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Strategic Analysis

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HOW FRAGILE IS THE U.S. ECONOMY?

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Introduction

As we projected in a previous strategic analysis (Papadimitriou et al. 2004), the U.S. economy experienced growth rates higher than 4 percent in 2004. The question we want to raise in this strategic analysis is whether these rates will persist or come back down. We believe that several signs point in the latter direction. In what follows, we analyze the evidence and explore the alternatives facing the U.S. economy.

On the side of households, heavy indebtedness is putting negative pressure on growth, and debt-service ratios (interest and principal payments relative to income) are close to all-time highs. As we will report later, debt-service burdens appear to have reached saturation levels. Since interest rates are rising and will continue to do so, households face stark choices. If they continue piling up new debt, the combination of their rising debt burdens and rising interest rates will produce rapidly increasing and unsustainable ratios of debt service to income. A jump in personal bankruptcies and a sharp drop in consumer spending will be inevitable. On the other hand, if households recognize that they cannot go much further in mortgaging their incomes to debt service, they will begin to cut back on further borrowing and slow down their current spending. We see the latter response as the more probable of the two. Furthermore, a new Washington and Wall Street consensus, encompassing the view that it is important to increase personal saving, is emerging in response to recent speeches by Federal Reserve Chairman Alan Greenspan, other Federal Reserve governors, and administration officials.

The personal consumption spending machine, including household investment, again raced ahead of personal income in December 2004, but its growth is unsustainable and likely to stabilize or even fall in 2005, as we shall show later. With investment spending already growing more

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slowly, real (inflation-adjusted) GDP growth will almost certainly slow down. Nonmilitary factory orders were little changed in November 2004, but durable goods orders, especially for automobiles, registered a higher rate than in the previous month. Still, concern is being expressed that the gain in consumption spending cannot continue in light of weak average hourly and weekly earnings increases of 2.7 percent and 3.3 percent, respectively, over the past year. The former rise was less than the increase in the consumer price index (CPI). The economy received a strong jolt from greatly expanded budget deficits, and as a result, GDP growth initially shot up. But in the absence of further stimulus, a correction seems inevitable. President Bush's announced plan to cut spending in order to halve the budget deficit by 2009 will almost certainly ensure that the correction comes to pass. Indeed, the Organization for Economic Co-operation and Development (OECD) has just recently reduced its forecast for U.S. growth for 2005 to 3.3 percent, down from the 3.7 percent it predicted just six months ago (Pakko 2005). Needless to say, this development has direct implications for employment prospects.

On the side of business spending (purchases of nonresidential capital equipment and software), investment growth has peaked and begun to decline. Investment is fueled mainly by profitability, and the growth rate of real corporate profits has recently been higher than a year ago. Industry analysts are not at all sanguine that higher profits will continue. The growth rate of real investment follows profits, usually with a lag. The December 2004 increase in business activity, however, has been attributed not to higher profits, but mainly to an inventory buildup as well as the tax legislation of May 2003, which increased the depreciation allowance for capital goods spending incurred prior to January 1, 2005. In general, however, instead of spending their past profits, businesses are now accumulating them as cash: over the six quarters from the beginning of 2003 to the middle of 2004, "nonfinancial corporations increased their liquid assets by 20 percent, to a record \$1.3 trillion" (Bernasek 2004).

On the external economic front, the ever-increasing current account balance—exports minus imports plus net inflows of interest and certain other types of income—dominates all other considerations. Relative to GDP, the current account was in deficit to the tune of 4.4 percent in 2002, 4.7 percent in 2003, 5.9 percent in the third quarter of 2004, and a new all-time record in November 2004. This worsening of the current account balance continued in spite of a fall in real exchange rates that

began two years ago. As we have noted in previous work (Papadimitriou et al. 2004), under existing conditions, the current account deficit is bound to mirror the government budget deficit, and the latter has expanded greatly in recent times. Even the decline in real exchange rates could not halt the trend. We expect real exchange rates to continue declining, a trend that should help matters. The potential slowdown in domestic growth should also help, since it slows domestic import demand. But according to the OECD, the growth prospects of our major trading partners—that is, Europe and Japan—are even worse than our own. This would, of course, slow down our export demand. The combination of these growth trends at home and abroad is unlikely to lead to an improvement in our current account deficit. Indeed, in the absence of other changes, we expect our current account deficit to reach a record 6.1 percent of GDP in 2005 and worsen after that.

