

## **Prefatory Note**

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## **Part 1**

October 29, 2009

# CURRENT ECONOMIC AND FINANCIAL CONDITIONS

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## **Summary and Outlook**

October 29, 2009

## **Summary and Outlook**

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## **Domestic Developments**

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The data on spending and production that have become available since the September Greenbook suggest that economic activity was stronger this summer than we had previously estimated. Real GDP rose at an annual rate of 3½ percent in the third quarter, 1 percentage point faster than we had forecast in the September Greenbook, with much of the upside surprise in household spending. Similarly, industrial production rose more rapidly than we had previously projected. That said, with earlier declines in wealth still weighing on household balance sheets, measures of consumer sentiment relatively low, and the labor market continuing to deteriorate (even more than we had anticipated), we have not taken a great deal of signal from the recent unexpected strength in the data. Indeed, we think some of it is likely to be reversed in the fourth quarter. We now forecast that real GDP will increase at an annual rate of 2¾ percent this quarter, down ½ percentage point from the previous Greenbook.

As in previous forecasts, we expect several factors that have held back spending over the past year or so to fade in the next two years. The drag from the previous losses in household wealth is expected to wane, credit conditions are anticipated to ease, and household and business confidence is expected to improve as the economic recovery is sustained. With monetary policy assumed to maintain its accommodative stance, we project that real GDP will increase 3½ percent next year and 4½ percent in the following year, about the same as in the September Greenbook. Meanwhile, in light of the surprising strength in productivity in recent quarters, we have raised our estimate of the level of potential output in this projection, leaving the output gap wider than in the September Greenbook. We have also boosted the unemployment rate somewhat in this forecast, primarily in response to weak incoming labor market data.

Because the recent price data have come in close to our expectations, and given that the revisions to economic slack and energy prices in this projection have small and offsetting implications for inflation, we have made no material changes to our projection of core price inflation. After rising 1.4 percent this year, core PCE prices are expected to increase 1.1 percent next year and 1 percent in 2011. However, with the recent rise in oil prices anticipated to put upward pressure on consumer energy prices, we have revised up our projection for overall PCE price inflation this quarter and next to an annual rate of roughly 2 percent, about ½ percentage point higher than in the September Greenbook.

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Note: A list of abbreviations is available at the end of Part 1.

Thereafter, we expect headline inflation to fall gradually, coming back in line with core inflation in 2011.

### **Key Background Factors**

We continue to assume that the FOMC will hold the target federal funds rate in the current range of 0 to  $\frac{1}{4}$  percent through 2011. We have also left our assumptions for nontraditional policy actions essentially unchanged. We assume that the Federal Reserve's purchases of long-term securities will total \$1.7 trillion—\$300 billion of Treasury debt, \$175 billion of agency debt, and \$1.25 trillion of agency mortgage-backed securities (MBS). Purchases of Treasury debt are assumed to be completed by the end of this month, while purchases of agency debt and MBS are assumed to be completed by the end of the first quarter of 2010. Holdings of these long-term securities are assumed to run off gradually thereafter, declining to a total of \$1.3 trillion by the end of 2011.

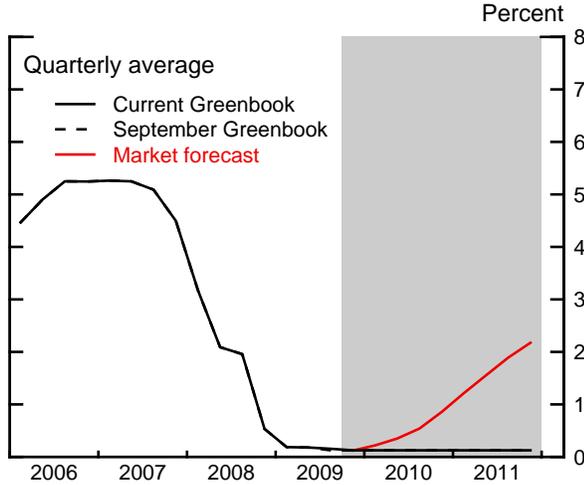
The 10-year Treasury yield has been about unchanged, on net, since the September Greenbook. We expect this yield to increase about 40 basis points over the forecast period. Given our assumed policy path, market participants' expectations for the federal funds rate over the next couple of years seem likely to shift down, which would put downward pressure on Treasury yields; however, this effect is more than offset by the increase in yields implied by the movement of the 10-year valuation window through the period of near-zero short-term rates.

The BBB-rated corporate bond yield has declined about 20 basis points since the time of the September Greenbook, narrowing its spread over long-term Treasury rates by a similar amount. As in the previous Greenbook, we assume that corporate bond spreads will edge down another  $\frac{1}{2}$  percentage point between now and the end of the forecast as macroeconomic conditions improve. In the mortgage markets, the average interest rate on conforming fixed-rate mortgages has remained near 5 percent since mid-September. We continue to project that it will drift up above  $5\frac{1}{2}$  percent by the end of 2011, reflecting both the expected increase in Treasury yields and a slight widening of the mortgage rate spread associated with the end of the Federal Reserve's MBS purchases.

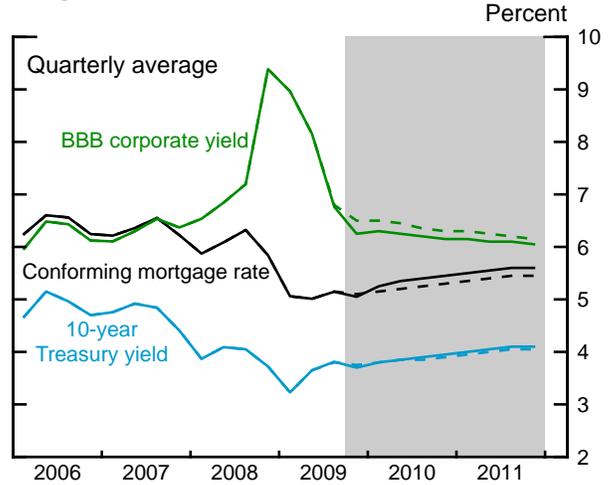
The projected level of equity prices is about 5 percent lower than in the September Greenbook. Since last winter, our measure of the equity premium has retraced most of its run-up since the middle of 2008. Nonetheless, the equity premium remains wide by longer-run norms, and we continue to assume it will decline over the forecast period.

### Key Background Factors Underlying the Baseline Staff Projection

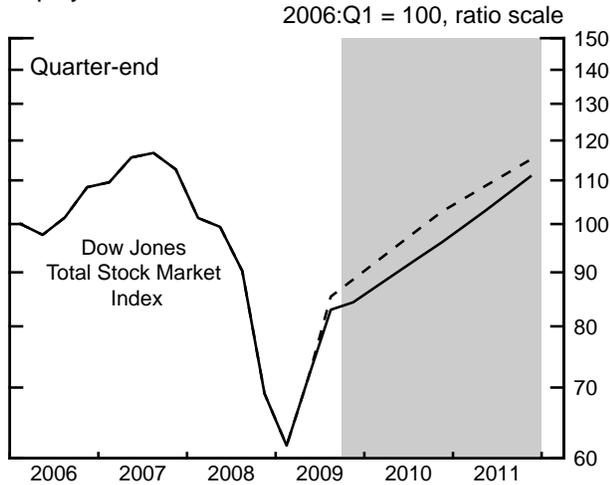
Federal Funds Rate



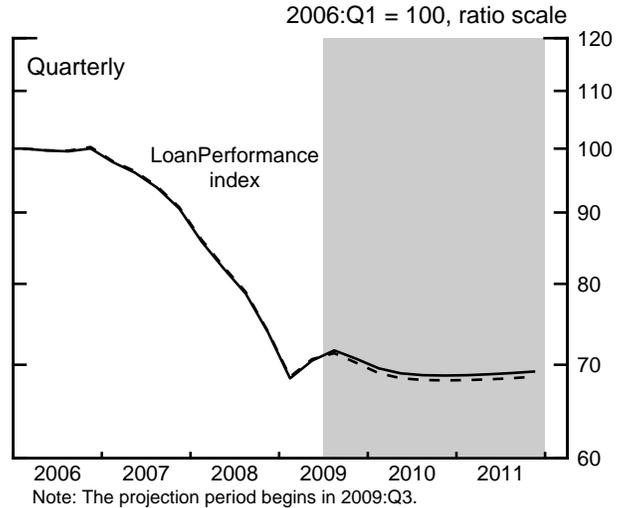
Long-Term Interest Rates



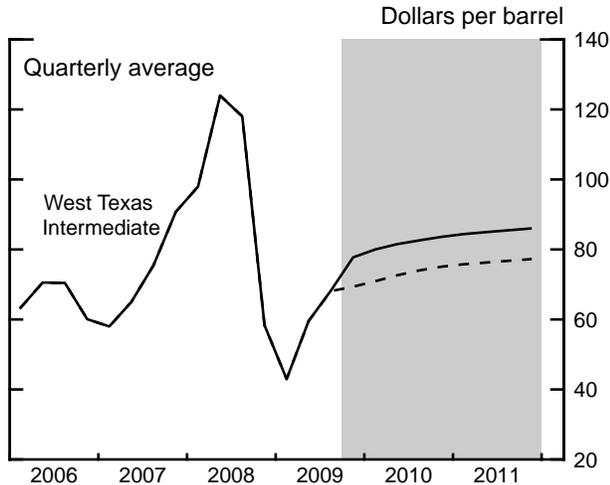
Equity Prices



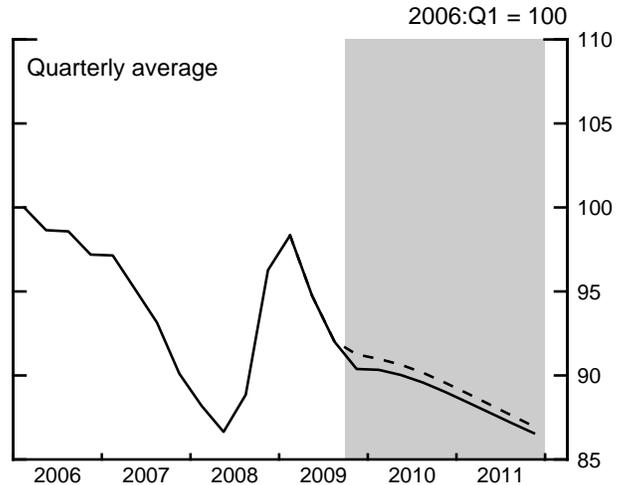
House Prices



Crude Oil Prices



Broad Real Dollar



Note: In each panel, shading represents the projection period, which begins in 2009:Q4, except where noted. In the upper-left panel that reports the federal funds rate, the dashed line is not apparent because the paths of the federal funds rate in the September and current Greenbooks are the same.

As a result, we have equity prices rising about 15 percent per year, on average, in 2010 and 2011.

The latest readings on house prices have been a little stronger than we anticipated in the September Greenbook; we now estimate that home values, as measured by the LoanPerformance price index, rose at an annual rate of 7 percent in the third quarter, about 3 percentage points faster than we had anticipated. However, we continue to project that house prices will slip back this quarter and next as the dramatic jump in foreclosures that were started earlier this year translates into a surge of repossessed properties being put up for sale. Next year we expect the decline in house prices to taper off, and we look for a slight upturn in 2011 as credit conditions and the employment situation continue to improve. Compared with the 30 percent plunge in home prices since 2006, the recent and projected movements in house prices are small and offsetting.

Our fiscal policy assumptions have changed only slightly from those in the September Greenbook. We now assume that the current emergency unemployment compensation (EUC) program will be expanded through next year to allow an additional 14 weeks of benefits to all qualified unemployed individuals and then another 6 weeks for those in high-unemployment states.<sup>1</sup> In addition, we now assume that recipients of both Social Security and veterans' benefits will receive another one-time \$250 payment early next year, in line with the Administration's proposal. Finally, we assume that the first-time homebuyer tax credit will be extended through June 2010 rather than being allowed to expire this quarter; in the absence of specific details about an extension, our assumption is a placeholder at this point. However, these policy changes do not significantly alter our estimates of the annual pattern of fiscal impetus. In particular, we expect federal fiscal policy to provide an impetus to the change in real GDP of about 1 percentage point in both 2009 and 2010, primarily reflecting the continued boost from stimulus programs. In 2011, as outlays from these programs diminish, fiscal policy is projected to be a slight drag on the rate of growth in real GDP.

As in the previous projection, we expect the deficit in the unified budget—which stood at \$1.4 trillion in fiscal 2009 (10 percent of GDP)—to remain extraordinarily large in fiscal 2010, reflecting the ongoing budgetary effects of the weakness in economic activity and

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<sup>1</sup> With the standard available benefits, the expanded federal EUC program, and the extended benefits provided by states where unemployment is high, eligible unemployed individuals would be entitled to between 60 and 99 weeks of total unemployment benefits, depending on the unemployment rate in their state of residence.

the countervailing stimulus policies that have been put in place. Our deficit projection of about \$1.4 trillion for fiscal 2010 is little changed from that in the September Greenbook; the budget costs associated with the expanded fiscal initiatives noted above are anticipated to be partly offset by the temporarily higher receipts that we now expect the FDIC will generate as banks prepay three years' worth of fees in December. In fiscal 2011, the deficit is projected to narrow to \$1.2 trillion (7½ percent of GDP), as the strengthening pace of economic activity increases revenues and damps some outlays as the budget effects associated with the 2009 fiscal stimulus package diminish.

The foreign exchange value of the dollar on a trade-weighted basis has fallen a bit since mid-September. Going forward, we project the real trade-weighted dollar to depreciate at an annual rate of nearly 2 percent over the forecast period, similar to what we had assumed in the September Greenbook. Meanwhile, the incoming data on economic activity abroad have come in slightly above our expectations, on net. We now expect foreign real GDP to rise at an annual rate of roughly 4 percent, on average, in the second half of this year through 2011.

The spot price of West Texas Intermediate (WTI) crude oil has risen to about \$77 per barrel over the past few weeks amid generally positive incoming news regarding global economic activity; the latest readings are about \$9 per barrel higher than at the time of the previous Greenbook. Far-dated futures quotes have also moved up since September. Based on these futures quotes, we are assuming that the spot price of WTI will rise to \$86 per barrel by the end of 2011, about \$9 per barrel above our assumption in the September Greenbook.

### **Recent Developments and the Near-Term Outlook**

According to the BEA's advance release, real GDP rose at an annual rate of 3½ percent in the third quarter, a stronger figure than we had anticipated in the September Greenbook. Final sales increased last quarter, posting a gain of 2½ percent at an annual rate, reflecting considerable increases in consumer spending and residential investment. Because we think that some of the recent strength in spending will prove transitory, we are projecting final sales (even outside of the motor vehicles sector) to increase only a little in the current quarter. In contrast, a lessening in the pace of inventory liquidation is

**Summary of the Near-Term Outlook**  
(Percent change at annual rate except as noted)

Measure	2009:Q3		2009:Q4	
	September Greenbook	October Greenbook	September Greenbook	October Greenbook
<b>Real GDP</b>	2.5	<b>3.4</b>	<b>3.2</b>	<b>2.8</b>
Private domestic final purchases	1.6	3.0	-.5	-.1
Personal consumption expenditures	2.3	3.4	.8	.7
Residential investment	3.0	20.9	4.0	.1
Business fixed investment	-3.8	-3.8	-11.3	-6.4
Government outlays for consumption and investment	1.8	2.3	4.3	1.8
	Contribution to growth (percentage points)			
Inventory investment	1.0	.9	2.8	2.3
Net exports	-.2	-.6	-.1	.1

projected to make a sizable contribution to real GDP growth this quarter. All told, we look for real GDP to rise at a 2¾ percent pace in the fourth quarter.<sup>2</sup>

The output of the manufacturing sector rebounded in the third quarter, increasing at an annual rate of 7 percent. A bounceback in motor vehicle production was an important contributor to the strength in factory output, but production moved up in a variety of other categories as well. Automakers' schedules call for a further step-up in production in the current quarter, and many other near-term indicators of manufacturing IP, such as national and regional business surveys, have improved in recent months. We therefore look for manufacturing production to post another sizable gain of about 6¼ percent in the current quarter. With this path of output, capacity utilization in manufacturing is expected to move up to 68 percent this quarter, a bit above the trough reached in June but still well below the 1972-2008 average of nearly 80 percent.

Labor market conditions have deteriorated somewhat more than we anticipated in the September Greenbook. Although job losses have ebbed from the enormous declines registered early in the year, payroll employment has continued to fall steadily—declining at an average rate of more than 200,000 per month in the third quarter. Because of the

<sup>2</sup> Currently, the staff projection does not incorporate the possible effects of a pandemic influenza virus on production or employment. For a discussion of this issue, see the box titled "Possible Economic Effects of H1N1 Flu."

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### Possible Economic Effects of H1N1 Flu

According to the Centers for Disease Control, H1N1 flu is now widespread in almost all states and appears to be spreading rapidly. Moreover, vaccine production has proceeded more slowly than had been projected by the federal government. In addition to its possibly serious health implications, H1N1 flu has the potential to create noticeable economic effects. However, vast uncertainty surrounds any estimate, and we have not, at this early stage, made flu-related adjustments to the Greenbook forecast. Nonetheless, we have considered a range of scenarios. We highlight one plausible scenario here, both to provide a frame of reference for the magnitude of possible effects and to highlight the key parameters that ultimately will determine this magnitude.

Two studies provide useful starting points for assessing possible impacts. A report by the Congressional Budget Office (updated July 2006) develops a range of scenarios based on earlier pandemics and highlights supply-side effects (from reduced hours as employees stay home) and demand-side effects (as fear of social interaction reduces activity and spending). A study released in August by the President's Council of Advisors on Science and Technology outlined a plausible scenario for the health effects of H1N1 flu but did not assess economic consequences.

Based on these studies, along with other information, we constructed one plausible scenario for the economic effects of H1N1 flu. We assumed the following: 20 percent of the workforce either will get sick or will need to stay home to care for others who are sick; affected

employees will miss four days of work; and one-half of the output lost from the reduction in hours will be offset by individuals working at home or working longer hours when they return to work, by temporary help, or by colleagues working harder or for longer hours. Regarding timing, we assume that H1N1 infections will peak in November and December and that two-thirds of the reduction in hours will occur in the fourth quarter and one-third in the first quarter. (The effects of regular seasonal flu largely are captured by standard seasonal adjustment procedures.) Finally, we assume that aggregate demand will fall by roughly the same amount as aggregate supply so that we can use the effect on hours to gauge the effect on real GDP.

Under these assumptions, the reduction in hours would cut the annual rate of change in real GDP by about 1½ percentage points in the fourth quarter. The change in GDP would then be boosted by about ¾ percentage point in both the first and second quarters of next year, leaving the level of output unchanged by the middle of next year. (The level of output would be down in the first quarter relative to a “no flu” baseline, but it would be down by less than it had been in the fourth quarter.)

As noted, considerable uncertainty surrounds any assessment, and, in real time, we could face some substantial challenges in attempting to extract a signal about the underlying strength of the economy from the noise created by flu-related effects. But the bottom line is that an outbreak along the lines sketched out above would have only a brief and transitory effect on economic activity.

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disappointing payroll data and the limited improvement in other labor market indicators, we now do not expect payrolls to turn up until after the start of the year. As a result, we now expect the unemployment rate to rise above 10 percent in the current quarter, somewhat higher than we were expecting in the September Greenbook.

Real PCE rose at an annual rate of 3½ percent in the third quarter, about 1 percentage points faster than we had previously projected. However, with real income declining, credit conditions remaining tight, and households still likely adjusting to the earlier declines in their net worth, we think that the change in consumer spending will be relatively subdued this fall following several months of surprising strength. In addition, we expect the payback for vehicle purchases that were pulled forward by the “cash for clunkers” program to keep light motor vehicle sales below 10 million units at an annual rate this quarter, down 1½ million units from the third-quarter pace. As a result, we project real PCE to advance at an annual rate of just ¾ percent in the current quarter.

