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United States: 2008 Article IV Consultation—Staff Report; Staff Supplement; and Public Information Notice on the Executive Board Discussion

Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. In the context of the 2008 Article IV consultation with the United States the following documents have been released and are included in this package:

- The staff report for the 2008 Article IV consultation, prepared by a staff team of the IMF, following discussions that ended on June 17, 2008, with the officials of the United States on economic developments and policies. Based on information available at the time of these discussions, the staff report was completed on July 2, 2008. The views expressed in the staff report are those of the staff team and do not necessarily reflect the views of the Executive Board of the IMF.

- A staff supplement of July 18, 2008, updating information on recent developments.

- A Public Information Notice (PIN) summarizing the views of the Executive Board as expressed during its July 21, 2008 discussion of the staff report that concluded the Article IV consultation.

The document listed below will be separately released.

Selected Issues Paper

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INTERNATIONAL MONETARY FUND

UNITED STATES

Staff Report for the 2008 Article IV Consultation

Prepared by the Staff Representatives for the 2008 Consultation with United States
(In consultation with other departments)

Approved by Anoop Singh and Adnan Mazarei

July 2, 2008

- ***Focus***. This report centers on the analysis, implications, and policy responses related to the serious stresses in U.S. housing and financial markets. Other long-standing Article IV issues, e.g., trade, aid, and anti-money laundering, are summarized in Table 1.
- ***Assessment***. The economy has shown remarkable resilience to headwinds from housing, the financial sector and oil prices through the second quarter, but activity is expected to remain weak in 2008, with a slow recovery in 2009 as hits to balance sheets are worked out. Still, the shock is unprecedented and uncertainty over prospects for house prices—key to the outlook—is large. External adjustment is in train, with the external deficit and the dollar falling toward a level consistent with medium-term fundamentals.
- ***Policy advice***. The staff report advocates to:
  - Keep monetary policy on hold but be ready to raise rates in light of inflation risks.
  - Avoid repeated generalized fiscal stimulus, and instead let the stimulus package work, with any needed further actions targeted at root problems in housing and banking.
  - Avoid excess house price falls by expanding mortgage guarantee programs to catalyze voluntary writedowns, as proposed in Congress, but with further incentives for lenders.
  - Prepare contingency measures in the financial sector—for example, with the Treasury stepping in to support market liquidity with longer-term asset swaps.
  - Reform financial regulation—although detailed recommendations require further analysis, including in next year's Financial Sector Assessment Program, the process could begin by considering tightening liquidity and capital requirements and bringing large investment bank holding companies under Fed umbrella supervision.
- ***Authorities' position***. The flexibility of the U.S. economy, and the rapid policy response, should prompt a faster recovery than in the staff baseline. Additional stimulus is not contemplated, while further action on housing or banking risks impeding needed adjustment and aggravating moral hazard. Reform of financial regulation is a priority.
- ***Analytical work***. Underpinning the report are several background studies, focusing on the aftermath of housing booms and busts, house price dynamics, macrofinancial linkages, banking spillovers, and corporate balance sheets (see summaries in *Selected Issues*).
- ***Staff***. The team comprised (at times) Ranjit Teja (Head), Tamim Bayoumi, Marcello Estevão, Ravi Balakrishnan, Vladimir Klyuev, Koshy Mathai, Hui Tong (WHD); Ashok Bhatia, Christian Capuano, John Kiff, Paul Mills (MCM), and Jean-Jacques Hallaert (PDR). Mr. Singh (WHD) and Ms. Lundsager (Executive Director) joined meetings with senior officials, and with Secretary Paulson and Chairman Bernanke on June 16–17, led on the Fund side by Managing Director Strauss-Kahn and FDMD Lipsky.

Contents Page

I. Background....................4

II. Balance Sheet Strains....................7
A. Housing and Households....................7
B. Financial Intermediaries....................11

III. Macrofinancial Linkages....................13

IV. The Resulting Outlook....................18

V. Macroeconomic Policy Responses....................22
A. Monetary Accommodation....................22
B. Fiscal Support....................24
C. Housing Support....................27
D. Bank Support....................28

VI. Financial Regulation....................30
A. Bank and Securities Regulation....................30
B. Business Conduct Regulation....................31
C. Securitization....................32

VII. External Adjustment and the Dollar....................32

VIII. Staff Appraisal....................37

Boxes
1. International Spillovers....................8
2. Special Considerations in the Assessment of the Dollar....................36

Figures
1. Recent Indicators....................5
2. Anatomy of a Housing Boom and Bust....................6
3. Household Cash Flow and Balance Sheets....................10
4. The Banking Sector Leverage Cycle....................12
5. Deleveraging....................14
6. Macro-Financial Linkages....................15
7. Corporate Sector Cash Flow and Balance Sheets....................17
8. Outlook and Risks....................19
9. Monetary Policy Indicators....................23
10. Fiscal Indicators....................25
11. U.S. Competitiveness....................33

Tables

1. Long-Standing Fund Policy Advice 39
2. Measures to Support the Housing Market—Selected Actions and Proposals 41
3. Forms of Federal Reserve Lending to Financial Institutions 42
4. Selected Economic Indicators 43
5. Balance of Payments 44
6. Indicators of External and Financial Vulnerability 45
7. Fiscal Indicators 46

Appendix Figure

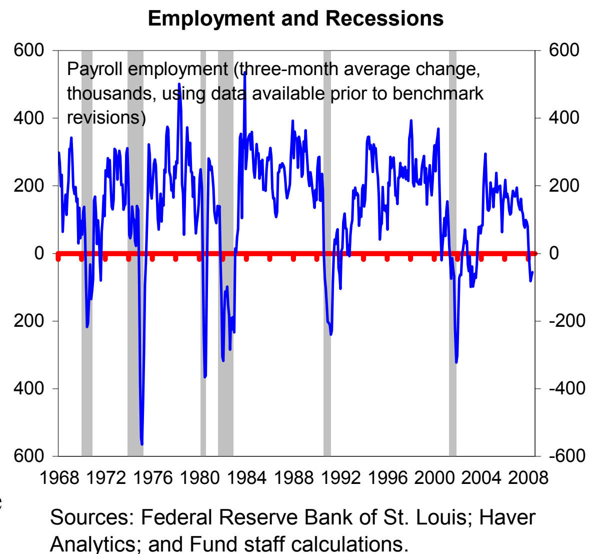
1. Net Foreign Asset Sustainability: Bound Tests 47
2. Public Debt Sustainability: Bound Tests 48

Appendix Tables

1. Net Foreign Asset Position Sustainability Framework, 2003–2013 49
2. Public Debt Sustainability Framework, 2002–2012 50

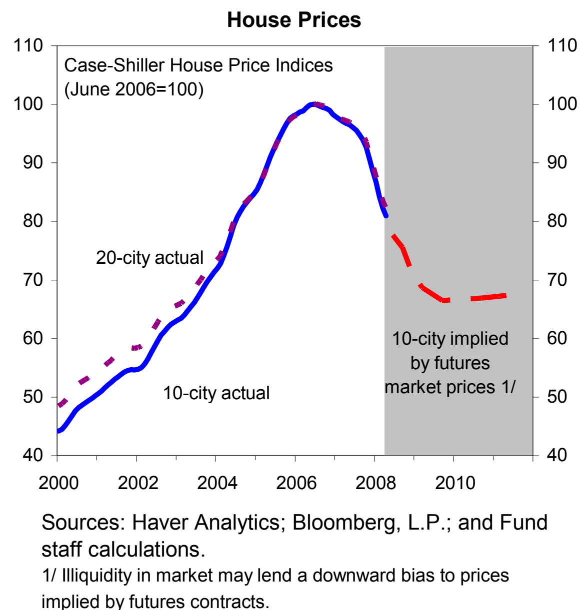
I. Background

1. **Growth has slowed dramatically, as many of the downside risks to the U.S. economy outlined in last year's staff report have materialized (Figure 1)**. The impact of the housing downturn, limited to the construction sector a year ago, has since fed through to household spending and financial markets, further slowing GDP growth. Payrolls have shrunk for five months in a row (somewhat sharper declines have reliably signaled past recessions), the unemployment rate has risen, and, despite some recent easing, financial market conditions remain strained. More recently, the latest surge in food and energy prices has lifted headline inflation, constraining monetary policy options and partly offsetting temporary boosts to disposable income and consumption from fiscal stimulus.



Sources: Federal Reserve Bank of St. Louis; Haver Analytics; and Fund staff calculations.

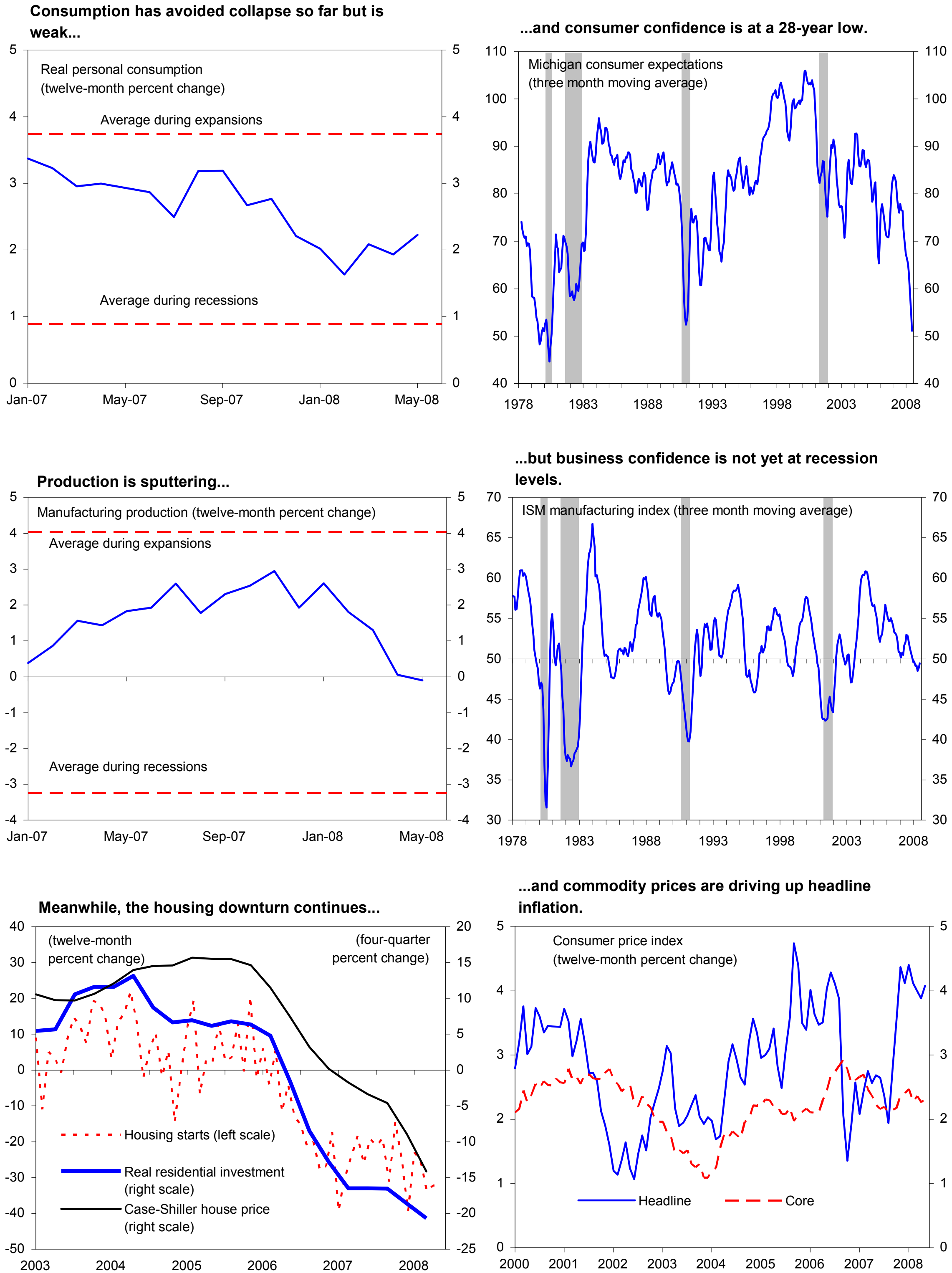
2. **The economy is in uncharted waters, with house prices falling nationwide for the first time in at least four decades (Figure 2)**. From 2001, rising housing values boosted wealth, spending, and mortgage borrowing. At some point, entrenched expectations of house price rises led to a self-reinforcing process of imprudent lending by financial institutions to willing—and at times misled—borrowers. Stretched bank balance sheets were masked as additional lending occurred mainly through lightly-capitalized entities. Final investors underestimated risks to asset quality, reflecting over reliance on lax credit ratings and on the stability of geographically-diversified U.S. mortgage pools. The full implications of these individual trends, exposed once house-price appreciation reversed, were missed by most commentators, including the Fund.



