Remarks by

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at the

Economic Club of New York

New York, New York

March 2, 2004
It has been a number of years since the foreign exchange rate of the dollar has played so prominent a role in evaluations of economic activity.

I have no intention today of discussing the foreign exchange policy of the United States. That is the province of the Secretary of the Treasury. Nor do I intend to project exchange rates. 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. 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 market making.

This may seem a rather surprising conclusion, given that so many commentators apparently believe that they know the real value of the dollar must decline further because of the record current account deficit of the United States. It should be sobering to recall that three years ago—February 2001 to be exact—for similar reasons a vast majority of a large panel of forecasters were projecting a lower dollar against the euro. In the subsequent twelve months, the dollar rose nearly 6 percent against the euro.
Rather than engage in exchange rate forecasting, today I will discuss certain developments in foreign exchange markets, and in the international financial system in general, which bear on the ultimate outcome of our current account adjustment process. Before raising the broader issues of adjustment, I should like to address the actions of certain of the players in the exchange market that are likely to delay the adjustment process, but only for a time.

I refer to the heavy degree of intervention by East Asian monetary authorities, especially in Japan and China, and the apparent stepped up hedging of currency movements by exporters, especially in Europe. As all of you who follow these markets are aware, since the start of 2002, the extraordinary purchases by Asian central banks and governments of dollar assets, largely those by Japan and China, have totaled almost $240 billion, all in an apparent attempt to prevent their currencies from rising against the dollar. In particular, total foreign exchange reserves for China reached $420 billion in November of last year and for Japan more than $650 billion in December.

The awesome size of Japan’s accumulation results from persistent intervention to suppress what Japanese authorities have judged is a dollar-yen exchange rate that is out of line with fundamentals. One factor boosting the yen is a significant yen bias on the part of Japanese investors. This propensity, in my judgment, runs far beyond the normal tendency of investors worldwide to buy familiar domestic assets and eschew foreign-exchange risk.

Nowhere else in the world will investors voluntarily purchase ten-year government obligations at an interest rate of 1 percent or less, especially given a rate of increase in the outstanding supply of government debt that has generally been running at 9 percent over the past year. Not surprisingly, very few Japanese government bonds (JGBs) are held outside of Japan.
Aside from the holdings of the Bank of Japan, almost all JGBs are held by Japanese households, banks, insurance companies and the postal saving system. And none of them holds significant amounts of foreign assets; 99 percent of household assets are in yen, and, including the postal saving system, about 91 percent of the assets of financial institutions are in yen. Japanese nonfinancial corporations do hold a larger share of foreign assets in their securities' portfolios, but the absolute amounts are small. The Japanese have made significant foreign direct investments, especially in the United States, and the Ministry of Finance does, of course, hold large dollar balances as a consequence of exchange rate intervention. But the Japanese private sector, by and large, has exhibited limited interest in accumulating dollar or other foreign assets, removing what in other large trading economies would be a significant segment of demand for foreign assets.

The degree of domestic currency bias in Japan, which far exceeds that of its trading partners, may thus have contributed to a foreign exchange rate for the yen that appears to be elevated relative to the dollar and possibly other internationally traded currencies as well. Of course, this preference for yen assets, while a persistent influence on the value of the yen, has at times been overwhelmed by other factors.

Granted the level of intervention pursued by the Japanese monetary authorities has influenced the market value of the yen, but the size of the impact is difficult to judge. In any event, it must be presumed that the rate of accumulation of dollar assets by the Japanese government will have to slow at some point and eventually cease. For now, partially unsterilized intervention is

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1 The yen bias certainly existed in earlier decades, but it has become more evident as Japanese growth slowed.
perceived as a means of expanding the monetary base of Japan, a basic element of monetary policy. (The same effect, of course, is available through the purchase of domestic assets.) In time, however, as the present deflationary situation abates, the monetary consequences of continued intervention could become problematic. The current performance of the Japanese economy suggests that we are getting closer to the point where continued intervention at the present scale will no longer meet the monetary policy needs of Japan.

China is a similar story. In order to maintain the tight relationship with the dollar initiated in the 1990s, the Chinese central bank has chosen to purchase large quantities of U.S. Treasury securities with renminbi. What is not clear is how much of the current upward pressure on the currency results from underlying market forces, how much from capital inflows owing to speculation on potential revaluation, and how much from capital controls that suppress the demand of Chinese residents for dollars and other currencies.