Residential investment rose at a 21 percent annual rate in the third quarter, reflecting both the step-up in single-family home sales and starts seen earlier in the summer and a surprisingly sharp increase in residential improvements. Since July, single-family starts have held steady at an annual rate of about 500,000 units, although with housing demand likely to continue to be buoyed by mortgage rates that remain low and purchase prices that may be perceived as finally nearing bottom, we expect homebuilders to increase single-family starts to an annual rate of 560,000 units this quarter. Nevertheless, given the lag between when a house is started and when the associated construction expenditures occur, the recent flattening of starts should temper the rate of increase in single-family construction expenditures in the current quarter. All in all, real residential investment is expected to be little changed in the current quarter before picking up again next quarter.

The incoming data on equipment and software investment suggest that spending may be stabilizing in the second half of the year. Following six quarters of decline, business outlays edged up at an annual rate of 1 percent in the third quarter. Moreover, new orders for nondefense capital goods have been rising, on balance, for the past few months and have now come back in line with shipments. In the current quarter, we expect real business outlays to increase at a moderate annual pace of 3½ percent.

The near-term outlook for business expenditures on structures remains grim. Real outlays in this category dropped at an annual rate of 12.3 percent in the third quarter on

the heels of a 30 percent rate of decline over the first half of this year. With credit remaining extremely tight in this sector and vacancy rates high and continuing to rise, we expect nonresidential construction expenditures to fall again at an annual rate of 23 percent in the fourth quarter.

According to the BEA's advance release, real nonfarm inventories were drawn down sharply again in the third quarter and now stand about 7½ percent below their peak level six quarters ago. With inventory holdings reportedly in better shape and with final sales having turned back up, we expect that businesses, on net, will pare inventories at a much slower pace in the fourth quarter, especially given the restocking apparently under way at the automakers. As a result, we project that the arithmetic contribution of inventory investment to real GDP growth will jump from 1 percentage point in the third quarter to more than 2 percentage points in the current quarter.

In the government sector, real federal purchases rose at an annual rate of nearly 8 percent in the third quarter, the result of both another large increase in defense outlays and the continued boost to nondefense spending from stimulus funds. Given the appropriations now in place, we expect federal spending to rise at a 4¾ percent pace in the current quarter as defense spending rises more moderately. In the state and local sector, real purchases dipped last quarter as governments laid off workers and took other actions to address imbalances in their operating budgets. We expect real state and local purchases to be about flat this quarter as further—albeit smaller—reductions in employment are offset by another solid gain in real construction expenditures.

After declining in the first half of the year, exports jumped in the third quarter, reflecting both an improvement in foreign economic activity and a surge in exports of automotive products. Imports also rebounded last quarter as domestic demand increased. In the current quarter, we expect further strong growth and look for both exports and imports to rise at a rapid, albeit more sustainable, clip. For the second half of this year as a whole, we project that the contribution of net exports to the change in real GDP will be slightly negative, similar to our forecast in the September Greenbook.

The latest price data have come in close to our expectations and continue to show smaller increases in core prices than were evident in the first half of the year. Core PCE prices rose at an annual rate of 1½ percent in the third quarter, and we expect them to rise at a 1¼ percent pace this quarter. In contrast, total PCE prices, which rose at a 2¾ percent pace in the third quarter, are forecast to increase at a 2 percent rate in the current quarter,

reflecting another double-digit increase in consumer energy prices. Our fourth-quarter projection for overall consumer price inflation is about  $\frac{1}{2}$  percentage point higher than in the September Greenbook because of the further run-up in crude oil prices over the past few weeks.

### **The Medium-Term Outlook**

The basic contour of our forecast is little changed from the September Greenbook, and we continue to expect the pace of economic activity to firm gradually over the next two years. The accommodative stance of monetary policy in our projection should provide increasing support to spending as financial stresses diminish, the negative effects of earlier declines in income and wealth fade, and business prospects brighten. Fiscal policy provides a further impetus to the increase in GDP in 2010, but is expected to be a slight drag in 2011. On net, real GDP is projected to rise  $3\frac{1}{2}$  percent next year and  $4\frac{1}{2}$  percent in 2011. Despite the pickup in real activity in our projection, we expect a substantial amount of economic slack to persist throughout the forecast period; our current forecast has the level of real GDP still  $4\frac{1}{2}$  percent below the level of potential output at the end of 2011.

**Household sector.** We have marked down our projection for consumer spending over the next two years, reflecting the effects of a weaker-than-expected job market and higher energy prices on real disposable income. Nonetheless, we still anticipate the modest recovery in household spending that is currently under way to pick up steam over the remainder of the forecast period as the drag from the earlier declines in wealth wanes, and as rising labor income, low interest rates, and a gradual improvement in credit availability provide increasing support to household spending. In all, we expect consumer spending to post increases of  $2\frac{1}{2}$  percent next year and  $3\frac{1}{2}$  percent in 2011. During this period, the saving rate is expected to edge up from  $3\frac{3}{4}$  percent in the third quarter of this year to  $3\frac{3}{4}$  percent by the end of the forecast period as households use some of the projected gains in income to strengthen their balance sheets. In our previous forecast, the saving rate was flat over the projection period at nearly 4 percent.

We expect activity in the housing markets to continue to strengthen, as lower house prices and favorable mortgage rates enhance affordability, the diminished pace of house price declines reduces concerns about buying into a falling market, and prospects for employment and income improve. With increases in demand continuing to whittle down the overhang of unsold new homes, we anticipate that single-family starts will move up to an annual rate of 750,000 units by the end of 2010 and to a pace of 1.03 million units

**Projections of Real GDP**  
(Percent change at annual rate from end of  
preceding period except as noted)

Measure	2009: H2	2010: H1	2010	2011
<b>Real GDP</b>	<b>3.1</b>	<b>3.2</b>	<b>3.4</b>	<b>4.4</b>
Previous Greenbook	2.8	3.0	3.5	4.5
Final sales	1.4	2.7	2.7	3.9
Previous Greenbook	.9	2.7	2.9	4.1
Personal consumption expenditures	2.0	2.4	2.3	3.4
Previous Greenbook	1.6	2.6	2.9	3.6
Residential investment	10.0	9.5	10.0	22.6
Previous Greenbook	3.5	9.6	12.9	25.3
Business fixed investment	-5.1	3.1	5.7	9.5
Previous Greenbook	-7.6	2.2	5.0	9.9
Government purchases	2.1	2.6	1.7	.9
Previous Greenbook	3.1	2.6	1.6	1.0
Exports	12.2	8.4	8.7	8.8
Previous Greenbook	14.3	7.6	8.2	8.6
Imports	11.3	6.4	7.0	7.7
Previous Greenbook	12.7	7.2	8.0	8.0
	Contribution to growth (percentage points)			
Inventory change	1.7	.4	.7	.5
Previous Greenbook	1.9	.4	.6	.4
Net exports	-.2	.0	-.0	-.1
Previous Greenbook	-.2	-.2	-.2	-.2

by the end of 2011. Meanwhile, we project that multifamily starts will pick up only modestly from their recent low levels because credit conditions and the returns to investment in this sector are expected to remain unfavorable. In total, we project real residential expenditures to rise 10 percent next year and 23 percent in 2011, similar to our forecast in the September Greenbook. Despite these large percentage increases, by the end of the forecast period, residential construction expenditures as a share of GDP are expected to remain well below their long-run historical average.

**Business investment.** After rising modestly in the second half of this year, real E&S spending is projected to increase 10 percent next year and 13½ percent in 2011, as credit markets continue to normalize, the outlook for business sales improves, and economic uncertainty diminishes. We expect expenditures for short-lived assets, such as light vehicles, computers, and software, which tend to respond fairly quickly to movements in business sales, to expand rapidly in the first half of next year. Spending on computers and software is also likely to be buoyed next year by a wave of pent-up replacement demand and by Microsoft's recent release of a new operating system. By the second half of next year and in 2011, we expect business outlays on other types of equipment and software to be moving up as well.

Investment in nonresidential structures is expected to decline 3¼ percent next year and to be flat in 2011. Business demand for structures is usually slow to improve after a downturn, and with vacancy rates still rising and credit conditions in this sector likely to remain quite restrictive for some time, we expect the recovery in nonresidential construction to materialize even more slowly than is typical. To be sure, we expect investment in the drilling and mining category to expand rapidly (albeit from a very low level) over the next two years given the upward trajectory of the projected path of energy prices. But outside that sector, we project real outlays to fall another 7¼ percent next year and to slip 2¼ percent in 2011.

With firms having made significant progress in addressing their inventory overhangs, the pace of inventory liquidation is expected to slow considerably in 2010. Indeed, after nine consecutive quarters of inventory drawdowns, we expect that businesses will finally be ready to begin replenishing factories, warehouses, and store shelves by the middle of next year. In 2011, we project that the pace of accumulation will pick up speed as firms become more confident about the durability of demand. In each of the next two years, we expect inventory investment to contribute about ½ percentage point to the change in real GDP.

**Government spending.** Given our fiscal policy assumptions, we expect federal government purchases to decelerate over the projection period from about 4¾ percent this year to 2½ percent in 2010 and then to 1 percent in 2011, primarily reflecting a slowdown in defense spending. After flattening out this year, real purchases by states and localities are projected to rise at a 1 percent rate next year and at nearly that pace in 2011. Although these governments are likely to continue to operate in a restrictive budget environment, spending next year is expected to be supported by the sizable federal

stimulus grants. As these grants begin to wind down in 2011, spending should be supported by a pickup in state and local tax receipts as the pace of economic activity improves.

**Net exports.** After declining 4 percent this year, real exports are expected to rise nearly 9 percent in each of the next two years, reflecting the expected rebound in global activity and the effects of past and prospective dollar depreciation. Imports, which plunged this year, are also expected to rebound, rising at an annual rate of about 7½ percent, on average, over the forecast period. The effects of imports and exports on the change in domestic production are expected to be largely offsetting, and net exports have little effect on the change in real GDP over the next two years. The arithmetic contribution to the change in real GDP growth has been revised up a bit from the September Greenbook because the foreign exchange value of the dollar is slightly weaker in this forecast. (*The International Developments section provides more detail on the outlook for the external sector.*)

### **Aggregate Supply, the Labor Market, and Inflation**

We have revised up our estimates of the level of structural productivity and potential output about 1 percent in this projection in response to the strength in actual productivity in recent quarters (see box on the following page). In particular, we now estimate that potential output rose 2½ percent last year and is increasing 2¾ percent this year. We continue to assume that potential GDP will increase at an average annual pace of 2¼ percent in 2010 and 2011, about unchanged from the previous projection. Because actual GDP is expected to increase faster than potential output in 2010 and 2011, the output gap is projected to narrow over the next two years to 4½ percent. However, because of the changes we have made to our estimate of the level of potential GDP, the output gap is wider throughout the forecast period than in the September Greenbook.

**Productivity and the labor market.** We anticipate that firms will remain cautious in their hiring until the economy has clearly regained its footing, preferring to temporarily push their remaining—and likely more productive—employees harder to meet rising production goals. As a result, we project that private payroll employment gains will average just 115,000 per month in the first half of next year, a slower pace than we were forecasting in the September Greenbook. As output continues to expand briskly, we expect the average monthly increase in private payroll jobs to pick up to about

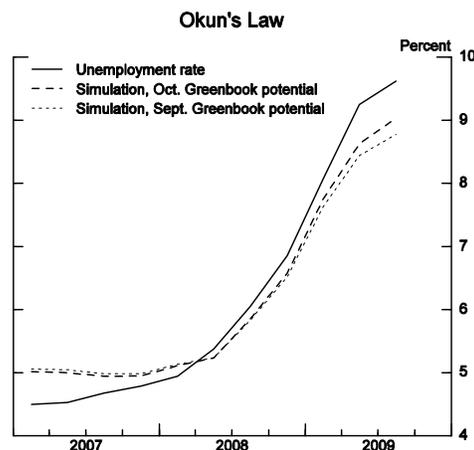
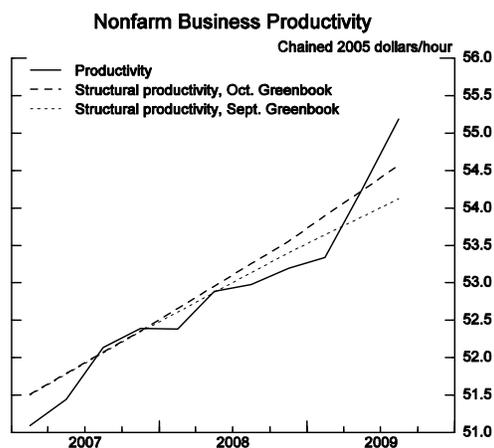
## Revision to Structural Productivity and Potential Output in the Staff Projection

Productivity in the nonfarm business sector appears to have increased at a surprisingly rapid pace so far in 2009. In particular, given currently published data, we estimate that output per hour (factoring in the upcoming benchmark revision to employment) rose at an annual rate of 5 percent over the first three quarters of the year. We interpret most of this rapid increase as a temporary response of firms to a harsh and uncertain economic environment. However, the models we use to distinguish structural changes in productivity from cyclical fluctuations suggest that some portion reflects a step-up in the level of structural productivity. This interpretation is in keeping with anecdotes that the severe contraction in economic activity has led some firms to make efficiency-enhancing changes to their operations that they had not previously thought profitable or feasible, and has led to the demise of other less-efficient firms.

As a result, we have revised up our assumed level of structural productivity—and potential GDP—by about 1 percent, phased in over the

course of 2008 and 2009. Because we view these efficiency gains to be one-time adjustments, we have not made any revision to the *rate of increase* in structural productivity in coming years. We considered the possibility of more persistent gains in productivity in the Alternative Scenarios section.

As illustrated in the chart to the lower left, the recent rapid rise in productivity left our estimate of the level of productivity last quarter more than 2 percent above the trend assumed in the September Greenbook. The revision to the level of structural productivity in the current projection eliminates more than one-third of that gap. In addition, as we noted in the June Greenbook, the rise in the unemployment rate since the onset of the recession has been larger than would have been predicted from an Okun's law model. As shown in the chart to the lower right, the upward revision to potential GDP reduces this discrepancy by about  $\frac{1}{4}$  percentage point.



**Decomposition of Structural Labor Productivity**  
**Nonfarm Business Sector**

(Percent change, Q4 to Q4, except as noted)

Measure	1974-95	1996-2000	2001-07	2008	2009	2010	2011
<b>Structural labor productivity</b>	<b>1.5</b>	<b>2.5</b>	<b>2.8</b>	<b>2.3</b>	<b>2.5</b>	<b>1.6</b>	<b>1.9</b>
Previous Greenbook	1.5	2.5	2.8	2.0	1.8	1.6	1.9
<i>Contributions</i> <sup>1</sup>							
Capital deepening	.7	1.4	.7	.5	-.0	-.1	.5
Previous Greenbook	.7	1.4	.7	.5	-.0	-.1	.4
Multifactor productivity	.5	.7	1.6	1.6	2.4	1.6	1.4
Previous Greenbook	.5	.7	1.6	1.3	1.7	1.6	1.4
Labor composition	.3	.3	.3	.2	.2	.1	.1
MEMO							
Potential GDP	3.0	3.4	2.8	2.7	2.7	2.1	2.4
Previous Greenbook	3.0	3.4	2.8	2.4	2.0	2.1	2.3

Note: Components may not sum to totals because of rounding. For multiyear periods, the percent change is the annual average from Q4 of the year preceding the first year shown to Q4 of the last year shown.

1. Percentage points.

**The Outlook for the Labor Market**

(Percent change, Q4 to Q4, except as noted)

Measure	2008	2009	2010	2011
Output per hour, nonfarm business	.9	4.6	1.1	.8
Previous Greenbook	.9	3.7	1.3	1.4
Nonfarm private payroll employment	-2.1	-4.4	1.8	3.4
Previous Greenbook	-2.1	-4.1	2.1	3.3
Household survey employment	-1.5	-3.7	1.6	2.4
Previous Greenbook	-1.5	-3.0	1.7	2.3
Labor force participation rate <sup>1</sup>	65.9	65.2	65.1	65.0
Previous Greenbook	65.9	65.5	65.4	65.3
Civilian unemployment rate <sup>1</sup>	6.9	10.1	9.5	8.2
Previous Greenbook	6.9	9.9	9.2	7.9
MEMO				
GDP gap <sup>2</sup>	-4.8	-7.6	-6.4	-4.5
Previous Greenbook	-4.6	-6.9	-5.6	-3.6

1. Percent, average for the fourth quarter.

2. Actual less potential GDP in the fourth quarter of the year indicated as a percent of potential GDP. A negative number thus indicates that the economy is operating below potential.

250,000 per month in the second half of 2010 and to 300,000 per month in 2011. As a consequence, productivity is projected to increase more slowly during this period, moving back in line with its structural level by the end of 2011. Given the more delayed turnaround in hiring in this projection, the unemployment rate is projected to recede quite slowly, from a peak of more than 10 percent in the fourth quarter of this year to 9½ percent by the end of 2010. In 2011, we look for the unemployment rate to fall to 8¼ percent.<sup>3</sup>

**Prices and labor costs.** We continue to project that core PCE price inflation will slow from 1.4 percent this year to 1.1 percent in 2010 and 1 percent in 2011. Given the substantial amount of slack in resource utilization in our projection, the extent of this deceleration is small, reflecting our view that inflation expectations, which have been relatively stable in recent years, will remain that way over the next couple of years. Our projection for core consumer price inflation is unchanged from that in the September Greenbook, because the downward pressure on prices from the greater degree of slack in this forecast is roughly balanced by the upward pressure emanating from higher oil prices. Of course, the rise in oil prices will have a more pronounced effect on overall consumer price inflation: After moving up in the second half of this year, headline inflation is expected to remain somewhat elevated in the first half of next year. However, headline consumer price inflation is expected to come back into line with core inflation by the end of 2010 and to remain there in 2011.

Hourly compensation costs have decelerated sharply this year. We now estimate that the productivity and cost measure of compensation per hour declined at an annual rate of ¾ percent in the first three quarters of this year after having risen 2½ percent in 2008; the employment cost index has decelerated considerably this year as well. In part, the steep deceleration in hourly compensation likely reflects a drop in bonuses and other one-time adjustments to the level of compensation in an extremely weak labor market. With the pressure for unusual wage restraint expected to eventually ease, we project that hourly compensation will post moderate increases in the period ahead, rising 1¾ percent next year and 2 percent in 2011.

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<sup>3</sup> In response to the expansion of the EUC program that we are projecting this round, we have revised up the unemployment rate by 0.2 percentage point in 2010, bringing the overall effect of this program on the unemployment rate to 0.7 percentage point. In 2011, we estimate that the EUC program is boosting the unemployment rate 0.5 percentage point, unchanged from the September Greenbook.

**Inflation Projections**  
(Percent change, Q4 to Q4, except as noted)

Measure	2008	2009	2010	2011
PCE chain-weighted price index	1.7	1.1	1.4	1.0
Previous Greenbook	1.7	1.0	1.3	1.0
Food and beverages	6.8	-1.9	1.3	.7
Previous Greenbook	6.8	-1.1	1.5	.7
Energy	-9.1	1.3	7.7	2.4
Previous Greenbook	-9.1	-2.4	5.0	2.1
Excluding food and energy	2.0	1.4	1.1	1.0
Previous Greenbook	2.0	1.4	1.1	1.0
Consumer price index	1.5	1.3	1.7	1.2
Previous Greenbook	1.5	1.1	1.5	1.1
Excluding food and energy	2.0	1.7	1.2	1.1
Previous Greenbook	2.0	1.7	1.2	1.1
GDP chain-weighted price index	1.9	.7	1.3	1.1
Previous Greenbook	1.9	.9	1.2	1.1
ECI for compensation of private industry workers <sup>1</sup>	2.4	1.2	1.8	2.0
Previous Greenbook	2.4	1.2	1.8	2.0
Compensation per hour, nonfarm business sector	2.6	-.2	1.8	2.1
Previous Greenbook	2.6	-.3	1.8	2.1
Prices of core goods imports <sup>2</sup>	3.8	-1.7	1.5	1.0
Previous Greenbook	3.8	-1.4	1.3	1.0

1. December to December.

2. Core goods imports exclude computers, semiconductors, oil, and natural gas.

### Financial Flows and Conditions

We project that domestic nonfinancial debt will expand at an annual rate of 2¾ percent this quarter and then increase at an average annual pace of 5½ percent in 2010 and 2011. This forecast reflects rapid expected growth in federal government debt, a moderate rise in state and local government debt, and sluggish increases in household and nonfinancial business debt.

