The Levy Economics Institute of Bard College

Strategic Analysis

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SUSTAINING RECOVERY: MEDIUM-TERM PROSPECTS AND POLICIES FOR THE U.S. ECONOMY

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We begin with the main points in this strategic analysis:

1) The current account deficit will gradually fall during the medium term if the government deficit is quickly brought to sustainable levels, but at the expense of growth and employment.
2) If fiscal policy loosens, unemployment will decline and growth will resume, but the current account deficit might soon begin growing again. This threat calls for stronger efforts to devalue the U.S. dollar, mostly against Asian currencies, in order to spur U.S. exports and cut American imports.
3) The government deficit will not prove unsustainable over the medium term, provided that interest rates remain low. It is within the power of the Federal Reserve (Fed) to keep rates low.
4) Unemployment will remain stubbornly high unless there is a strong fiscal policy response.
5) Since U.S. demand for petroleum products does not fall quickly when their prices rise, a devaluation of the dollar alone would not have a sufficient impact on oil imports. Hence, a more vigorous effort to promote energy conservation and the use of renewable energy sources is needed.

When we published our strategic analysis in December 2008, the U.S. economy was still in severe crisis (Godley, Papadimitriou, and Zezza 2008). Now, after unprecedented efforts by the Federal Reserve, such financial indicators as the spread between interest rates on Treasury securities and rates on riskier bonds reveal a more stable system. Congress has administered a large fiscal stimulus of $787 billion. These policies, which have brought howls of protest from some orthodox

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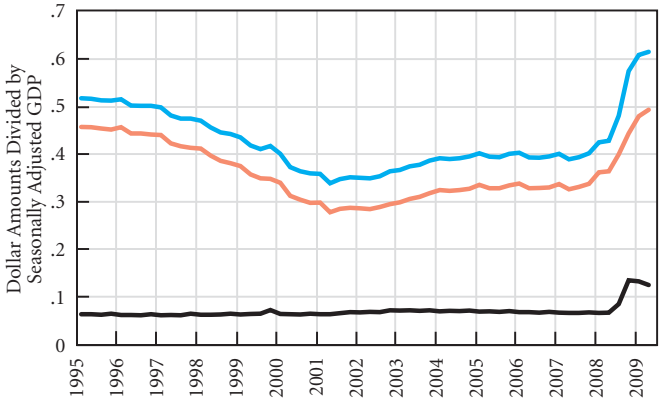
economists lacking a pragmatic bent, made possible the attainment of a 3.5 percent growth rate in the third quarter, according to advance estimates. The far grimmer scenario of a financial and economic freefall was conceivable when the recession began, especially for those who recognized the many parallels between the events of 2007–08 and the onset of the Great Depression in 1929. In short, policymakers recognized the threat of a depression, and adopted the "big government" policies that are necessary in that situation. Our late colleague Hyman P. Minsky wrote about the inevitability of such government responses in times of severe financial turmoil, and argued that they stabilized the economy, but always came at a price and never brought true full employment (Minsky 2008 [1986]).

The nascent recovery is still very fragile, and one cannot be very optimistic when the official measure of unemployment is at 10.2 percent. Moreover, good policy-making strategy will require a clear-eyed assessment of the prospects of the economy over the medium term. Discussions of these prospects already abound in the public discourse. Federal Reserve Board Chairman Ben S. Bernanke has continued to emphasize the importance of reducing imbalances even following his reluctant acceptance of near-zero interest rates. "As the global economy recovers and trade volumes rebound," he worries, "global imbalances may reassert themselves" (Bernanke 2009).

Bernanke believes that the key to reducing imbalances is to tighten fiscal policy as soon as possible without jeopardizing the recovery. How much stimulus has been applied so far? A look at the rate at which the government and the Fed have been generating financial liabilities (promises to pay) might help us answer this question. Both of these important policy-making institutions issue liabilities that affect the economy: in the case of the Fed, these liabilities are mostly currency and the reserve deposits of commercial banks; the federal government, meanwhile, issues Treasury bills, notes, bonds, and some other liabilities, which enable it to borrow money from investors. Both kinds of liabilities allow the government to spend in excess of its revenues, so they reflect the fiscal policies of the past. However, in many cases, the Fed "sells" liabilities to the government, or vice versa. Two examples are the Treasury securities held by the Fed for use in its open-market operations, and the federal government's "bank account" at the Fed. Since these liabilities represent funds owed by one part of the government to another, they do not increase the amount of money that the government owes to private investors. Figure 1 shows three lines: one for the liabilities of the federal government, one for the liabilities of the Fed, and a third line for the sum of the two.[1] (For the reasons stated, the amounts shown in the figure do not include money that the Fed and the federal government owe to each other.) The liabilities have been divided by GDP to show their magnitude relative to the size of the economy. The figure shows that total public financial liabilities have risen over 53 percent relative to GDP since the last quarter of 2007, when the recession officially began; just in the first half of this year, an increase of roughly 7 percent has taken place.

During the last two quarters for which data are available, the Fed actually reduced its liabilities, but this reduction was more than offset by rising federal government debt. On the other hand, the figure provides the somewhat reassuring information that, while public liabilities were much lower in 2007 than they are now, they were also at levels that some

Figure 1 Liabilities on the Consolidated Federal Government and Federal Reserve (Fed) Balance Sheet, 1995Q1–2009Q2



Total Liabilities of Federal Government and Fed, Excluding Funds Owed to One Another, Divided by GDP

Federal Government Liabilities, Excluding Liabilities to Federal Reserve, Divided by GDP

Federal Reserve Liabilities, Excluding Liabilities to Federal Government, Divided by GDP

Note: Series shown in black equals total Fed liabilities minus checkable deposits due to federal government; series shown in orange includes total federal government liabilities minus Treasury securities held by the Fed minus nonmarketable securities held by pension funds minus Treasury currency held by the Fed. Assets and liabilities data not seasonally adjusted.

Sources: GDP, St. Louis Federal Reserve FRED database; liabilities series, Federal Reserve Board Flow-of-Funds dataset

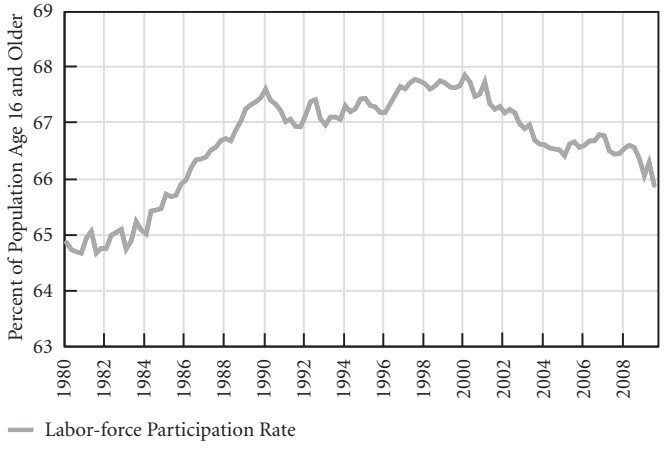
found unnerving as recently as the mid-1990s. Moreover, at 61 percent of GDP, public liabilities have still not reached the levels experienced in the aftermath of World War II (e.g., 73 percent in the fourth quarter of 1951).

As we pointed out in April, this comparison is apt (Papadimitriou and Hannsgen 2009). In the years immediately after the war, interest rates remained low despite the government's massive debt, because investors and banks were willing to buy Treasury securities bearing very little interest. (Also, the Fed cooperated with the Treasury Department to keep short- and long-term interest rates low.) With the Great Depression not far behind them, American businesses and households were highly aware of the dangers of financial fragility. The government had never defaulted on Treasury securities, while memories were fresh of massive losses in more dubious investments. As households built stronger balance sheets, many felt secure enough to afford a greatly improved standard of living. Also, the financial sector enjoyed a long period of relative calm in the two decades that followed the war, partly because bank portfolios—heavy in Treasury securities, government insured fixed-rate mortgages, and other safe investments—held their value well (Minsky 2008 [1986], 13–99). This point about the benefits of an abundant supply of securities with minuscule default risks helps justify a continuation of stimulative policy until the economy is on a firmer footing.

