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Remarks by  
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International trade, has been expanding as a share of world gross domestic product since the end of World War II. Yet through 1995, the expansion was essentially a balanced grossing up of cross-border flows. Only in the past decade has expanding trade been associated with the emergence of ever-larger U.S. current account deficits, lesser deficits elsewhere, matched by a corresponding widening of external surpluses in a majority of trading nations.

The increased dispersion of these external imbalances is mirrored in a decline in the tight association between national saving rates and domestic investment rates. The correlation between the two, for countries representing four-fifths of world GDP, declined from a coefficient of around 0.96 in 1992, where it had hovered for a half-century, to an estimated low of 0.8 last year.<sup>1</sup> A number of factors have recently converged to lessen restraints on cross-border financial flows as well as on trade in goods and services.

The advance of information and communication technology has effectively shrunk the time and distance that separate markets around the world. The vast improvements in these newer technologies have broadened investors' vision to the point that foreign investment appears less exotic and risky. Combined with improvements in transportation networks, these developments have expanded the range of tradable goods and services that can be brought to each market and have enabled greater integration of the productive resources of national economies.

Both deregulation and technological innovation have driven the globalization process

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<sup>1</sup>The seminal work on this issue by Martin Feldstein and Charles Horioka a quarter-century ago ("Domestic Savings and International Capital Flows," *Economic Journal*, vol. 90 [1980], pp. 314-29) implied that global savings are inefficiently distributed to investment, meaning that savers are bearing too much risk for the returns they achieve and that countries with high-potential investment projects are getting less financing than they could productively employ. Savers tend, to their own detriment, to over-discount foreign returns. Such suboptimal allocation of capital lowers living standards everywhere.

by tearing down the barriers that have separated economic agents, thus lowering costs. The effect of these developments has been to markedly increase the willingness and ability of financial market participants to reach beyond national borders to invest in foreign countries, just as a century and more ago savings moved beyond local investment opportunities to develop national markets.

Implicit in the movement of savings across national borders to fund investment has been the significant increase in the dispersion of national current account balances. In recent years, the negative tail of the distribution of current account balances has been, of course, dominated by the U.S. deficit. The decline in home bias, as economists call the parochial tendency to invest domestic savings at home, has clearly enlarged the capacity of the United States to fund deficits.

Arguably, however, it has been economic characteristics special to the United States that have permitted our current account deficit to be driven ever higher, in an environment of greater international capital mobility. In particular, the dramatic increase in underlying growth of U.S. productivity over the past decade lifted real rates of return on dollar investments. These higher rates, in turn, appeared to be the principal cause of the notable rise in the exchange rate of the U.S. dollar in the late 1990s. As the dollar rose, gross operating profit margins of exporters to the United States increased even as trade and current account deficits in the United States widened markedly.<sup>2</sup> But these deficits have continued to grow over the past three years despite a decline in the dollar, whose broadly weighted real index is now much of the way back to its previous low in 1995.

Although the dollar's exchange rate has been declining since early 2002, increasingly tight competitive conditions in the United States, as elsewhere, in 2002 and 2003 apparently

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<sup>2</sup>Data on profits and profit margins for export sales to the United States are generally not available for our major trading partners. However, indirect evidence of levels and trends can be gleaned from U.S. import prices converted to exporters' currencies and foreign unit labor costs.

induced exporters to the United States to hold dollar prices to competitive levels to ensure their market share and foothold in the world's largest economy. For example, from early 2002 to early 2004, the dollar's exchange rate against the euro and sterling, on average, declined about 30 percent, yet dollar prices of imported manufactured goods from the European Union rose by only 9 percent, slightly more than dollar prices of U.S. manufactured goods during the same two years.

The consequence of the relatively small rise in the dollar price was a significant compression of gross operating profit margins on European exports to the United States. In recent years, exporters, not only in Europe but in many other trading partners of the United States as well, have tended to increasingly absorb declines in prices denominated in their own currencies when their currencies rose and to fatten profit margins when their currencies fell.

Unit labor costs in euros and sterling, for example, increased nearly 2 percent between the first quarter of 2002 and the first quarter of 2004. So, given the average fall in euro and sterling prices of European exports to the United States, gross operating profit margins on those sales must have declined more than 20 percentage points.<sup>3</sup> The margin squeeze, in effect, absorbed about three-quarters of the decline in the dollar's exchange rate relative to the euro and the pound, on average, over the two years. Export margins, as I indicated earlier, had apparently risen to high levels by early 2002, following the roughly 40 percent increase in the value of the dollar in terms of euro and sterling from 1995 to 2002. Hence, margins in early 2004 might still have exceeded their levels of 1995.