Household debt contracted at an annual rate of 1 percent in the first three quarters of the year, and we expect it to be about unchanged in the fourth quarter. Although we project that household debt will begin to expand again next year as the economy improves, the

pace of borrowing through 2011 is expected to be tepid because of flat home prices, elevated loan charge-offs, continued deleveraging by households, and lending standards that remain relatively tight.

Nonfinancial business debt is projected to edge up in the fourth quarter after having declined at an annual rate of 1 percent in the first three quarters of the year. We expect firms with direct access to capital markets to continue issuing bonds in the fourth quarter, but we anticipate that net bond issuance will slow from its elevated pace in recent months. Other forms of debt—particularly C&I loans and commercial mortgages—are expected to contract further, on balance. Although overall debt for nonfinancial businesses is expected to begin rising early next year, we anticipate only a modest acceleration over the forecast period amid soft demand for external funds, an only gradual easing of banks' terms and standards for business loans, and persistent weakness in the commercial real estate market.

Federal government debt is expected to balloon further over the forecast period, as deficits remain extremely large. We project federal borrowing of \$1.6 trillion in 2010 and \$1.2 trillion in 2011. In the state and local government sector, borrowing rebounded this year as earlier strains in the municipal bond market eased. We expect that debt growth will slow somewhat over the projection period, in part because infrastructure grants will finance some of the projected rise in the sector's capital outlays.

M2 is projected to expand at an annual rate of 1¼ percent in the fourth quarter, as a reallocation of household wealth toward higher-yielding assets continues to weigh on money demand. As that process wanes, we expect M2 to increase at a pace closer to that of nominal GDP.

### **The Long-Term Outlook**

We have extended the staff forecast to 2014, using the FRB/US model and staff assessments of long-run supply-side conditions, fiscal policy, and other factors. The contour of the long-run outlook depends on the following key assumptions:

- Monetary policy aims to stabilize PCE inflation at 2 percent in the long run, consistent with the majority of longer-term inflation projections provided by the FOMC participants.

- No further nontraditional monetary policy actions are undertaken beyond those that have already been announced. This assumption implies a gradual shrinking of the Federal Reserve’s balance sheet over time.
- Risk premiums on corporate bonds and equity, which are expected to be just a little above historically normal levels at the end of 2011, edge down a touch thereafter. Banks ease their lending terms and standards somewhat further as well.
- The fiscal stimulus package continues to boost the level of government purchases through 2012. Government budget deficits continue to narrow over the horizon. This improvement reflects both the effects of the economic recovery on tax receipts and transfer payments as well as further policy actions after 2011 aimed at reducing the deficit.
- From 2012 to 2014, the foreign exchange value of the dollar is assumed to depreciate 2 percent per year in real terms. The price of WTI crude oil rises gradually to about \$90 per barrel by the end of 2014, consistent with futures prices. Under these assumptions, movements in the prices of energy and imports have only minor implications for domestic inflation. Foreign real GDP expands almost 3¾ percent per year, on average, implying some further narrowing in foreign output gaps.
- The factors that the staff sees as having raised the NAIRU during the recession are expected to slowly fade; we also assume that the effect of emergency unemployment compensation on the unemployment rate will diminish after 2011 as these programs are wound down. Potential GDP is assumed to expand 2¾ percent per year, on average, from 2012 to 2014.

### The Long-Term Outlook

(Percent change, Q4 to Q4, except as noted)

Measure	2009	2010	2011	2012	2013	2014
Real GDP	-.3	3.4	4.4	5.0	4.8	3.2
Civilian unemployment rate <sup>1</sup>	10.1	9.5	8.2	6.1	4.9	4.7
PCE prices, total	1.1	1.4	1.0	1.2	1.4	1.6
Core PCE prices	1.4	1.1	1.0	1.1	1.4	1.6
Federal funds rate <sup>1</sup>	.1	.1	.1	2.1	3.5	3.9

1. Percent, average for the final quarter of the period.

The unemployment rate enters 2012 still at a very high level, and inflation is well below the assumed long-run target. Under the assumptions used to construct the baseline extension, the federal funds rate begins to rise in early 2012, edging up to about 2 percent by the end of that year and to almost 4 percent in 2014.<sup>4</sup> A further acceleration in investment boosts GDP growth close to 5 percent in 2012 and 4¾ percent in 2013. As a result, the unemployment rate falls back to the NAIRU by the end of 2013. By 2014, the slow recovery in investment shares toward historical norms is largely complete, so output growth moves down toward its potential rate and declines in the unemployment rate taper off. Core PCE inflation moves up gradually after 2011 as economic activity recovers and long-run inflation expectations are assumed to remain reasonably well anchored.

### **Assessment of Forecast Uncertainty**

Since the spring, the odds of an extremely adverse “tail” outcome for the real economy have receded, as evidenced by a marked decline in risk spreads, improved credit market functioning, and increased household and business confidence. As a result, we believe that the outlook for output and employment is less uncertain now than was the case earlier in the year. Nevertheless, we continue to judge the risks associated with the staff projection as elevated relative both to the experience of the past 20 years (the benchmark used by the Committee) and to the more volatile post-1968 sample period used by the staff for stochastic simulations. In large part, this assessment reflects the limited usefulness of our standard models and analyses in the unusual circumstances that we now confront; for example, history provides little guidance about the speed of financial market healing, and thus the accompanying pace of economic recovery, likely to follow disruptions of the magnitude that we have experienced. However, we no longer see the risks to real activity as biased to the downside, but instead view them as roughly balanced.

We also continue to view the price outlook as more uncertain than usual. In particular, our standard inflation forecasting tools may be less useful than normal with economic slack extremely elevated, monetary policy unable to provide further stimulus through conventional means, and the size of the Federal Reserve’s balance sheet having expanded by an unprecedented amount. For this reason, we suspect that our history-based

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<sup>4</sup> In the long-run outlook, the federal funds rate ( $R$ ) follows the prescriptions of a Taylor-type rule of the form  $R = 2.5 + \pi - 1.1(u - u^*) + 0.5(\pi - 2)$ , subject to the zero lower bound constraint. In this expression,  $\pi$  denotes the four-quarter rate of core PCE inflation,  $u$  is the civilian unemployment rate, and  $u^*$  is the staff estimate of the NAIRU. In essence, this is just the traditional Taylor rule, rewritten in terms of the unemployment gap, with the coefficient on resource utilization appropriately rescaled. The same policy rule is used to set the federal funds rate in the alternative scenarios discussed below.

confidence intervals probably understate the risks on both sides of our inflation forecast. We judge the risks to our price forecast as roughly balanced.

### **Alternative Scenarios**

In this section, we consider risks to the baseline projection using simulations of the FRB/US model. The first two scenarios explore the ramifications of a jobless recovery, in which labor demand falls because productivity continues to expand for a few years at the rapid pace seen recently, rather than decelerating as in the baseline forecast. However, aggregate output responds differently in the two scenarios: In the first, aggregate demand picks up as household and business spending reacts to a higher level of potential output; in the second, the more elevated unemployment rate leads to a greater apprehension on the part of households that restrains demand. In the third scenario, we consider the possibility that aggregate demand will be weaker than in the baseline forecast. The fourth scenario features the opposite risk and shows real activity recovering more rapidly than we anticipate. The fifth scenario combines the more robust recovery from the previous simulation with an increase in inflation expectations—a combination that advances the liftoff of the federal funds rate to early 2011. Finally, the sixth scenario assumes that inflation falls more significantly in response to economic slack than in the baseline projection. In each of these scenarios, the federal funds rate is assumed to follow the prescriptions of a version of the Taylor rule (subject to an effective lower bound of 12½ basis points), and nontraditional policy is assumed to follow the baseline path.

**Jobless recovery.** As the economic recovery continues next year, the baseline forecast assumes that firms will begin to boost payrolls and that output per hour (which has been rising rapidly this year) will decelerate, thereby moving back in line with its long-run trend. This trajectory for productivity would differ from the pattern seen during the 2002 “jobless” recovery, when productivity gains remained robust for some time. In this scenario, we assume that labor productivity continues to expand at a rapid rate exceeding 3 percent per year through 2012, boosted by a series of favorable shocks to the *level* of structural multifactor productivity. As a result, labor demand is more subdued than in the baseline, given that aggregate demand does not immediately shift up with the improvement in aggregate supply. In fact, the initial shift in the distribution of income away from labor and toward capital would, by itself, tend to damp spending somewhat. But the greater productivity also implies a higher level of both potential output and, over time, labor income. The recognition by households and businesses of those more

**Alternative Scenarios**

(Percent change, annual rate, from end of preceding period except as noted)

Measure and scenario	2009	2010	2011	2012	2013-14
	H2				
<i>Real GDP</i>					
Extended Greenbook baseline	3.1	3.4	4.4	5.0	4.0
Jobless recovery	3.2	4.0	5.6	6.4	4.7
Jobless recovery and more caution	3.1	3.4	4.4	5.0	5.1
Weaker aggregate demand	2.2	2.0	4.4	5.4	4.6
V-shaped recovery	4.3	4.8	5.6	4.8	3.2
Earlier liftoff	4.3	5.1	5.6	4.2	2.8
Greater disinflation	3.1	3.3	4.1	4.9	4.8
<i>Unemployment rate<sup>1</sup></i>					
Extended Greenbook baseline	10.1	9.5	8.2	6.1	4.7
Jobless recovery	10.2	10.1	9.2	6.6	4.5
Jobless recovery and more caution	10.2	10.3	9.8	7.8	5.5
Weaker aggregate demand	10.2	10.2	8.9	6.6	4.7
V-shaped recovery	10.0	8.9	7.2	5.2	4.6
Earlier liftoff	10.0	8.8	7.1	5.3	5.0
Greater disinflation	10.1	9.5	8.3	6.3	4.3
<i>Core PCE inflation</i>					
Extended Greenbook baseline	1.3	1.1	1.0	1.1	1.5
Jobless recovery	1.3	.9	.4	.4	1.1
Jobless recovery and more caution	1.3	.9	.2	.0	.5
Weaker aggregate demand	1.3	1.0	.8	.9	1.3
V-shaped recovery	1.3	1.1	1.1	1.2	1.7
Earlier liftoff	1.2	1.6	2.0	2.2	2.9
Greater disinflation	1.0	.4	.1	-.1	.0
<i>Federal funds rate<sup>1</sup></i>					
Extended Greenbook baseline	.1	.1	.1	2.1	3.9
Jobless recovery	.1	.1	.1	.6	3.7
Jobless recovery and more caution	.1	.1	.1	.1	1.7
Weaker aggregate demand	.1	.1	.1	1.3	3.7
V-shaped recovery	.1	.1	.8	3.1	4.4
Earlier liftoff	.1	.1	2.3	4.5	5.5
Greater disinflation	.1	.1	.1	.1	2.1

1. Percent, average for the final quarter of the period.

favorable longer-run prospects gradually leads to an increase in aggregate demand relative to the baseline. (Asset valuations are only modestly higher over the next two years, however, because households and businesses recognize that the shocks to the level of productivity do not imply a permanently faster rate of economic growth.) All told, these developments cause real GDP to expand 4 percent in 2010 and 5½ percent in 2011, even as the unemployment rate remains near 10 percent through the end of next year and then declines only to more than 9¼ percent in late 2011. Output continues to expand faster than in the baseline beyond 2011 as the level of real activity gradually comes into alignment with the higher level of potential GDP; this realignment in turn leads to a sustained increase in hiring that eventually brings the unemployment rate back to baseline. Inflation drops to ½ percent in 2011 and remains persistently below baseline thereafter, both because higher productivity lowers unit labor costs directly and because resource utilization is lower than in the baseline. With resource utilization and inflation both below baseline, the federal funds rate does not lift off from the zero bound until the end of 2012.

**Jobless recovery and more cautious households.** The series of shocks to productivity assumed in the first scenario are repeated in this alternative. But in this scenario we assume that the favorable effect of productivity gains on labor income is offset for a while by other influences—perhaps because the prolonged weakness in the labor market reduces workers’ bargaining power. (Indeed, the strength observed in labor productivity recently has been accompanied by very weak labor compensation.) We also assume that the more unfavorable labor market conditions weigh on consumer sentiment and lead to additional restraint on household spending of sufficient magnitude to hold real GDP close to its baseline path through 2012. With aggregate demand weaker than in the first scenario, the unemployment rate remains near 10 percent through 2011; thereafter, it declines appreciably but is still well above baseline through 2014. Inflation drops to zero by 2012 and remains very low thereafter. Under these conditions, the federal funds rate remains at the zero lower bound until mid-2013.

**Weaker aggregate demand.** The strength in demand suggested by the positive tone of the data received in recent months could easily prove short-lived. For example, the baseline may understate the degree to which spending will be weighed down by impaired balance sheets of banks, many households, and some nonfinancial firms. In this scenario, we assume that these factors directly damp demand more significantly than assumed in the baseline and weigh more on consumer and business sentiment. In addition, these

factors result in greater restraint on credit availability and more-elevated external finance premiums for borrowers.

In response, the stock market falls about 15 percent below baseline next year while the spread of BBB-rated corporate bonds over 10-year Treasuries widens by 50 basis points over the same horizon. With these stronger financial headwinds, the economic recovery is tepid relative to the baseline, with real GDP rising only 2 percent in 2010, and the unemployment rate still at 10¼ percent at yearend. Consequently, this scenario also yields a jobless recovery, but one that results from weak demand rather than strong productivity. Core PCE inflation falls below 1 percent in 2011.

**V-shaped recovery.** The recent surprising strength in final demand has brought into sharper focus some upside risks to the baseline projection. In the recession, household and business spending on durable goods and structures dropped to extraordinarily low levels relative to replacement demand. A snapback in such expenditures is a feature of many cyclical recoveries, but occurs in only a muted fashion in the baseline projection. In this scenario, spending in these categories jumps a bit more than 10 percent above baseline by the end of 2010, bringing such spending (relative to GDP) into a more historically-typical range. Accompanying and supporting the stronger rebound in real activity are further declines in risk spreads on private securities and mortgages. In line with these developments, real GDP expands at an annual rate of 4¾ percent in 2010. This rebound puts unemployment on a more pronounced downward trajectory: The unemployment rate drops below 9 percent by the end of 2010 and then continues to move steadily down. With less slack in this scenario, inflation is a little higher than in the baseline, and the federal funds rate moves up from the zero bound in the middle of 2011.

**Earlier liftoff.** In this scenario, the rapidly improving economy of the V-shaped recovery is assumed to be accompanied by an increase in long-run inflation expectations, perhaps reflecting concerns over the ability or willingness of monetary policymakers to restrain inflationary pressures that might accompany a strong rebound in economic activity, particularly in light of the expansion of the Federal Reserve's balance sheet. Specifically, we assume that long-run inflation expectations rise to 3 percent by late next year, an expectation that becomes partly self-fulfilling. Core PCE inflation averages 1½ percent in 2010 and then climbs steadily, reaching around 3 percent by 2014. The combination of falling unemployment and rising inflation brings forward the liftoff in the federal funds rate to the beginning of 2011. Relative to the V-shaped scenario, real activity is a bit stronger early on but rises less rapidly thereafter, reflecting the earlier and sharper rise in the federal funds rate.

**Greater disinflation.** The modest deceleration in prices projected in the baseline reflects our assessment that inflation expectations are reasonably well-anchored, which attenuates the influence that the slowdown in actual inflation has on long-run inflation expectations and hence the persistent element in actual inflation. In this scenario, we assume that inflation expectations fall more significantly in response to economic slack and the slowdown in actual inflation, in a manner more in line with many accelerationist Phillips curve models. As a result, core PCE inflation drops to 1 percent in the second half of this year and moves down close to zero in 2011, where it remains through 2014. With the federal funds rate pinned at the zero lower bound, the drop in inflation puts the real federal funds rate above its path in the baseline, weakening real activity a bit. In the longer-run, however, monetary policy is able to respond to the unwelcome disinflation by holding the nominal funds rate below baseline, pushing gains in real GDP above baseline in 2013 and 2014.

**Selected Greenbook Projections and 70 Percent Confidence Intervals Derived  
from Historical Greenbook Forecast Errors and FRB/US Simulations**

Measure	2009	2010	2011	2012	2013	2014
<i>Real GDP</i>						
<i>(percent change, Q4 to Q4)</i>						
Projection	-0.3	3.4	4.4	5.0	4.8	3.2
Confidence interval						
Greenbook forecast errors	-0.9-0.2	1.7-5.1	3.0-5.8	...	...	...
FRB/US stochastic simulations	-0.9-0.3	2.1-5.1	2.7-6.4	2.7-6.9	2.5-7.1	1.0-5.5
<i>Civilian unemployment rate</i>						
<i>(percent, Q4)</i>						
Projection	10.1	9.5	8.2	6.1	4.9	4.7
Confidence interval						
Greenbook forecast errors	10.0-10.2	8.8-10.2	7.2-9.2	...	...	...
FRB/US stochastic simulations	9.9-10.3	8.8-10.1	7.1-9.1	5.0-7.2	3.8-6.0	3.5-5.8
<i>PCE prices, total</i>						
<i>(percent change, Q4 to Q4)</i>						
Projection	1.1	1.4	1.0	1.2	1.4	1.6
Confidence interval						
Greenbook forecast errors	.9-1.4	.3-2.6	-.2-2.2	...	...	...
FRB/US stochastic simulations	.9-1.5	.6-2.4	.0-2.2	.1-2.3	.4-2.6	.6-2.8
<i>PCE prices excluding food and energy</i>						
<i>(percent change, Q4 to Q4)</i>						
Projection	1.4	1.1	1.0	1.1	1.4	1.6
Confidence interval						
Greenbook forecast errors	1.2-1.7	.4-1.7	.0-1.9	...	...	...
FRB/US stochastic simulations	1.2-1.6	.4-1.7	.2-1.9	.3-2.0	.7-2.3	.9-2.6
<i>Federal funds rate</i>						
<i>(percent, Q4)</i>						
Projection	.1	.1	.1	2.1	3.5	3.9
Confidence interval						
FRB/US stochastic simulations	.1-.1	.1-.1	.1-1.6	.4-3.9	2.1-5.2	2.5-5.6

Notes: Shocks underlying FRB/US stochastic simulations are randomly drawn from the 1969-2008 set of model equation residuals.

Intervals derived from Greenbook forecast errors are based on projections made from 1979-2008, except for PCE prices excluding food and energy, where the sample is 1981-2008.

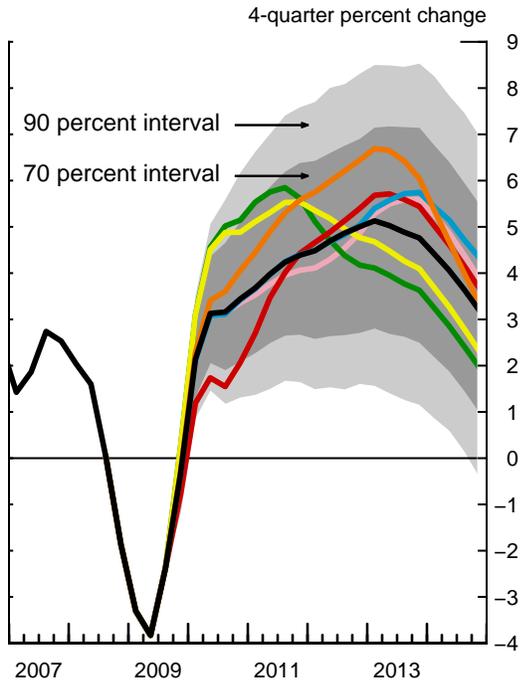
... Not applicable. The Greenbook forecast horizon has typically extended about two years.