While we believe Bernanke has overemphasized government deficits, our approach to macroeconomics gives a leading role to all of the key financial balances—the private sector deficit, the government deficit, and the current account deficit—and we agree that it is important to keep them at sustainable levels over the medium term. Given the current situation in the labor market (see below), U.S. fiscal policy does not seem overly stimulative, and policymakers have expressed what we regard as a timely openness to further new spending and tax cuts. This strategic analysis focuses largely on the less discussed but equally important current account balance. As we will see below, the longest recession since the 1930s has helped to reduce American demand for imported goods and services, narrowing the current account deficit from 5.1 percent of GDP in the second quarter of 2008 to 3.2 percent in the third quarter of this year. However, as Bernanke points out, efforts aimed at lowering or containing the trade deficit may be needed once strong growth resumes. One approach we consider below is a further devaluation of the dollar. Declines in the dollar's value against many major currencies helped to boost exports between early 2003 and early 2008, and a new devaluation began in the spring. However, China stopped allowing the dollar to depreciate relative to the yuan in July 2008.

In this strategic analysis, we first take a long view. We review how some important economic variables, including the three main sector balances, have evolved over the past 30 years. Then, making use of the Levy Institute macro model, we project how some of these variables would change in the medium term in three hypothetical scenarios: a baseline scenario predicated on middle-of-the-road projections of fiscal policy and future exchange rates; scenario 1, which assumes that fiscal policy follows a more stimulative path; and scenario 2, which assumes an 11.9 percent devaluation of the dollar from its third quarter average and a fiscal policy stance that falls somewhere between the two posited in the other scenarios. Finally, in our concluding section, we offer some policy suggestions, based on our Keynesian perspective and the somewhat encouraging results from the last scenario.

Figure 2a Labor-force Participation Rate



Source: Bureau of Labor Statistics (BLS)

The Nascent Recovery in Historical Perspective

Perhaps the most dramatic sign of the recession's severity is the state of the labor market. Labor market indicators point to conditions that the United States has not seen in a long time. From 1980 until the early 2000s, the labor force participation

rate (all workers and unemployed people divided by the civilian, noninstitutionalized population over age 16) was rising with the entry of women into the labor force, despite a steady fall in the participation rate of men (Figure 2a). By the beginning of this decade, the growth of women's participation rate had stalled, allowing a sustained drop in the overall participation rate, to slightly above 66 percent, as large numbers of men left the labor force. Since people who have dropped out of the workforce are not counted as unemployed in official figures, some portion of this group suffers from a form of hidden unemployment. (All figures in this strategic analysis show quarterly data. For data that are available monthly or even more frequently, we use quarterly averages.)

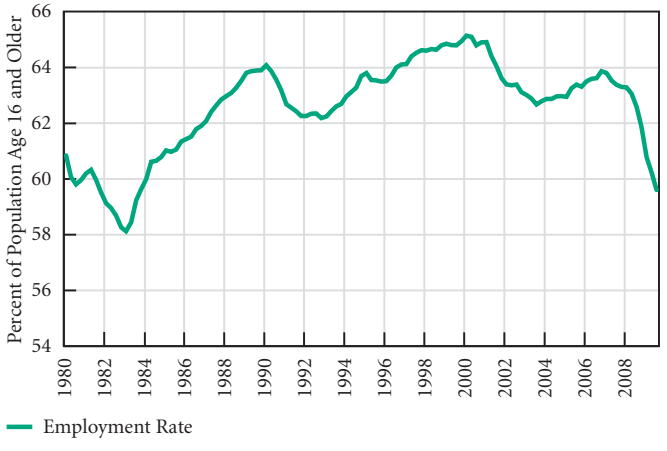
Also, the employment rate has tumbled since the beginning of the decade, falling from just over 65 percent to about 59 percent (Figure 2b). (This figure is the proportion of the civilian, noninstitutionalized population that is working [BLS 2009b].) The downward trend is the result of higher unemployment rates and greater numbers of working-age people out of the workforce as the decade ends. One question worth considering is how much higher GDP would be in the United States today if the employment rate were to return to its 2000 levels, bringing 6 percent of the civilian population back to work.

Figure 2c shows one of the most frequently discussed data series produced by the U.S. government. The unemployment rate, of course, peaked during or shortly after each of the last three recessions, though the lag between the end of a recession and the peak of the unemployment rate has lengthened over time. The figure indicates one reason why many observers grew very confident in the American economy's performance in the 1990s and 2000s: when this recession began, the most widely reported version of the official unemployment rate had not reached 8 percent since 1983. This figure was less than 4.5 percent as recently as the second quarter of 2007, but would reach over 9 percent two years later. It stood at 10.2 percent in October, and the more inclusive U6 unemployment measure, which includes discouraged workers and part-time workers who want full-time work, equaled 17.5 percent (not shown). Only workers well into middle age remember such a poor national labor market.

The growth rate of real (inflation-adjusted) wages is shown in Figure 2d. That rate is negative, despite the fact that inflation has been kept in check by excess manufacturing capacity, weak consumer demand, and low oil prices. Recently, even rising productivity has not translated into real wage growth, but profits have risen in the first two quarters of this year. All of these labor-market statistics add up to a picture of hardship for many Americans and to weak consumer demand, which will make recovery more difficult. Reduced earnings have especially grave implications right now, when many consumers are burdened with excessive debt.

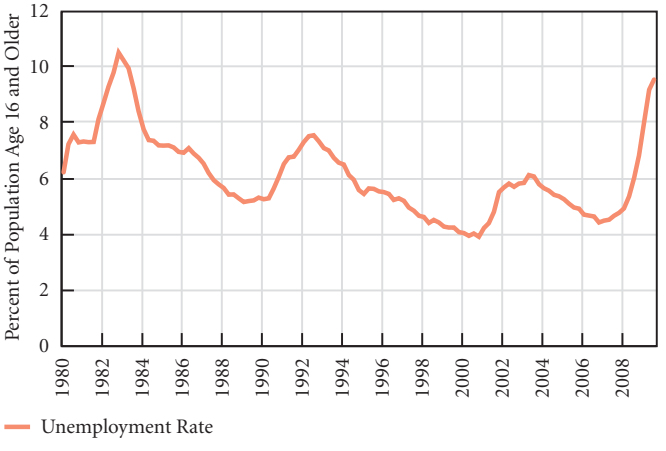
Figure 3 shows four statistics that we follow very closely. Real economic growth is measured at an annual rate on the left axis. The other data series plotted in the figure are the

Figure 2b Employment Rate



Source: BLS 2009b

Figure 2c Unemployment Rate



Source: BLS 2009b

three financial balances: the private sector deficit, the combined deficit for all three levels of government, and the current account balance. Each balance is divided by GDP. By the national accounting identity, these three numbers add up to zero at any given point in time. Specifically, the identity is the equation

(Private Sector Investment - Savings) + (Government Spending - Taxes) + (Payments from Abroad - Payments Made Abroad) = 0

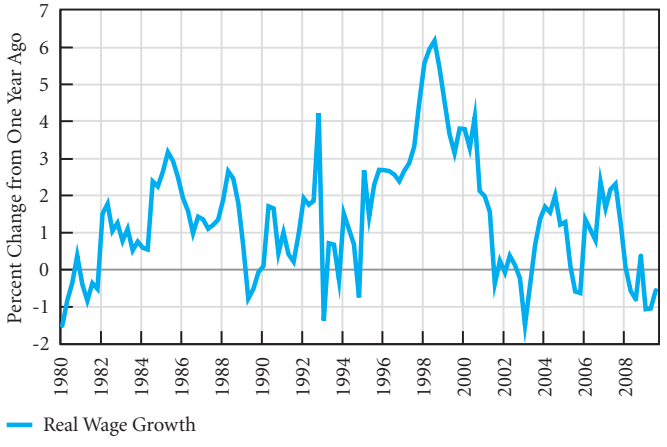
Using the terminology in the figure, we can write the identity as

Private Sector Deficit + Government Deficit + Current Account Balance = 0

Both sides of this equation can be divided by GDP to get a relationship between the three balances that are depicted in Figure 3. The national accounting identity has been the operational framework for our strategic analyses since 1999. (The Appendix shows how this equation is derived. Wynne Godley's seminal analysis [1999] and the Levy Macro-Modeling Team's subsequent work, available at www.levy.org, show how it can be applied.)