Sources: Haver Analytics; Bloomberg, L.P.; and Fund staff calculations.
1/ Illiquidity in market may lend a downward bias to prices implied by futures contracts.

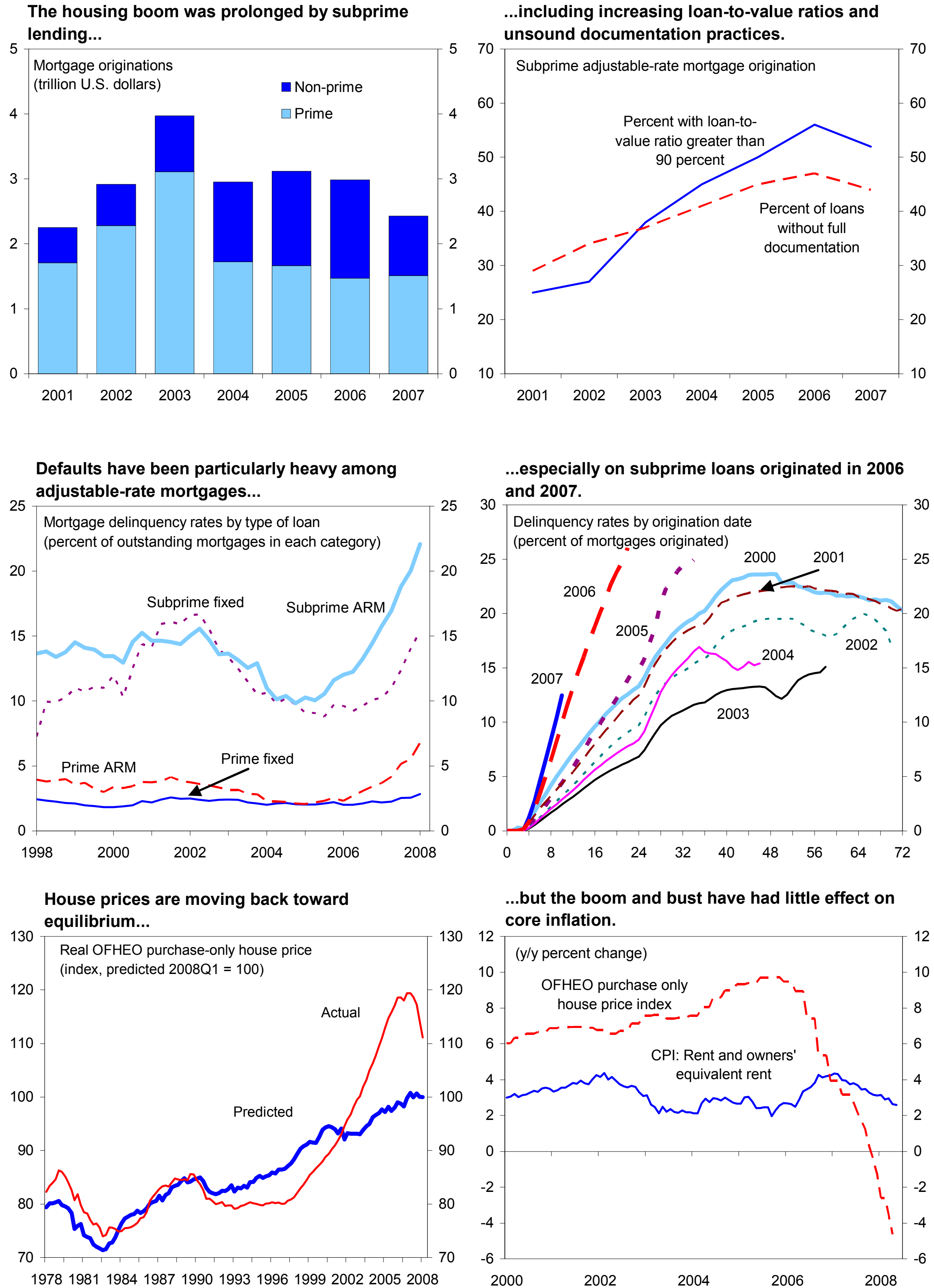
3. **Financial supervision and regulation, more than monetary policy, failed to rein in lending excesses, the reversal of which is reverberating around the world**. With the U.S. economy recovering slowly from the 2001 recession, the Fed delayed raising policy rates until 2004, boosting spending and—through a relatively steep yield curve—prompting a major switch to adjustable rate mortgages (ARMs). While the

Figure 1. United States: Recent Indicators



Sources: Haver Analytics; and Fund staff calculations.

Figure 2. United States: Anatomy of a Housing Boom and Bust

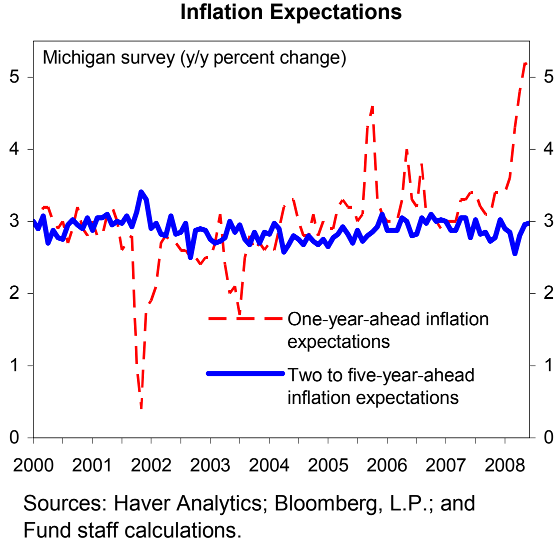


Sources: Haver Analytics; Merrill Lynch; Intex; and Fund staff calculations.

eventual rate increase slowed most parts of final demand, the housing boom, fueled by low initial ("teaser") mortgage interest rates, continued to boost construction and hold down household savings. Importantly, a fragmented regulatory system did not recognize the implications of the financial system becoming over-leveraged, while outdated rules failed to constrain imprudent mortgage lending. Delinquency and foreclosure rates are now rising on all ARMs, particularly subprime ones, but banks face more widespread problems. Higher spreads and a slowing economy are exposing other underwriting lapses—e.g., in auto, credit card, and commercial real estate loans. Elevated spreads in money and bond markets have been transmitted to financial centers around the world, reflecting the central role of the United States in the global financial system (Box 1). As a result, growth is now slowing in many industrial countries, although it has so far remained robust in emerging markets.

4. **Despite slowing growth, headline inflation has been pushed up by energy and food prices, raising fears that thus-far anchored inflation expectations will drift up**. At slightly over 4 percent, headline CPI inflation is again around the highs of mid-2005 to mid-2006. By contrast, the Fed's preferred measure of trends—core personal consumption expenditure inflation—remains just above their presumed comfort zone of 1–2 percent, with no evidence of higher energy costs spilling over on other prices. While there are signs that short-term inflation expectations are rising, medium-term expectations appear better anchored, and wages continue to slow in line with a weakening labor market.

Inflation Expectations



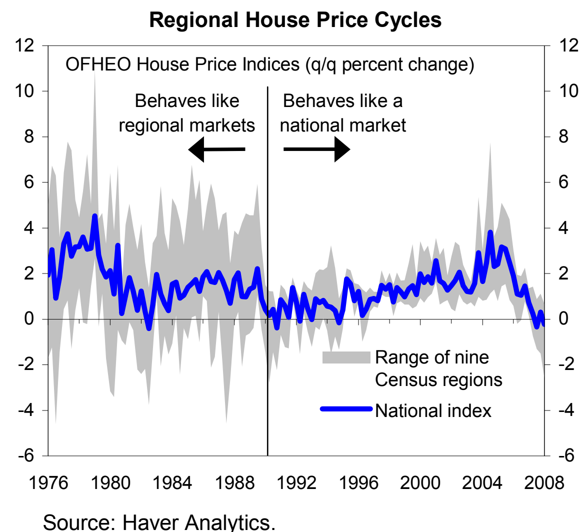
Sources: Haver Analytics; Bloomberg, L.P.; and Fund staff calculations.

II. Balance Sheet Strains

A. Housing and Households

5. **After an unsustainable run up, house prices are now falling sharply across the country**. With the dispersion of house price changes tightening progressively, it is clear that the housing boom and bust is a national phenomenon, even if some areas have been harder hit. House-price inflation at the national level peaked in 2005, and prices are now declining. Office of Federal Housing Enterprise Oversight (OFHEO) purchase-only prices, which have a wide geographic coverage but include only safer (conforming) mortgages, peaked in

Regional House Price Cycles



Source: Haver Analytics.

April 2007 and have fallen 4½ percent to date. By contrast, the Case-Shiller 10-city index, which covers only major urban areas but all types of sales (including those financed by subprime and jumbo loans) started to fall in mid-2006 and is already 18 percent below its peak. On the latter measure, prices fell by almost 10 percent from December through April and futures markets project a further 15–20 percent fall, suggesting continuing strong pressure on house prices, especially in previously hot markets such as California and Florida.