## Forecast Confidence Intervals and Alternative Scenarios

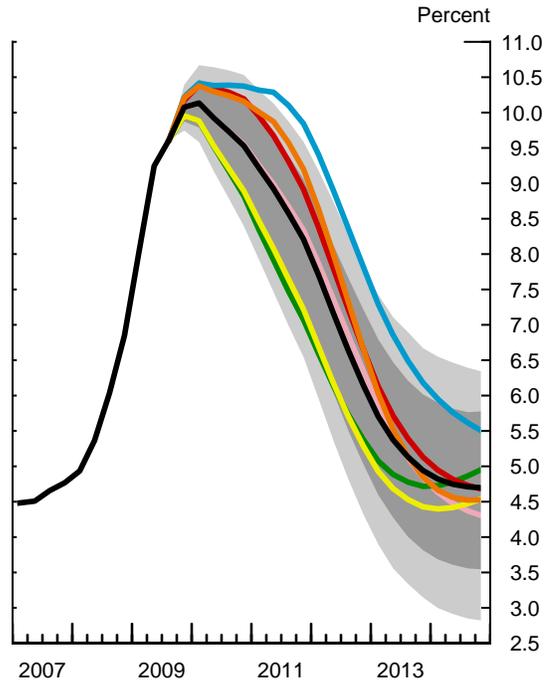
Confidence Intervals Based on FRB/US Stochastic Simulations

- Extended Greenbook baseline
- Weaker aggregate demand
- Earlier liftoff
- Jobless recovery
- V-shaped recovery
- Greater disinflation
- Jobless recovery and more caution

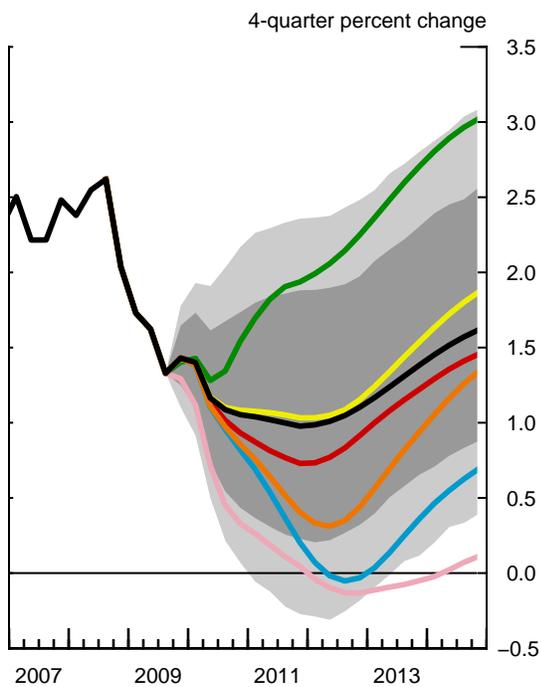
Real GDP



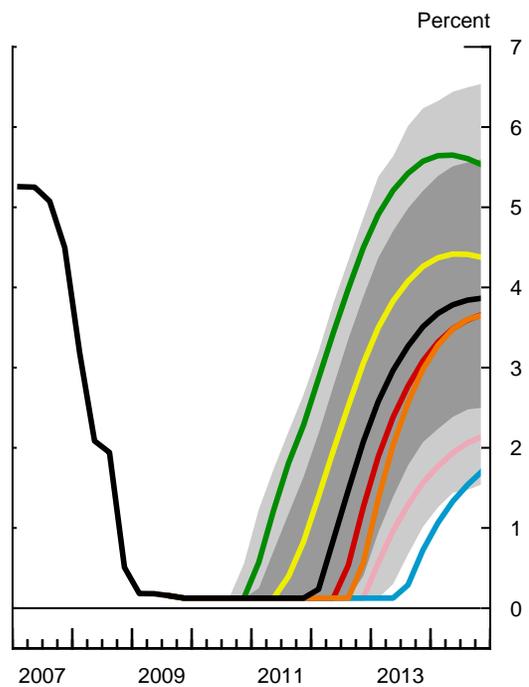
Unemployment Rate



PCE Prices excluding Food and Energy

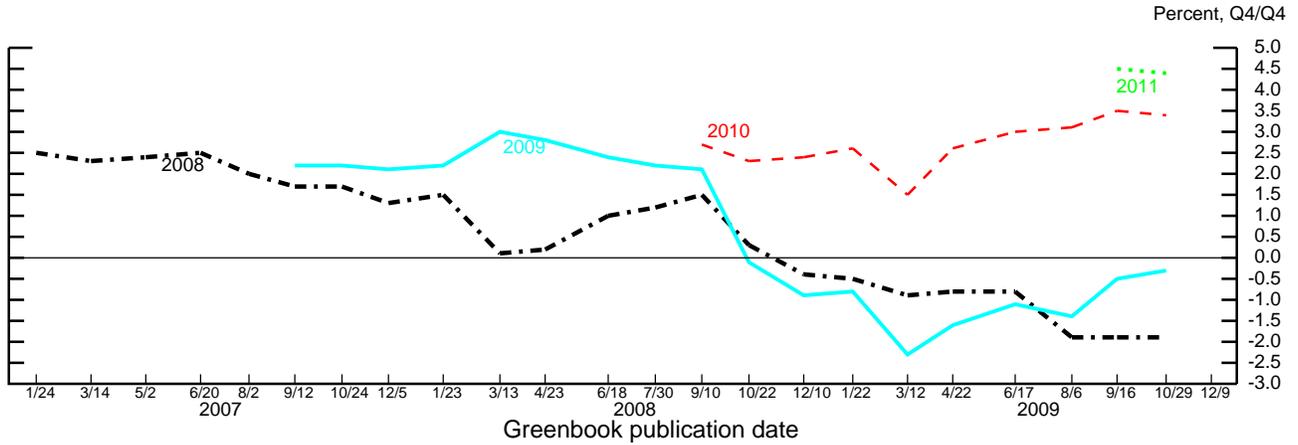


Federal Funds Rate

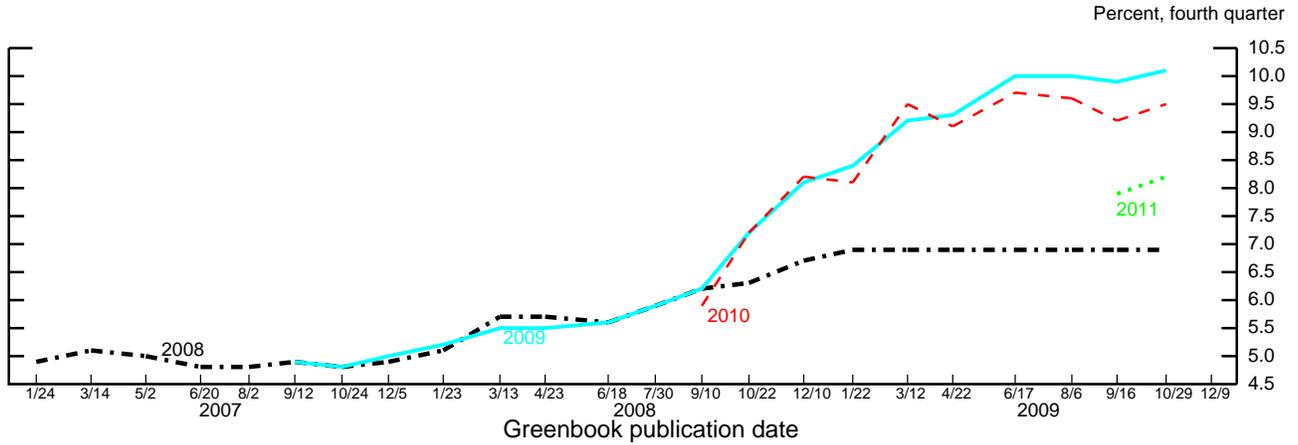


### Evolution of the Staff Forecast

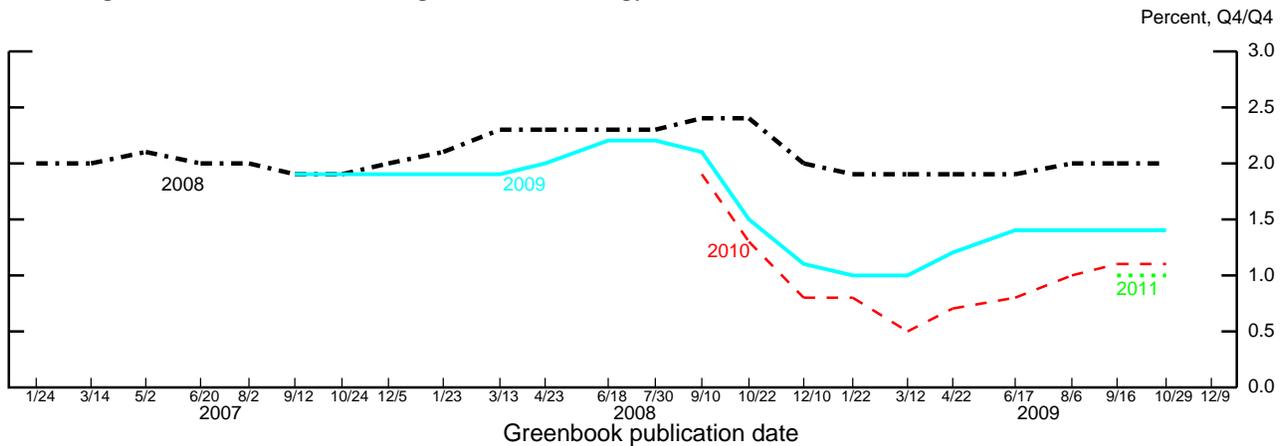
Change in Real GDP



Unemployment Rate



Change in PCE Prices excluding Food and Energy\*



\*Because the core PCE price index was redefined as part of the comprehensive revisions to the NIPA, projections prior to the August 2009 Greenbook are not strictly comparable with more recent projections.

**Changes in GDP, Prices, and Unemployment**  
(Percent, annual rate except as noted)

Interval	Nominal GDP		Real GDP		PCE price index		Core PCE price index		Unemployment rate <sup>1</sup>	
	09/16/09	10/29/09	09/16/09	10/29/09	09/16/09	10/29/09	09/16/09	10/29/09	09/16/09	10/29/09
<i>Quarterly</i>										
2009:Q1	-4.6	-4.6	-6.4	-6.4	-1.5	-1.5	1.1	1.1	8.1	8.1
Q2	-1.0	-8	-1.0	-7	1.3	1.4	2.0	2.0	9.2	9.2
Q3	3.1	4.2	2.5	3.4	2.9	2.8	1.5	1.4	9.6	9.6
Q4	4.2	3.1	3.2	2.8	1.4	2.0	1.2	1.2	9.9	10.1
2010:Q1	4.3	5.0	2.8	3.2	1.4	1.8	1.1	1.0	9.8	10.1
Q2	4.4	4.5	3.2	3.2	1.4	1.5	1.1	1.1	9.6	9.9
Q3	5.0	4.7	3.8	3.5	1.3	1.3	1.1	1.1	9.4	9.7
Q4	5.3	5.0	4.2	3.9	1.2	1.2	1.1	1.1	9.2	9.5
2011:Q1	5.6	5.4	4.4	4.2	1.1	1.1	1.0	1.0	8.8	9.2
Q2	5.6	5.5	4.5	4.4	1.0	1.0	1.0	1.0	8.5	8.9
Q3	5.6	5.6	4.6	4.5	1.0	1.0	1.0	1.0	8.2	8.6
Q4	5.6	5.5	4.6	4.5	1.0	1.0	1.0	1.0	7.9	8.2
<i>Two-quarter<sup>2</sup></i>										
2009:Q2	-2.9	-2.7	-3.8	-3.6	-1	-1	1.6	1.6	2.3	2.3
Q4	3.7	3.7	2.8	3.1	2.1	2.4	1.3	1.3	.7	.9
2010:Q2	4.4	4.7	3.0	3.2	1.4	1.6	1.1	1.0	-3	-2
Q4	5.1	4.9	4.0	3.7	1.2	1.3	1.1	1.1	-4	-4
2011:Q2	5.6	5.5	4.4	4.3	1.0	1.1	1.0	1.0	-7	-6
Q4	5.6	5.6	4.6	4.5	1.0	1.0	1.0	1.0	-6	-7
<i>Four-quarter<sup>3</sup></i>										
2008:Q4	.1	.1	-1.9	-1.9	1.7	1.7	2.0	2.0	2.1	2.1
2009:Q4	4	4	-5	-3	1.0	1.1	1.4	1.4	3.0	3.2
2010:Q4	4.7	4.8	3.5	3.4	1.3	1.4	1.1	1.1	-7	-6
2011:Q4	5.6	5.5	4.5	4.4	1.0	1.0	1.0	1.0	-1.3	-1.3
<i>Annual</i>										
2008	2.6	2.6	.4	.4	3.3	3.3	2.4	2.4	5.8	5.8
2009	-1.4	-1.3	-2.6	-2.5	.2	.2	1.5	1.5	9.2	9.2
2010	4.0	4.1	2.9	3.0	1.5	1.8	1.2	1.2	9.5	9.8
2011	5.4	5.3	4.3	4.1	1.1	1.1	1.0	1.0	8.4	8.7

1. Level, except for two-quarter and four-quarter intervals.

2. Percent change from two quarters earlier; for unemployment rate, change is in percentage points.

3. Percent change from four quarters earlier; for unemployment rate, change is in percentage points.

**Changes in Real Gross Domestic Product and Related Items**  
(Percent, annual rate except as noted)

Item	2009				2010				2011				2009 <sup>1</sup>	2010 <sup>1</sup>	2011 <sup>1</sup>
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
	Real GDP <i>Previous Greenbook</i>	-6.4	-7	3.4	2.8	3.2	3.2	3.5	3.9	4.2	4.4	4.5			
Final sales <i>Previous Greenbook</i>	-4.1	.7	2.4	.4	2.5	3.0	2.5	3.0	3.4	3.9	4.2	4.3	-2	2.7	3.9
Priv. dom. final purch. <i>Previous Greenbook</i>	-4.1	.5	1.5	.3	2.2	3.1	2.9	3.4	3.6	4.1	4.2	4.6	-5	2.9	4.1
Personal cons. expend. <i>Previous Greenbook</i>	-7.2	-2.7	3.0	-1	2.4	2.9	2.9	3.5	4.1	4.5	5.0	5.0	-1.9	2.9	4.7
Durables	-7.2	-2.8	1.6	-5	2.3	3.3	3.7	4.3	4.4	4.9	5.0	5.4	-2.3	3.4	5.0
Nondurables	.6	-9	3.4	.7	2.4	2.3	2.1	2.4	3.0	3.3	3.6	3.6	.9	2.3	3.4
Services	.6	-9	2.3	.8	2.5	2.8	2.9	3.3	3.3	3.6	3.6	3.8	.7	2.9	3.6
Residential investment <i>Previous Greenbook</i>	3.9	-5.6	22.2	-7.6	10.2	10.9	7.0	8.3	10.1	10.3	12.1	11.0	2.6	9.1	10.9
Business fixed invest. <i>Previous Greenbook</i>	1.9	-1.9	2.0	1.9	2.3	1.9	1.7	2.1	2.8	3.1	3.2	3.2	.9	2.0	3.1
Equipment & software <i>Previous Greenbook</i>	-3	.2	1.2	1.7	1.3	1.2	1.5	1.7	2.0	2.3	2.5	2.6	.7	1.4	2.3
Nonres. structures <i>Previous Greenbook</i>	-38.2	-23.3	20.9	.1	9.3	9.7	8.1	13.1	15.5	22.4	24.1	28.7	-13.0	10.0	22.6
Net exports <sup>2</sup> <i>Previous Greenbook</i> <sup>2</sup>	-38.2	-22.9	3.0	4.0	7.0	12.4	15.4	17.0	20.2	23.9	26.8	30.5	-15.5	12.9	25.3
Exports	-39.2	-9.6	-3.8	-6.4	.9	5.5	7.2	9.4	9.8	9.0	10.4	9.0	-16.1	5.7	9.5
Imports	-39.2	-10.3	-3.8	-11.3	-3	4.8	7.2	8.7	9.2	10.3	9.8	10.3	-17.4	5.0	9.9
Gov't. cons. & invest. <i>Previous Greenbook</i>	-36.4	-4.9	1.1	3.5	6.2	10.3	10.9	12.7	13.5	12.9	15.0	12.9	-10.8	10.0	13.6
Federal	-36.4	-6.2	4.8	-3.0	5.2	10.2	11.8	12.3	12.8	15.0	14.4	14.9	-11.7	9.8	14.3
Defense	-43.6	-17.3	-12.3	-23.3	-9.4	4.3	-8	2.3	1.7	.2	-.4	-.3	-25.1	-3.2	.3
Nondefense	-43.6	-17.1	-18.0	-25.9	-11.0	-5.9	-2.3	.7	1.1	-2	-.9	-.8	-27.0	-4.7	-2
State & local	-386	-330	-348	-343	-346	-340	-341	-341	-348	-348	-351	-350	-352	-342	-349
Change in bus. inventories <sup>2</sup> <i>Previous Greenbook</i> <sup>2</sup>	-386	-332	-339	-342	-351	-351	-359	-367	-374	-379	-385	-387	-350	-357	-381
Nonfarm <sup>2</sup>	-29.9	-4.1	14.7	9.6	8.2	8.5	8.9	9.4	8.9	8.5	8.5	9.1	-4.1	8.7	8.8
Farm <sup>2</sup>	-36.4	-14.7	16.3	6.4	7.4	5.5	7.5	7.7	8.9	7.1	7.6	7.3	-9.5	7.0	7.7
Change in bus. inventories <sup>2</sup> <i>Previous Greenbook</i> <sup>2</sup>	-2.6	6.7	2.3	1.8	3.0	2.1	1.0	.6	1.0	1.0	1.0	.5	2.0	1.7	.9
Nonfarm <sup>2</sup>	-2.6	6.5	1.8	4.3	3.1	2.0	.7	.6	1.0	1.0	1.0	1.0	2.5	1.6	1.0
Farm <sup>2</sup>	-4.3	11.4	7.9	4.8	6.5	3.6	.6	-.4	1.3	1.1	1.2	.5	4.8	2.5	1.0
Change in bus. inventories <sup>2</sup> <i>Previous Greenbook</i> <sup>2</sup>	-5.1	14.0	8.4	1.0	4.8	2.4	1.9	.3	.6	4	.5	-.5	4.3	2.3	.2
Nonfarm <sup>2</sup>	-2.5	6.1	6.8	13.6	9.9	6.3	-2.1	-1.8	2.6	2.6	2.6	2.6	5.8	2.9	2.6
Farm <sup>2</sup>	-1.5	3.9	-1.1	-.1	.7	1.2	1.3	1.3	.9	.9	.9	.5	.3	1.1	.8
Change in bus. inventories <sup>2</sup> <i>Previous Greenbook</i> <sup>2</sup>	-114	-160	-131	-60	-36	-30	0	29	55	70	80	89	-116	-9	73
Nonfarm <sup>2</sup>	-114	-165	-134	-45	-25	-20	7	33	58	71	85	87	-114	-1	75
Farm <sup>2</sup>	-115	-163	-134	-64	-41	-35	-4	25	52	67	77	87	-119	-14	71
Change in bus. inventories <sup>2</sup> <i>Previous Greenbook</i> <sup>2</sup>	0	2	3	4	4	3	3	3	3	3	3	3	2	3	3

1. Change from fourth quarter of previous year to fourth quarter of year indicated.

2. Billions of chained (2005) dollars.

**Changes in Real Gross Domestic Product and Related Items**

(Change from fourth quarter of previous year to fourth quarter of year indicated, unless otherwise noted)