No one truly knows whether easing or ending capital controls would lessen pressure on the currency and, in the process, also eliminate inflows from speculation on a revaluation. Many in China, however, fear that an immediate ending of controls could induce capital outflows large enough to destabilize the nation’s improving, but still fragile, banking system. Others believe that decontrol, but at a gradual pace, could conceivably avoid such an outcome.

Chinese central bank purchases of dollars, unless offset, threaten an excess of so-called high-powered money expansion and a consequent overheating of the Chinese economy. The
Chinese central bank last year offset—that is, sterilized—much of its heavy dollar purchases by reducing its loans to commercial banks, by selling bonds, and by increasing reserve requirements.

But the ratio of the money supply to the monetary base in China has been rising steadily for a number of years as financial efficiency improves. Thus the modest rise that has occurred in currency and commercial bank reserves has been enough to support a twelve-month growth of the M2 money supply in the neighborhood of 20 percent through 2003 and a bit less so far this year. Should this pattern continue, the central bank will be confronted with the choice of curtailing its purchases of dollar assets or facing an overheated economy with the associated economic instabilities. Lesser dollar purchases presumably would allow the renminbi, at least temporarily, to appreciate against the dollar.

Other East Asian monetary authorities, in an endeavor to hold their currencies at a par with the yen and the renminbi, accumulated about $120 billion in reserves in 2003 and appear to have continued that rate of intervention since.

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There is a general view that this heavy intervention places upward pressure on the euro. It is assumed that the dollar's trade-weighted exchange rate reflects its worldwide fundamentals, and therefore if the Asian currencies are being suppressed, the euro and other non-Asian currencies need to appreciate as an offset.

But a more likely possibility is that Asian currency intervention has had little effect on other currencies and that the trade-weighted average of the dollar is, thus, somewhat elevated relative to
the rate that would have prevailed absent intervention. When Asian authorities intervene to ease their currencies against the dollar, they purchase dollar-denominated assets from private sector portfolios. With fewer dollar assets in private hands, the natural inclination to rebalance portfolios will tend to buoy the dollar even against currencies that are not used in intervention operations, including the euro. These transactions raise the dollar against, for example, the yen, lower the yen against the euro, and lower the euro against the dollar. The strength of the euro against the dollar thus appears to be the consequence of forces unrelated to Asian intervention. As I will explain later, this does not mean that when Asian intervention ceases the dollar will automatically fall because other influences on the dollar cannot be foreseen.

Some have argued that purchases of U.S. Treasuries by Asian officials are holding down interest rates on these instruments, and therefore U.S. interest rates are likely to rise as intervention by Asian monetary authorities slows, ceases, or even turns to net sales. While there are obvious reasons to be concerned about such an outcome, the effect of a reduction in the scale of intervention, or even net sales, on U.S. financial markets would likely be small. The reason is that central bank reserves are heavily concentrated in short-term maturities; moreover, the overall market in short-term dollar assets, combining both public and private instruments, is huge relative to the size of asset holdings of Asian monetary authorities. And because these issues are short-term and hence capable of only limited price change, realized capital losses, if any, would be small. Accordingly, any incentive for monetary authorities to sell dollars, in order to preserve market value, would be muted.

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A different issue arises with the apparent level of hedging by exporters in Europe and elsewhere. The effect, however, is the same as Asian official intervention: It slows the process of adjustment.

Against a broad basket of currencies of our trading partners, the foreign exchange value of the U.S. dollar has declined about 12 percent from its peak in early 2002. Ordinarily, currency depreciation is accompanied by a rise in the dollar prices of our imported goods and services, because foreign exporters seek to avoid price declines in their own currencies, which would otherwise result from the fall in the foreign exchange value of the dollar.

Reflecting the swing from dollar appreciation to dollar depreciation, the dollar prices of goods and services imported into the United States have begun to rise after declining on balance for several years. But the turnaround to date has been moderate and far short of that implied by the exchange rate change. Apparently, foreign exporters have been willing to absorb some of the price decline measured in their own currencies and the consequent squeeze on profit margins it entails in order to hold market share. In fact, given that the nearly 9 percent rise in dollar prices of goods imported from western Europe since the start of 2002 has been far short of the rise in the euro, profit margins of euro-area exporters to the United States may well have turned negative.