However, with the strengthening of sterling and the euro that resumed in the last three quarters of 2004, exporters to the United States exhibited significant resistance to further

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<sup>3</sup>The other significant component of unit costs, other than labor costs, is materials prices. Over this period, the IMF primary commodities price index denominated in euros and sterling--a proxy for materials costs--was roughly unchanged on balance.

lowering of euro and sterling prices. Accordingly, dollar prices of imports from Europe picked up a bit. This pickup suggests that profit margins were minimal at best a year ago and hence that exporters were willing to lose some U.S. market share rather than compress margins still further. A noticeable downtrend in the share of European exports in U.S. imports has been apparent over the past year.

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Gains from increased currency hedging against the dollar since early 2002<sup>4</sup> may have enabled European exporters to tolerate a fall in operating profit margins beyond what they otherwise would have been able to tolerate. Hedging, however, can only partially and temporarily alter the impact of exchange rates on export prices. To be sure, very long-dated contracts can transcend short-run fluctuations in currencies. But, long-term hedging is expensive, and therefore, most currency futures contracts are short-term. Once hedges expire, export revenues are no longer protected from past and future changes in exchange rates, and any new hedges must reflect the new exchange rates. Thus, successful currency hedges can at best delay but cannot prevent the ultimate effects of changes in exchange rates on trade.

Many other exporters to the United States have exhibited pricing strategies similar to those of European firms. Chinese exporters, of course, have not had to address this issue because China continues to hold its renminbi at a fixed rate against the dollar.

U.S. exporters have also faced large exchange rate movements relative to many of their destination markets. The ratio of U.S. merchandise export prices to manufacturing unit labor costs provides some evidence of margin movements linked to exchange rates that is analogous to the effects I described earlier for foreign exporters. Given the dollar's depreciation since 2002, U.S. exporters' profit margins appear to be increasing, which bodes

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<sup>4</sup>The Bank for International Settlements (*BIS Quarterly Review*, December, 2004), for example, points out that the increase in certain forward foreign exchange market transactions that has occurred in recent years, could reflect heightened interest in hedging.

well for future U.S. exports and the adjustment process.

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A consequence of the contraction in profit margins of exporters to the United States, and thus low pass-through of dollar depreciation to U.S. import prices, has been minimal pressure on U.S. consumer price inflation in recent years. A corollary is that the adjustment of U.S. real imports--that is, the quantity of imported goods and services--has been negligible.

However, we may be approaching a point, if we are not already there, at which exporters to the United States, should the dollar decline further, would no longer choose to absorb a further reduction in profit margins.

Although the limited response, to date, of import prices to the dollar's decline has likely forestalled a decline in U.S. real imports, the effect of the low pass-through of exchange rates into import prices on the nominal dollar value of imports, and thus on the trade balance, is more complex. Increases in import prices lower the quantity of imports but leave the resulting value of imports uncertain.

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To understand why the nominal trade deficit--the nominal dollar value of imports minus exports--has widened considerably since 2002, even as the dollar has declined, we must consider several additional factors. First, partly as a legacy of the dollar's previous strength, the level of imports exceeds that of exports by about 50 percent. Thus exports must grow half again as quickly as imports just to keep the trade deficit from widening--a benchmark that has yet to be met. Second, as is well-documented, the responsiveness of U.S. imports to U.S. income exceeds the responsiveness of U.S. exports to foreign income; this difference leads to a tendency--even if the United States and foreign economies are growing at about the same rate--for the growth of U.S. imports to exceed that of our exports. Third, as of late, the growth of the U.S. economy has exceeded that of our trading partners, further reinforcing the factors leading imports to outstrip exports. Finally, our import bill has expanded significantly

as oil prices have risen in recent years.

To be sure, the lower dollar has undoubtedly boosted the competitiveness of U.S. exports and the profitability of U.S. exporters. These factors help explain the considerable increase in exports over the past couple of years. Yet the positive effect of the dollar's decline on exports and on the trade balance has been offset by the other aforementioned factors.

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Besides market pressures, which appear poised to stabilize and over the longer run possibly to decrease the U.S. current account deficit and its attendant financing requirements, some forces in the domestic U.S. economy seem about to head in the same direction.

The voice of fiscal restraint, barely audible a year ago, has at least partially regained volume. If actions are taken to reduce federal government dissaving, pressures to borrow from abroad will presumably diminish.<sup>5</sup>

An increase in household saving should also act to diminish borrowing from abroad. The growth of home mortgage debt has been the major contributor, at least in an accounting sense, to the decline in the personal saving rate in the United States from almost 6 percent in 1993 to its current level of 1 percent. The fall in U.S. interest rates since the early 1980s has supported both home price increases and, in recent years, an unprecedented rate of existing home turnover.