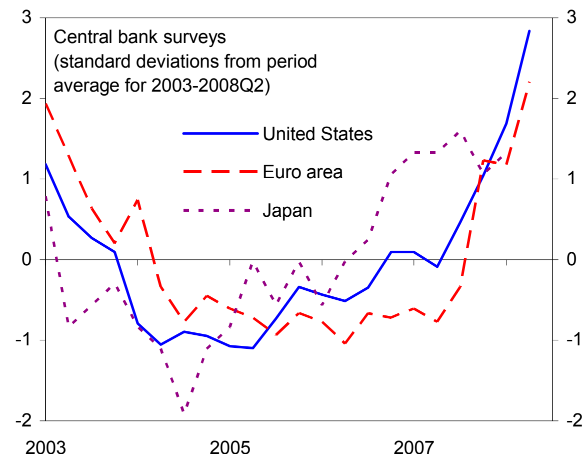
Box 1. International Spillovers

The tightening in U.S. financial conditions has been transmitted rapidly abroad. Global money market premiums, bond market spreads, and equity risk premiums have moved in tandem with their U.S. analogues. With estimated aggregate losses of European banks similar to their U.S. counterparts, lending standards have risen significantly in Europe and, to a somewhat lesser extent, in Japan.

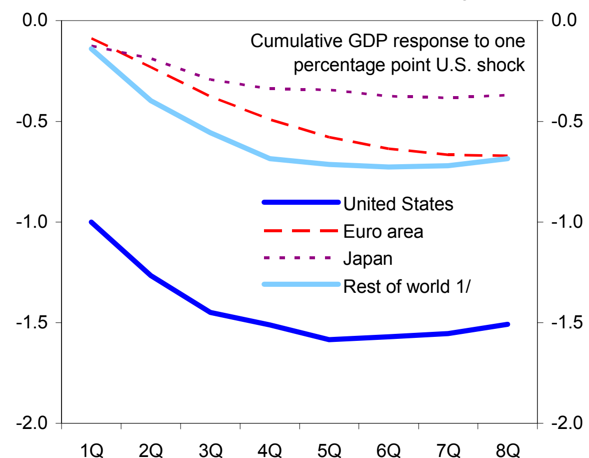
The current U.S. slowdown is likely to result in significant aftershocks in other industrial countries. The size of the U.S. economy and dominance of its financial markets create international spillovers through trade, commodity prices, and global financial markets. Desk analysis suggests that a 1 percent fall in U.S. activity gradually lowers real GDP in other industrial countries by some ½ percent after a year or so. The bulk of this effect comes through financial linkages, with smaller effects through trade and commodity prices.

While slowing activity and dollar depreciation are curbing U.S. imports, buoyant commodity prices are supporting activity in producer countries. Trade links are strongest for NAFTA partners—Canada and Mexico—whose economies are highly dependent on U.S. activity, especially manufacturing, while support from commodity prices is more important in other cases.

Lending Standards for Large Firms



Spillovers of U.S. Economic Activity



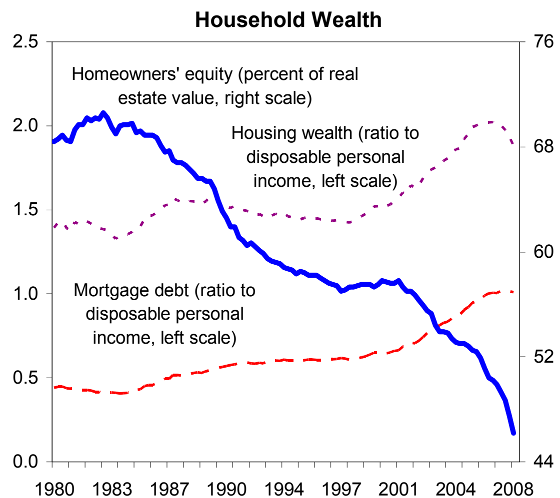
1/ Includes Australia, Canada, Denmark, Korea, Mexico, New Zealand, Norway, South Africa, Sweden, Switzerland, Taiwan P.O.C., and United Kingdom.

A number of countries with pegs or limited flexibility against the dollar are finding that they are importing a more relaxed monetary stance than is appropriate for them. These countries, which are already facing considerable inflationary pressure, would in the normal course have sought to raise interest rates but have only limited room to do so, given their exchange rate regimes.

6. **Falling house prices could be taking on a life of their own, as the supply overhang is exacerbated by reduced incentives to buy and higher foreclosures**. While the size and sources of pressure on house prices vary by region, staff background analysis suggests that the inventory-sales ratio and foreclosure starts are good predictors of national house price movements, with the gap between current and estimated equilibrium prices playing only a limited role (*Selected Issues*, Chapter 1). In fact, expectations of further price declines and credit constraints are choking sales (as buyers wait for lower prices), while a rising wave of foreclosures is adding inventory and diminishing values of neighboring houses (each foreclosure is estimated to lower the prices of other homes within one-eighth of a mile by 1 percent).

7. **With housing assets and mortgage debt at near-record ratios to disposable income, household balance sheets are particularly exposed to house-price declines**. The staff baseline forecast assumes that nominal prices will fall a further 10 percent on an OFHEO basis and somewhat more using Case-Shiller indices. In real terms (OFHEO basis), house prices fall from their current level of 10 percent or so above equilibrium to 5 percent or more below equilibrium by end-2009. The resulting peak-to-trough reduction in net household wealth and collateral of almost 30 percent of GDP puts considerable downward pressure on consumption: each dollar fall in wealth is expected to reduce consumption by 7 cents, with about half the reduction in the first year. This is at the upper end of estimated wealth and collateral effects, reflecting borrowers' growing access to home equity over time.

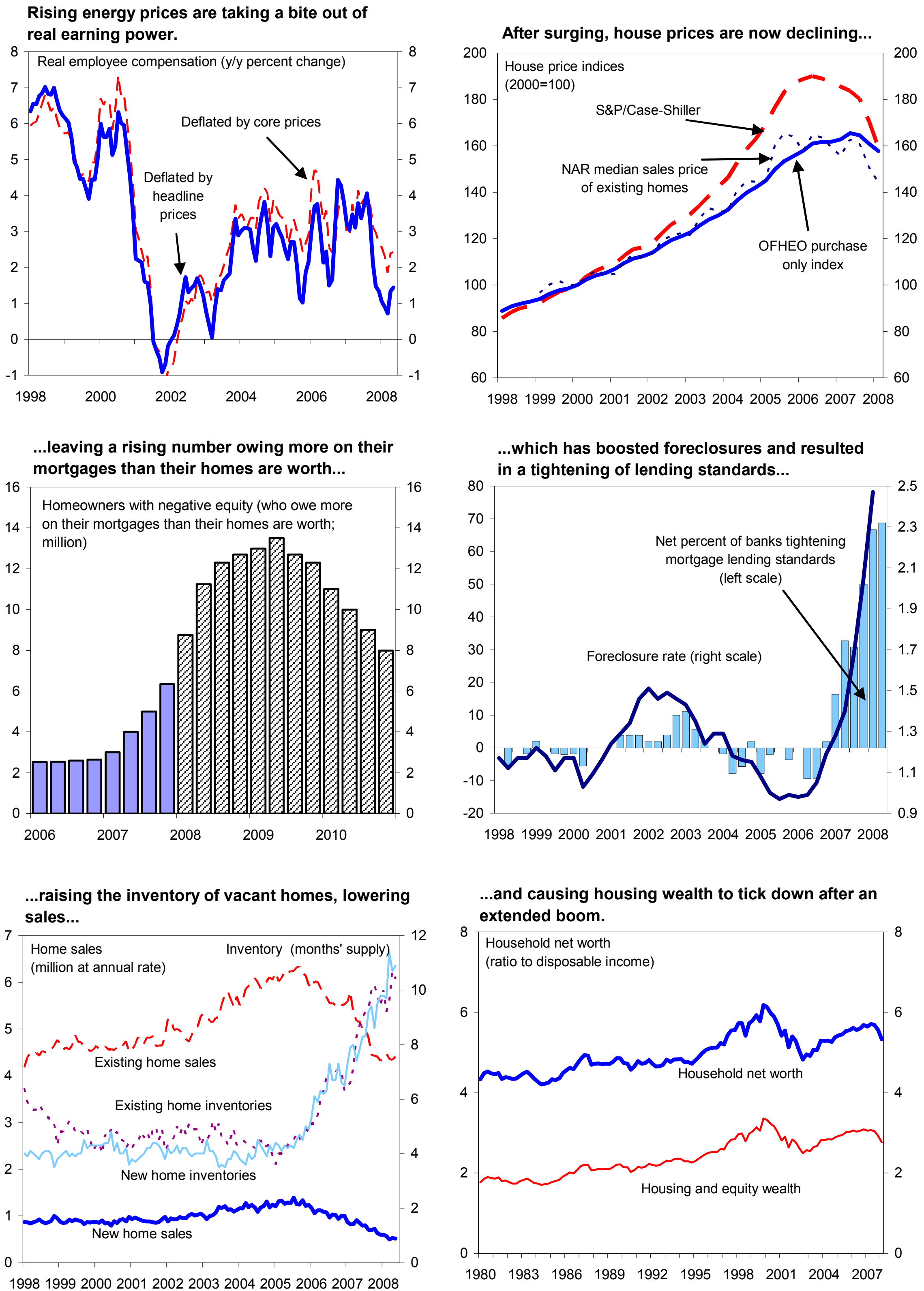
Household Wealth



Source: Haver Analytics.

8. **Spending has weakened on eroding wealth, declining employment, high oil prices, and credit constraints (Figure 3)**. Employment has fallen by ¼ percent since December even as food and energy hikes have boosted prices by almost one percent. These pressures on real incomes, along with financial strains, are eroding consumer confidence, with some measures down to levels last seen in the early 1980s. As a result, real consumption, which accounts for 70 percent of GDP, slowed to a crawl in early 2008 (versus a trend growth rate of 3½ percent a year over the last decade). Consumption jumped in May and likely stayed high in June, reflecting the temporary stimulus from tax rebates that raised disposable incomes by around 5 percent in May–June.

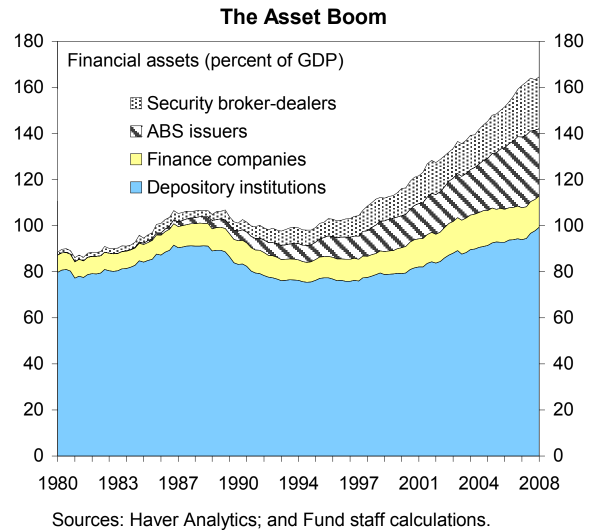
Figure 3. United States: Household Cash Flow and Balance Sheets



Sources: Mortgage Bankers Association; Bloomberg; Equifax, Moody's Economy.com; and Haver Analytics.

B. Financial Intermediaries

9. **The shock to U.S. financial markets hit an overleveraged system dependent on market liquidity (Figure 4)**. The asset boom from mid-2004 to mid-2007 came mainly from highly leveraged investment banks and off-balance sheet affiliates of commercial banks (conduits and special investment vehicles). Regulators underestimated the degree to which tangible capital had become stretched, in part because of an under-appreciation of the importance to banks of supporting off-balance sheet affiliates for reputational reasons when financing conditions deteriorated. While the limited capital backing for the apparent "originate-to-distribute" boom was sustainable when markets were liquid and the price of risk low, investors are now shunning complex asset-backed securities, tightening investment criteria, and forcing the system back to a more overt "originate-to-hold" mode. In essence, there has been a rapid and involuntary return to intermediation through bank balance sheets.