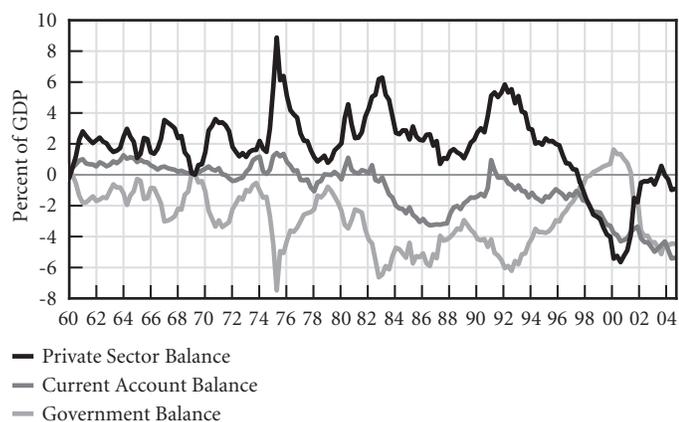
In the present strategic analysis, we examine all of these trends and their implications in greater detail. We also develop scenarios depicting possible future patterns. This allows us to find potential solutions to the problems facing the U.S. economy over the next few years.

Three Main Financial Balances

We begin with an examination of the latest trends in the financial balances of the private sector, government sector, and foreign (external) sector. Each sector balance represents a sector's receipts minus its nonfinancial expenditures; as a matter of accounting, the balances of the private sector (households and businesses) and the government sector must add up to that of the foreign sector (the latter being the current account balance). Figure 1 charts the progress of these three critical balances. We can see that the private sector balance was negative throughout the latter part of the 1990s, began moving back into balance after 2000, was near zero by the end of 2003, and turned negative again in 2004.

Figure 2 shows the underlying trends: a persistent deficit in the personal (household and noncorporate business) sector accounts that was more or less offset by a corresponding surplus in corporate accounts for some time. In other words, an excess of spending of the personal sector over its receipts was just counterbalanced by the opposite situation in the corporate sector. However, matters have changed in recent times, because the personal sector balance has deteriorated once again, while

Figure 1 Balances of the Main Sectors in Historical Perspective



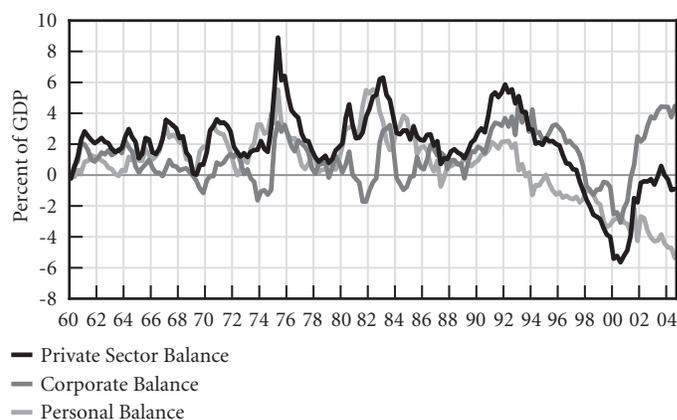
Sources: BEA and authors' calculations

the corporate sector balance has stabilized. Thus the private sector as a whole has returned to a deficit status. The latest figures show that in the third quarter of 2004, the private sector was running a financial deficit of about 1.7 percent of GDP, at annual rates.

The progress of the private sector balance is particularly important from our point of view. Over the last seven years, the deficit of the private sector has been an important driving force in the expansion of the U.S. economy. But it came at the price of a rapid build-up of household debt (Figure 3). We argued that the private sector would have to reduce its deficit, because its debt build-up was unsustainable. Beginning in 2001, the private sector deficit did indeed reverse itself and rapidly moved back toward balance. But, as we foresaw, its expansionary contribution began to decline correspondingly. Accordingly, we argued that sustained growth required an expansion in government spending in order to take up the slack.¹ This, too, came to pass, at rates exceeding those we had thought possible, and in a form far different from the expanded social spending we envisioned. Nonetheless, the dramatic run-up in the budget deficit served its purpose: it pushed up the growth rates of output, profits, and, to a lesser extent, employment.

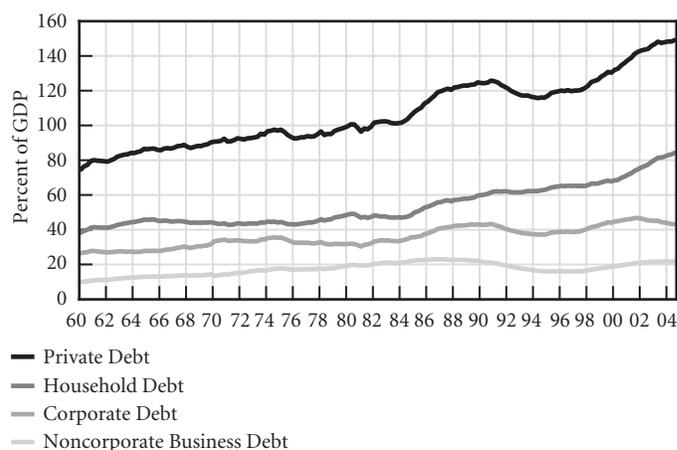
As we noted earlier, the matter has another side. The internal balance, that is, the sum of the private sector balance and government balance, must equal the current account balance. This means that when the private sector balance is close to zero, the government deficit will be directly mirrored in the current