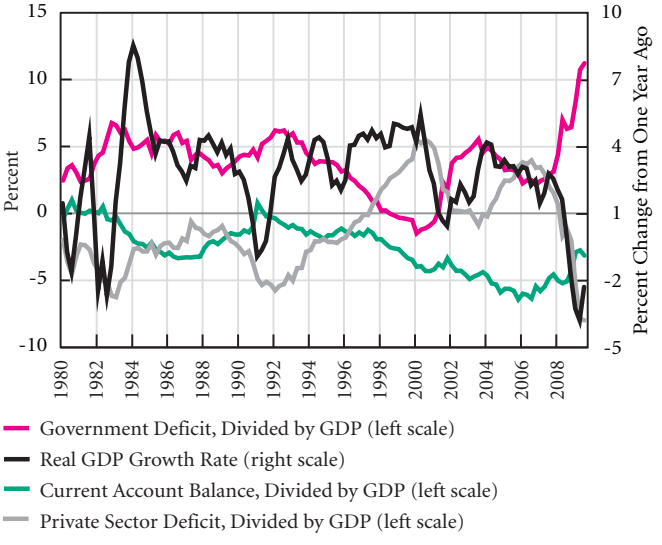
When either the public or the private sector runs a deficit, its spending can help drive the economy forward. A deficit indicates that the sector is either adding to its net liabilities or running down its net assets—in either case increasing its financial fragility (Dos Santos and Macedo e Silva 2009). Figure 3 shows that the private sector was playing this role for much of the late 1990s and early 2000s. In contrast, this sector was in surplus (seen in the figure as a negative deficit) from 1980 to mid-1997, as it was for most of the post–World War II era. Now, private sector surpluses have suddenly returned: 2.1 percent of GDP in the final quarter of 2008, 5.5 percent in the first quarter of this year, 7.7 percent in the quarter that ended in June, and 8.6 percent in the third quarter. The obvious reason is the sobering effect of a severe recession, seen in the figure as four quarters of negative growth starting in the last quarter of 2008. (The National Bureau of Economic Research has officially determined that the recession began in December 2007.) Leading up to the recession, consumers and banks let their balance sheets become very fragile amid euphoria over the stock market and housing bubbles, and the "Great Moderation" of the business cycle. This pattern has recurred many times in U.S. economic history, as Minsky pointed out throughout his career: as a period of good economic fortunes progresses, bankers, consumers, and others become overconfident and take excessive financial risks, leading to what he called financial fragility (2008 [1986]). These periods of complacency have always ended with a financial crisis, leading households and businesses to

Figure 2d Real Wage Growth



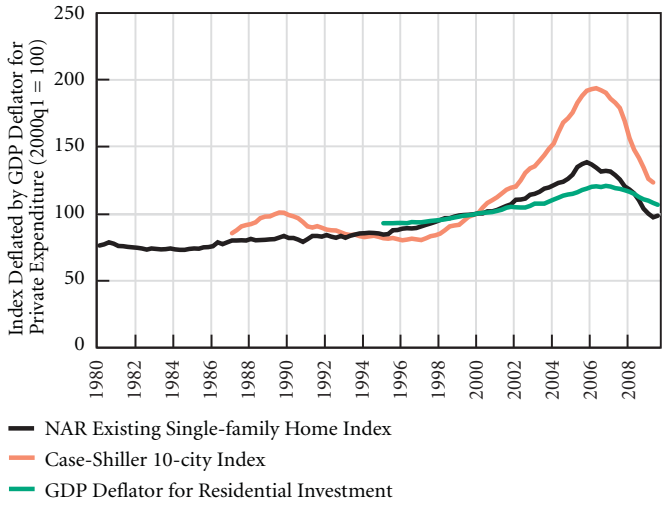
Sources: BLS 2009b; Bureau of Economic Analysis (BEA); authors' calculations

Figure 3 U.S. Main Sector Balances and Real GDP Growth



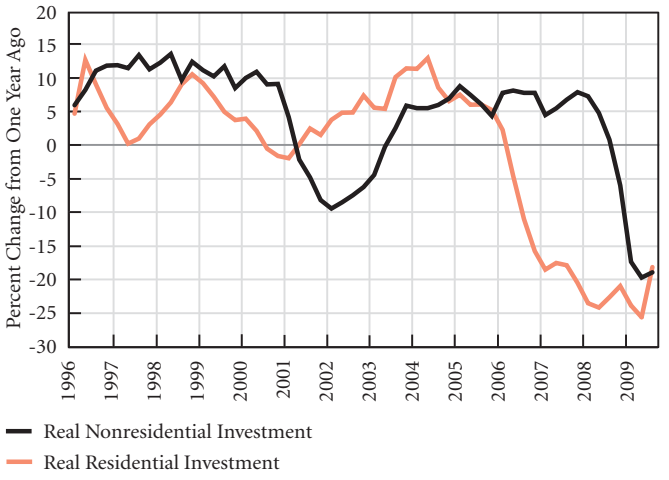
Sources: BEA; authors' calculations

Figure 4 Real Housing Price Indexes



Sources: S & P; National Association of Realtors (NAR); BEA; authors' calculations

Figure 5 Real Investment Growth



Sources: BEA; authors' calculations

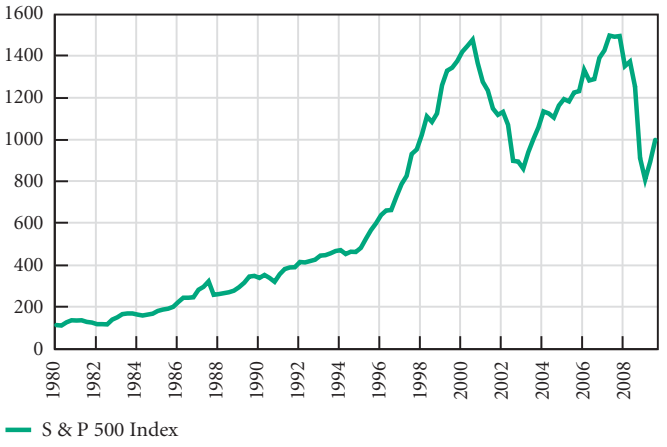
cut spending, try to pay off debt, and move funds to safer investments. A recession has often followed.

Since the three financial balances add up to zero, the sudden reversal of the private sector deficit that began in the second quarter of 2008 has been ineluctably accompanied by changes in the other two balances. The government deficit has soared—a fact that has drawn much attention—while the troublingly large current account deficit has begun to decline from levels we have long described as unsustainable. The government deficit usually rises in a recession simply because of declining tax revenues, even if tax rates and government expenditures remain roughly constant. Hence, the sharply inclined government deficit line in the figure does not closely reflect deliberate policy actions by Congress and the president.

Leading economic indicators and advance GDP data already strongly suggest that growth is positive, but at this point there are no grounds for predicting a robust recovery. In fact, in our baseline scenario below, we project a growth recession with little reduction in unemployment through the end of the simulation period in 2015. (A "growth recession" is defined here as a period of growth that is positive, but not strong enough to restore the health of the labor market.)