Item	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Real GDP</b>	3.8	3.1	2.7	2.4	2.5	-1.9	-3	3.4	4.4
<i>Previous Greenbook</i>	3.8	3.1	2.7	2.4	2.5	-1.9	-5	3.5	4.5
<b>Final sales</b>	3.8	2.8	2.7	2.8	2.7	-1.4	-2	2.7	3.9
<i>Previous Greenbook</i>	3.8	2.8	2.7	2.8	2.7	-1.4	-5	2.9	4.1
<b>Priv. dom. final purch.</b>	4.2	4.2	3.1	2.5	1.4	-3.2	-1.9	2.9	4.7
<i>Previous Greenbook</i>	4.2	4.2	3.1	2.5	1.4	-3.2	-2.3	3.4	5.0
<b>Personal cons. expend.</b>	3.4	3.5	2.7	3.3	2.0	-1.8	.9	2.3	3.4
<i>Previous Greenbook</i>	3.4	3.5	2.7	3.3	2.0	-1.8	.7	2.9	3.6
<b>Durables</b>	8.9	5.5	2.1	6.3	4.6	-11.8	2.6	9.1	10.9
<b>Nondurables</b>	3.9	3.0	3.3	3.2	1.5	-2.9	.9	2.0	3.1
<b>Services</b>	2.2	3.4	2.6	2.8	1.7	.3	.7	1.4	2.3
<b>Residential investment</b>	11.5	6.6	5.3	-15.7	-20.5	-21.0	-13.0	10.0	22.6
<i>Previous Greenbook</i>	11.5	6.6	5.3	-15.7	-20.5	-21.0	-15.5	12.9	25.3
<b>Business fixed invest.</b>	5.9	7.0	4.4	7.8	7.9	-6.0	-16.1	5.7	9.5
<i>Previous Greenbook</i>	5.9	7.0	4.4	7.8	7.9	-6.0	-17.4	5.0	9.9
<b>Equipment &amp; software</b>	7.5	8.8	6.1	6.0	3.2	-10.7	-10.8	10.0	13.6
<i>Previous Greenbook</i>	7.5	8.8	6.1	6.0	3.2	-10.7	-11.7	9.8	14.3
<b>Nonres. structures</b>	1.3	1.7	-1	13.0	18.9	3.2	-25.1	-3.2	.3
<i>Previous Greenbook</i>	1.3	1.7	-1	13.0	18.9	3.2	-27.0	-4.7	-2
<b>Net exports<sup>1</sup></b>	-604	-688	-723	-729	-648	-494	-352	-342	-349
<i>Previous Greenbook<sup>1</sup></i>	-604	-688	-723	-729	-648	-494	-350	-357	-381
<b>Exports</b>	6.2	7.1	6.7	10.2	10.2	-3.4	-4.1	8.7	8.8
<b>Imports</b>	5.1	10.9	5.2	4.1	.9	-6.8	-9.5	7.0	7.7
<b>Gov't. cons. &amp; invest.</b>	1.6	.6	.7	1.5	2.5	3.0	2.0	1.7	.9
<i>Previous Greenbook</i>	1.6	.6	.7	1.5	2.5	3.0	2.5	1.6	1.0
<b>Federal</b>	5.7	2.3	1.2	2.2	3.4	8.9	4.8	2.5	1.0
<b>Defense</b>	8.4	2.4	.4	4.4	2.6	9.5	4.3	2.3	.2
<b>Nondefense</b>	.7	2.3	2.6	-2.3	5.2	7.5	5.8	2.9	2.6
<b>State &amp; local</b>	-.5	-.4	.4	1.2	1.9	-.3	.3	1.1	.8
<b>Change in bus. inventories<sup>1</sup></b>	17	66	50	59	19	-26	-116	-9	73
<i>Previous Greenbook<sup>1</sup></i>	17	66	50	59	19	-26	-114	-1	75
<b>Nonfarm<sup>1</sup></b>	17	58	50	63	20	-20	-119	-14	71
<b>Farm<sup>1</sup></b>	0	8	0	-4	-1	-5	2	3	3

1. Billions of chained (2005) dollars.

**Contributions to Changes in Real Gross Domestic Product**  
(Percentage points, annual rate except as noted)

Item	2009				2010				2011				2009 <sup>1</sup>	2010 <sup>1</sup>	2011 <sup>1</sup>
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
	Real GDP <i>Previous Greenbook</i>	-6.4	-7	3.4	2.8	3.2	3.2	3.5	3.9	4.2	4.4	4.5			
Final sales <i>Previous Greenbook</i>	-6.4	-1.0	2.5	3.2	2.8	3.2	3.8	4.2	4.4	4.5	4.6	4.6	-5	3.5	4.5
Priv. dom. final purch. <i>Previous Greenbook</i>	-4.1	.7	2.4	.4	2.5	3.0	2.5	3.0	3.4	3.9	4.2	4.2	-2	2.8	3.9
Personal cons. expend. <i>Previous Greenbook</i>	-4.1	.5	1.5	.4	2.2	3.1	3.0	3.4	3.6	4.1	4.2	4.6	-5	2.9	4.1
Durables	-6.1	-2.3	2.5	-1	2.0	2.4	2.4	2.9	3.4	3.7	4.1	4.1	-1.6	2.4	3.8
Nondurables	-6.1	-2.4	1.3	-4	1.9	2.7	3.1	3.5	3.6	4.0	4.1	4.4	-1.9	2.8	4.1
Services	.4	-6	2.4	.5	1.7	1.7	1.5	1.7	2.1	2.3	2.5	2.5	.7	1.7	2.4
Residential investment <i>Previous Greenbook</i>	.4	-6	1.6	.6	1.8	2.0	2.1	2.3	2.3	2.5	2.6	2.7	.5	2.0	2.5
Business fixed invest. <i>Previous Greenbook</i>	.3	-4	1.5	-6	.7	.8	.5	.6	.7	.7	.9	.8	.2	.6	.8
Equipment & software <i>Previous Greenbook</i>	.3	-3	.3	.3	.4	.3	.3	.3	.4	.5	.5	.5	.1	.3	.5
Nonres. structures <i>Previous Greenbook</i>	-1	.1	.6	.8	.6	.6	.8	.8	1.0	1.1	1.2	1.2	.3	.7	1.1
Net exports <i>Previous Greenbook</i>	-1.3	-7	.5	.0	.2	.2	.2	.3	.4	.6	.6	.8	-4	.2	.6
Exports	-1.3	-7	.1	.1	.2	.3	.4	.4	.5	.6	.7	.8	-5	.3	.7
Imports	-5.3	-1.0	-4	-6	.1	.5	.6	.9	.9	.8	1.0	.8	-1.8	.5	.9
Gov't. cons. & invest. <i>Previous Greenbook</i>	-5.3	-1.1	-4	-1.1	.0	.4	.6	.8	.8	.9	.9	.9	-2.0	.5	.9
Federal	-3.0	-3	.1	-2	.4	.6	.7	.8	.8	.8	1.0	.8	-.8	.6	.9
Defense	-3.0	-4	.3	-2	.3	.6	.7	.8	.8	.9	.9	1.0	-.8	.6	.9
Nondefense	-2.3	-7	-4	-8	-3	-1	.0	.1	.1	.0	.0	.0	-1.1	-1	.0
State & local	-2.3	-7	-7	-9	-3	-2	-1	.0	.0	.0	.0	.0	-1.1	-1	.0
Change in bus. inventories <i>Previous Greenbook</i>	2.6	1.7	-6	.1	-1	.2	-1	.0	-3	.0	-1	.0	1.0	.0	-1
Nonfarm	2.6	1.6	-2	-1	-3	.0	-3	-2	-2	-2	-2	-1	1.0	-2	-2
Farm	-4.0	-5	1.5	1.0	.9	.9	1.0	1.1	1.0	1.0	1.0	1.1	-5	1.0	1.0
	6.6	2.1	-2.0	-9	-1.0	-8	-1.1	-1.1	-1.3	-1.0	-1.1	-1.1	1.5	-1.0	-1.1
Gov't. cons. & invest. <i>Previous Greenbook</i>	-5	1.3	.5	.4	.6	.5	.2	.1	.2	.2	.2	.1	.4	.3	.2
Federal	-5	1.3	.4	.9	.6	.4	.2	.1	.2	.2	.2	.2	.5	.3	.2
Defense	-3	.9	.6	.4	.5	.3	.0	.0	.1	.1	.1	.0	.4	.2	.1
Nondefense	-3	.7	.4	.1	.3	.1	.1	.0	.0	.0	.0	.0	.2	.1	.0
State & local	-1	.2	.2	.3	.3	.2	-1	.0	.1	.1	.1	.1	.1	.1	.1
Change in bus. inventories <i>Previous Greenbook</i>	-2	.5	-1	.0	.1	.1	.2	.2	.1	.1	.1	.1	.0	.1	.1
Nonfarm	-2.4	-1.4	.9	2.3	.7	.2	1.0	.9	.8	.5	.3	.3	-1	.7	.5
Farm	-2.4	-1.5	1.0	2.8	.6	.1	.8	.8	.8	.4	.4	.1	.0	.6	.4
	-2.4	-1.5	.9	2.2	.7	.2	1.0	.9	.8	.5	.3	.3	-2	.7	.5
	.1	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0

1. Change from fourth quarter of previous year to fourth quarter of year indicated.

**Changes in Prices and Costs**  
(Percent, annual rate except as noted)

Item	2009				2010				2011				2009 <sup>1</sup>	2010 <sup>1</sup>	2011 <sup>1</sup>
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
GDP chain-wt. price index <i>Previous Greenbook</i>	1.9	.0	.8	.3	1.7	1.3	1.2	1.1	1.2	1.1	1.0	1.0	.7	1.3	1.1
PCE chain-wt. price index <i>Previous Greenbook</i>	1.9	.0	.7	1.0	1.4	1.2	1.1	1.1	1.2	1.1	1.0	1.0	.9	1.2	1.1
Energy <i>Previous Greenbook</i>	-1.5	1.4	2.8	2.0	1.8	1.5	1.3	1.2	1.1	1.0	1.0	1.0	1.1	1.4	1.0
Food <i>Previous Greenbook</i>	-1.5	1.3	2.9	1.4	1.4	1.4	1.3	1.2	1.1	1.0	1.0	1.0	1.0	1.3	1.0
Ex. food & energy <i>Previous Greenbook</i>	-36.7	-2.0	41.1	20.3	15.2	7.8	4.5	3.7	3.2	2.3	2.1	2.0	1.3	7.7	2.4
Ex. food & energy <i>Previous Greenbook</i>	-36.7	-2.2	39.5	4.9	6.0	6.2	4.5	3.5	2.8	2.0	1.9	1.8	-2.4	5.0	2.1
Ex. food & energy <i>Previous Greenbook</i>	-1.1	-3.6	-2.1	-8	1.3	1.5	1.5	1.0	.7	.7	.7	.7	-1.9	1.3	.7
Ex. food & energy <i>Previous Greenbook</i>	-1.1	-3.6	-1.5	1.8	1.7	1.6	1.5	1.0	.7	.7	.7	.7	-1.1	1.5	.7
Ex. food & energy <i>Previous Greenbook</i>	1.1	2.0	1.4	1.2	1.0	1.1	1.1	1.1	1.0	1.0	1.0	1.0	1.4	1.1	1.0
Ex. food & energy <i>Previous Greenbook</i>	1.1	2.0	1.5	1.2	1.1	1.1	1.1	1.1	1.0	1.0	1.0	1.0	1.4	1.1	1.0
CPI <i>Previous Greenbook</i>	-2.4	1.3	3.6	2.6	2.3	1.8	1.5	1.4	1.3	1.2	1.2	1.2	1.3	1.7	1.2
Ex. food & energy <i>Previous Greenbook</i>	-2.4	1.3	3.6	1.8	1.6	1.7	1.5	1.3	1.2	1.1	1.1	1.1	1.1	1.5	1.1
ECL, hourly compensation <sup>2</sup> <i>Previous Greenbook</i> <sup>2</sup>	1.5	2.4	1.5	1.5	1.2	1.1	1.2	1.2	1.1	1.1	1.1	1.2	1.7	1.2	1.1
ECL, hourly compensation <sup>2</sup> <i>Previous Greenbook</i> <sup>2</sup>	1.5	2.4	1.5	1.5	1.2	1.2	1.2	1.2	1.1	1.1	1.1	1.1	1.7	1.2	1.1
ECL, hourly compensation <sup>2</sup> <i>Previous Greenbook</i> <sup>2</sup>	.7	.7	1.7	1.6	1.7	1.7	1.8	1.9	2.0	2.0	2.1	2.1	1.2	1.8	2.0
ECL, hourly compensation <sup>2</sup> <i>Previous Greenbook</i> <sup>2</sup>	.7	.7	1.7	1.6	1.7	1.7	1.8	1.9	2.0	2.0	2.1	2.1	1.2	1.8	2.0
Nonfarm business sector Output per hour <i>Previous Greenbook</i>	.3	7.0	7.2	4.2	2.4	.8	.6	.7	.7	.8	.9	.9	4.6	1.1	.8
Compensation per hour <i>Previous Greenbook</i>	.3	6.6	5.2	2.9	1.4	1.4	1.1	1.3	1.1	1.6	1.6	1.5	3.7	1.3	1.4
Unit labor costs <i>Previous Greenbook</i>	-4.7	.4	1.9	1.6	1.6	1.7	1.8	1.9	2.0	2.0	2.1	2.1	-2	1.8	2.1
Unit labor costs <i>Previous Greenbook</i>	-4.7	.4	1.8	1.6	1.6	1.7	1.8	1.9	2.0	2.0	2.1	2.1	-3	1.8	2.1
Core goods imports chain-wt. price index <sup>3</sup> <i>Previous Greenbook</i> <sup>3</sup>	-5.0	-6.2	-5.0	-2.5	-8	.9	1.2	1.3	1.3	1.2	1.2	1.2	-4.7	.7	1.2
Core goods imports chain-wt. price index <sup>3</sup> <i>Previous Greenbook</i> <sup>3</sup>	-5.0	-5.8	-3.2	-1.2	.3	.3	.7	.6	.9	.4	.5	.6	-3.8	.5	.6
Core goods imports chain-wt. price index <sup>3</sup> <i>Previous Greenbook</i> <sup>3</sup>	-9.4	-2.3	1.0	4.4	2.6	1.4	1.0	1.0	1.0	1.0	1.0	1.0	-1.7	1.5	1.0
Core goods imports chain-wt. price index <sup>3</sup> <i>Previous Greenbook</i> <sup>3</sup>	-9.4	-2.4	3.5	3.5	2.0	1.3	1.0	1.0	1.0	1.0	1.0	1.0	-1.4	1.3	1.0

1. Change from fourth quarter of previous year to fourth quarter of year indicated.

2. Private-industry workers.

3. Core goods imports exclude computers, semiconductors, oil, and natural gas.

## Changes in Prices and Costs

(Change from fourth quarter of previous year to fourth quarter of year indicated, unless otherwise noted)

Item	2003	2004	2005	2006	2007	2008	2009	2010	2011
GDP chain-wt. price index <i>Previous Greenbook</i>	2.1 2.1	3.2 3.2	3.5 3.5	2.9 2.9	2.7 2.7	1.9 1.9	.7 .9	1.3 1.2	1.1 1.1
PCE chain-wt. price index <i>Previous Greenbook</i>	1.9 1.9	3.0 3.0	3.3 3.3	1.9 1.9	3.6 3.6	1.7 1.7	1.1 1.0	1.4 1.3	1.0 1.0
Energy <i>Previous Greenbook</i>	8.6 8.6	18.6 18.6	21.5 21.5	-3.7 -3.7	19.7 19.7	-9.1 -9.1	1.3 -2.4	7.7 5.0	2.4 2.1
Food <i>Previous Greenbook</i>	3.2 3.2	2.7 2.7	1.5 1.5	1.7 1.7	4.7 4.7	6.8 6.8	-1.9 -1.1	1.3 1.5	.7 .7
Ex. food & energy <i>Previous Greenbook</i>	1.5 1.5	2.2 2.2	2.3 2.3	2.3 2.3	2.5 2.5	2.0 2.0	1.4 1.4	1.1 1.1	1.0 1.0
CPI <i>Previous Greenbook</i>	2.0 2.0	3.4 3.4	3.8 3.8	1.9 1.9	4.0 4.0	1.5 1.5	1.3 1.1	1.7 1.5	1.2 1.1
Ex. food & energy <i>Previous Greenbook</i>	1.2 1.2	2.2 2.2	2.1 2.1	2.7 2.7	2.3 2.3	2.0 2.0	1.7 1.7	1.2 1.2	1.1 1.1
ECI, hourly compensation <sup>1</sup> <i>Previous Greenbook</i> <sup>1</sup>	4.0 4.0	3.8 3.8	2.9 2.9	3.2 3.2	3.0 3.0	2.4 2.4	1.2 1.2	1.8 1.8	2.0 2.0
Nonfarm business sector Output per hour <i>Previous Greenbook</i>	5.0 5.0	1.5 1.5	1.4 1.4	.9 .9	2.8 2.8	.9 .9	4.6 3.7	1.1 1.3	.8 1.4
Compensation per hour <i>Previous Greenbook</i>	5.7 5.7	3.4 3.4	3.5 3.5	4.5 4.5	3.6 3.6	2.6 2.6	-.2 -.3	1.8 1.8	2.1 2.1
Unit labor costs <i>Previous Greenbook</i>	.6 .6	1.9 1.9	2.0 2.0	3.5 3.5	.7 .7	1.6 1.6	-4.7 -3.8	.7 .5	1.2 .6
Core goods imports chain-wt. price index <sup>2</sup> <i>Previous Greenbook</i> <sup>2</sup>	1.6 1.6	3.6 3.6	2.2 2.2	2.5 2.5	3.5 3.5	3.8 3.8	-1.7 -1.4	1.5 1.3	1.0 1.0