Figure 2 Private Sector Balance and Its Components



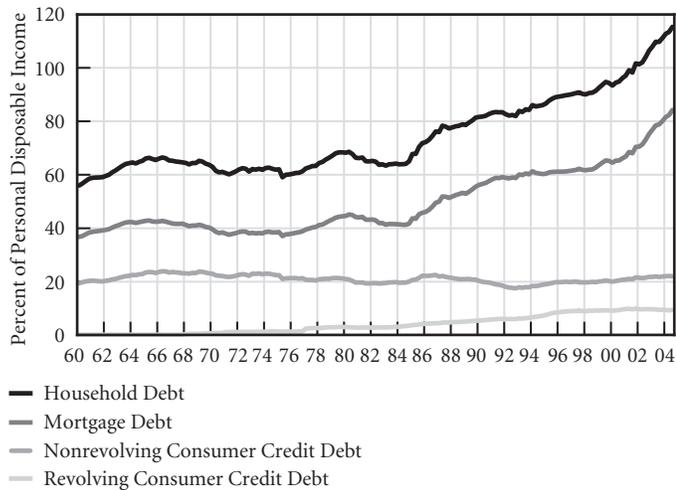
Sources: BEA and authors' calculations

Figure 3 Private Sector Debt and Its Components



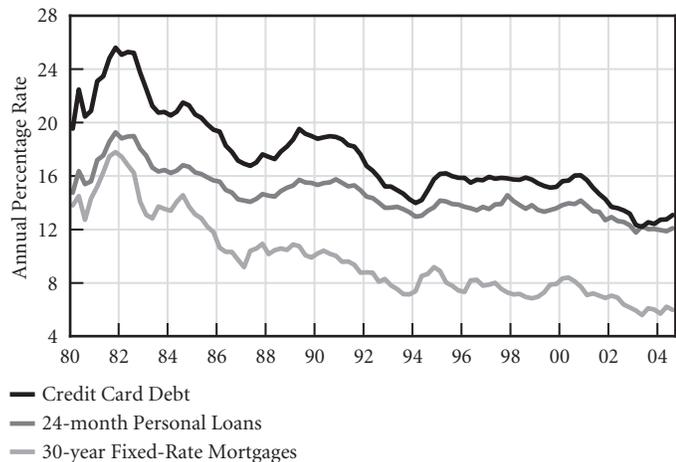
Sources: Flow of Funds and authors' calculations

Figure 4 Household Debt and Its Components



Sources: Flow of Funds and authors' calculations

Figure 5 Nominal Interest Rates



Source: Federal Reserve

account deficit, and an expansion in the former will be paralleled by an expansion in the latter. This, too, is clearly visible in Figure 1, which shows that the U.S. current account deficit reached an estimated record of about 6.0 percent of GDP in 2004. The nearly continuous deterioration of the U.S. current account is a structural phenomenon, the potentially dire consequences of which have been given considerable attention by our colleague Wynne Godley over the last decade. In recent times, a growing number of studies have focused on the same theme (Mann 2004; Roubini and Setser 2004; Obstfeld and Rogoff 2004). Even Chairman Greenspan, who for a long while believed in the ability of markets to deal with the problem, has recently called for policies aimed at reducing the U.S. current account deficit.

In what follows, we analyze the interactions of debt, deficits, and growth in more detail, to try to sort out the prospects facing the U.S. economy over the next few years. Our starting point is the behavior of the private sector, particularly of households and corporations. From there we move to the implications for growth, and then for the U.S. current account deficit. Our last step will then be to examine various economic scenarios facing us, and to consider various policy alternatives.

Household Debt and Its Implications

Despite strong economic growth in recent times, the finances of the household sector have become increasingly fragile. Figure 4 depicts the extraordinary growth in household debt relative to disposable income. In this, mortgage debt is clearly the culprit.