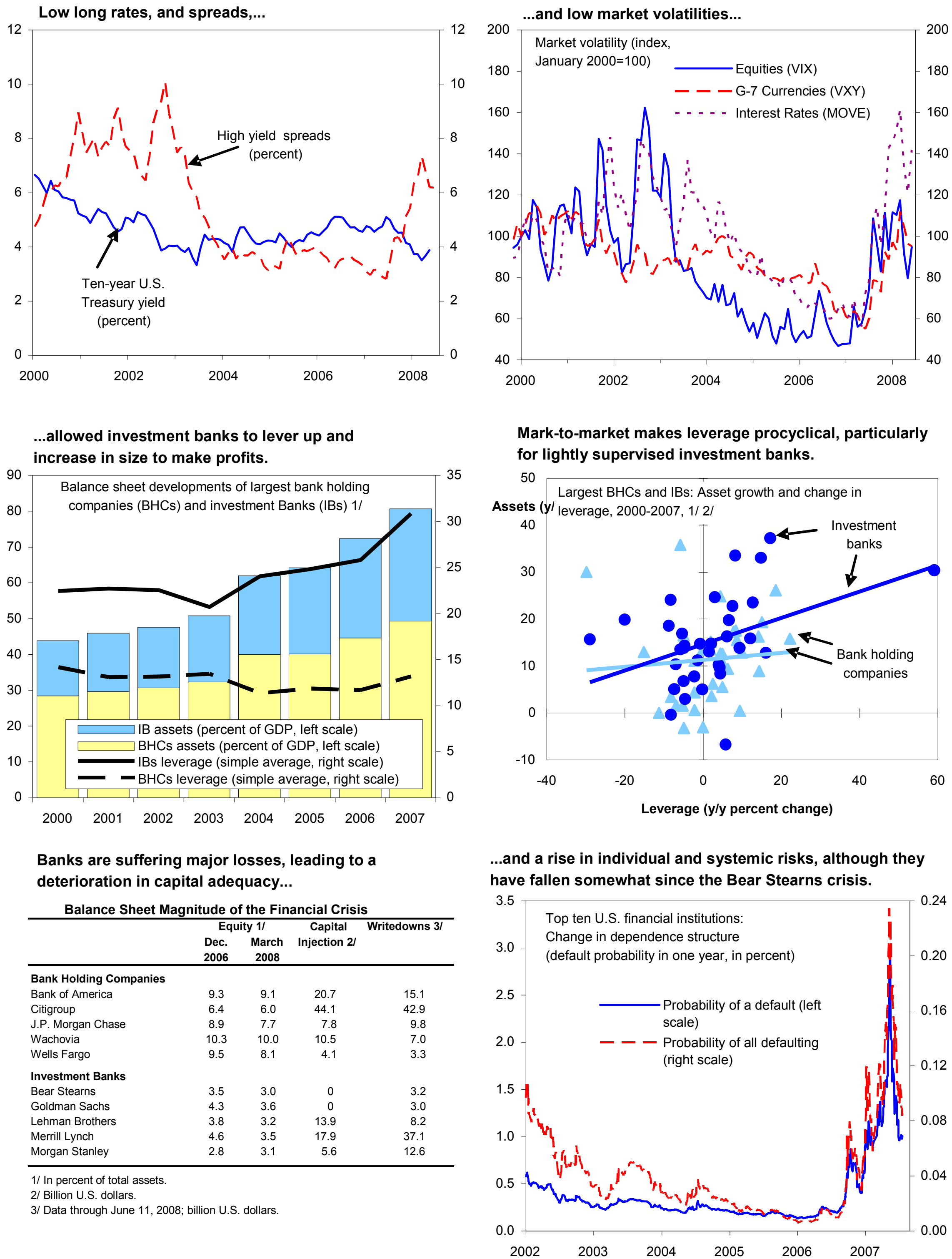


Sources: Haver Analytics; and Fund staff calculations.

10. **Loan losses add to the need for more capital to support overextended balance sheets**. Estimates from the Spring 2008 *Global Financial Stability Report*, using prevailing market prices, put losses at near $1 trillion globally and $220–260 billion for U.S. banks—over one-third of the equity of the ten major commercial and investment banking groups. Of this, some $160 billion in U.S. losses have already been recognized, reflecting deep discounts on assets such as mortgage-backed collateralized debt obligations previously believed to be secure. If illiquidity has pushed market prices well below underlying values, realized losses could be smaller than priced in, and the financial sector could stabilize faster than projected. However, with house prices falling and the credit cycle tending to lag the slowdown in activity, bank losses could just as likely overshoot current market assumptions.

11. **Reflecting their high leverage and reliance on wholesale funding, pressures have been heaviest on the largest banks**. Liquidity problems initially stemmed from uncertainty about the location of losses and short-term funding needs and, with collateral requirements tightening, lenders started shunning weaker institutions. In early March, the Fed facilitated the acquisition of Bear Stearns by JPMorgan Chase after it experienced a wholesale funding run, with access to even *secured* borrowing against high-quality collateral drying up. Immediately afterwards, the Fed widened its discount window to the remaining primary dealers (including, importantly, major investment banks), which calmed systemic concerns and lowered credit default swap spreads of the major

Figure 4. United States: The Banking Sector Leverage Cycle



Balance Sheet Magnitude of the Financial Crisis

	Equity 1/ Dec. 2006	Equity 1/ March 2008	Capital Injection 2/	Writedowns 3/
Bank Holding Companies				
Bank of America	9.3	9.1	20.7	15.1
Citigroup	6.4	6.0	44.1	42.9
J.P. Morgan Chase	8.9	7.7	7.8	9.8
Wachovia	10.3	10.0	10.5	7.0
Wells Fargo	9.5	8.1	4.1	3.3
Investment Banks				
Bear Stearns	3.5	3.0	0	3.2
Goldman Sachs	4.3	3.6	0	3.0
Lehman Brothers	3.8	3.2	13.9	8.2
Merrill Lynch	4.6	3.5	17.9	37.1
Morgan Stanley	2.8	3.1	5.6	12.6

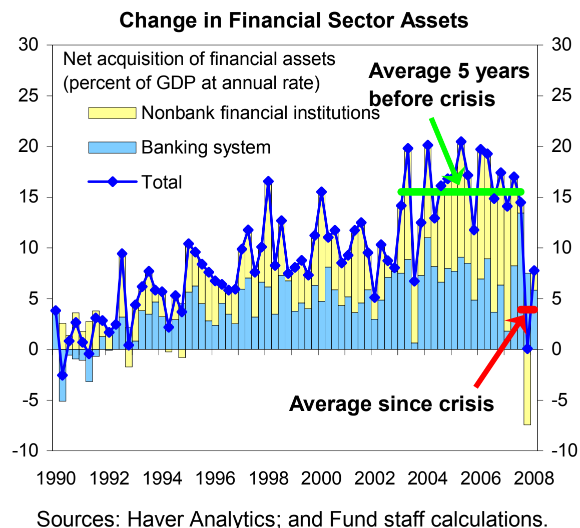
1/ In percent of total assets.
2/ Billion U.S. dollars.
3/ Data through June 11, 2008; billion U.S. dollars.

Sources: Merrill Lynch; Haver Analytics; Bank reports; Bloomberg, L.P.; and Fund staff calculations.
1/ BHCs and IBs are those listed in table. Leverage is assets as a percent of equity.
2/ Excludes 2004.

institutions. However, as observed by Chairman Bernanke, financial conditions remain far from normal. Credit default and interbank spreads remain high, suggesting continuing solvency/liquidity concerns.

12. **In response to strains on capital, commercial and investment banks are tightening loan standards, cutting costs, and raising new equity**. The Fed's Senior Loan Officer Opinion Survey—a strong predictor of future activity—suggests that loan conditions are tightening at rates similar to those seen in the credit crunch of the early 1990s. With falling turnover constraining fee and trading income, the financial sector has shed almost 120,000 jobs since the beginning of 2007, canceled equity buybacks, and lowered dividends. Major U.S. banks have raised an impressive $125 billion in new capital, initially from sovereign wealth funds and now other investors. However, the size of continuing problems is illustrated by Citigroup's announcement that it will divest a quarter of its assets ($500 billion) even after raising over $40 billion in new capital.

13. **The financial system's balance sheet shrank in the last quarter of 2007, for the first time since the credit crunch of the early 1990s (Figure 5)**. Contracting assets of nonbanks—mainly asset-backed security issuers and broker-dealers—more than offset a largely involuntary expansion in commercial bank loans as conduits were bailed out or absorbed and previously agreed lines of credit activated. While asset growth rebounded modestly in the first quarter of this year, slowing activity is reinforcing the underlying drivers of the credit crunch—deleveraging and mounting losses—and implying further strains on credit availability. Indeed, bank lending appears to have stalled in April and May.