1. Private-industry workers.

2. Core goods imports exclude computers, semiconductors, oil and natural gas.

## Other Macroeconomic Indicators

Item	2009				2010				2011				2010 <sup>1</sup>	2011 <sup>1</sup>	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			2009 <sup>1</sup>
<i>Employment and production</i>															
Nonfarm payroll employment <sup>2</sup>	-2.1	-1.5	-0.9	-0.5	.0	.7	.5	.7	.9	.9	1.0	1.0	-5.1	2.0	3.9
Unemployment rate <sup>3</sup>	8.1	9.2	9.6	10.1	10.1	9.9	9.7	9.5	9.2	8.9	8.6	8.2	10.1	9.5	8.2
<i>Previous Greenbook<sup>3</sup></i>	8.1	9.2	9.6	9.9	9.8	9.6	9.4	9.2	8.8	8.5	8.2	7.9	9.9	9.2	7.9
GDP gap <sup>4</sup>	-7.0	-7.8	-7.6	-7.6	-7.3	-7.1	-6.8	-6.4	-6.0	-5.5	-5.0	-4.5	-7.6	-6.4	-4.5
<i>Previous Greenbook<sup>4</sup></i>	-6.6	-7.3	-7.2	-6.9	-6.8	-6.5	-6.1	-5.6	-5.2	-4.7	-4.2	-3.6	-6.9	-5.6	-3.6
Industrial production <sup>5</sup>	-19.0	-10.3	5.2	6.4	3.9	4.5	5.0	6.3	5.9	5.5	7.2	8.2	-5.0	4.9	6.7
<i>Previous Greenbook<sup>5</sup></i>	-19.0	-10.5	4.3	5.0	5.3	5.1	5.5	6.2	6.0	5.8	7.0	8.7	-5.6	5.5	6.9
Manufacturing industr. prod. <sup>5</sup>	-22.0	-8.7	7.1	6.2	3.7	4.9	5.2	7.0	6.6	6.1	8.2	9.3	-5.2	5.2	7.5
<i>Previous Greenbook<sup>5</sup></i>	-22.0	-9.0	6.3	4.9	5.1	5.2	5.6	6.7	6.6	6.5	7.9	9.9	-5.7	5.6	7.7
Capacity utilization rate - mfg. <sup>3</sup>	66.7	65.4	66.8	68.1	69.0	70.1	71.3	72.8	74.2	75.4	77.1	79.0	68.1	72.8	79.0
<i>Previous Greenbook<sup>3</sup></i>	66.7	65.3	66.6	67.7	68.8	70.0	71.2	72.7	74.0	75.4	77.0	79.0	67.7	72.7	79.0
Housing starts <sup>6</sup>	.5	.5	.6	.7	.8	.8	.9	.9	1.0	1.1	1.2	1.3	.6	.8	1.2
Light motor vehicle sales <sup>6</sup>	9.5	9.6	11.5	9.9	10.9	12.1	12.5	13.2	13.6	13.9	14.7	15.2	10.1	12.2	14.4
<i>Income and saving</i>															
Nominal GDP <sup>5</sup>	-4.6	-8	4.2	3.1	5.0	4.5	4.7	5.0	5.4	5.5	5.6	5.5	.4	4.8	5.5
Real disposable pers. income <sup>5</sup>	.2	3.8	-3.5	-1	3.6	.3	3.2	3.7	1.0	4.1	4.4	4.3	.1	2.7	3.4
<i>Previous Greenbook<sup>5</sup></i>	.2	3.9	-3.4	1.0	1.9	2.6	3.4	3.7	1.8	3.9	4.2	4.3	.4	2.9	3.6
Personal saving rate <sup>3</sup>	3.7	4.9	3.3	3.3	3.6	3.2	3.4	3.7	3.3	3.5	3.7	3.8	3.3	3.7	3.8
<i>Previous Greenbook<sup>3</sup></i>	3.7	5.0	3.8	3.9	3.8	3.8	4.0	4.1	3.8	3.9	4.0	4.1	3.9	4.1	4.1
Corporate profits <sup>7</sup>	22.8	15.6	69.7	-29.5	105.5	6.5	10.2	6.2	6.7	4.3	5.7	5.7	14.2	26.5	5.6
Profit share of GNP <sup>3</sup>	8.3	8.6	9.7	8.8	10.4	10.5	10.6	10.6	10.7	10.7	10.7	10.7	8.8	10.6	10.7
Net federal saving <sup>8</sup>	-969	-1,294	-1,321	-1,212	-1,427	-1,359	-1,372	-1,370	-1,250	-1,217	-1,209	-1,183	-1,199	-1,382	-1,215
Net state & local saving <sup>8</sup>	-37	-25	-10	16	51	55	59	63	17	15	6	1	-14	57	9
Gross national saving rate <sup>3</sup>	11.2	10.1	9.7	10.1	10.1	10.3	10.7	11.1	11.3	11.7	11.9	12.2	10.1	11.1	12.2
Net national saving rate <sup>3</sup>	-2.5	-3.4	-3.4	-3.0	-2.9	-2.6	-2.2	-1.7	-1.5	-1.0	-0.7	-0.4	-3.0	-1.7	-0.4

1. Change from fourth quarter of previous year to fourth quarter of year indicated, unless otherwise indicated.

2. Change, millions.

3. Percent, annual values are for the fourth quarter of the year indicated.

4. Percent difference between actual and potential GDP; a negative number indicates that the economy is operating below potential.  
Annual values are for the fourth quarter of the year indicated.

5. Percent change, annual rate.

6. Level, millions, annual values are annual averages.

7. Percent change, annual rate, with inventory valuation and capital consumption adjustments.

8. Billions of dollars, annual values are annual averages.

## Other Macroeconomic Indicators

(Change from fourth quarter of previous year to fourth quarter of year indicated, unless otherwise noted)

Item	2003	2004	2005	2006	2007	2008	2009	2010	2011
<i>Employment and production</i>									
Nonfarm payroll employment <sup>1</sup>	-1	2.0	2.4	2.1	1.2	-2.3	-5.1	2.0	3.9
Unemployment rate <sup>2</sup>	5.8	5.4	4.9	4.4	4.8	6.9	10.1	9.5	8.2
<i>Previous Greenbook<sup>2</sup></i>	5.8	5.4	4.9	4.4	4.8	6.9	9.9	9.2	7.9
GDP gap <sup>3</sup>	-1.6	-7	-3	-3	-4	-4.8	-7.6	-6.4	-4.5
<i>Previous Greenbook<sup>3</sup></i>	-1.7	-8	-4	-4	-5	-4.6	-6.9	-5.6	-3.6
Industrial production <sup>4</sup>	1.6	3.0	2.6	1.8	1.8	-6.7	-5.0	4.9	6.7
<i>Previous Greenbook<sup>4</sup></i>	1.6	3.0	2.6	1.8	1.8	-6.7	-5.6	5.5	6.9
Manufacturing industr. prod. <sup>4</sup>	1.8	3.6	3.8	1.2	1.9	-8.7	-5.2	5.2	7.5
<i>Previous Greenbook<sup>4</sup></i>	1.8	3.6	3.8	1.2	1.9	-8.7	-5.7	5.6	7.7
Capacity utilization rate - mfg. <sup>2</sup>	74.6	77.3	79.2	79.0	78.7	70.9	68.1	72.8	79.0
<i>Previous Greenbook<sup>2</sup></i>	74.6	77.3	79.2	79.0	78.7	70.9	67.7	72.7	79.0
Housing starts <sup>5</sup>	1.8	2.0	2.1	1.8	1.4	.9	.6	.8	1.2
Light motor vehicle sales <sup>5</sup>	16.6	16.8	16.9	16.5	16.1	13.1	10.1	12.2	14.4
<i>Income and saving</i>									
Nominal GDP <sup>4</sup>	6.0	6.4	6.3	5.4	5.3	.1	.4	4.8	5.5
Real disposable pers. income <sup>4</sup>	3.9	3.5	.6	4.6	1.0	.3	.1	2.7	3.4
<i>Previous Greenbook<sup>4</sup></i>	3.9	3.5	.6	4.6	1.0	.3	.4	2.9	3.6
Personal saving rate <sup>2</sup>	3.6	3.6	1.5	2.5	1.5	3.8	3.3	3.7	3.8
<i>Previous Greenbook<sup>2</sup></i>	3.6	3.6	1.5	2.5	1.5	3.8	3.9	4.1	4.1
Corporate profits <sup>6</sup>	12.2	21.9	19.6	3.7	-5.7	-25.1	14.2	26.5	5.6
Profit share of GNP <sup>2</sup>	9.1	10.5	11.8	11.6	10.3	7.8	8.8	10.6	10.7
Net federal saving <sup>7</sup>	-376	-379	-283	-204	-236	-643	-1199	-1382	-1215
Net state & local saving <sup>7</sup>	-39	-8	26	51	22	-40	-14	57	9
Gross national saving rate <sup>2</sup>	14.3	14.3	15.5	16.3	13.8	12.2	10.1	11.1	12.2
Net national saving rate <sup>2</sup>	2.5	2.7	3.5	4.2	1.6	-.7	-3.0	-1.7	-.4

1. Change, millions.

2. Percent, values are for the fourth quarter of the year indicated.

3. Percent difference between actual and potential GDP; a negative number indicates that the economy is operating below potential.

Values are for the fourth quarter of the year indicated.

4. Percent change.

5. Level, millions, values are annual averages.

6. Percent change, with inventory valuation and capital consumption adjustments.

7. Billions of dollars, values are annual averages.

**Class II FOMC  
Restricted (FR)**

**Staff Projections of Federal Sector Accounts and Related Items**  
(Billions of dollars except as noted)

**October 29, 2009**

Item	Fiscal year				2009				2010				2011			
	2008 <sup>a</sup>	2009 <sup>a</sup>	2010	2011	Q1 <sup>a</sup>	Q2 <sup>a</sup>	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	Not seasonally adjusted															
<b>Unified budget</b>																
Receipts <sup>1</sup>	2524	2105	2192	2473	442	599	516	499	468	665	560	562	526	756	629	603
Outlays <sup>1</sup>	2983	3522	3646	3660	891	904	847	876	962	916	892	922	932	903	904	922
Surplus/deficit <sup>1</sup>	-459	-1417	-1454	-1187	-449	-305	-331	-378	-494	-251	-332	-359	-406	-147	-275	-319
<i>Previous Greenbook</i>	-459	-1431	-1419	-1149	-449	-305	-345	-423	-455	-228	-313	-352	-395	-136	-266	-317
On-budget	-642	-1554	-1547	-1312	-468	-382	-320	-420	-482	-321	-323	-408	-410	-223	-271	-366
Off-budget	183	137	92	125	19	77	-11	42	-12	70	-9	49	4	76	-4	47
Means of financing																
Borrowing	768	1743	1499	1207	465	338	379	220	690	241	347	349	396	172	290	309
Cash decrease	-296	96	25	0	98	-49	43	191	-170	15	-10	15	15	-20	-10	15
Other <sup>2</sup>	-13	-423	-70	-20	-114	16	-90	-34	-26	-5	-5	-5	-5	-5	-5	-5
Cash operating balance, end of period	372	275	250	250	269	318	275	85	255	240	250	235	220	240	250	235
<b>NIPA federal sector</b>																
Receipts	2534	2282	2348	2529	2251	2211	2217	2369	2310	2341	2373	2410	2527	2567	2611	2655
Expenditures	3074	3346	3691	3790	3220	3506	3538	3581	3737	3700	3746	3781	3776	3784	3820	3838
Consumption expenditures	914	973	1052	1089	954	979	1003	1020	1052	1065	1070	1072	1088	1095	1102	1107
Defense	620	659	701	723	643	663	680	684	701	707	712	714	723	725	728	730
Nondefense	294	314	351	366	311	316	322	336	351	358	358	357	365	369	373	378
Other spending	2160	2374	2639	2701	2266	2527	2535	2561	2685	2635	2676	2709	2689	2689	2719	2731
Current account surplus	-540	-1065	-1343	-1262	-969	-1294	-1321	-1212	-1427	-1359	-1372	-1370	-1250	-1217	-1209	-1183
Gross investment	141	158	165	167	152	159	162	162	164	166	167	167	166	167	167	166
Gross saving less gross investment <sup>3</sup>	-563	-1099	-1377	-1292	-999	-1330	-1356	-1246	-1462	-1394	-1407	-1403	-1281	-1247	-1238	-1210
<b>Fiscal indicators<sup>4</sup></b>																
High-employment (HEB) surplus/deficit	-491	-706	-844	-838	-639	-875	-846	-705	-920	-861	-888	-903	-811	-807	-832	-841
Change in HEB, percent of potential GDP	1.8	1.3	0.7	-0.2	1.1	1.5	-0.2	-0.9	1.3	-0.4	0.1	0.1	-0.6	-0.1	0.1	0.0
Fiscal impetus (FI), percent of GDP	0.8	1.0	1.0	-0.2	0.0	0.7	0.3	0.3	0.3	0.2	0.1	0.0	-0.2	-0.0	-0.1	-0.2
<i>Previous Greenbook</i>	0.8	1.0	0.9	-0.0	0.0	0.7	0.2	0.3	0.2	0.2	0.1	0.1	-0.1	-0.0	-0.1	-0.2

1. Budget receipts, outlays, and surplus/deficit include corresponding social security (OASDI) categories. The OASDI surplus and the Postal Service surplus are excluded from the on-budget surplus and shown separately as off-budget, as classified under current law.

2. Other means of financing are checks issued less checks paid, accrued items, and changes in other financial assets and liabilities.

3. Gross saving is the current account surplus plus consumption of fixed capital of the general government as well as government enterprises.

4. HEB is gross saving less gross investment (NIPA) of the federal government in current dollars, with cyclically sensitive receipts and outlays adjusted to the staff's measure of potential output and the NAIRU. Quarterly figures for change in HEB and FI are not at annual rates. The sign on Change in HEB, as a percent of nominal potential GDP, is reversed. FI is the weighted difference of discretionary changes in federal spending and taxes in chained (2005) dollars, scaled by real GDP. The annual FI estimates are on a calendar year basis. Also, for FI and the change in HEB, positive values indicate aggregate demand stimulus.

a--Actual

**Class II FOMC Restricted (FR)**      **Change in Debt of the Domestic Nonfinancial Sectors**      **October 29, 2009**  
(Percent)

Period <sup>1</sup>	Total	Households			Business	State and local governments	Federal government	Memo: Nominal GDP
		Total	Home mortgages	Consumer credit				
<i>Year</i>								
2004	8.9	11.1	13.5	5.6	6.3	7.4	9.0	6.4
2005	9.5	11.1	13.2	4.5	8.8	10.2	7.0	6.3
2006	9.0	10.1	11.1	4.1	10.5	8.2	3.9	5.4
2007	8.7	6.6	6.6	5.7	13.4	9.3	4.9	5.3
2008	5.9	.2	-.7	1.6	5.3	1.9	24.2	.1
2009	4.0	-.8	.1	-5.4	-.8	5.2	22.1	.4
2010	5.9	.9	.6	.3	1.9	4.2	21.0	4.8
2011	5.3	2.3	1.0	6.7	3.2	4.0	12.4	5.5
<i>Quarter</i>								
2008:1	5.4	2.9	2.3	4.5	7.8	3.6	8.1	1.0
2	3.3	.2	-.5	4.1	6.4	.9	5.9	3.5
3	8.2	-.5	-2.5	.6	5.1	3.3	39.2	1.4
4	6.3	-1.8	-1.8	-2.9	1.7	-.2	37.0	-5.4
2009:1	4.1	-1.1	-1.1	-3.7	-.0	4.5	22.6	-4.6
2	4.5	-1.7	-1.4	-6.5	-1.8	3.6	28.2	-.8
3	4.1	-.3	.9	-6.8	-1.5	5.4	20.7	4.2
4	2.8	.1	1.0	-5.2	.1	7.0	10.5	3.1
2010:1	7.3	.3	.5	-2.5	.8	4.2	30.1	5.0
2	5.3	.7	.5	-4	1.7	4.1	18.0	4.5
3	5.2	1.0	.6	1.1	2.3	4.2	15.6	4.7
4	5.3	1.5	.7	3.0	2.8	4.2	14.4	5.0
2011:1	4.9	1.8	.8	4.5	2.8	4.0	12.3	5.4
2	5.3	2.1	.9	6.0	3.3	4.0	12.7	5.5
3	5.1	2.5	1.0	7.3	3.2	3.9	11.3	5.6
4	5.2	2.8	1.1	8.4	3.2	3.9	11.2	5.5

Note. Quarterly data are at seasonally adjusted annual rates.

1. Data after 2009:Q2 are staff projections. Changes are measured from end of the preceding period to end of period indicated except for annual nominal GDP growth, which is calculated from Q4 to Q4.

2.6.3 FOF

**Class II FOMC Restricted (FR)** **Flow of Funds Projections: Highlights** **October 29, 2009**  
 (Billions of dollars at seasonally adjusted annual rates except as noted)

Category	2008	2009	2010	2011	2009				2010				2011				
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
<i>Domestic nonfinancial sectors</i>																	
Net funds raised																	
Total	1538.9	1338.0	1980.7	1840.5	1517.6	903.7	2537.7	1807.2	1757.5	1820.3	1726.4	1895.3	1840.5	1900.0			
Net equity issuance	-335.1	11.1	-75.0	-100.0	114.5	-80.0	-20.0	-80.0	-100.0	-100.0	-100.0	-100.0	-100.0	-100.0			
Net debt issuance	1874.0	1326.9	2055.7	1940.5	1403.1	983.7	2557.7	1887.2	1857.5	1920.3	1826.4	1995.3	1940.5	2000.0			
<i>Borrowing indicators</i>																	
Debt (percent of GDP) <sup>1</sup>	226.0	240.1	242.2	242.9	241.2	241.4	241.5	242.7	243.0	243.2	243.0	242.9	242.7	242.6			
Borrowing (percent of GDP)	13.0	9.3	13.9	12.4	9.8	6.8	17.5	12.8	12.5	12.7	11.9	12.9	12.3	12.6			
<i>Households</i>																	
Net borrowing <sup>2</sup>	26.6	-103.8	118.8	318.7	-39.1	16.2	35.2	97.0	143.6	199.4	248.1	294.4	346.3	386.0			
Home mortgages	-68.5	10.7	61.7	102.1	95.0	104.5	47.5	57.0	66.5	76.0	85.5	95.0	109.2	118.7			
Consumer credit	40.2	-140.9	7.4	165.0	-173.0	-128.8	-60.7	-8.9	26.7	72.5	111.7	148.1	185.3	215.1			
Debt/DPI (percent) <sup>3</sup>	127.4	126.3	122.5	119.5	125.7	125.1	123.5	123.1	122.0	120.9	120.8	119.8	118.9	118.2			
<i>Business</i>																	
Financing gap <sup>4</sup>	231.4	-178.8	-207.0	-74.7	-284.3	-239.2	-235.5	-228.9	-202.3	-161.5	-121.4	-86.4	-58.2	-32.9			
Net equity issuance	-335.1	11.1	-75.0	-100.0	114.5	-80.0	-20.0	-80.0	-100.0	-100.0	-100.0	-100.0	-100.0	-100.0			
Credit market borrowing	566.6	-89.9	209.4	356.9	-167.5	12.0	87.2	188.2	253.0	309.3	320.5	375.1	364.4	367.5			
<i>State and local governments</i>																	
Net borrowing	41.6	116.8	99.8	97.8	123.1	161.8	97.8	97.8	101.8	101.8	97.8	97.8	97.8	97.8			
Current surplus <sup>5</sup>	212.7	222.9	274.9	232.3	204.5	231.2	267.2	272.1	277.3	283.1	237.9	236.8	229.2	225.5			
<i>Federal government</i>																	
Net borrowing	1239.2	1402.9	1627.7	1167.2	1486.6	793.7	2337.5	1504.2	1359.2	1309.8	1160.0	1228.0	1132.0	1148.8			
Net borrowing (n.s.a.)	1239.2	1402.9	1627.7	1167.2	378.7	220.4	690.4	241.1	346.8	349.5	396.0	172.0	290.0	309.2			
Unified deficit (n.s.a.)	680.5	1462.2	1436.1	1147.2	330.8	377.6	493.9	251.0	331.8	359.5	406.0	147.0	275.0	319.2			
<i>Depository institutions</i>																	
Funds supplied	415.1	-465.7	77.4	89.3	-774.8	-70.9	-399.2	104.0	-610.5	1215.4	-77.9	-180.2	411.7	203.7			

Note. Data after 2009:Q2 are staff projections.

1. Average debt levels in the period (computed as the average of period-end debt positions) divided by nominal GDP.

2. Includes change in liabilities not shown in home mortgages and consumer credit.

3. Average debt levels in the period (computed as the average of period-end debt positions) divided by disposable personal income.

4. For corporations, excess of capital expenditures over U.S. internal funds.

5. NIPA state and local government saving plus consumption of fixed capital and net capital transfers.

n.s.a. Not seasonally adjusted.

2.6.4 FOF

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## International Developments

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Economic recovery abroad is strengthening and becoming more broadly based. While the emerging Asian economies are still outperforming the rest of the world, the change in real GDP in the other emerging market economies (EMEs) as well as in the advanced foreign economies (AFEs) is estimated to have turned positive in the third quarter, with Latin America showing a particularly hefty rebound. Overall, trade-weighted foreign economic growth is estimated to have been nearly 4½ percent in the third quarter. We expect some cooling in the pace of expansion in the EMEs in the current quarter, bringing average foreign growth to about 3½ percent. Foreign economic growth is expected to continue at around 3½ percent next year and to pick up to 4 percent in 2011.

However, there are significant risks to this forecast. It is not yet clear to what extent the recovery is self-sustaining, particularly given the important role that policy stimulus has played in the revival of demand so far. Performance remains mixed across the AFEs, with the U.K. economy continuing to contract in the third quarter. External demand played a key role in the rapid growth of many EMEs prior to the crisis, and it remains to be seen how durable their recoveries will be if growth of exports to advanced economies is less vigorous over the forecast period.

Following earlier declines induced by falling commodity prices, consumer prices increased in most countries during the third quarter (with the continued notable exception of Japan). We expect foreign inflation to average about 2 percent in the current quarter and to ease a bit going forward in response to more muted increases in commodity prices and sizeable continued economic slack.