Household debt has risen partly in response to the increased availability and aggressive marketing of various forms of credit, and partly in response to a long-term fall in interest rates (Figure 5). As a consequence, debt-service burdens (interest and principal payments relative to income) have risen far less than have the underlying debt burdens. Nonetheless, debt-service burdens are close to all-time highs. Data on the various components of the overall debt-service burden are not publicly available, but a Levy Institute study separates out the overall debt burden into its component parts (Dos Santos, Shaikh, and Zezza, forthcoming). Figure 6, taken from this study, displays the debt-service burdens arising from mortgage and revolving consumer debts (credit cards, etc.), which are as high as they have been at any time in the last quarter-century. On the other hand, the debt-service burden of nonrevolving debt (auto, personal, and home equity loans)

actually declined overall between 1980 and 2004. In effect, the increased availability of mortgage finance, along with its lower interest rates and far lower principal payments, made it an attractive alternative to high-cost short-term loans. The interesting consequence of this is that the *sum* of mortgage and nonrevolving debt service has been fairly stable over the last 25 years or so. It is in credit card and other similar revolving debt service that the great increase has taken place.

Two sorts of patterns are evident in the foregoing charts. If we look at the debt burdens (debt relative to income) in Figure 4, we see an accelerating trend with no end in sight. But if we look at the debt-service burdens (principal and interest payments relative to income) in Figure 6, we find that these have begun to *reach a saturation point* over the last couple of years. The steady decline in interest rates shown in Figure 5 provides the link between the two preceding patterns, that is, between steadily rising household debt burdens and modestly rising or even stable debt-service burdens.

But the era of falling interest rates is over for the foreseeable future. On February 2, 2005, the Federal Reserve raised the federal funds rate (FFR) for the sixth consecutive time (to an annual rate of 2.5 percent, up from 1 percent in June 2004). And the Fed is expected to continue raising rates. Many commentators have suggested that the neutral FFR is probably at 4 percent. So the question becomes: what will be the probable

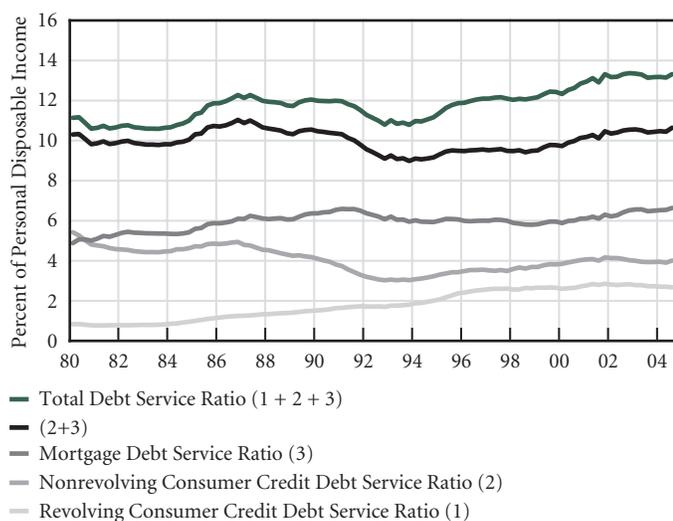
effect of rising interest rates on household borrowing and spending? To this question we turn next.

Baseline: Growth Fueled by Continued Household Debt

The first step is to construct what we call the baseline scenario. The aim here is to derive the internal and current account balances of the economy for a given fiscal policy, under some plausible assumptions about how households and businesses will react to the expected increase in interest rates. We assume no change in the current fiscal stance: real government expenditure is expected to grow at 3 percent per year, keeping total government outlays in line with the expected growth of the economy; we expect tax rates to stay unchanged in the baseline, as the current administration is likely not to increase them. While the first of our assumptions is entirely compatible with the September 2004 Congressional Budget Office (CBO) budget projection (2004), the latter is different. The difference stems from the CBO's expectation of an increase of 0.8 percent of GDP in revenues for 2005 and a further increase of 0.5 percent of GDP in 2006, mainly coming from an increase in personal taxation (0.5 percent in 2005 and 2006) and smaller increases in corporate income and social insurance taxes. The current administration has often postponed any such increases in tax rates, so our baseline is predicated on the assumption that it will continue to do so.

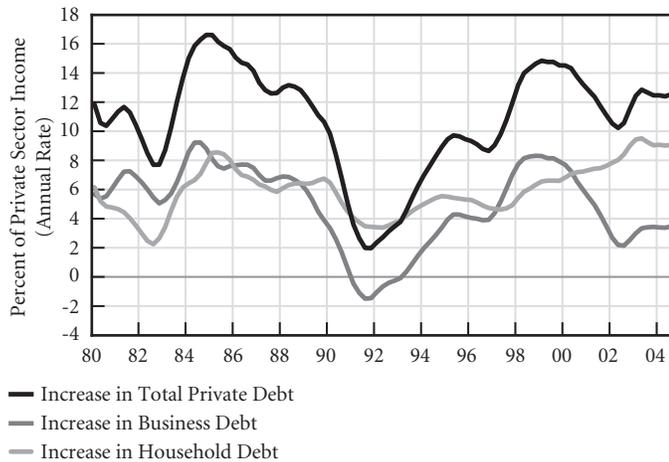
The performance of the Levy Institute's macro model depends to some extent on growth in the rest of the world, and on the behavior of relative prices both for exports and for imports. Projections for growth in U.S. trading partners have been taken from Global Insight (Stoppa 2004): our aggregate measure for world growth, weighted according to each country's share of U.S. exports, is close to 3.4 percent in 2005, 3.3 percent in 2006, and stable at 3.4 percent for the rest of the simulation period. In our baseline, we also assume no further devaluation of the dollar, following an estimated depreciation of 15 percent of our broad U.S. dollar exchange rate index in the last quarter of 2004. Estimates of the impact of a continued depreciation of the dollar are considered in Scenario 2. We assume that the recent increases in oil prices will not imply higher inflation at home or abroad, so our baseline does not assume any further shocks to U.S. competitiveness. Finally, we assume that interest rates will increase by 25 basis points for each quarter of 2005 (i.e., 1 percent overall) and remain stable thereafter.