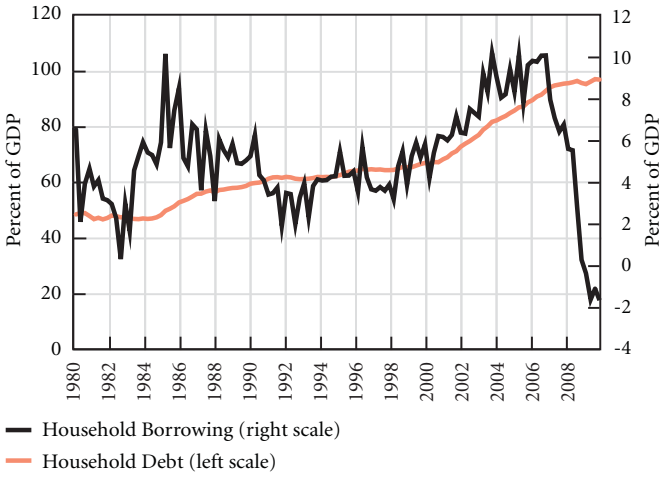
One factor that will influence the strength of the recovery is the state of the housing market. Figure 4 shows the collapse of the housing bubble using three common measures of the cost of housing. The Case-Shiller 10-city Composite Home Price Index, which uses data on repeated sales of the same properties, was down 36.4 percent in the second quarter of this year from the peak of the market in the second quarter of 2006. More recent monthly data show that house prices rose in July and August. The National Association of Realtors (NAR) existing single-family home index does not use repeated sales. Hence, the NAR does not keep constant the quality and size of the homes in its sample. The GDP deflator for residential investment measures the costs of constructing new housing and, of all the indexes in the figure, it is the least informative about the health of the housing market. It is interesting to note that all three indexes follow a hump-shaped path over the course of the decade, telling the story of a bubble that burst. With numerous homes on the market and more foreclosed properties to come, it is far too early to say that the recent upturn marks the end of the housing bust. The expected renewal of the $8,000 tax credit for home buyers will help sustain the residential property–value recovery. How quickly the bear market in housing ends may determine whether homeowners whose mortgage payments will rise during the next few years will lose their homes. Even homeowners who have paid off their mortgages tend to reduce their consumption when the value of their assets declines. (For some empirical evidence, see Case, Quigley, and Shiller 2005 and the references within.) Both households and the financial

Figure 6 S & P 500 Index



Source: S & P

Figure 7 Household Borrowing and Debt



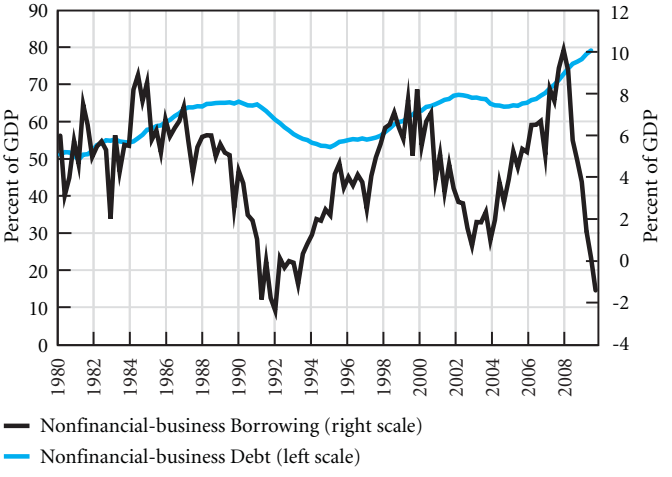
Sources: Federal Reserve; BEA; authors' calculations

sector still have much at stake as the housing market struggles to recover.

Figure 5 shows the well-known collapse in residential investment that began more than a year before the recession began. Now, the recession has taken a further toll on new investment of all types. Residential investment has fallen at double-digit rates year-on-year in real terms since the third quarter of 2006; nonresidential investment began falling in the last quarter of 2008, and dropped nearly 19 percent in the third quarter from a year before, probably dragged down by the falling profit expectations that inevitably come with a severe recession.

The value of equities is one driver of investment and consumer spending. Figure 6 illustrates two big drops in the S & P 500 stock index: the tech bust in 2000, and the recent financial crisis and recession. The data for this year show that the index has managed to climb back over 1000. Financial services companies and companies in the automobile and truck manufacturing sector have been among the leaders in this trend. Some hazards lie ahead for these industries and others now that the cash-for-clunkers program has ended and many segments of the financial sector deal with weak demand and/or nonperforming assets. The favorable third-quarter profit reports released by many large banks mostly reflect trading gains rather than a recovery of lending operations, which would be crucial to a sustained recovery in banking and other sectors.

Figure 8 Nonfinancial-business Borrowing and Debt



Sources: Federal Reserve; BEA; authors' calculations

Minsky reminded his readers often of the importance of households' and businesses' balance sheets and their commitments to pay back loans in cash. The next three figures provide some perspective on these key factors in the developing recovery. Figure 7 shows that household debt as a percentage of GDP escalated almost unremittingly for almost three decades, reaching over 97 percent in the first quarter of this year. This percentage vastly exceeds historical norms; as recently as 1985, this figure stood at less than 50 percent. For

the last four quarters, household borrowing has been negative, meaning the household sector has been paying off debt at a faster rate than it has taken out new loans. Despite this unsurprising change, household debt had fallen only slightly as a percentage of GDP as of the second quarter, and will act as a drag on consumer spending for some time to come.

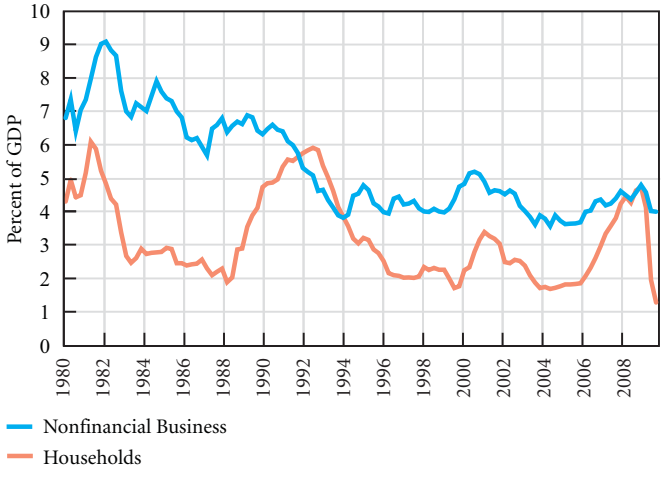
Nonfinancial business has also increased its debt as a percentage of GDP over the long run (Figure 8), though this increase was not as steady or steep. Like households, companies outside of the financial sector face a heavy debt load by some measures, just as demand for their products has dropped. They, too, have adapted to weak demand and tight credit market conditions by paying back loans and not taking out new ones. In the fall of 2007, the last quarter before the current recession began, borrowing by nonfinancial business had reached over 10 percent of GDP, while debt attained its peak of 79.0 percent of GDP in the first quarter of 2009. In the second quarter of 2009, nonfinancial business borrowing and debt were equal to -1.4 percent and 78.9 percent of GDP, respectively.

Figure 9 presents some data on what these debt and borrowing data mean for the cash flow of households and businesses. For each of these two sectors, the figure reports the ratio of a rough estimate of interest payments to GDP. There has been a downward trend in this debt-service burden for nonfinancial business, which may seem puzzling in light of the rise in this sector's debt shown in the previous figure. The explanation is a downward trend in interest rates that followed Federal Reserve Board Chairman Paul Volcker's campaign against inflation in the late 1970s and early 1980s, a movement that continued despite subsequent Fed chairmen's adherence to variants of the hawkish approach to monetary policy initiated during Volcker's tenure.

Among other things, our approach to macroeconomics emphasizes the implications of "flows" like saving and borrowing for "stocks" of assets and debts, and, in particular, for the sustainability of trends in spending by households and businesses. In the 1990s, the U.S. debt binge was financed largely from abroad by willing trading partners eager to maintain their export-led growth machines. In the third quarter of 1991, the United States began running a current account deficit, which reached over 6 percent of GDP in 2006, as seen in Figure 10. In keeping with the spirit of Godley and Francis Cripps's (1983) emphasis on stable "stock-flow norms," we have pointed out many times that what had gone up—in this case, U.S. household borrowing—would eventually come down.