Nonetheless, euro-area exports to the United States, when expressed in euros, have slowed only modestly. A possible reason is that European exporters' incentives to sell to the United States were diminished significantly less than indicated by the dollar price and exchange rate movements owing to accelerated short forward positions against the dollar in foreign exchange markets. A marked increase in foreign exchange derivative trading, especially in dollar-euro, according to the
Bank for International Settlements, is consistent with increased hedging of exports to the United States and to other markets that use currencies tied to the U.S. dollar.\(^2\)

However, most contracts are short-term because long-term hedging is expensive. Thus, although hedging may delay, and perhaps even smooth out, the adjustment, it cannot eliminate, without prohibitive cost, the consequences of exchange rate change. Accordingly, the currency depreciation that we have experienced of late should eventually help to contain our current account deficit as foreign producers export less to the United States. On the other side of the ledger, the current account should improve as U.S. firms find the export market more receptive. But in the process, dollar prices of imports will surely rise.

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When the temporary forestalling of the U.S. balance of payments adjustment process comes to an end, does that suggest a steepening of the decline in the dollar's exchange rate?

As I pointed out in the beginning, the most sophisticated analytical techniques have been unable to profitably project the exchange rates of major currencies. Yet, most commentators argue that because the current account deficit must eventually narrow, the price-adjusted value of the dollar must accordingly decline. But how can exchange rates and the current account be systematically related, if exchange rates are inherently unpredictable? The answer is that the point at which the U.S. current account deficit will be forced to narrow is itself inherently difficult to predict.

The current account reflects the myriad forces that bring our transactions with foreign

\(^2\)That many exports even from Europe are priced in dollars is a trading convention. It does not affect the costs in domestic currencies that exporters incur.
economies into balance at our borders, of which exchange rates are only one. But those forces that, in the end, are reflected in a current account surplus or deficit are both domestic and foreign. Indeed, our current account balance can be shown to be exactly equal to the difference between domestic saving and domestic investment. In fact, it is often instructive in longer-term analysis to view our current account in terms of its domestic counterparts.

As I pointed out in a speech last November, virtually all of our trading partners share our inclination to invest a disproportionate percentage of domestic savings in domestic capital assets, irrespective of their 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 and the dispersion of world current account balances that such growth implies.

Nonetheless, during the past decade, home bias has apparently declined significantly. For most of the earlier post World War II era, the correlation between domestic saving rates and domestic investment rates across the world’s major economies, a conventional measure of home

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bias, was exceptionally high.\textsuperscript{4} For the member countries of the Organization for Economic Cooperation and Development (OECD), 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 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.\textsuperscript{5} Moreover, vast improvements in information and communication technologies have broadened investors' vision 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. This process has enabled the United States to incur and finance a much larger current account deficit than would have been feasible in earlier decades. It is quite difficult to contemplate foreign savings in an amount equivalent to 5 percent of U.S. GDP being transferred to the United States two or three decades ago.


\textsuperscript{5}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 Griever, and Frank Warnock, "Information Costs and Home Bias: An Analysis of U.S. Holdings of Foreign Equities," \textit{Journal of International Economics}, March 2004, pages 313-36.
It is unclear whether the burden of servicing our growing external liabilities 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, will the process of reining in our current account deficit be benign to the economies of the United States and the world?

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. The median high has been about 5 percent of GDP.

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. This ability has presumably enlarged the capability of the United States relative to most of our trading partners to incur foreign debt.

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 circumstances, investors would seek greater diversification in non-dollar assets. At the end of 2002, U.S. dollars accounted for about 65 percent of the foreign exchange reserves of foreign monetary authorities,

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with the euro second at 19 percent. Approximately half of private cross-border holdings were
denominated in dollars, with one-third in euros.

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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. The experience of the United States over the past three years is illustrative. The apparent ability of our economy to withstand a number of 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.

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7 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.

8 See Alan Greenspan, remarks before a symposium sponsored by the Federal Reserve Bank of Kansas City, Jackson Hole, Wyoming, August 30, 2002.
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. Britain in the early post-World War II period was hobbled with periodic sterling crises when 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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Should globalization be allowed to proceed and thereby create an ever more flexible international financial system, history suggests that the odds are favorable that current imbalances will be defused with little disruption to the economy or financial markets.

But there are other outcomes that are less benign, and we must endeavor to limit the likelihood of these outcomes. One avenue by which to lessen the risk of a more difficult adjustment is for us to restore fiscal discipline. The rise in national saving that would accompany a reduction in the federal budget deficit will alleviate some of the burden of adjustment that would otherwise be required of the private sector through movements in asset prices.
Even more worrisome than the lack of fiscal restraint are the clouds of emerging protectionism that 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.