Figure 6 Debt Service Components Relative to Personal Disposable Income



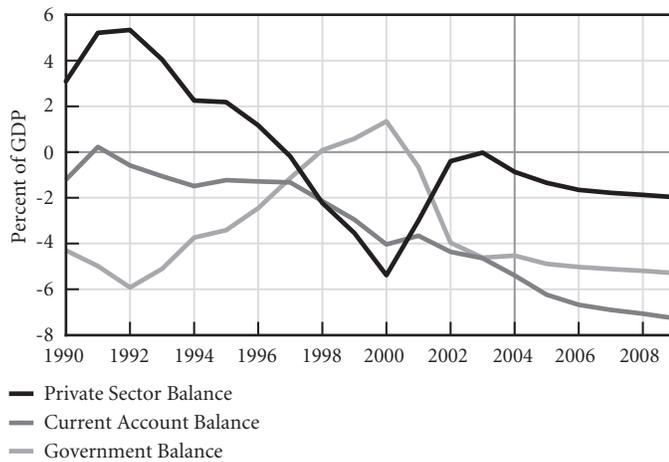
Source: Dos Santos et al. forthcoming

Figure 7 Increases in Private Debt and Its Components



Sources: Federal Reserve and authors' calculations

Figure 8 Baseline. Main Sector Balances



Sources: BEA and authors' calculations

Figure 7 displays the historical paths of new household and business sector debt, as percentages of the income of the private sector.² We see that the household sector seems to have stabilized its borrowing in the last quarters at about 2.3 percent of income (quarterly), while the business sector, after a marked decline starting in 2000, is now slowly increasing its borrowing rate. We extrapolated these most recent trends in our baseline projection, on the grounds that our projected increase in the interest rate would not be large enough to precipitate any abrupt change in the behavior of the personal and business sectors.

The baseline scenario examines the consequences of the assumptions. Figure 8 depicts the effects on the three main balances. We find that the government deficit is stable, relative to GDP, while the private sector as a whole continues to run a net deficit approaching 1.8 percent of GDP by 2006. Moreover, the resulting growth path for the economy is even more favorable than that estimated by the CBO: GDP would grow 3.6 percent in 2005, slow down a bit thereafter, and remain above 3 percent for the rest of the simulation period.

The first problem with this scenario arises in the external balance. In the face of the foregoing private and government deficit spending patterns and the assumed modest increases in interest rates (which exacerbate the outflow of interest payments to foreign creditors), the *current account deficit would rise to a record of 6.2 percent of GDP by 2005 and deteriorate even further in the following years.*

A second problem also surfaces, this time in the private sector, the deficit of which rises to about 1.8 percent of GDP by 2006. As a result, its debt burden keeps rising, from about 174 percent of income in the third quarter of 2004 to about 178 percent at the end of 2005 (due to a 3 percent increase in personal debt, offset by a 1 percent decrease in business debt, relative to sectoral disposable income), and to about 187 percent by the end of 2008. Combining these results with the assumed increases in interest rates, we find that the household debt-service burden would rise from its current record level of 13.3 percent to 14.7 percent by 2005,³ and to about 16 percent by the end of 2008.

On the whole, the baseline scenario therefore represents an unsustainable path: its salutary high growth rates would be attended by record current account deficits and record levels of household debt-service burdens. The former could precipitate a dramatic flight from the dollar, while the latter would be likely to lead either to a gradual cutback in household borrowing or a sharp drop in the face of a wave of personal bankruptcies. In the

next set of scenarios, we therefore consider some less extreme possibilities. Scenario 1 will examine what happens if households strive instead to maintain the current debt-service ratios in the face of rising interest rates. This would require them to reduce their debt levels relative to GDP, by paying down their existing debts rather than piling on new ones. Scenario 2 will, in turn, focus on the current account balance, by assuming that in addition, the exchange rate depreciates by yet another 20 percent by 2006. Scenario 3 will investigate the consequences of policies aimed at sustaining business investment.