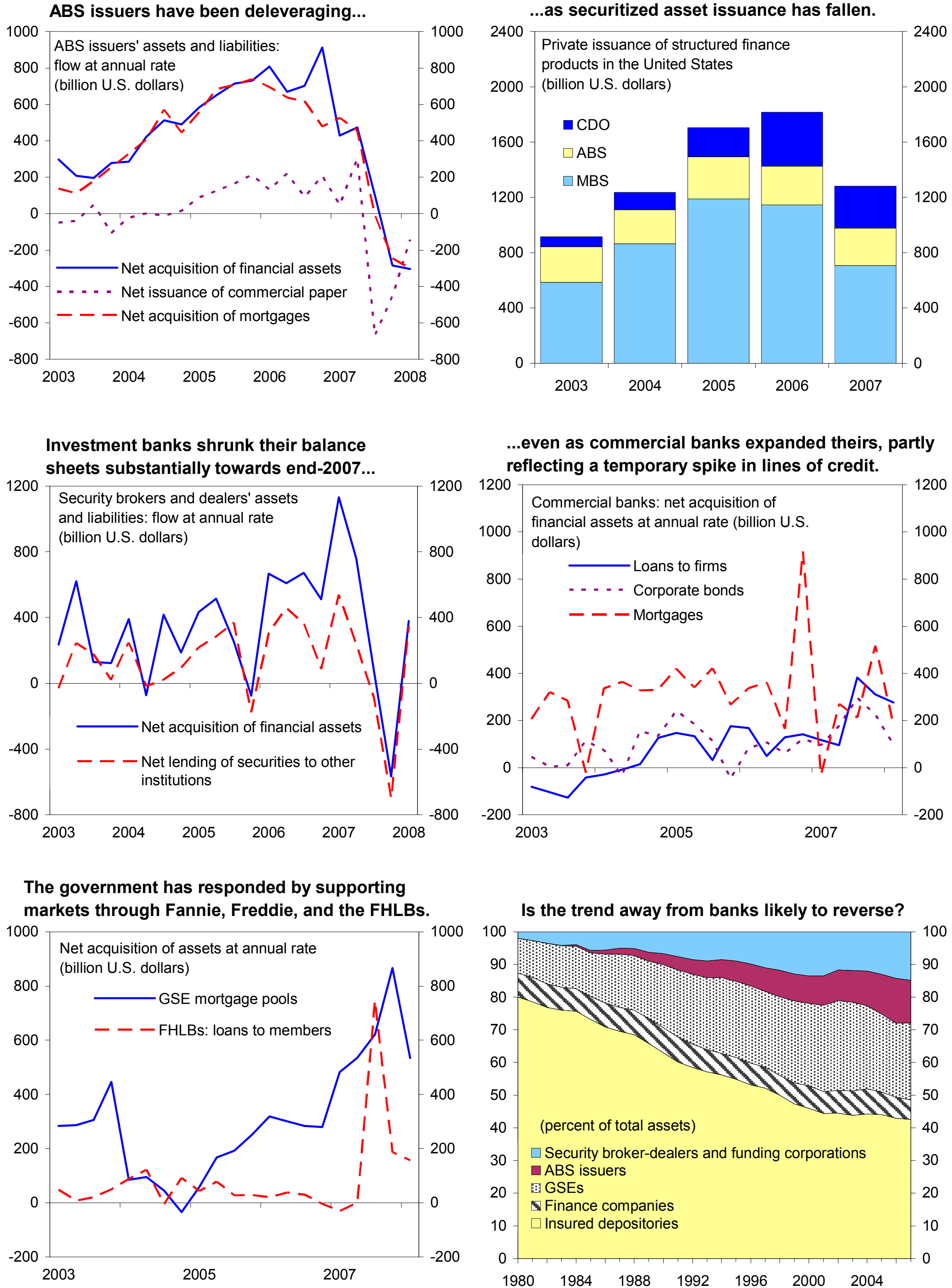


Sources: Haver Analytics; and Fund staff calculations.

III. Macrofinancial Linkages

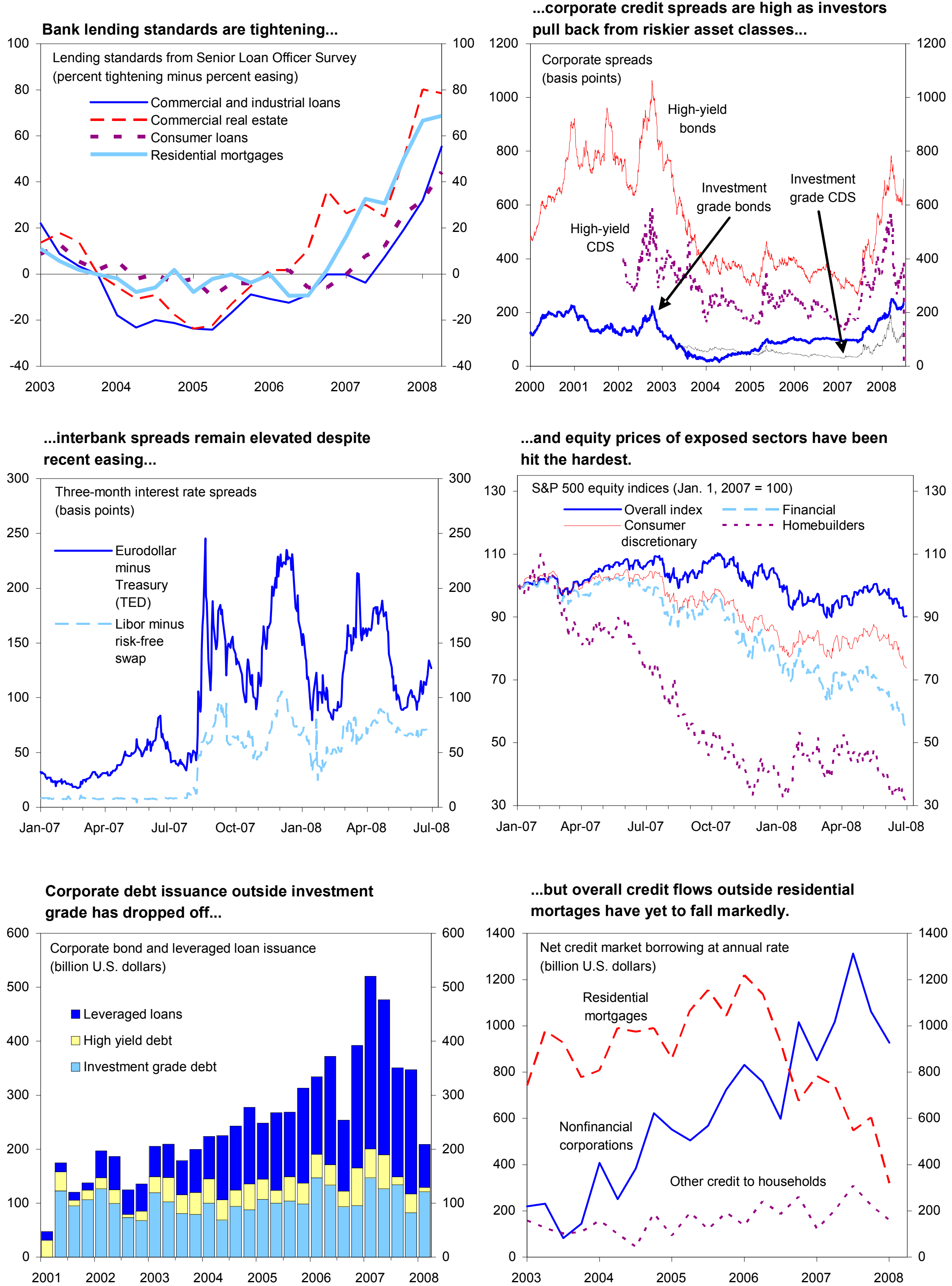
14. **The major risk is that house prices fall well below equilibrium, generating self-reinforcing cycles and further macroeconomic disruption (Figure 6)**. Declines in house prices are increasing financial market stress directly through losses on mortgages and mortgage-backed securities, and indirectly through delinquencies as consumption and construction spending slows. Strains on bank capital are resulting in a rapid tightening of bank lending standards, which in turn are threatening to restrict access to mortgages, consumer credit, and new corporate loans—thus putting further downward pressure on spending, incomes, house prices, and wealth. Meanwhile, weak activity and rising defaults are keeping up credit spreads and depressing issuance of asset-backed securities.

Figure 5. United States: Deleveraging



Sources: Haver Analytics; Bloomberg, L.P.; J.P. Morgan; Inside Mortgage Finance; and Fund staff calculations.

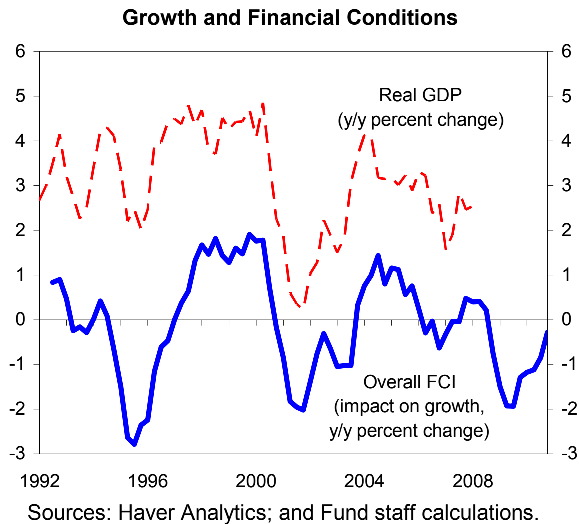
Figure 6. United States: Macro-Financial Linkages



Sources: Haver Analytics; Merrill Lynch; J.P. Morgan; Bloomberg, L.P.; and Fund staff calculations.

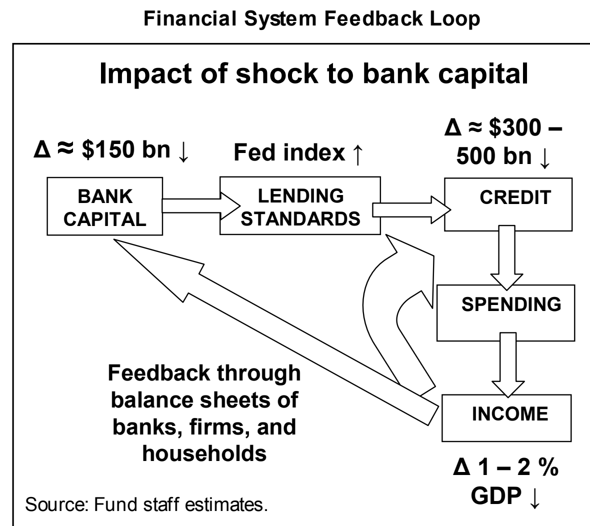
15. **To assess these interactions, staff have developed two alternative tools to examine linkages between financial conditions and demand**:

- *A financial conditions index* analyzes the interaction between an array of financial indicators—short-term interest rates, bond spreads, equity prices, exchange rates, and, importantly, bank loan standards—and real GDP using vector autoregressions (*Selected Issues* Chapter 2). The model suggests that, despite Fed cuts and dollar depreciation, financial conditions have tightened since mid-2007 and will—given lags—slow growth by around 1¼ percentage points over the next year. In addition, staff expect some further tightening of financial conditions, including loan standards, which implies a further ¾ percentage point slowdown next year.



Sources: Haver Analytics; and Fund staff calculations.