Financial conditions abroad are generally little changed on balance since September, although equity prices have moved lower in some key foreign economies. The broad real dollar is down slightly since the last forecast. The dollar is expected to depreciate at an average rate of around 2 percent over the forecast period, similar to the previous projection.

The broadening recovery, along with a greater-than-expected reduction in U.S. oil inventories, also appears to have been a factor in the approximately \$9 per barrel jump in the spot price of West Texas Intermediate (WTI) crude oil to \$77.46 since mid-October. We project oil prices will move up to about \$86 by the end of the forecast period, in line with the path of futures prices. Similarly, prices of other commodities, which also have rebounded this year, are projected to continue to rise, but at slower rates, going forward.

**Summary of Staff Projections**

(Percent change from end of previous period, annual rate, except as noted)

Indicator	2009		Projection			
			2009		2010	2011
	Q1	Q2	Q3	Q4		
Foreign output	-8.6	1.7	4.4	3.6	3.6	4.1
Previous Greenbook	-8.6	1.7	3.8	3.2	3.5	4.1
Foreign CPI	-1.0	1.0	1.5	2.0	1.7	1.8
Previous Greenbook	-1.0	1.0	1.7	1.7	1.6	1.8
	Contribution to growth (percentage points)					
U.S. net exports	2.6	1.6	-.6	.1	.0	-.1
Previous Greenbook	2.6	1.6	-.2	-.1	-.2	-.2

Note: Changes for years measured as Q4/Q4.

We estimate that the contribution of net exports to real GDP growth was about negative ½ percentage point in the third quarter, with exports and imports both up sharply following second-quarter declines. In the fourth quarter, we expect net exports to add slightly to growth as the improvement in foreign activity and previous declines in the dollar provide substantial support to exports. For the remainder of the forecast period, we expect export growth of nearly 9 percent at an annual rate and import growth averaging about 7½ percent. These increases are considerably faster than projected GDP growth both here and abroad, consistent with the typical pattern during cyclical recoveries. Although export growth is projected to outpace that of imports, net exports are expected to make a very small negative contribution to GDP growth over this period because of the higher level of imports. Relative to the September Greenbook, our projection for the contribution is a little less negative on average, as a result of the slightly lower path for the dollar.

**International Financial Markets**

Since the September Greenbook, the dollar has declined about ½ percent on net against the major foreign currencies. During the first several weeks of the period an apparent increase in risk appetite and better prospects for global economic activity, combined with some stabilization in funding conditions, seemed to foster further unwinding of the crisis-

induced demand for dollars. Later in the period, however, the dollar reversed part of its decline, as weaker-than-expected U.S. data on consumer confidence and home sales sparked some concern about the strength of the recovery. On balance, the dollar was little changed against most of the major foreign currencies, but it fell 4½ percent versus the Australian dollar, as the Reserve Bank of Australia became the first G-20 central bank to hike policy rates. The dollar depreciated 1 percent against the currencies of our other important trading partners despite intervention by several Asian and Latin American central banks to stem appreciation of their currencies. All told, these developments left the starting point for the projected path of the staff's broad real index of the dollar down nearly 1 percent relative to the September Greenbook. We project that the broad real value of the dollar will depreciate 1½ percent next year and about 2¾ percent in 2011. The greater depreciation for 2011 partly reflects an expected step-up in the rate of appreciation of the Chinese renminbi.

Expected policy rates 12 months from now have risen broadly in the major advanced foreign economies despite indications that monetary policy in most countries will remain accommodative for some time. The Bank of England kept its policy rate and its asset-purchase program unchanged, as expected. Although the October Monetary Policy Committee minutes were seen by market participants as suggesting earlier rate increases than had been anticipated, as well as a diminished likelihood of an increase in asset purchases, last week's lower-than-expected GDP data pared back such expectations. The ECB left its policy rate unchanged at 1 percent at its last meeting, and its second 12-month long-term refinancing operation was again conducted at a fixed rate of 1 percent, temporarily damping market expectations for rate increases within the next year. The Bank of Canada kept its key policy rate unchanged at its October meeting, and the Bank reiterated its intention to maintain its stance through mid-2010.

Ten-year sovereign yields in Europe changed little on net and increased about 10 basis points in Japan and Canada. Broad stock indexes were flat in the United Kingdom and declined from 2 to 6 percent in the other AFEs. Stock prices in Mexico and Korea also declined on net over the period, but rose in most of the other major EMEs. CDS spreads on emerging market sovereign debt edged a bit lower.

### **Advanced Foreign Economies**

Recent indicators for the AFEs are consistent with a moderate but uneven recovery of economic activity in the third quarter. Industrial production and trade volumes rebounded from first-half lows in most countries, with exports providing a particularly

large boost to the Japanese economy. Increases in new orders and purchasing managers' indexes point to some momentum in the manufacturing sector, and retail sales data suggest some improvement in consumption spending, which has been supported by fiscal stimulus and a modest rise in consumer confidence. Labor market indicators show continued stress in the euro area and Japan, but employment rose in both August and September in Canada, where domestic demand shows signs of recovery. In the United Kingdom, the preliminary estimate for GDP in the third quarter surprised on the downside, with continued contraction at a 1½ percent rate; U.K. services output fell despite strong retail sales and a marked rebound in services PMIs. For the AFEs in aggregate, we estimate that GDP rose at a 1¾ percent annual rate in the third quarter after five consecutive quarters of decline.

We project output growth to pick up to a 2½ percent rate in the fourth quarter, remain there in 2010, and then rise to 3¼ percent in 2011. This path is only slightly stronger than that in the previous Greenbook, as data have on balance confirmed our expectation for a moderate recovery supported by stabilizing credit conditions, rebounding business and consumer sentiment, and strengthening demand from the EMEs and the United States.

After having dropped at an annual rate of ¾ percent in the first half of this year, consumer prices in the AFEs are expected to rise around ¾ percent in the second half, consistent with the projected path of oil and other commodity prices. For the remainder of the forecast period, we project inflation to be around 1 percent. Despite significant slack, we are not anticipating a substantial deceleration in prices, as core inflation has so far been relatively stable (except in Japan, where it has fallen into negative territory) and inflation expectations have remained well anchored.

We assume that major central banks will hold their policy rates unchanged at very low levels through the remainder of this year and most of next year. The Bank of Canada is expected to wait until late next year to begin raising its policy rate, consistent with its conditional commitment to keep its policy rate at 25 basis points through 2010:Q2. The Bank of England is expected to begin tightening soon thereafter, in early 2011. The ECB is forecast to guide overnight rates, currently at around 35 basis points, back up toward its 1 percent policy rate during the next year and to begin raising this rate in 2011. In contrast, the Bank of Japan is assumed to maintain its policy target at its current level, which is near zero, throughout the forecast period.

We expect fiscal stimulus to continue to boost economic growth in the second half of this year across the major foreign economies but to have a minimal impact next year and to subtract some from AFE growth in 2011.

**Staff Projections for Foreign GDP Growth by Region**  
(Percent change from end of previous period, annual rate)

Indicator	2009		Projection			
			2009		2010	2011
	Q1	Q2	Q3	Q4		
Advanced Foreign Economies	-7.9	-1.6	1.8	2.5	2.6	3.2
Previous Greenbook	-7.8	-1.5	2.1	2.1	2.5	3.2
Emerging Market Economies	-9.6	6.0	7.7	5.0	4.9	5.2
Previous Greenbook	-9.6	6.0	6.2	4.5	4.7	5.2

Note: Changes for years measured as Q4/Q4.

### Emerging Market Economies

We estimate that economic growth in the EMEs picked up to a 7¾ percent pace in the third quarter, somewhat higher than projected in the September Greenbook. Although growth in emerging Asia moved down from its very rapid second-quarter pace, it did not slow quite as much as we had anticipated. Meanwhile, the Latin American economies are showing greater strength than previously projected.

Third-quarter GDP growth appears to have remained quite robust across emerging Asia. Based on official data, we estimate that China's real GDP grew at a 9¾ percent annual rate in the third quarter, a sharp deceleration from the second-quarter pace but still above trend. Korean real GDP increased at a 12 percent annual rate in the third quarter, as the pace of inventory decumulation slowed and exports continued to rise. Singapore's preliminary GDP release suggests that real GDP grew at a 15 percent annual rate in the third quarter. We continue to project that emerging Asia's growth will ease to about 6 percent in the fourth quarter and beyond, as the Chinese authorities gradually withdraw policy support and the temporary lift provided by the turn in the inventory cycle dissipates.

Economic conditions have improved in Latin America. We estimate that the Mexican economy rebounded at a 7¾ percent annual rate in the third quarter following a severe contraction in the first half of the year. This estimate is higher than our projection in the

September Greenbook, in line with stronger data on U.S. manufacturing production. Brazil's recovery, which began in the second quarter, has continued to be boosted by strong consumption growth and job creation, and we expect this dynamism to persist. On average, we project the Latin American economies to grow at a 5½ percent rate during the second half of 2009, 1½ percentage points above our projection in the September Greenbook. Thereafter, real GDP growth should slow to around 4¼ percent by the end of the forecast period.

Consumer price inflation has continued to increase from low or negative rates in Asia. In contrast, it has been receding from relatively high rates in Latin America, as the effects of last year's currency depreciations fade. We expect these trends to continue, with aggregate quarterly inflation in the EMEs hovering at an annual rate of about 2½ percent over the forecast period. This projection is little changed from the September Greenbook.

### **Commodity Prices**

After holding fairly steady around \$70 per barrel for much of the intermeeting period, oil prices began moving higher in mid-October. The spot price of WTI crude oil closed on October 28 at \$77.46 per barrel. The prices of futures contracts dated for delivery further out also have moved up. Consistent with the path of futures prices, we currently project that the spot price of WTI will rise to \$86 per barrel by the end of next year. This projection is nearly \$9 per barrel higher, on average, over the forecast period than in the September Greenbook.

While the magnitude of the recent price increase is somewhat surprising, it appears to reflect continued improvement in the outlook for global economic activity. Additional upward pressure on near-term futures prices may also be stemming from a series of larger-than-expected U.S. inventory draws, which have pushed stocks at Cushing, Oklahoma, the delivery point for WTI, down to levels not seen since late last year.

Nonfuel commodity prices have also moved up on average since the time of the September Greenbook, continuing their rebound from earlier sharp declines. We estimate that nonfuel commodity prices will rise at an annual rate of 11 percent in the current quarter, up somewhat from the previous forecast, but still well below the 40 percent rates of increase seen in the previous two quarters. Going forward, we expect only small further increases in commodity prices, consistent with readings from futures markets.

### Prices of Internationally Traded Goods

Core import price inflation turned positive in the third quarter following three quarters of decline, boosted by both a weaker dollar and the effect of increases in prices of commodities on the cost of material-intensive imports. We expect core import prices to rise at an annual rate of 4½ percent in the current quarter, reflecting continued dollar depreciation as well as recent increases in commodity prices. Further out, we project increases of about 1¼ percent on average in 2010 and 2011 as the dollar depreciates only modestly and commodity prices flatten out.

Core export prices rose at an annual rate of 5.3 percent in the third quarter of this year, partly reflecting the rebound in commodity prices. Prices for industrial supplies, capital goods, and consumer goods rose, while prices of automotive and agricultural products declined. We project core export prices to increase at around 4½ percent in the fourth quarter, before decelerating to 2 percent in 2010 and to just above 1 percent in 2011, consistent with the projected path for commodity prices.

### Staff Projections of Selected Trade Prices

(Percent change from end of previous period, annual rate, except as noted)

Trade category	2009		Projection			
			2009		2010	2011
	Q1	Q2	Q3	Q4		
<i>Imports</i>						
Core goods	-9.4	-2.3	1.0	4.4	1.5	1.0
Previous Greenbook	-9.4	-2.4	3.5	3.5	1.3	1.0
Oil (dollars per barrel)	41.58	53.71	65.34	74.10	79.11	81.49
Previous Greenbook	41.58	53.71	64.56	64.68	70.58	72.72
<i>Exports</i>						
Core goods	-12.5	2.4	5.3	4.5	2.1	1.2
Previous Greenbook	-12.5	2.6	4.0	3.2	1.9	1.2

Note: Prices for core exports exclude computers and semiconductors. Prices for core imports exclude computers, semiconductors, oil, and natural gas. Both prices are on a national income and product account chain-weighted basis.

The price of imported oil for multiquarter periods is the price for the final quarter of the period. Imported oil includes both crude oil and refined products.

### Trade in Goods and Services

Although August data were somewhat weaker than we had expected for both exports and imports, the readings are still consistent with a strong cyclical rebound in trade in the third quarter. We now estimate that real exports of goods and services rose nearly 15 percent at an annual rate in the third quarter, about 6 percentage points lower than in the September Greenbook. We expect real exports to continue to recover over the forecast period, increasing at an average annual rate of almost 9 percent. Projected increases in exports are driven by recent and expected declines in the dollar, solid foreign GDP growth, and a cyclical snapback in the ratio of trade to GDP. Beyond the current quarter, this forecast is somewhat higher than in the September Greenbook, mainly due to the lower path of the dollar.

Real imports of goods and services are estimated to have increased about 16 percent at an annual rate in the third quarter, boosted notably by a sharp rebound in imports of automotive products in July and August. This estimate is 2 percentage points lower than in the September Greenbook. For the remainder of the forecast period, we expect imports to grow about 7½ percent on average, supported by continued U.S. GDP growth and the cyclical recovery in trade. This projection is about ½ percentage point lower than in the previous Greenbook, owing in part to our lower path for the dollar.

**Staff Projections for  
Trade in Goods and Services**  
(Percent change from end of previous period, annual rate)

Measure	2009		Projection			
			2009		2010	2011
	Q1	Q2	Q3	Q4		
Real imports	-36.4	-14.7	16.3	6.4	7.0	7.7
Previous Greenbook	-36.4	-14.8	18.4	7.2	8.0	8.0
Real exports	-29.9	-4.1	14.7	9.6	8.7	8.8
Previous Greenbook	-29.9	-4.6	20.9	8.1	8.2	8.6

Note: Changes for years are measured as Q4/Q4.

### Alternative Simulations

We used a three-sector variant of the SIGMA model to examine two alternative scenarios: a dollar risk-premium shock that causes a 10 percent depreciation of the broad real dollar and a recovery in the EMEs that is stronger than we are currently projecting. In the simulations, we assume that monetary policy in both the United States and an aggregate AFE sector follows a Taylor rule subject to the zero lower bound constraint on nominal interest rates, which are close to zero in the baseline. Nominal interest rates in the third sector, an EME aggregate, are not near zero in the baseline, and monetary policy is thus not similarly constrained from reducing policy rates if warranted.

**Dollar depreciation.** This shock, which occurs in 2009:Q4, causes the dollar to depreciate 10 percent below baseline after a year, boosting growth of U.S. real GDP  $\frac{3}{4}$  percentage point in 2010. Output rises both because U.S. exports become more competitive abroad and because U.S. consumers substitute away from imports toward domestically produced goods. Core PCE price inflation rises gradually in response to higher import prices and greater resource utilization and peaks at  $\frac{1}{2}$  percentage point above baseline in 2010:H1. Because the federal funds rate remains near zero through 2010, higher expected inflation causes short-term real interest rates to decline, raising domestic demand and contributing to the rise in output. Policy rates begin rising in 2011:Q2, well before the 2012 liftoff embedded in our baseline. With higher policy rates and some waning of the shock, the level of output gradually reverts toward baseline beginning in 2012. The nominal trade balance as a percentage of GDP improves more than 1 percentage point in 2011. In this simulation, the 10 percent depreciation of the broad dollar is equally distributed across AFEs and EMEs.

**Stronger EME demand.** In this scenario, a demand shock in the EMEs beginning in 2009:Q4 raises EME growth 2 percentage points above baseline by the end of 2010. In response, growth of U.S. real GDP increases about  $\frac{1}{2}$  percentage point in 2009:H2 and slightly more in 2010. U.S. exports rise because of higher foreign activity and a modest depreciation of the dollar. U.S. domestic demand also increases, spurred by a decline in real interest rates given that the economy is at the zero lower bound. Core PCE price inflation increases about  $\frac{1}{2}$  percentage point in 2009:H2 and  $\frac{1}{4}$  percentage point in 2010, reflecting both higher import prices due to dollar depreciation and greater resource utilization.

**Alternative Scenario:  
Dollar Depreciation**

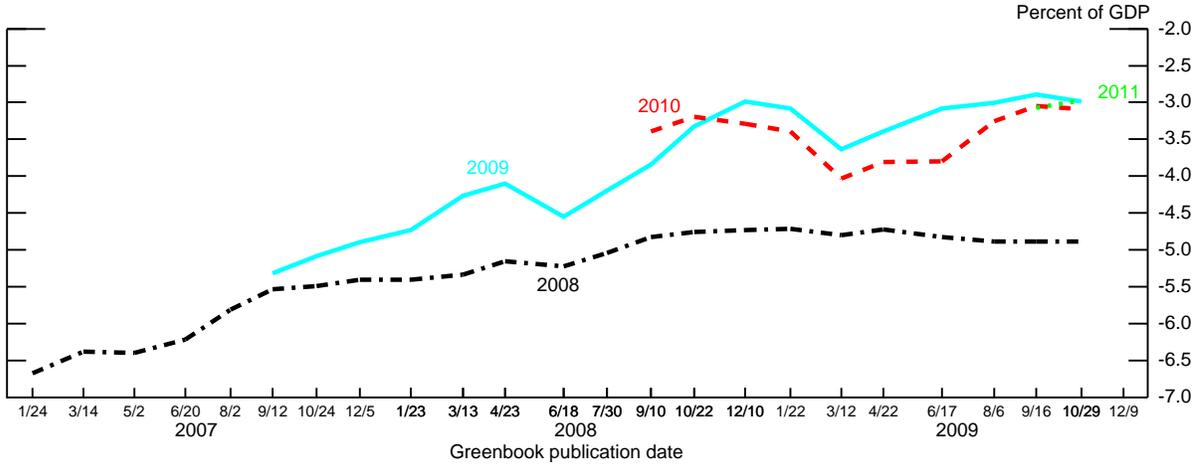
(Percent change from previous period, annual rate, except as noted)

Indicator and simulation	2009	2010		2011	2012-13
	H2	H1	H2		
<i>U.S. real GDP</i>					
Baseline	3.1	3.2	3.7	4.4	4.9
Dollar Depreciation	3.2	3.8	4.7	4.6	4.8
Stronger EME Demand	3.6	4.0	4.1	4.4	4.8
<i>U.S. PCE prices (excluding food and energy)</i>					
Baseline	1.3	1.0	1.1	1.0	1.2
Dollar Depreciation	1.5	1.6	1.7	1.2	1.4
Stronger EME Demand	1.7	1.3	1.3	1.1	1.3
<i>U.S. federal funds rate (percent)</i>					
Baseline	.1	.1	.1	.1	3.5
Dollar Depreciation	.1	.1	.1	1.0	4.1
Stronger EME Demand	.1	.1	.1	.5	3.8
<i>U.S. trade balance (percent share of GDP)</i>					
Baseline	-3.0	-3.0	-2.9	-2.9	-2.7
Dollar Depreciation	-2.8	-2.2	-1.7	-1.8	-1.9
Stronger EME Demand	-2.7	-2.6	-2.5	-2.6	-2.6

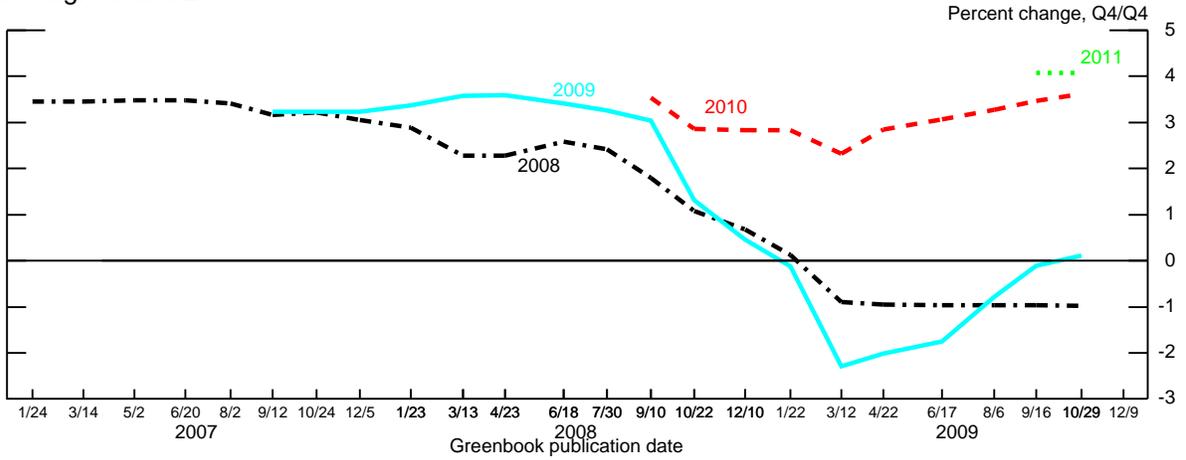
Note: H1 is Q2/Q4; H2 is Q4/Q2. U.S. real GDP and U.S. PCE prices are the average rates over the period. The federal funds rate and the trade balance are the values for the final quarter of the period.