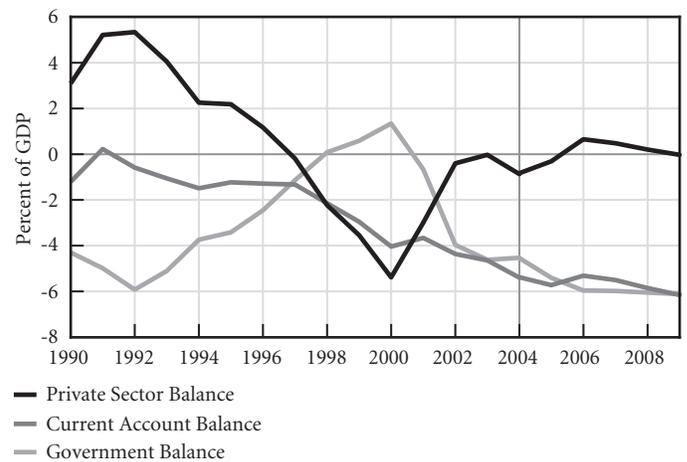
Scenario 1: Stabilizing Household Debt Service

In the present scenario, we consider what is likely to occur if households begin to reduce their borrowing in the face of rising interest rates, so as to keep their debt-service ratios from rising beyond their current record levels. In our baseline scenario, and in all subsequent ones, we assume that the Fed will raise interest rates by 1 percent overall in 2005, and keep rates constant thereafter. We assume that the effective interest rate (that paid on existing debt) will react very slowly to any increases in the FFR: under the assumption above, the effective interest rate will remain unchanged during 2005, and start rising only from 2006, as the share of new debt contracted at higher interest rates rises. In order to maintain a constant debt-service ratio, households will thus need to stabilize their debt-to-income ratio by the end of 2005 and decrease it from 2006 onwards.

Our simulations of various alternative paths indicate that because the personal debt-to-income ratio is already so high, reducing this ratio by the required amount would decrease household borrowing (relative to income) by 1.4 percent per quarter over the year from the current level of 8 percent to about 2.3 percent of disposable income.

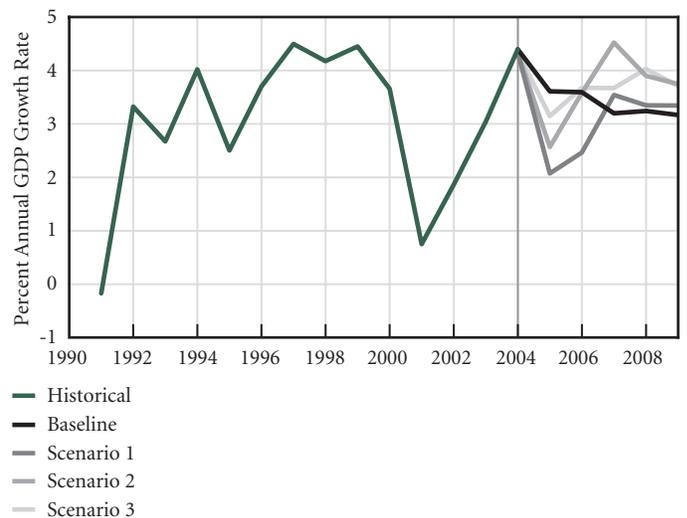
Figure 9 reports the effects of this moderation in household borrowing behavior on the main sectoral balances. The private sector goes back into surplus, and the cutbacks in household spending reduce import demand, so the current account balance stabilizes at around 5 percent of GDP. But now the government deficit increases to above 5.5 percent, because the assumed annual rate of growth of government expenditures of 3 percent is now greater than the rate of growth of GDP. Any effort to balance the budget by reducing the growth in government spending would only make GDP growth fall even further and unemployment rise even more. Figure 10 shows that the cutbacks in household

Figure 9 Scenario 1. Main Sector Balances



Sources: BEA and authors' calculations

Figure 10 Alternative Growth Paths for the U.S. Economy



Source: Authors' calculations

debt-fueled expenditures would make GDP growth fall substantially, dropping to about 2 percent in 2005, then rising back up to 2.5 percent in 2006, and above 3 percent thereafter. Unemployment would in turn follow the path of GDP growth.

A moderation in household debt behavior therefore reduces the problems of burgeoning household and external debt, but only at the expense of accelerated government indebtedness, slowed growth, and increased unemployment. Taken by itself, this change in household behavior is clearly insufficient. In the next scenario, we consider the additional beneficial effects of a continued drop in value of the dollar.