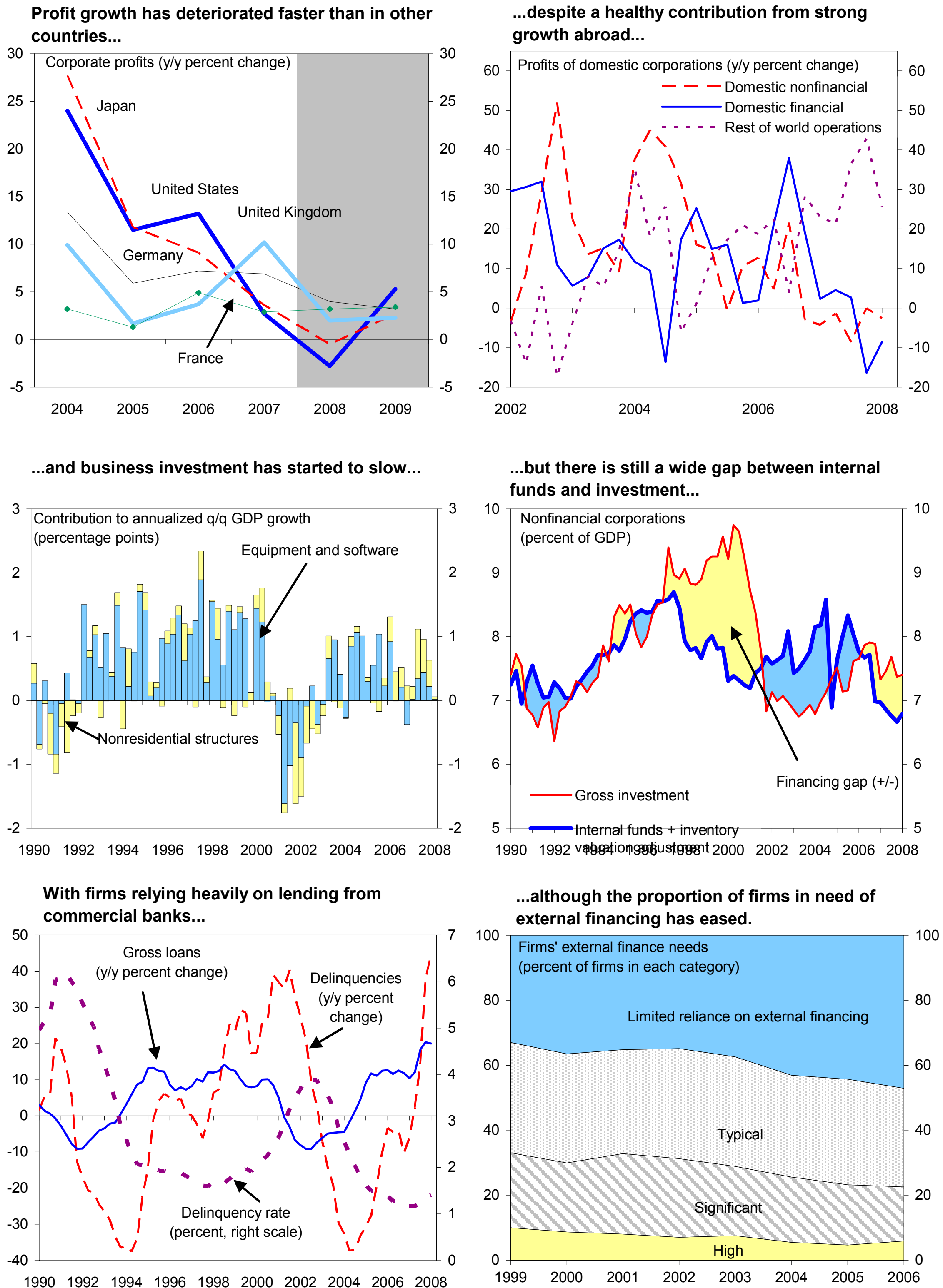
- *A banking model* traces how strains on bank capital gradually feed through loan conditions to consumer, mortgage, and corporate lending, and hence to associated spending, as well as the reverse feedback from weaker spending and incomes to bank capital and lending (*Selected Issues* Chapter 3). This model suggests macrofinancial linkages—and hence an outlook—that is similar to that produced by the financial conditions index; a percentage point shock to the bank capital-asset ratio subtracts some 1–2 percent from the baseline path of GDP, with the maximum impact on growth after a year or so. The model can also be run in reverse, with credit and bank lending channels doubling the impact of an initial fall in spending/GDP and elongating the response.



Source: Fund staff estimates.

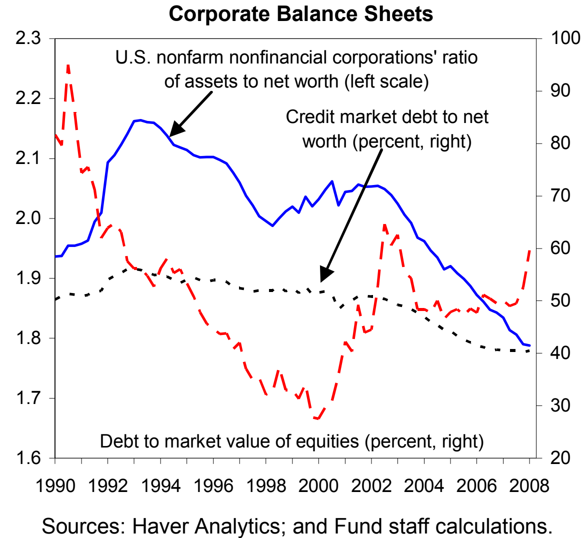
16. **Weak credit and household spending are hurting firms, but the impact is being cushioned by strong corporate balance sheets and external demand (Figure 7).** With many firms holding substantial cash buffers, the path of business investment is expected to be driven primarily by the growth slowdown, although credit constraints are

Figure 7. United States: Corporate Sector Cash Flow and Balance Sheets



Sources: Consensus Forecasts; Datastream Advance, Haver Analytics; and Fund staff calculations.

also playing a role. Equity prices have fallen most in the sectors under strongest pressure—finance, construction, and discretionary consumption—and background work using valuations of individual firms confirms that weakness is more pronounced in those more reliant on market borrowing and, to a lesser extent, household spending (*Selected Issues*, Chapter 4). However, staff analysis also finds that the proportion of firms in need of external financing has shrunk since the early 2000s. Further support, especially for manufacturing, is coming through external demand, which is being boosted by still-robust growth abroad and dollar weakness.



Sources: Haver Analytics; and Fund staff calculations.

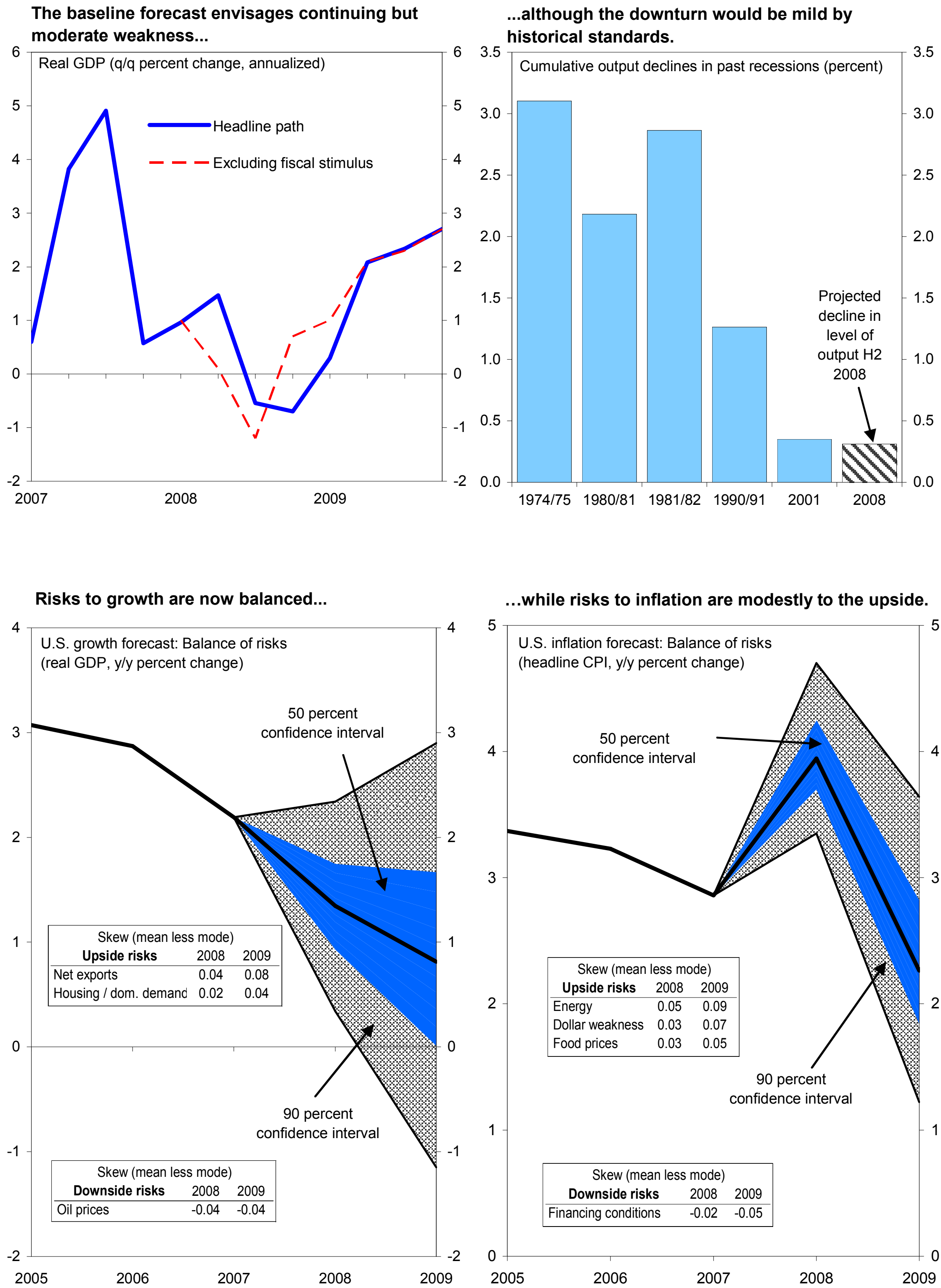
IV. The Resulting Outlook

17. **While forward-looking indicators such as consumer confidence and lending standards suggest a decline in activity, so far final demand has continued to grow.** With spending showing surprising resilience through the second quarter in the face of headwinds, the baseline staff forecast is for real GDP growth to be slightly positive in 2008 (Q4/Q4), followed by a gradual recovery. In the staff baseline, the weakness in real final domestic demand seen in the first quarter of 2008 continues through the year, as household and financial strains feed off each other, although stimulus supports growth in the late spring/summer (Figure 8). Inflation falls gradually as commodity prices peak and slack dampens wage pressures. Real net exports boost output by 1 percent of GDP on slowing domestic activity, continuing strong growth in emerging markets, and competitiveness gains from past exchange rate depreciation.

Assumptions Behind the Outlook
(In percent; annual average terms)

	2008	2009
Potential growth	**+2½**	**+2½**
IMF growth forecast	**+1¼**	**+¾**
Deviation:	***-1¼***	***-1¾***
Tightening of financial conditions	-¾	-1¼
House prices on consumption	-½	-1
Residential investment	-¾	0
Oil prices	-½	-¼
Fiscal stimulus	+¼	0
Net exports	+1	+¾

Figure 8. United States: Outlook and Risks



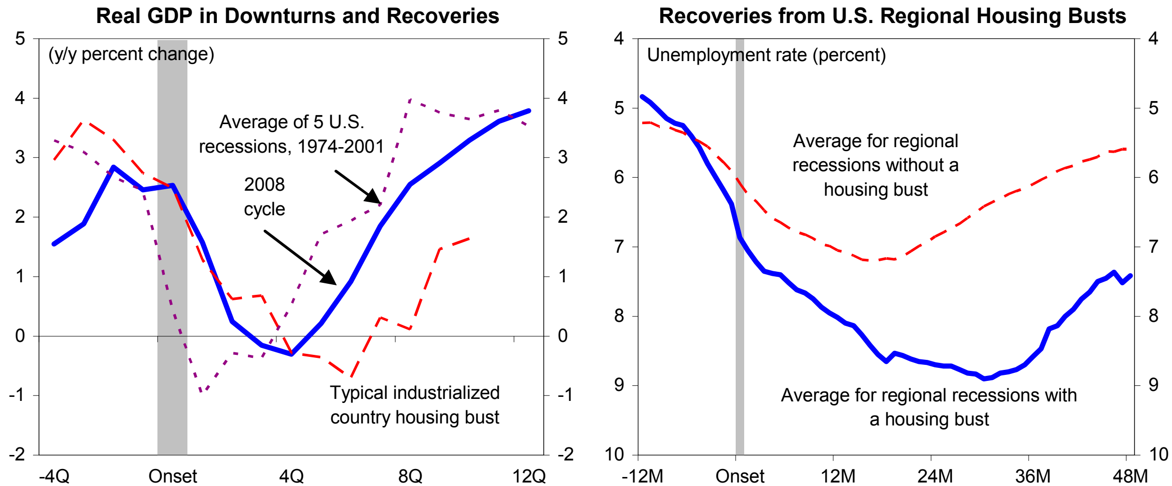
Sources: Haver Analytics; IMF, *World Economic Outlook,* April 2003; and Fund staff calculations.