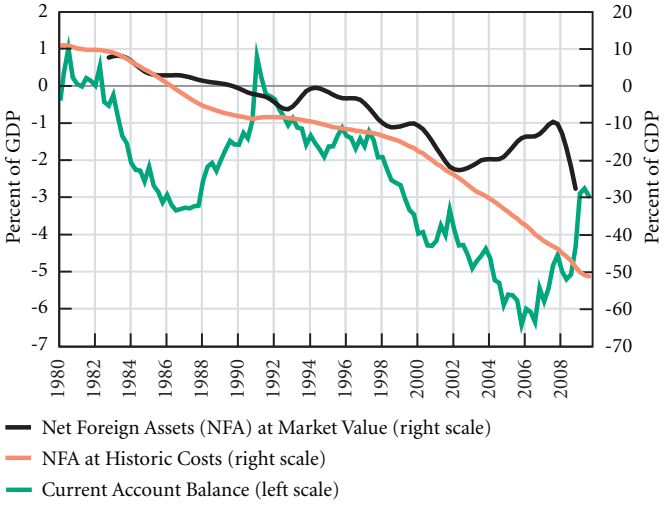
Aside from the bubble in real estate values, one key reason was the unsustainable increase in U.S. net foreign assets (NFA, roughly the difference between our financial claims on the rest of the world and the rest of the world's claims on us)

Figure 9 Debt-service Burden (Interest Rate Times Debt over GDP)



Sources: Federal Reserve; BEA; authors' calculations

Figure 10 U.S. Net Foreign Assets and Current Account Balance



Sources: BEA; International Monetary Fund (IMF); authors' calculations

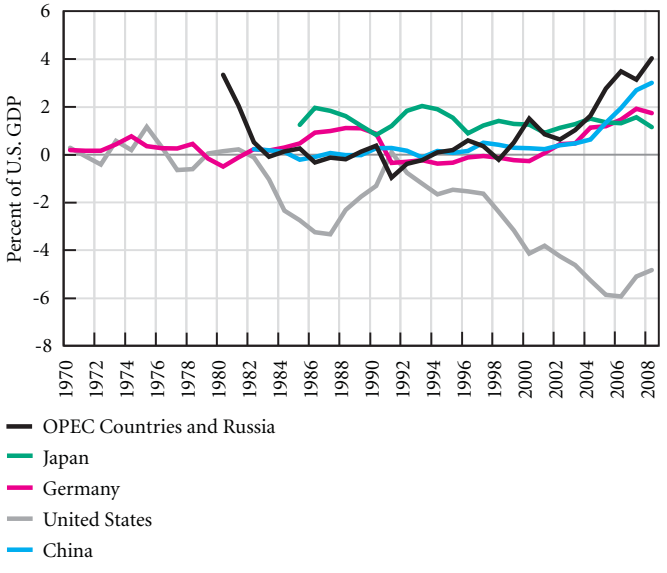
to GDP. The remaining data series shown in Figure 10 are measures of NFA divided by GDP. The smoothly declining curve depicts NFA/GDP when assets and debts are measured at their original values. This curve essentially traces the cumulative sum of U.S. current account deficits since 1960. Another curve shows the same ratio, this time adjusted for changes in the market values of financial assets and direct investment owned in the United States and abroad, as published by the Bureau of Economic Analysis.

There have been debates about the accuracy of these official statistics, but current readings of both NFA gauges warrant deep concern. Notably, if the buildup of debt to foreigners slows down further, U.S. businesses, households, and/or state and federal governments will have to reduce their debt-financed spending. On the other hand, if substantial current account deficits persist, reducing NFA, the risk of a catastrophic drop in the value of the dollar (that is, the exchange rate) would be increased.

Figure 11 shows the current account balances of some countries as percentages of U.S. GDP. Using the same denominator for all five lines allows one to compare the size of the U.S. balance with those of the other economies. Only yearly current account data are available for some countries, so the last data points in the figure are for the year 2008. As the American deficit worsened in the 1990s, China and the oil-exporting "bloc" of Russia and the OPEC countries ran sharply increasing current account surpluses.

China's undervalued currency bears much of the responsibility for that country's surplus, as the prices of U.S. exports and imports in their respective markets depend partly on the exchange rates between the dollar and other currencies. The nominal exchange rate shown in Figure 12 measures the value of one dollar in terms of a "basket" comprising the currencies of most of America's leading trading partners. To make it easier to compare this series with others in the same figure, it is rescaled, so that the index equals 1 in the first quarter of 1995. It fell in the third quarter after a three-quarter rally. The rally has been attributed mostly to the rush into relatively safe dollar-denominated assets. Now that most financial markets and major banks appear to be stronger, many investors have converted safe-haven investments such as U.S. Treasury securities into foreign securities and deposits, a fact that partly explains the downturn in the value of the dollar. If policymakers can stave off further serious financial turmoil, the dollar may decline further, permitting some improvement in the current

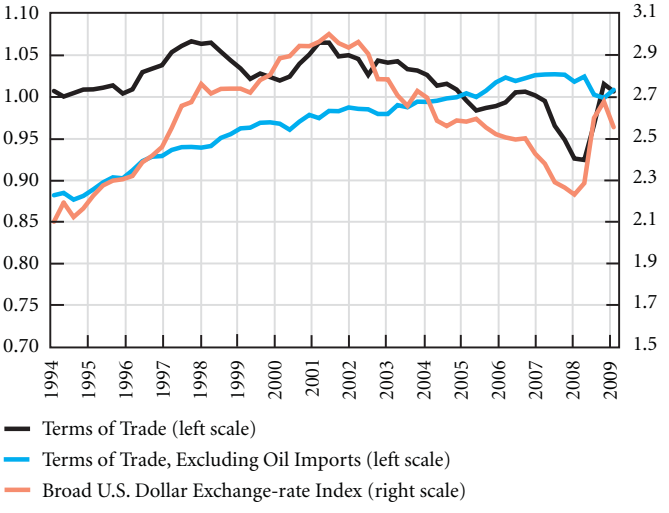
Figure 11 Key Global Current Account Balances



Note: German data for years prior to 1990 are the current account balances of the Federal Republic of Germany. Amounts shown for "OPEC Countries and Russia" do not include balances for Iraq prior to 2005 or for Russia before 1992.

Sources: Organisation for Economic Co-operation and Development; IMF; BEA; authors' calculations

Figure 12 Terms of Trade and the U.S. Dollar Exchange Rate



Sources: BLS 2009b; Federal Reserve; BEA; authors' calculations

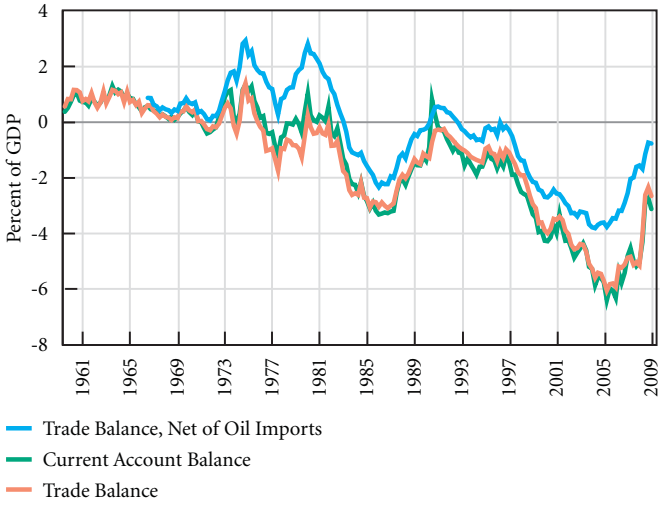
account balance as it becomes cheaper for foreigners to buy foreign currency to be used for purchases of U.S. exports.

But there are reasons to doubt that a devaluation of the dollar is the only key to restoring balance in the current accounts of the major economic powers, especially the growing surplus for oil-exporting nations shown in Figure 11. In particular, a weakening of the dollar leads to a deterioration of the terms of trade between the United States and its trading partners (Figure 12). The terms of trade are defined as the price of U.S. exports to foreign countries divided by the price paid by U.S. buyers for the imports they purchase (with both prices expressed in the same currency). When the terms of trade go up, the prices of U.S. exports are rising more quickly than the prices of U.S. imports. If the prices of traded goods reflect the dynamics of domestic prices—or if exports and imports comprise similar combinations of goods and services—a rise in the terms of trade implies that the United States is losing competitiveness vis-à-vis its trading partners. When the composition of exports is different from that of imports, high terms of trade usually reflect a national specialization in exported goods or services that are relatively more expensive than imported goods.

When the price of oil is omitted from this index, as shown in the figure by the blue line, there seems to be little correlation with the U.S. dollar exchange rate, and the terms of trade follow an upward trend. When we include oil imports, the devaluation of the dollar in recent years has been associated with an upward movement in the price of oil and a deterioration in the terms of trade, while a revaluation of the dollar brings a movement in the opposite direction. It is interesting to note that this correlation between the price of oil and the dollar was not so marked in the 1990s.