Scenario 2: Consequences of a Continued Fall in the U.S. Dollar

In Scenario 1, as in the baseline, we held the exchange rate stable at its current level, so as to identify the consequences of other changes. But the exchange rate has been dropping for some time, and is now down roughly 14 percent from its 2002 peak. Our simulations indicate that this has not had a significant impact on the current account balance so far, for two reasons. First, the growth rate of the U.S. economy has been higher than that of its OECD trading partners, stimulating imports relative to exports. And second, the other (principally Asian) trading partners are increasingly competitive and have been making great strides in the world market. There is also the known fact that the U.S. marginal propensity to import, or the proportion of income increases spent on imports, is much higher than that of the rest of the world; the last trade report shows that, despite the drop of the dollar, imports have increased and exports decreased. In the present scenario, we consider the consequences of a further fall in the U.S. dollar, in combination with the previously analyzed change in household debt behavior. We saw in the previous scenario that a reduction in household borrowing relative to income would reduce GDP growth, which would in turn reduce the growth of import demand and actually stabilize the current account deficit at a level of 5.4 percent of GDP. We now show that a further fall in the U.S. dollar would help on two fronts: by stimulating exports relative to imports, it would not only further improve the current account balance but also enhance GDP growth.

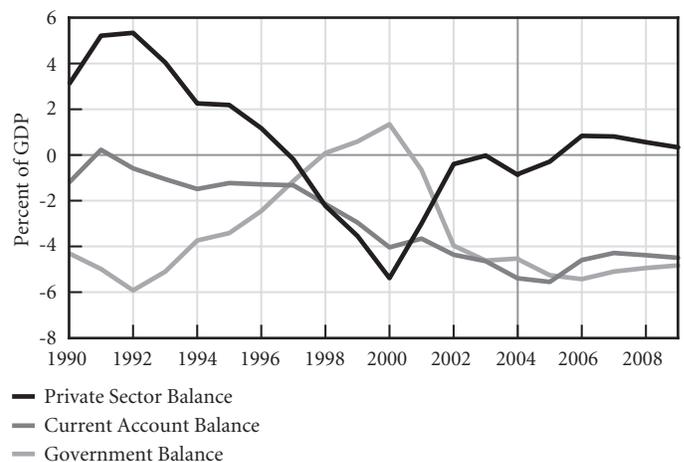
In the next exercise (Scenario 2), we assume that the (broad measure of the) dollar will fall by 2.5 percent per quarter over 2005 and 2006 (i.e., by roughly 20 percent overall in the next

two years). This seems reasonable, given that the dollar has fallen at an annual rate of 15.5 percent in the last quarter of 2004. We then find that the current account deficit is reduced, falling to 4.6 percent of GDP by 2006 (as shown in Figure 11). At the same time, GDP growth itself is buoyed by the resulting increase in net exports. In the previous scenario we found that reduced household borrowing would cause the GDP growth rate to drop to 2 percent in 2005 and then rise up to 2.5 percent in 2006 (Figure 10). With the added stimulus of the assumed drop in the dollar, the GDP growth rate comes out somewhat higher, at 2.6 percent in 2005 and 3.6 percent in 2006 (Figure 10).

According to our model, a further devaluation of 10 percent each of the next two years in the broad exchange rate of the dollar translates into higher import prices, which grow about 5 percent faster than in our baseline during the devaluation, and falling export prices, so real imports decrease as a share of GDP while exports accelerate.

The preceding scenario shows that a depreciation of the U.S. dollar, in combination with moderated household debt behavior, would reduce the U.S. current account deficit. Furthermore, it shows that overall GDP growth would be lower than its present level, falling from 4.3 percent in 2004 to 2.6 percent in 2005 and 3.6 percent in 2006. Moreover, the sustained fall in the dollar considered in the previous scenario is not without risks. Commentators have noted that because foreigners are increasingly concerned about a collapse of the dollar, they could eventually demand higher interest rates on Treasury bonds to

Figure 11 Scenario 2. Main Sector Balances



Sources: BEA and authors' calculations

compensate for exchange rate risk. Indeed, foreign capital inflows to the United States have already slackened. A rise in interest rates prompted by such events would further exacerbate the household debt service burden, slow down business spending, and increase the international outflow of income.

Hence, it is incumbent upon us to consider other policy alternatives. Over the longer run, U.S. competitiveness could be enhanced instead by a rise in U.S. export sector productivity relative to that of its trading partners. This slower but more fundamental path would offer the same benefits as a depreciation of the U.S. dollar, but with less risk. It would increase U.S. competitiveness by structural means, shift domestic demand from foreign goods to domestic goods, increase the growth rate of exports, and halt the continuous increase of the country's foreign debt. Another effect, which could operate in the shorter run, would be a renewed surge in business spending. This is the scenario we take up next.