United States: Short-Term Projections
(Percent change from previous period, unless otherwise indicated)

	2006	2007	2008	2009
Real GDP	**2.9**	**2.2**	**1.3**	**0.8**
Q4/Q4 growth	2.6	2.5	0.3	1.9
Total domestic demand	2.8	1.5	0.4	0.1
Private final consumption	3.1	2.9	1.4	0.6
Nonresidential fixed investment	6.6	4.7	1.6	-4.2
Residential investment	-4.6	-17.0	-21.3	-7.0
Net exports (contribution to growth)	-0.1	0.6	0.9	0.7
Unemployment rate (percent)	4.6	4.6	5.4	6.3
CPI inflation	3.2	2.9	3.9	2.3
Unified federal balance (percent of GDP; fiscal year)	-1.9	-1.2	-3.0	-3.1
Current account balance (percent of GDP)	-6.0	-5.3	-5.0	-4.4
Consensus Forecast of Real GDP	**...**	**...**	**1.5**	**1.7**
Range	...	...	0.8-1.9	0.6-3.1
Federal Reserve Governors and Reserve Bank Presidents, Real GDP Projections				
Range (Q4/Q4)	...	...	0.0-1.5	1.8-3.0
Central tendency (Q4/Q4)	...	...	0.3-1.2	2.0-2.8
Memorandum items:				
Output gap (percent of potential GDP)	0.5	0.1	-1.0	-2.6
Partner country growth	3.5	3.3	1.8	2.2
Oil prices (APSP, $/Barrel)	64.3	71.1	116.5	125.0

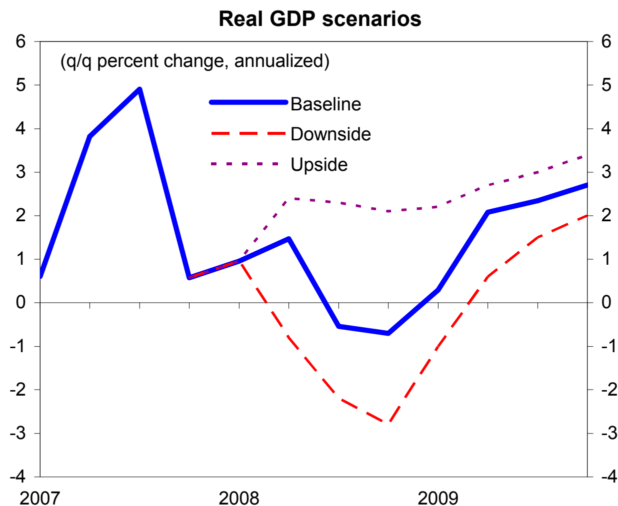
Sources: Haver Analytics; Consensus Forecasts; Federal Reserve Board; and Fund staff estimates.

18. **The slow recovery, relative to the consensus forecast, reflects the impact on households of the credit crunch and falling wealth**. The current episode is in contrast to previous downturns, where business spending was the key driver of the cycle. Households have fewer ways to respond to financial and collateral strains than firms—staff analysis suggests that consumption is much more dependent on access to bank lending and collateral than is business investment. With falling house prices reducing collateral for personal borrowing even as losses tighten bank lending standards, credit constraints are likely to build gradually, and household spending and income growth are projected to remain relatively sluggish through the first half of 2009. Thus, the eventual recovery is slower than is typical of the United States but faster than suggested by international and U.S. regional evidence on housing busts (*Selected Issues*, Chapter 5), reflecting economic flexibility, the rapid policy response, and support from external demand. The consensus forecast, by contrast, sees a much more typical V-shaped recovery starting in the second half of this year as fiscal and monetary stimulus kicks in.



19. **Potential deviations from this path are large, given the unprecedented nature of the shocks**. While risks to growth are balanced, those for inflation are modestly to the upside, reflecting uncertainties about commodity prices and passthrough. With spending surprisingly resilient even as forward-looking indicators such as weakening consumer confidence and tightening bank lending standards, the range of plausible outcomes is extremely wide, as shown in the fan charts of potential outcomes (Figure 8). Upside and downside scenarios approximating the tenth and ninetieth percentiles of possible outcomes illustrate the main uncertainties:

- ***On the downside***. More extended financial system pressures could generate a longer and sharper credit crunch, as weak credit and activity feed back into further bank losses. The prolonged slowing of industrial country activity starts spilling over to the rest of the world, reducing the external support to demand. The result is the type of extended slowdown and pallid recovery seen in "typical" housing busts elsewhere. Extended financial sector difficulties imply a larger role for the cycle in explaining recent high growth, and hence some downward revision in potential growth.



- ***On the upside***. By contrast, a rapid recapitalization of the financial sector, policy stimulus, and robust global activity could yield a V-shaped recovery of the type embodied in consensus forecasts. Smaller downdrafts to consumers from credit and housing strains are offset by fiscal and monetary stimulus. A recovery starting in the second half of 2008 causes growth to overshoot its potential

- rate in mid-2009 before settling back as the Fed rapidly tightens to combat inflationary pressures.

20. **The authorities expect an outcome more similar to the staff's upside scenario than the baseline path**. There was agreement about the qualitative factors that have been shaping the economy's path, but the authorities consider the baseline's financial and housing conditions overly pessimistic. In particular, Treasury officials emphasize the flexible and diversified nature of the U.S. economy, and the support to activity from strong corporate balance sheets, external demand, and macroeconomic stimulus—which they expect to help the economy recover in the second half of 2008. These different views shaped the policy discussions.

V. Macroeconomic Policy Responses

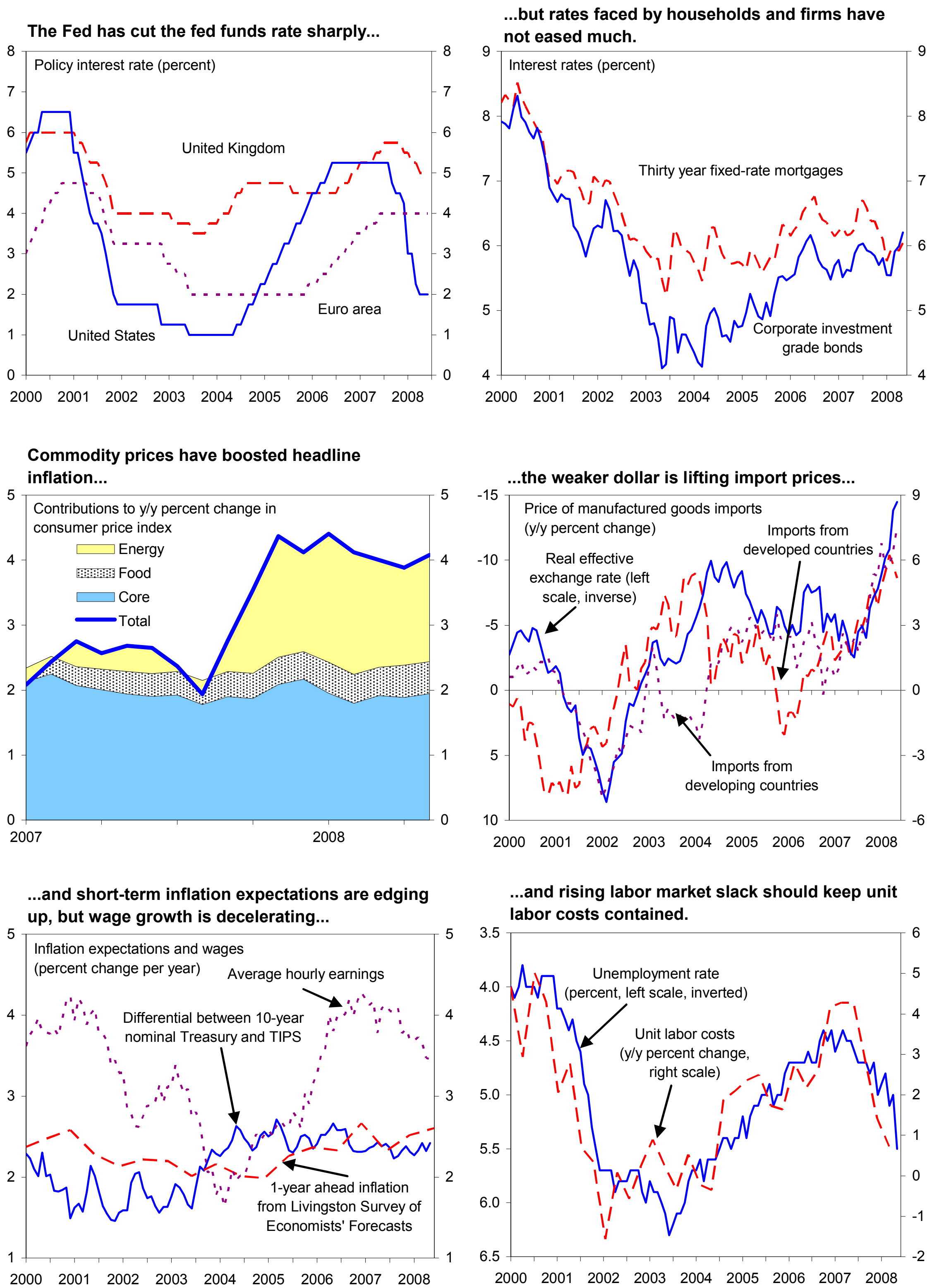
A. Monetary Accommodation

21. **Having eased rapidly, monetary policy settings are now consistent with a robust response to downside risks to growth (Figure 9)**. From mid-2006 through late 2007 Fed policy was mildly restrictive as core inflation remained above the upper end of its implicit comfort zone, mainly reflecting delayed increases in owner-equivalent rent, which had stayed remarkably low during the housing boom. The Fed subsequently responded rapidly to recessionary risks cutting rates by 325 basis points in less than five months. The real federal funds rate is now below zero (even using core CPI inflation), as well as below settings implied by standard Taylor rules, although the impact is being dampened by widening spreads and tighter lending standards. In addition, a relatively flat bank-yield curve is limiting the support from low policy rates to banks' profits from maturity transformation.

22. **While inflation concerns are on the rise, the staff forecast of further economic weakness and a slow recovery suggest that policy should remain on hold**. Concerns about activity would need to be much more pronounced to justify a more accommodative stance. On the other hand, although surging commodity prices have lifted headline inflation and near-term expectations, medium-term inflation expectations have remained relatively anchored, while wages and unit labor costs are slowing with activity. The case for a preemptive hike in policy rates, as markets now anticipate, is therefore unclear. That said, given the costs of reversing high expectations once they become entrenched, policy will need to be especially alert to the possible need to withdraw stimulus quickly as the economic recovery gains traction.