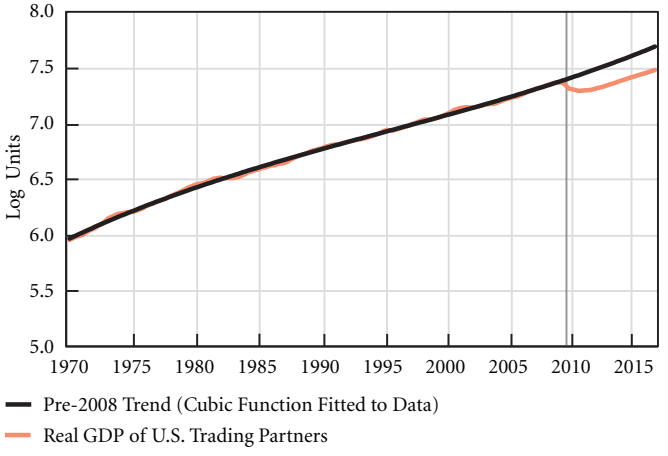
In other words, before this decade, oil exporters usually kept the price of oil stable in dollars, keeping the cost to Americans of imported petroleum products stable even when the value of their currency changed. Conversely, in recent years, oil exporters (with the cooperation of other participants in world markets) have more often chosen to reprice their exports with each change in the value of the dollar, forcing Americans to pay a higher price for oil imports as the exchange rate fell during most of 2007 and 2008. This negative correlation between the nominal exchange rate and import prices—in this case, the price of oil—is known as "exchange rate pass-through" and has continued this year. It is reflected in the overall terms of trade. However, exporters of services and goods other than oil are less likely to reprice their exports to the United States in this way, leading to the weaker correlation between the exchange rate and the nonoil terms of trade (Figure 12).

Figure 13 U.S. Current Account and Trade Balances



Sources: BEA; authors' calculations

Figure 14 Real GDP of U.S. Trading Partners: Historical Data and Baseline Assumptions



Sources: IMF; World Bank; authors' calculations. *See also* Shaikh, Zezza, and Dos Santos 2003b for sources and explanatory information.

The observation of exchange rate pass-through has implications for our understanding of the effects of exchange-rate changes on the current account deficit. Economists view a devaluation of the dollar as one of the main tools available to reduce the trade deficit. However, the "terms-of-trade effect" limits the effectiveness of this policy instrument, since Americans spend more money on imported goods and services as their prices rise—unless they buy less of these foreign commodities.

This perverse relationship between the terms of trade, exports, and imports was exemplified by the case of oil imports during most of the current decade, as shown in Figure 13. The exchange rate and the terms of trade began steady declines in about 2002, which soon led to a long rise in the dollar amount of oil imports, seen in the figure as a widening gap between the total trade balance and same balance minus oil imports. (All balances have been divided by GDP.) If similar links between the exchange rate, the terms of trade, and oil imports hold in the near future, it may not be best to rely entirely upon exchange-rate devaluations to lower the current account deficit.

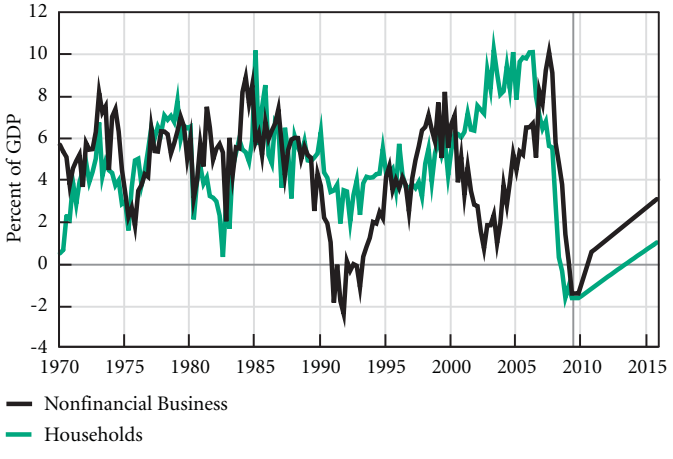
For this and other reasons, large international imbalances call for policy responses that extend beyond exchange-rate adjustments, including measures to reduce demand for some imported goods. These policies could, for example, respond to the urgent need to reduce dependence on fossil fuels, which is resistant to exchange-rate adjustment. We would support a massive investment in clean energy and energy conservation that would create "green jobs" and help forestall global climate change. We discuss policy options further in the concluding section of this strategic analysis.

Baseline Scenario

The economy's state in 2009, as described above, has evolved along the lines we outlined in our previous strategic analysis (Godley, Papadimitriou, and Zezza 2008). Unemployment was projected to reach above 10 percent, and the October figure of 10.2 percent—and trending upward—is close to our projected path. One of the major drivers of our scenarios was the expected fall in household borrowing, which we assumed would fall into negative territory and, in our baseline projection, remain below zero through the end of 2012. The latest figures from the Federal Reserve Flow-of-Funds dataset reaffirm our assumptions up to the second quarter of 2009, and recent figures on consumer credit in August show that negative borrowing (i.e., debt repayments in excess of new loans) may very well follow our projections in the coming months.

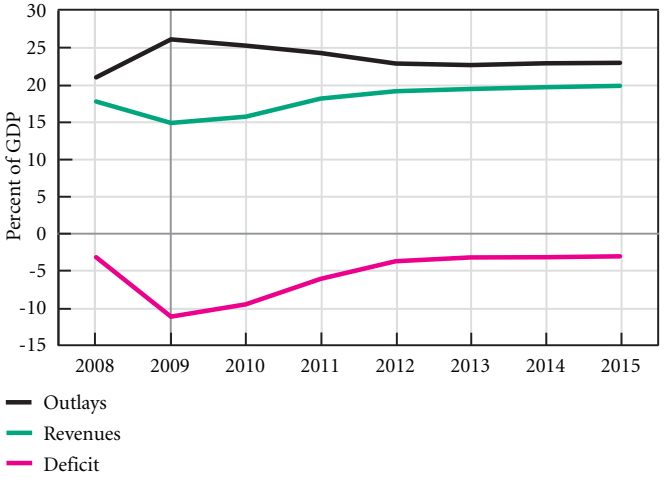
For our new baseline projection, we adopt the April 2009 International Monetary Fund (IMF) projection for the real and nominal GDPs of U.S. trading partners.[2] Our index for real GDP[3] is reported in Figure 14, which shows that world output growth will get back to trend in 2011, but that the net

Figure 15 Private Sector Borrowing: Historical Data and Baseline Assumptions



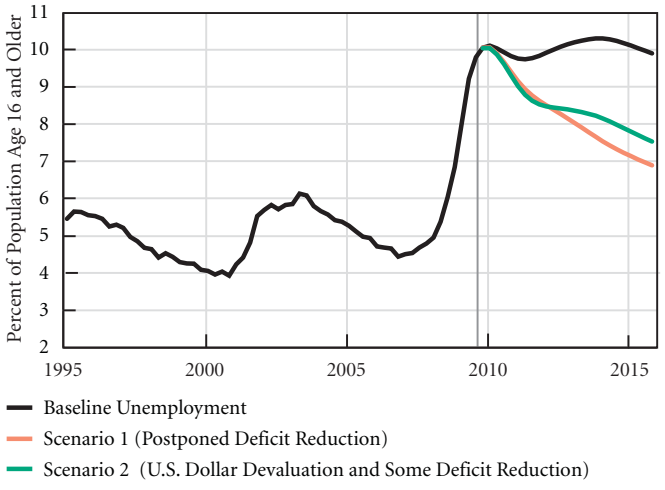
Sources: BEA; Federal Reserve; authors' calculations

Figure 16 Congressional Budget Office Projections for the Federal Budget



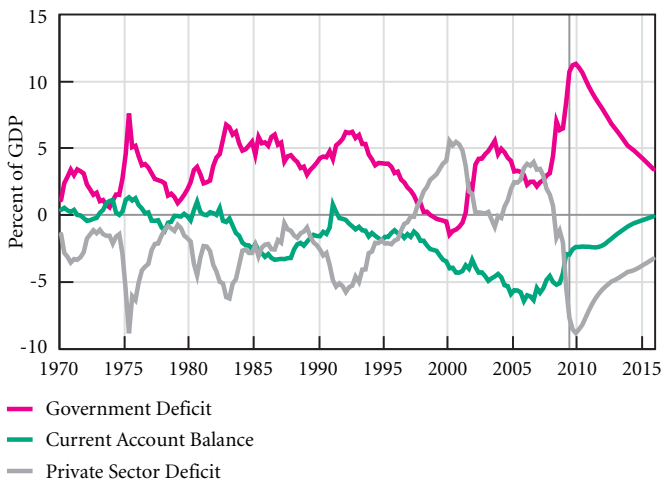
Source: Congressional Budget Office

Figure 17 Unemployment in Three Scenarios



Sources: BLS 2009b; authors' calculations

Figure 18 Main Sector Balances in Baseline Scenario



Sources: BEA; authors' calculations

loss in output generated by the current recession will not be made up through faster growth.