Scenario 3: The Effects of a Surge in Business Spending

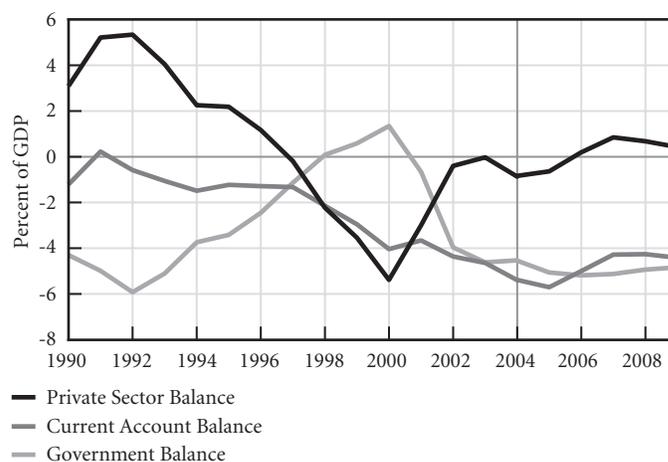
We have found that the combination of more moderate borrowing behavior and a moderate decline in the dollar would reduce the current account deficit. But on balance it would also reduce GDP growth and increase unemployment. Were the current administration to implement its announced plan to halve the government deficit, the growth rate of domestic demand would fall even more, with further adverse effects on GDP growth.⁴

Conversely, a surge in investment stimulated by policy initiatives would help matters significantly. Investment is driven mainly by profitability, and retained earnings are by far the major source of investment finance. Corporate profits have recently been higher than previously expected, so there is some possibility that investment could pick up. Given that business debt has been stabilized (see Figure 3 above), it is plausible that a surge in business investment could involve an increase in business sector borrowing. Accordingly, in this scenario (Scenario 3), we examine the consequences of a temporary increase in business borrowing to its previous peak level in 1998. This would raise the relative level of business debt only modestly, from its current level of 65 percent of GDP, to 68 percent by the end of 2006, and reduce it thereafter.

Total private sector borrowing is now maintained at historic levels, as in the baseline. But here this is accomplished by a reduc-

tion in household borrowing, and hence in household debt and debt-service burdens. The surge in overall private sector borrowing once again raises GDP growth closer to the high levels obtained in the baseline scenario, namely 3.2 percent in 2005 and higher in subsequent years. But with the growth rate being higher than in the preceding two scenarios, import growth is correspondingly higher. The increase in imports is ameliorated somewhat by a shift in the composition of domestic demand away from personal consumption towards business investment. As a result, the current account deficit actually rises slightly at first before falling to around 5 percent in 2006 and toward 4 percent thereafter. (This outcome assumes that higher interest rates do not add any additional burden to the trade deficit and that the U.S. payments received from foreign assets are almost the same as those it pays to foreigners, i.e., the status quo.) The government deficit, on the other hand, hovers around 5 percent in 2005 and afterward, as shown in Figure 12. What this scenario shows, most of all, is that it is possible to maintain growth and employment while avoiding both debt increases and foreign exchange crises.

Figure 12 Scenario 3. Main Sector Balances



Sources: BEA and authors' calculations

Conclusions

1. Personal debt is very high relative to income, making the economy vulnerable to a rise in oil prices or interest rates.
2. President Bush's announced plan to halve the deficit by decreasing spending is inconsistent with a growth rate fast enough to prevent unemployment from rising in 2005 and beyond. Such growth could occur only if personal indebtedness were to continue to increase at an unsustainable rate relative to income. This would almost certainly lead to a growing current account deficit.
3. A continued devaluation of the dollar (10 percent in each of the next two years) would stabilize the current account deficit but only with a reduction in the growth rate of GDP from the present level of more than 4 percent. On the other hand, a downward trend in the value of the dollar could conceivably prompt foreign investors to demand higher interest rates to offset the fall in the value of government securities. The rise in interest rates, in its turn, would exacerbate the household debt burden, slow down business spending, and increase the international outflow of income.
4. Bolstering business investment by policy initiatives—for example, reenacting the 50 percent tax allowance for purchases of new capital goods (which expired in December 2004) and allowing U.S. companies to repatriate foreign profits on favorable terms (a move recently made by Congress)—could maintain growth and employment while simultaneously preventing debt increases and foreign exchange crises.

Notes

1. See, for example, Papadimitriou et al. (2002).
2. The smooth lines have been obtained by applying a Hodrick-Prescott filtering process with a smoothing parameter of three (Kydlan and Prescott 1990).
3. The rise in the household debt-service ratio would be somewhat less if part of this debt were held at fixed interest rates.
4. Papadimitriou et al. (2004) analyze the impact of fiscal policy on U.S. medium-term prospects.

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