This combination has led to a significant increase in home mortgage debt. The rise in home prices creates capital gains, which become realized with the subsequent sale of a home. The amount of debt paid off by the seller of an existing home averages about three-fifths of

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<sup>5</sup>A recent Federal Reserve study, however, points out that only one-fifth of reductions in budget deficits tend to show through to reduced current account deficits. (See Christopher Erceg, Luca Guerrieri, and Christopher Gust [2005], "Expansionary Fiscal Shocks and the Trade Deficit," Board of Governors of the Federal Reserve System, International Finance Division, Paper 825.)

the mortgage debt taken on by the buyer, effectively converting to cash an amount of home equity close to the realized gain. This cash payout is financed by the net increase in debt on the purchased home, and hence on total mortgage debt outstanding.

Even after accounting for the down payments on any subsequent home purchase, sellers receive, net, large amounts of cash, which they view as unencumbered. The counterpart of that cash, the increased debt taken on by the homebuyers, is supported by the new home values enhanced by capital gains. In addition, low mortgage interest rates have encouraged significant growth of home equity loan advances and cash-out refinancings, which are another channel for the extraction of previously unrealized capital gains on homes.

All told, home mortgage debt, driven largely by equity extraction, has grown much more rapidly in the past five years than during the previous five years. Surveys suggest that approximately half of equity extraction shows up in additional household expenditures, reducing savings commensurately and thereby presumably contributing favorably to the current account adjustment.

Interestingly, the change in U.S. home mortgage debt over the past half-century correlates significantly with our current account deficit.<sup>6</sup> To be sure, correlation is not causation, and there have been many influences on both mortgage debt and the current account. Nevertheless, over the past two decades, major innovations in the United States have improved the availability and lowered the costs of home mortgages. These developments likely spurred homeowners to tap increasing home equity to finance consumer expenditures beyond home purchase. In contrast, mortgage debt is not so readily available among our trading partners as a vehicle to finance consumption expenditures.

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<sup>6</sup>The  $R^2$  of a simple regression using quarterly data since 1952 is 0.5. Adding a trend to reflect the influence of other factors such as the greater income elasticity of demand of U.S. imports relative to that of exports raises the  $R^2$  to 0.7 and does not reduce the significance of the connection between home mortgage debt and the current account.

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Because exporters to the United States are willing to countenance wide swings in profit margins, the level of international trade may be less variable than under previous price-setting regimes when exchange rate pass-through was greater. Arguably, this development has contributed to a higher level of trade. Accordingly, the competitive benefits of globalization may be greater than if exporters allowed exports rather than profit margins to swing widely with exchange rate changes, as they apparently did earlier in the post-World War II period. Exports, of course, were a much smaller share of world GDP in those years. And many, perhaps most, producers, as exchange rates moved in their favor, accordingly chose to pick off only the low-hanging trade fruit, so to speak. Such opportunistic exports obviated large up-front financial commitments to foreign markets. As trade barriers have been lowered over the decades, much has changed, evidenced by the emergence of critical mass in many export markets, the growing importance of multinational firms, and the rise of production processes that are integrated across borders.

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The interaction of a wide range of economic forces, which adjust at national borders to create what we call the current account balance, has proved difficult to predict with any precision, primarily because of the difficulty of forecasting exchange rates. These same forces have lessened our ability to anticipate the consequences of a buildup of either a surplus or a deficit.

In addition, numerous issues that have arisen with respect to the adjustment of the U.S. current account remain unresolved. One is the effect of Asian official purchases of dollars in support of their currencies. Such intervention may be supporting the dollar and U.S. Treasury bond prices somewhat, but the effect is difficult to pin down. Another issue is the influence of still-growing globalization, arguably one of the key factors that has facilitated the financing of the U.S. current account deficit. There is little evidence that the growth of

globalization has yet slowed.

The dramatic advances over the past decade in virtually all measures of globalization have resulted in an international economic environment with little relevant historical precedent.<sup>7</sup> I have argued elsewhere that the U.S. current account deficit cannot widen forever but that, fortunately, the increased flexibility of the American economy will likely facilitate any adjustment without significant consequences to aggregate economic activity.<sup>8</sup> That argument will be tested, I suspect, by possibly new twists and turns that will emerge in a seemingly ever-more complex international economic and financial structure.

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<sup>7</sup>To be sure, the rapid globalization of the latter part of the nineteenth century exhibited many of the characteristics of today's international economy. But the far lower level of technology and the existence of the gold standard adjustment process renders that period of little use for current comparisons.

<sup>8</sup>Alan Greenspan, speech at the European Banking Congress in Frankfurt, Germany, on November 19, 2004.