We assume that the price of oil and prices in U.S. trading partners will both grow at around 2 percent, and that the U.S. dollar exchange rate will stabilize at the current (third quarter, 2009) level. We next assume that confidence will gradually return to financial markets, so that borrowing by both households and businesses starts to revert, very gradually, toward its long-term average (Figure 15). We posit that net household borrowing will stay negative, but fall as a percentage of GDP, until 2013; our new assumptions on borrowing are therefore more optimistic than those we adopted in our last strategic analysis.

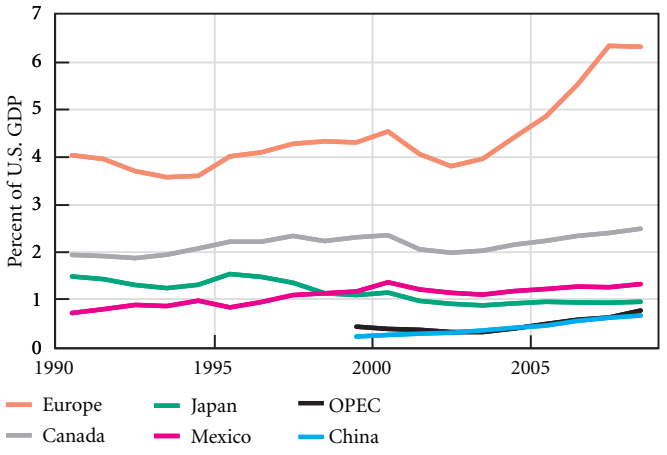
Finally, in our baseline scenario we verify the consequences of the end of the fiscal stimulus, using projections from the latest Congressional Budget Office (CBO) report (2009). The CBO projects that the government deficit will drop considerably in the next two years, reaching 11.2 percent of GDP for fiscal year 2009, 9.6 percent in 2010, 6.1 percent in 2011, and around 3 percent from 2012 onward (Figure 16). This reduction in the deficit is assumed to derive partly from an increase in revenues due to a rise in individual income tax revenues from 6.5 percent of GDP in 2009 to 10 percent in 2014. Overall, outlays will fall, especially those classified as "mandatory spending," but outlays related to servicing the debt will increase steadily.

We emphasize that our scenarios are conditional projections, not forecasts: they are meant to show what is likely to happen over a horizon of about six years if certain assumptions turn out to be true. Our medium-term approach means that we do not focus on making precise statements about the outlook for the next six months.

All of our assumptions, taken together, imply that real GDP growth will resume but remain sluggish throughout our simulation period, staying well below the rate required to reduce unemployment, which will hover around 10 percent through the end of the simulation period in 2015 (Figure 17). Under this scenario, all financial imbalances will converge toward zero (Figure 18). The general government deficit will peak at nearly 11.3 percent of GDP in the fourth quarter of this year (somewhat above our assumption of an 11.2 percent deficit for the entire fiscal year that ended in September) and then drop below 4 percent at the end of the simulation period, which is in the first quarter of fiscal year 2016. Our assumed gradual increase in private sector borrowing, along with income growth, will lower the private sector surplus toward its prebubble historical norm. Finally, slow growth will help shrink the current account deficit to less than 1 percent of GDP by the end of the simulation period.

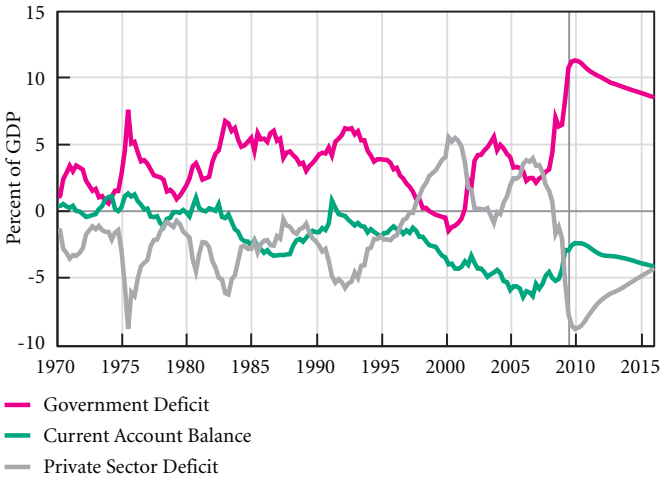
Household debt outstanding will drop considerably, from the current 97 percent of GDP to 78 percent by the end of the simulation period, while debt of the nonfinancial business

Figure 19 U.S. Exports by Country of Destination



Sources: BEA; authors' calculations

Figure 20 Main Sector Balances in Scenario 1, Postponed Deficit Reduction



Sources: BEA; authors' calculations

sector will stabilize at around 73 percent of GDP. However, sustained government deficits will increase the stock of government debt[4] from the current 61 percent of GDP to 91 percent of GDP by the end of the simulation period. These projections of debt outstanding may appear to be quite high, but they will be sustainable provided that interest rates are kept at their current historically low level, as we assume in our baseline scenario.

It is clear from our analysis that the fiscal stimulus has provided strong support to aggregate demand, preventing further damage, but it has not been sufficient to lower unemployment. With private sector demand slowly coming back—owing to improvements in the stock market and the stabilization of the housing market and credit conditions—the end of the fiscal stimulus will nevertheless leave the economy in a "growth recession."

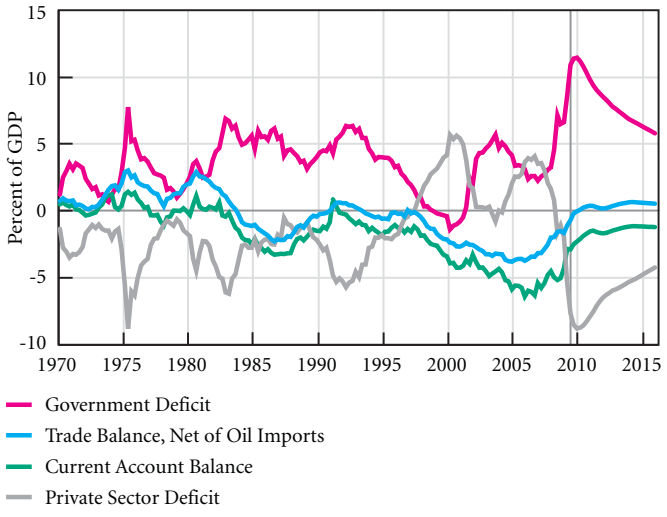
The results from our baseline simulation may seem pessimistic, given that growth could resume at a faster pace in the economies of U.S. trading partners. In particular, some analysts claim that emerging economies, notably India and China, are "decoupling" from the world recession by applying fiscal stimuli aimed at strengthening domestic demand. If sustained, such policies will have a positive effect on U.S. exports, but it may be smaller than one would hope. Figure 19 shows a breakdown of U.S. exports by destination country. Only 3.6 percent of U.S. exports in 2008 went to China (or 0.6 percent of GDP). The bulk of U.S. exports go to Europe (35.3 percent, or 6.3 percent of GDP), and Canada and Mexico (21.1 percent, or 3.8 percent of GDP, combined), so even a major increase in domestic demand in developing economies other than Mexico will have only a minor impact on U.S. exports, and hence on U.S. aggregate demand and employment.

Scenario 1: Postponing the Fiscal Adjustment

In our next scenario, we assume that the government maintains its current fiscal policies, postponing measures to address the deficit. More specifically, government expenditures on goods and services, as well as net government transfers, are kept at their historical prerecession trend in nominal terms, and the Bush tax cuts are extended. In all other respects, scenario 1 retains the assumptions used in the baseline scenario.