### Evolution of the Staff Forecast

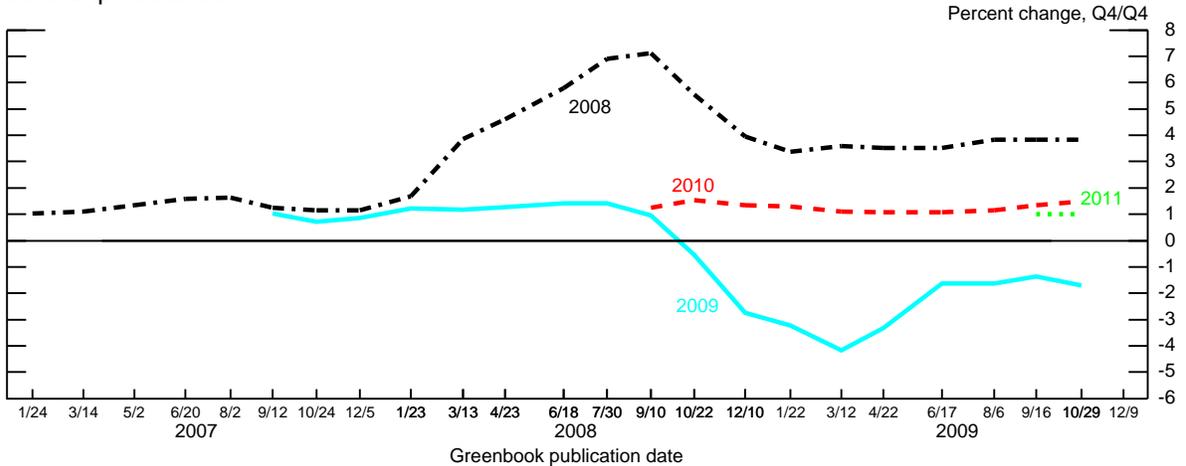
Current Account Balance



Foreign Real GDP



Core Import Prices\*



\*Prices for merchandise imports excluding computers, semiconductors, oil, and natural gas.

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OUTLOOK FOR FOREIGN REAL GDP AND CONSUMER PRICES: SELECTED COUNTRIES  
(Percent changes)

Measure and country	2009				Projected 2010				2011			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
REAL GDP (1)	----- Quarterly changes at an annual rate -----											
Total Foreign	-8.6	1.7	4.4	3.6	3.3	3.5	3.7	3.9	4.0	4.1	4.1	4.1
Advanced Foreign Economies	-7.9	-1.6	1.8	2.5	2.3	2.6	2.7	2.9	3.1	3.2	3.3	3.3
Of which:												
Canada	-6.1	-3.4	2.0	3.3	3.1	3.1	3.3	3.3	3.8	3.8	3.9	3.9
Japan	-12.4	2.3	4.2	2.5	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0
United Kingdom	-9.6	-2.3	-1.6	2.4	1.9	2.5	2.8	3.0	3.0	3.0	3.2	3.2
Euro Area (2)	-9.6	-0.7	1.8	1.6	1.6	2.0	2.3	2.6	2.7	2.8	3.0	3.0
Germany	-13.4	1.3	2.7	2.4	2.1	2.2	2.4	2.7	2.8	3.0	3.5	3.6
Emerging Market Economies	-9.6	6.0	7.7	5.0	4.7	4.8	5.0	5.2	5.1	5.2	5.2	5.2
Asia	-2.7	14.3	9.3	5.7	5.8	5.8	5.9	6.1	6.0	6.0	6.1	6.0
Korea	0.5	11.0	12.3	3.8	3.8	4.4	4.4	4.4	4.4	4.4	4.4	4.4
China	6.5	18.5	9.8	10.0	8.8	8.2	8.2	8.5	8.6	8.7	8.8	8.8
Latin America	-16.7	-1.8	6.7	4.5	3.7	4.0	4.2	4.4	4.3	4.3	4.3	4.3
Mexico	-21.2	-4.4	7.8	4.7	3.5	4.0	4.2	4.5	4.5	4.5	4.5	4.5
Brazil	-3.8	7.8	6.0	4.5	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
CONSUMER PRICES (3)	----- Four-quarter changes -----											
Total Foreign	1.8	0.9	0.2	0.9	1.5	1.7	1.8	1.7	1.7	1.8	1.8	1.8
Advanced Foreign Economies	1.0	0.0	-0.8	-0.0	0.6	0.9	1.1	1.0	1.0	1.1	1.1	1.2
Of which:												
Canada	1.2	0.1	-0.9	0.3	0.9	1.2	1.5	1.5	1.6	1.7	1.7	1.8
Japan	-0.1	-1.0	-2.2	-1.7	-1.1	-0.9	-0.6	-0.7	-0.7	-0.6	-0.6	-0.6
United Kingdom (4)	3.0	2.1	1.5	2.0	2.6	2.4	1.9	1.7	1.2	1.4	1.6	1.8
Euro Area (2)	1.0	0.2	-0.4	0.3	0.9	1.2	1.4	1.2	1.2	1.2	1.3	1.3
Germany	0.8	0.2	-0.4	0.3	0.6	0.9	1.2	1.0	1.1	1.1	1.1	1.1
Emerging Market Economies	2.7	1.6	1.2	1.7	2.4	2.5	2.4	2.4	2.4	2.5	2.5	2.5
Asia	1.0	-0.3	-0.5	0.6	1.8	2.2	2.2	2.1	2.1	2.2	2.2	2.2
Korea	3.9	2.8	2.0	2.0	2.1	2.0	2.0	2.2	2.2	2.3	2.3	2.3
China	-0.6	-1.5	-0.2	-0.2	1.3	1.7	1.8	1.7	1.7	1.8	1.9	1.9
Latin America	6.3	5.9	4.9	4.0	3.6	2.9	2.9	2.9	3.0	3.0	3.0	3.0
Mexico	6.2	6.0	5.1	4.0	3.5	2.7	2.5	2.5	2.5	2.5	2.5	2.5
Brazil	5.9	5.3	4.3	4.1	3.8	3.5	3.6	3.7	3.7	3.7	3.7	3.7

1. Foreign GDP aggregates calculated using shares of U.S. exports.
2. Harmonized data for euro area from Eurostat.
3. Foreign CPI aggregates calculated using shares of U.S. non-oil imports.
4. CPI excluding mortgage interest payments, which is the targeted inflation rate.



OUTLOOK FOR U.S. INTERNATIONAL TRANSACTIONS

	2003	2004	2005	2006	2007	2008	2009	Projected 2010	Projected 2011
<b>NIPA REAL EXPORTS and IMPORTS</b>									
Percentage point contribution to GDP growth, Q4/Q4									
Net Goods & Services	-0.1	-0.9	-0.2	0.4	1.0	0.7	1.0	-0.0	-0.1
Exports of G&S	0.6	0.7	0.7	1.1	1.2	-0.4	-0.5	1.0	1.0
Imports of G&S	-0.7	-1.6	-0.8	-0.7	-0.2	1.2	1.5	-1.0	-1.1
Percentage change, Q4/Q4									
Exports of G&S	6.2	7.1	6.7	10.2	10.2	-3.4	-4.1	8.7	8.8
Services	4.3	9.1	3.6	12.0	13.0	-3.5	-1.6	6.0	5.9
Computers	11.3	5.8	14.2	8.4	1.3	-2.4	5.0	9.5	9.5
Semiconductors	38.3	-6.0	17.6	2.1	29.1	-12.7	19.5	11.0	11.0
Core Goods 1/	4.8	7.2	7.2	9.9	8.4	-3.1	-6.6	10.1	10.2
Imports of G&S	5.1	10.9	5.2	4.1	0.9	-6.8	-9.5	7.0	7.7
Services	3.3	8.8	2.3	7.1	2.0	0.2	-3.5	3.9	5.9
Oil	1.3	10.7	1.3	-8.2	0.0	0.3	-10.7	-2.9	-0.8
Natural Gas	1.3	4.9	13.7	-10.1	13.4	-24.0	4.8	8.6	0.9
Computers	17.1	23.2	12.5	14.3	8.8	-11.3	14.5	15.5	15.5
Semiconductors	-0.1	9.8	7.5	-0.8	3.6	-9.7	7.2	5.0	5.0
Core Goods 2/	5.3	10.9	5.8	5.8	0.2	-9.8	-12.8	10.1	10.0
Billions of Chained 2000 Dollars									
Net Goods & Services	-603.9	-688.0	-722.7	-729.2	-647.7	-494.3	-352.0	-341.8	-349.2
Exports of G&S	1116.8	1222.8	1305.1	1422.0	1546.1	1629.3	1456.6	1582.7	1723.1
Imports of G&S	1720.7	1910.8	2027.8	2151.2	2193.8	2123.5	1808.5	1924.5	2072.3
Billions of dollars									
US CURRENT ACCOUNT BALANCE	-521.5	-631.1	-748.7	-803.5	-726.6	-706.1	-426.0	-457.9	-464.4
Current Acct as Percent of GDP	-4.7	-5.3	-5.9	-6.0	-5.2	-4.9	-3.0	-3.1	-3.0
Net Goods & Services (BOP)	-495.0	-610.0	-715.3	-760.4	-701.4	-695.9	-378.0	-439.0	-453.5
Investment Income, Net	51.0	73.4	78.8	54.7	97.9	125.5	83.9	108.9	117.0
Direct, Net	112.7	150.9	173.2	174.0	236.7	249.9	205.0	230.8	252.0
Portfolio, Net	-61.7	-77.5	-94.4	-119.4	-138.8	-124.3	-121.1	-121.9	-135.0
Other Income & Transfers, Net	-77.5	-94.5	-112.2	-97.9	-123.1	-135.7	-131.9	-127.9	-127.9

1. Merchandise exports excluding computers and semiconductors.  
2. Merchandise imports excluding oil, natural gas, computers, and semiconductors.

OUTLOOK FOR U.S. INTERNATIONAL TRANSACTIONS

	2006				2007				2008			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
NIPA REAL EXPORTS and IMPORTS												
Percentage point contribution to GDP growth												
Net Goods & Services	0.4	0.0	-0.7	1.9	-0.3	0.7	1.4	2.2	0.4	2.4	-0.1	0.5
Exports of G&S	1.6	0.7	0.1	1.8	0.4	0.6	2.0	1.6	-0.0	1.5	-0.5	-2.7
Imports of G&S	-1.2	-0.7	-0.8	0.1	-0.7	0.1	-0.6	0.6	0.4	0.9	0.4	3.1
Percentage change from previous period, s.a.a.r.												
Exports of G&S	16.5	6.9	0.6	17.8	3.5	5.2	18.5	14.5	-0.1	12.1	-3.6	-19.5
Services	13.6	5.6	1.5	29.1	4.7	2.8	27.2	19.2	-9.0	7.8	-7.7	-4.3
Computers	18.1	8.9	-9.6	19.0	11.6	-15.4	11.5	0.0	8.7	33.5	1.3	-38.3
Semiconductors	22.1	19.5	-14.2	-13.3	23.7	26.3	4.7	69.9	15.0	-3.8	6.5	-50.7
Core Goods 1/	17.6	6.7	1.6	14.5	1.5	6.4	15.4	10.8	3.5	14.3	-2.2	-23.7
Imports of G&S	7.8	4.5	4.9	-0.5	4.3	-0.5	3.7	-3.6	-2.5	-5.0	-2.2	-16.7
Services	16.1	1.8	1.3	10.0	0.4	2.1	8.6	-2.9	3.0	-7.1	6.1	-0.9
Oil	-20.8	5.0	22.1	-30.1	0.8	14.7	-3.4	-10.4	-1.5	-9.3	2.7	10.3
Natural Gas	-50.2	80.0	26.1	-42.2	52.8	54.0	36.5	-48.5	-5.0	-38.2	12.2	-49.5
Computers	24.8	13.0	17.3	3.1	39.0	-15.4	-2.2	21.6	12.7	8.6	-15.9	-39.9
Semiconductors	2.4	-2.8	17.4	-17.3	7.3	2.6	-0.4	4.9	5.6	8.9	-6.3	-38.2
Core Goods 2/	14.0	3.1	0.6	5.8	3.1	-3.6	4.1	-2.5	-5.1	-3.2	-5.1	-24.2
Billions of Chained 2000 Dollars, s.a.a.r.												
Net Goods & Services	-732.6	-732.8	-756.5	-694.9	-705.0	-683.4	-638.4	-564.0	-550.9	-476.0	-479.2	-470.9
Exports of G&S	1388.8	1412.1	1414.1	1473.2	1485.9	1504.8	1569.9	1624.0	1623.4	1670.4	1655.2	1568.0
Imports of G&S	2121.3	2144.9	2170.5	2168.1	2190.8	2188.1	2208.3	2188.0	2174.3	2146.5	2134.4	2038.9
Billions of dollars, s.a.a.r.												
US CURRENT ACCOUNT BALANCE	-794.6	-808.3	-859.2	-752.1	-796.4	-762.1	-686.5	-661.3	-717.2	-750.9	-736.7	-619.5
Current Account as % of GDP	-6.0	-6.1	-6.4	-5.5	-5.8	-5.4	-4.8	-4.6	-5.0	-5.2	-5.1	-4.3
Net Goods & Services (BOP)	-766.5	-764.7	-797.2	-713.1	-712.2	-710.2	-685.9	-697.4	-730.6	-731.4	-743.8	-578.0
Investment Income, Net	62.4	57.7	44.0	54.6	45.8	58.2	120.7	167.0	154.0	112.3	143.7	92.1
Direct, Net	173.9	175.2	163.1	183.9	186.7	204.4	252.7	303.0	284.6	241.9	268.0	205.1
Portfolio, Net	-111.5	-117.5	-119.1	-129.3	-140.9	-146.2	-132.0	-136.0	-130.6	-129.6	-124.2	-113.0
Other Inc. & Transfers, Net	-90.5	-101.3	-106.0	-93.6	-130.0	-110.1	-121.3	-130.9	-140.6	-131.8	-136.7	-133.6

1. Merchandise exports excluding computers and semiconductors.  
2. Merchandise imports excluding oil, natural gas, computers, and semiconductors.

OUTLOOK FOR U.S. INTERNATIONAL TRANSACTIONS

	2009				2010				Projected 2011			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
NIPA REAL EXPORTS and IMPORTS												
Percentage point contribution to GDP growth												
Net Goods & Services	2.6	1.7	-0.6	0.1	-0.1	0.2	-0.1	-0.0	-0.3	-0.0	-0.1	0.0
Exports of G&S	-4.0	-0.5	1.5	1.0	0.9	0.9	1.0	1.1	1.0	1.0	1.0	1.1
Imports of G&S	6.6	2.1	-2.0	-0.9	-1.0	-0.8	-1.1	-1.1	-1.3	-1.0	-1.1	-1.1
Percentage change from previous period, s.a.a.r.												
Exports of G&S	-29.9	-4.1	14.7	9.6	8.2	8.5	8.9	9.4	8.9	8.5	8.5	9.1
Services	-13.6	0.1	2.8	5.5	5.2	5.8	6.3	6.7	6.3	5.8	5.7	5.7
Computers	-14.0	-10.8	30.2	21.4	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
Semiconductors	-17.1	27.7	61.7	19.3	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Core Goods 1/	-38.3	-7.2	19.7	11.1	9.6	9.9	10.2	10.8	10.2	9.9	9.9	10.9
Imports of G&S	-36.4	-14.7	16.3	6.4	7.4	5.5	7.5	7.7	8.9	7.1	7.6	7.3
Services	-11.5	-7.5	2.8	3.1	6.4	-0.1	4.2	5.1	5.5	5.9	6.0	6.1
Oil	-15.9	-21.9	1.4	-4.5	-3.4	-4.5	-1.4	-2.3	3.9	-4.6	-1.0	-1.4
Natural Gas	5.9	-2.4	-17.6	41.6	41.3	-13.3	30.6	-12.9	9.6	-15.9	27.2	-11.6
Computers	-22.3	24.7	57.3	12.9	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
Semiconductors	-47.8	24.7	57.0	29.2	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Core Goods 2/	-46.7	-18.6	21.7	9.2	9.6	9.7	10.0	10.9	10.8	10.3	9.3	9.5
Billions of Chained 2000 Dollars, s.a.a.r.												
Net Goods & Services	-386.5	-330.4	-348.3	-342.7	-345.9	-339.7	-340.8	-340.7	-348.0	-348.3	-351.0	-349.7
Exports of G&S	1434.5	1419.5	1469.1	1503.2	1533.0	1564.7	1598.4	1634.6	1669.9	1704.5	1739.7	1778.1
Imports of G&S	1821.0	1749.8	1817.3	1845.9	1879.0	1904.4	1939.2	1975.3	2017.9	2052.8	2090.7	2127.8
Billions of dollars, s.a.a.r.												
US CURRENT ACCOUNT BALANCE	-417.8	-395.2	-436.1	-455.1	-476.0	-452.3	-453.5	-449.9	-472.0	-456.2	-464.9	-464.6
Current Account as % of GDP	-2.9	-2.8	-3.1	-3.2	-3.3	-3.1	-3.0	-3.0	-3.1	-2.9	-3.0	-2.9
Net Goods & Services (BOP)	-369.6	-332.0	-383.3	-427.2	-441.0	-435.4	-438.4	-441.3	-453.4	-451.8	-454.6	-454.4
Investment Income, Net	80.4	72.8	86.7	95.7	102.5	106.5	111.9	114.9	118.8	119.0	116.7	113.3
Direct, Net	204.8	196.8	204.8	213.6	220.6	227.9	234.4	240.3	246.8	251.3	254.0	255.8
Portfolio, Net	-124.4	-124.0	-118.1	-117.9	-118.2	-121.4	-122.6	-125.3	-128.0	-132.3	-137.3	-142.4
Other Inc. & Transfers, Net	-128.6	-135.9	-139.5	-123.6	-137.5	-123.4	-127.0	-123.6	-137.5	-123.4	-127.0	-123.6

1. Merchandise exports excluding computers and semiconductors.  
2. Merchandise imports excluding oil, natural gas, computers, and semiconductors.

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## Abbreviations

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AFE	advanced foreign economy
BEA	Bureau of Economic Analysis
BOE	Bank of England
C&I	commercial and industrial
CDS	credit default swap
E&S	equipment and software
ECB	European Central Bank
EME	emerging market economy
EUC	emergency unemployment compensation
FDIC	Federal Deposit Insurance Corporation
FOMC	Federal Open Market Committee; also, the Committee
G-20	Group of Twenty
GDP	gross domestic product
IP	industrial production
LTRO	long-term refinancing operation
MBS	mortgage-backed securities
MPC	Monetary Policy Committee
NAIRU	non-accelerating inflation rate of unemployment
NIE	newly industrialized economy
PCE	personal consumption expenditures
WTI	West Texas Intermediate