment without crisis. The institutional strengths of many of these developed economies--rule of law, transparency, and investor and property protection--likely helped to minimize disruptions associated with current account adjustments. The United Kingdom, however, had significant adjustment difficulties in its early postwar years, as did, more recently, Mexico, Thailand, Korea, Russia, Brazil, and Argentina, to name just a few.

Can market forces incrementally defuse a worrisome buildup in a nation's current account deficit and net external debt before a crisis more abruptly does so? The answer seems to lie with the degree of flexibility in both domestic and international markets. In domestic economies that approach full flexibility, imbalances are likely to be adjusted well before they become potentially destabilizing. In a similarly flexible world economy, as debt projections rise, product and equity prices, interest rates, and exchange rates could change, presumably to reestablish global balance.

The experience over the past two centuries of trade and finance among the individual states that make up the United States comes close to that paradigm of flexibility even though exchange rates among the states have been fixed. Although we have scant data on cross-border transactions among the separate states, anecdotal evidence suggests that over the decades significant apparent imbalances have been resolved without precipitating interstate balance-of-payments crises. The dispersion of unemployment rates among the states, one measure of imbalances, spikes during periods of economic stress but rapidly returns to modest levels, reflecting a high degree of adjustment flexibility. That flexibility is even more apparent in regional money markets, where interest rates that presumably reflect differential imbalances in states' current accounts and hence cross-border borrowing requirements have, in recent years, exhibited very little interstate dispersion. This observation suggests either negligible cross-state-border imbalances, an unlikely occurrence given the pattern of state unemployment dispersion, or more likely very rapid financial adjustments.

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We may not be able to usefully determine at what point foreign accumulation of net claims on the United States will slow or even reverse, but it is evident that the greater the degree of international flexibility, the less the risk of a crisis.<sup>13</sup> The experience of the United States over the past three years is illustrative. The apparent ability of our economy to withstand a number of

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<sup>13</sup> Although increased flexibility apparently promotes resolution of current account imbalances without significant disruption, it may also allow larger deficits to emerge before markets are required to address them.

severe shocks since mid-2000, with only a small decline in real GDP, attests to the marked increase in our economy's flexibility over the past quarter century.<sup>14</sup>

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In evaluating the nature of the adjustment process, we need to ask whether there is something special in the dollar being the world's primary reserve currency. With so few historical examples of dominant world reserve currencies, we are understandably inclined to look to the experiences of the dollar's immediate predecessor. At the height of sterling's role as the world's currency more than a century ago, Great Britain had net external assets amounting to some 150 percent of its annual GDP, most of which were lost in World Wars I and II. Early post-World War II Britain was hobbled with periodic sterling crises as much of the remnants of Empire endeavored to disengage themselves from heavy reliance on holding sterling assets as central bank reserves and private stores of value. The experience of Britain's then extensively regulated economy, harboring many wartime controls well beyond the end of hostilities, provides testimony to the costs of structural rigidity in times of crisis.

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<sup>14</sup>See Alan Greenspan, remarks before a symposium sponsored by the Federal Reserve Bank of Kansas City, Jackson Hole, Wyoming, August 30, 2002.

Should globalization be allowed to proceed and thereby create an ever more flexible international financial system, history suggests that current imbalances will be defused with little disruption. And if other currencies, such as the euro, emerge to share the dollar's role as a global reserve currency, that process, too, is likely to be benign.

I say this with one major caveat. Some clouds of emerging protectionism have become increasingly visible on today's horizon. Over the years, protected interests have often endeavored to stop in its tracks the process of unsettling economic change. Pitted against the powerful forces of market competition, virtually all such efforts have failed. The costs of any new such protectionist initiatives, in the context of wide current account imbalances, could significantly erode the flexibility of the global economy. Consequently, it is imperative that creeping protectionism be thwarted and reversed.