In this scenario, unemployment falls below 7 percent by the end of the simulation period (Figure 17). We project U.S. GDP growth rates to be above 3 percent on average, yet not high enough to close the output gap that opened in the recession. Figure 20 depicts the projected paths of the three sectoral balances. The government deficit declines very slowly with the rise in GDP, and government debt reaches 100 percent of GDP by the end of the simulation period (9 points above its baseline level). As domestic demand grows, however, the current account deficit worsens, increasing from its current value of

Figure 21 **Main Sector and Trade Balances in Scenario 2, U.S. Dollar Devaluation and Some Deficit Reduction**



Sources: BEA; authors' calculations

2.6 percent of GDP to 4.1 percent of GDP by the end of the simulation period. At the current juncture, therefore, any policy that sustains growth in order to generate a drop in unemployment is likely to bring back the problem of current account imbalances.

Scenario 2: A Further U.S. Dollar Depreciation

Like Martin Feldstein (2009) and some other well-known neoclassical economists, we have argued many times for a devaluation of the dollar (Godley, Papadimitriou, and Zezza 2008). In our last exercise, we verify the consequences of a further moderate decline in the U.S. dollar, so that its value, as measured by the broad nominal index published by the Fed, would be 11.9 percent lower than its current (2009q3) value, and only 2 percent below what it was in the second quarter of 2008. A dollar devaluation will raise the cost of oil imports, but it will be effective in increasing net exports, with an impact on aggregate demand that would permit a tighter fiscal policy than in our previous scenario. Therefore, we also assume that the government deficit is slowly reduced relative to its level in our previous scenario (but not as much as in the baseline scenario).

Under these hypotheses, unemployment falls in line with our previous fiscal policy experiment, dropping below 7.5 percent at the end of the simulation period (Figure 17). As Figure 21 shows, the government deficit falls faster than in the previous scenario, reaching 5.6 percent of GDP by the end of the simulation period, while the adverse effects of faster domestic growth on the U.S. current account balance are now countered by growth in net exports. The nonoil balance of trade moves into surplus, while the overall current account deficit stabilizes at a sustainable 1.3 percent of GDP. A modest dollar devaluation could prove to be a very effective pro-employment policy, while at the same time directly addressing the medium-term threat posed by large imbalances.

Conclusion

We are aware that a further, orderly devaluation of the U.S. dollar may not be achieved by market forces, and that—on the contrary—the United States should expect strong resistance from the European Central Bank to further appreciation of the euro. The devaluation should be brought about by a multilateral agreement with the central banks of major surplus countries, particularly in East Asia.

Failure to deal with the overvaluation of the dollar could lead to adverse consequences beyond those mentioned in the discussion and scenarios above. In one plausible scenario that we have not formally modeled, investors might sell U.S. Treasury securities en masse, leading to a sudden collapse of the dollar. In turn, a flight from the dollar might bring a large increase in U.S. interest rates, reverse the economy's path toward sustainable sectoral balances, and bring back financial fragility.

Many economists are of the opinion that a sharp fiscal retrenchment could be used to head off such a catastrophe, but with the economy still so weak, we believe that it is unrealistic to expect a tighter fiscal policy anytime soon. In fact, of the three simulations reported in this strategic analysis, only the two involving some loosening of fiscal policy (scenarios 1 and 2) resulted in any progress toward full employment.

Since debates about stimulus packages began last year, there has been a flurry of discussion on the effects of fiscal policy in blogs and newspapers (for an example, see Barro 2009). Some economists argue that when the government increases deficits or hires new workers, businesses cut production. Often, their arguments depend on the idea of Ricardian

equivalence—that taxpayers put aside substantially more money for future tax payments when the government deficit-spends. To show that this effect completely offsets the effects of higher government deficits requires assumptions that seem unrealistic. Also, some analyses implicitly assume that there are no unemployed resources in the economy, so that government cannot hire workers or borrow money without reducing the amount of these "inputs" available to private industry. It is no surprise that we find different results than the antistimulus economists, as the Levy Institute macro model (like any Keynesian model) avoids such premises.

With a significant reduction in fiscal deficits out of the question for now, a gradual devaluation may be the only alternative to high current account deficits and—conceivably—a sudden currency crash. This medicine would probably be potent: the successful devaluation modeled in scenario 2 would reduce the exchange rate by less than 12 percent, to values seen as recently as a decade and a half ago.

However, a significant devaluation alone would not significantly and quickly reduce oil imports. In scenario 2, oil imports are about one third greater than the entire U.S. current account deficit by the end of the simulation period. Oil imports do not change much in this scenario because of the weakness we have described in the response of this variable to changes in the nominal exchange rate.

An international pact could help reduce fossil-fuel consumption in the United States and abroad, but it now appears that the global climate summit in Copenhagen (December 6–18) is unlikely to produce a strong agreement on carbon emissions. Global imbalances give us another important reason to support current national efforts to develop alternative energy sources such as solar power, and to urge the expansion of these initiatives.

Our policy conclusions can then be summarized in five points:

1) If stimulative policies are adopted, the current account deficit will likely begin growing again over the medium term, as the economy strengthens, unless countervailing measures are adopted. This threat calls for stronger efforts to devalue the U.S. dollar, especially against undervalued Asian currencies.
2) Scenario 2 demonstrates that high levels of government borrowing (above 5 percent of GDP through 2015) will be sustainable, and need not jeopardize current account rebalancing over the medium term, provided that the dollar depreciates and interest rates remain low.
3) Unemployment will be the key economic problem for at least several years, as it is the most important social cost of recessions and will remain very high without strongly stimulative fiscal policy.
4) The government should devote more effort and money to developing alternative energy sources and encouraging energy conservation, as a devaluation alone would not have a large impact on oil imports. Such initiatives dovetail with other efforts to improve air quality and slow global climate change.
5) President Obama's recent public disagreement with President Hu Jintao of China over a possible revaluation of the renminbi underscores the challenge of a multilateral approach to currency adjustments and shows that much work remains to be done at an international level to achieve sustainable growth.

Notes

1. The liabilities data are part of the Federal Reserve Board's flow-of-funds dataset and are not seasonally adjusted; quarterly GDP figures are seasonally adjusted by the Bureau of Economic Analysis, the agency that collects the data. Throughout this strategic analysis, we make use of official seasonally adjusted data when they are publicly available.
2. IMF (2009c), as updated in IMF (2009b).
3. The methodology behind our index is described in Shaikh, Zezza, and Dos Santos (2003a, 2003b).
4. We model government debt as the cumulated sum of government deficits.

Appendix

The national accounting identity is a relationship among the three main sector balances:

Private Sector Deficit + Government Deficit + Current Account Balance = 0 (1)

The derivation builds on two well-known key identities. One identity shows the demand components of GDP:

GDP = Private expenditure (PE) + Government Expenditure (GE) + Net exports (NE) (2)

where private expenditure is the sum of consumption and gross investment, including the change in inventories. From the income side, we have

GDP = National income (Y) - Net income from abroad (NYFA) (3)

Equating the right-hand side of equations (2) and (3), and using symbols, we have

$$Y - NYFA = PE + GE + NE \quad (4)$$

Disposable income of the private sector is given by national income, less any net payments from the private sector to the government (TG), plus any net payments from the foreign sector to the private sector (TW) that are not already measured in national income. Using YD for the disposable income of the private sector, we have

$$YD = Y - TG + TW \quad (5)$$

using equation (5) in (4) we get

$$YD + TG - TW - NYFA = PE + GE + NE \quad (6)$$

and rearranging

$$(PE - YD) + (GE - TG) + (NE + TW + NYFA) = 0 \quad (7)$$

Adding and subtracting net payments from the government to the foreign sector, GW, we get

$$(PE - YD) + (GE - TG + GW) + (NE + TW + NYFA - GW) = 0 \quad (8)$$

The first expression in brackets measures the difference between total expenditure of the private sector and disposable income, or "Private Sector Deficit." The second bracket measures all government payments, less receipts, or "Government Deficit," while the last bracket measures all monetary net inflows into the country, or the "Current Account Balance." Or, in other words

Private Sector Deficit + Government Deficit + Current Account Balance = 0 (1)

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