23. **U.S. biofuels subsidies added to the boom in corn and soybean prices, but the role of monetary policy in the recent commodity surge is more controversial**. With high fuel prices providing strong incentives to produce biofuels, the subsidy has become in essence a simple transfer to producers, and staff see a suspension as sensible. U.S. officials do not think that subsidies have contributed much to food inflation and pointed out that suspension would anyway be difficult, since Congress deleted a proposed safety

Figure 9. United States: Monetary Policy Indicators



Sources: Haver Analytics; Board of Governors of the Federal Reserve System; and Fund staff calculations.

valve clause that would have allowed such adjustment. On monetary policy, as discussed in the April *World Economic Outlook*, staff analysis suggests that lower U.S. interest rates and a weaker dollar are playing a significant role in surging world commodity prices. Fed officials, however, are skeptical about such an impact of monetary policy, noting that there is little evidence of a rise in commodity inventories or of a stable relationship between commodity prices and real interest rates.

24. **In the wake of the housing bubble, the role of asset prices in monetary policy bears reexamination**. In staff's view, it remains doubtful that policymakers can identify unsustainable asset price booms with sufficient confidence to justify strong offsetting interest rate moves. However, the fact of two asset-price busts in this decade with prolonged macroeconomic consequences underlines the dangers of inaction. Thus, given the potential for asset booms to turn into economic busts and lead to a rapid loosening of policy, further consideration should be given to allowing monetary—and regulatory—policy to lean against the wind, i.e., tightening policy by more than implied by just the short-term impact on activity and inflation. Fed officials acknowledge the importance of the issue, but thought it too early to draw policy conclusions from the current episode.

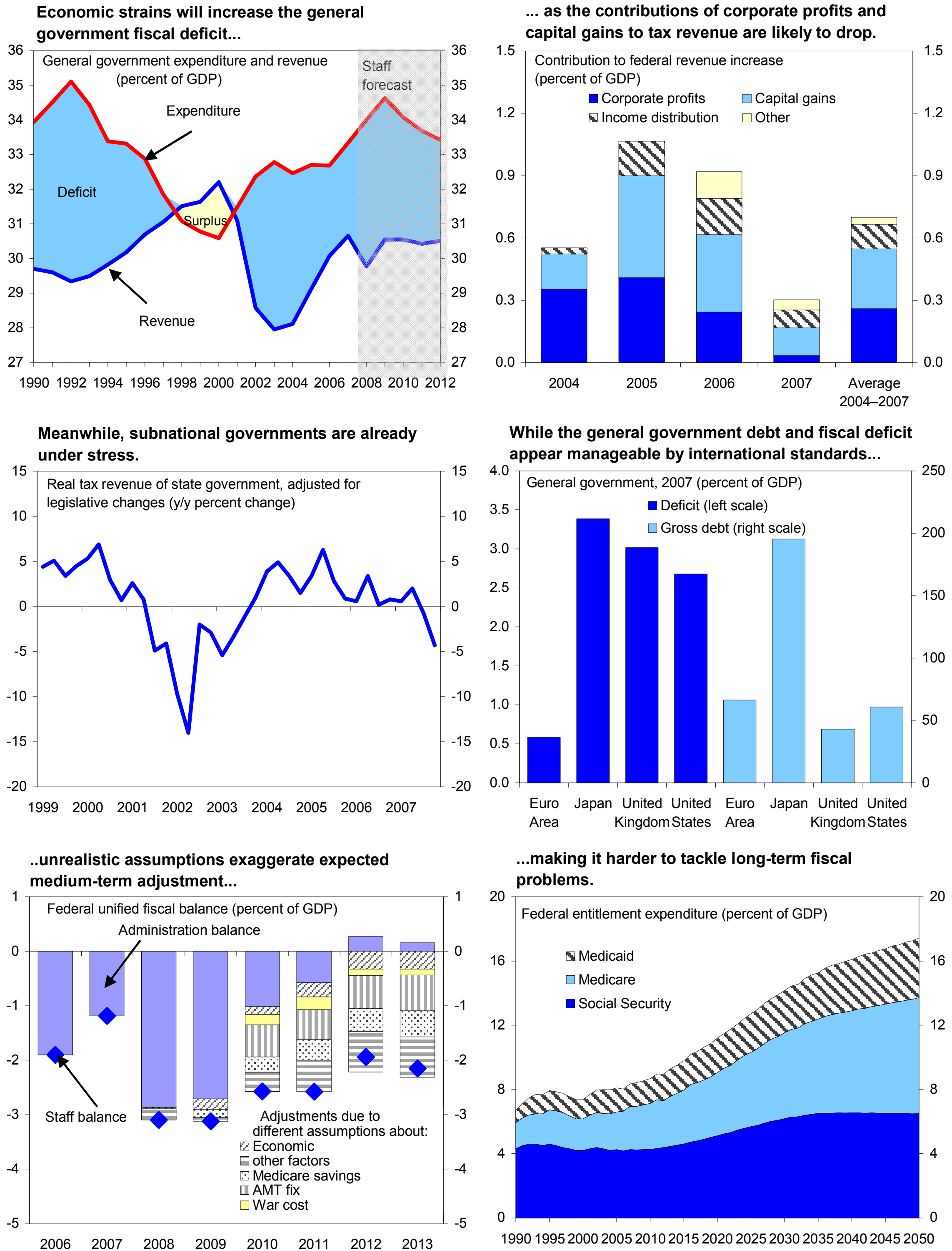
B. Fiscal Support

25. **While there is room for temporary stimulus and automatic stabilizers, significant medium- and long-term challenges remain (Figure 10)**. The general government deficit shrank to 2¾ percent of GDP, and the federal fiscal deficit to 1¼ percent of GDP in 2007 as nonsecurity discretionary spending was restricted and capital gains revenues were buoyed by the credit boom. Automatic stabilizers as growth slows will be enhanced as capital gains receipts reverse, although the impact on private spending is likely to be limited as the lower tax liabilities mainly accrue to high-saving households. The usual procyclical cut in spending by state and local governments from balanced budget constraints also may be exacerbated by financial sector problems.

26. **Fiscal stimulus is providing well-timed support to activity, more than offsetting short-term strains on income and borrowing**. The stimulus package of over 1 percent of GDP mainly comprises tax rebates that will largely go to low- and middle-income individuals. This targeting will help offset the fact that temporary stimulus tends to generate a smaller boost to demand than a permanent change. Experience from the 2001 tax cuts suggests that about half of the transfer will be spent in the spring and summer (part of which will leak away on imports), while the support to business spending from accelerated investment depreciation also in the package is likely to be limited.

27. **In staff's view, were further fiscal action needed, public finances should provide temporary support to housing and financial sectors at the root of problems**. The experience of Japan in the 1990s suggests that repeated packages in the face of rea

Figure 10. United States: Fiscal Indicators



Sources: Haver Analytics; Rockefeller Institute of Government; International Monetary Fund, *World Economic Outlook*; OECD; Office of Management and Budget; Congressional Budget Office; and Fund staff calculations.

estate and banking problems have diminishing benefits to economic activity, while loosening medium-term fiscal discipline—an important point to bear in mind given the huge U.S. long-run fiscal problem. This implies that if any further fiscal interventions are needed they could more productively focus on limiting short-term risks to house prices and bank lending. Reactions of officials varied, with some noting that targeted spending packages could delay needed adjustment in housing and asset prices and be perceived as "bailing out" reckless behavior. However, others observed that if a much more negative scenario materializes, there could be a role for some limited measures.

United States: Fiscal Projections
(Fiscal years; in percent of GDP)

			Projection					
	2006	2007	2008	2009	2010	2011	2012	2013
Staff Projection 1/								
Unified balance	-1.9	-1.2	-3.0	-3.1	-2.5	-2.4	-1.8	-1.9
Structural unified balance 2/	-2.2	-1.7	-3.0	-2.8	-2.3	-2.4	-1.7	-1.9
Primary balance	-0.2	0.5	-1.3	-1.3	-0.6	-0.5	0.2	0.1
Unified balance exc. social security	-3.3	-2.6	-4.4	-4.5	-3.9	-3.9	-3.2	-3.2
Debt held by the public	37.2	36.8	38.4	40.7	41.5	41.9	41.9	42.3
General government balance 3/	-2.6	-2.7	-4.2	-4.1	-3.5	-3.3	-2.9	-2.8
General government structural balance 2/ 3/	-2.8	-2.7	-3.9	-3.2	-2.8	-2.9	-2.8	-2.8
Memorandum items: FY 2009 Budget Assumptions								
Unified balance	-1.9	-1.2	-2.9	-2.7	-1.0	-0.6	0.3	0.2
Primary balance	-0.2	0.5	-1.2	-1.0	0.8	1.2	2.0	1.8
Unified balance exc. social security	-3.3	-2.6	-4.2	-4.1	-2.4	-2.0	-1.2	-1.1
Debt held by the public	37.2	36.6	37.8	38.7	37.9	36.6	34.7	32.9

Sources: FY 2009 Budget of the U.S. Government (February, 2008); and Fund staff estimates.
1/ Staff projections are based on the Administration's estimates adjusted for: differences in macroeconomic projections; staff estimates of the costs of the war on terror; staff estimates of the cost of the stimulus package; some additional nonsecurity discretionary expenditure; additional Medicare spending; and continued AMT relief beyond FY2008. PRAs are also assumed not to be introduced.
2/ As a percent of potential GDP, based on proposed measures, under IMF staff's economic assumptions. Also incorporates CBO adjustments for one-off items.
3/ Calendar year, on a national accounts basis. The projections use Fund staff budget and economic assumptions.

28. **While the focus on a balanced federal budget by 2013 is encouraging, significant medium-term pressures are being obscured by unrealistic budget plans**. Medium-term balanced budget plans have different emphases: the Administration assumes that non-security discretionary spending will fall in nominal terms, and Congress assumes that most of the 2001/03 tax cuts—equivalent to 1¼ percent of GDP—will expire. More importantly, both Administration and Congressional budget plans include no war funding authority beyond FY2009. Nor do they make any allowance for the costs of annual overrides of legislation that tightens criteria for the alternative minimum tax and reduces compensation to Medicare providers, which the Congressional Budget Office estimates are also worth 1¼ percent of GDP by FY2013. In addition, despite

Administration efforts, little progress has been made in Congress on reforming unsustainable pension and health entitlement programs.

29. **Thus, staff project the general government deficit in 2013 will remain at around 2¾ percent of GDP, assuming that the 2001/03 tax cuts are extended**. As proposed in previous consultations, staff view the more ambitious medium-term target of balance excluding the social security surplus as an appropriate goal to complement needed reform of unaffordable entitlement programs. This suggests a need for further consolidation of over 3 percentage points of GDP by 2013 as well as major entitlement reform. Officials explained that the Administration's policy is to keep real spending outside security and entitlements constant, which would contribute to a balanced budget, and agreed that progress on reforming entitlement programs is crucial to reducing the main fiscal problem of huge long-term unfunded liabilities.

C. Housing Support

30. **Housing support has been helpfully expanded (Table 2)**. Senior officials agreed that house prices falling below equilibrium is a key risk to the economy. Thus, in addition to supporting efforts to liquefy the market for securitized mortgages through swaps and purchases, the Administration has supported a widening set of schemes to encourage lenders to avoid foreclosures. The HOPE NOW alliance has encouraged voluntary workouts and the Federal Housing Administration (FHA) Secure program has provided FHA loan guarantees to borrowers who are delinquent as a result of ARM resets and some other criteria.

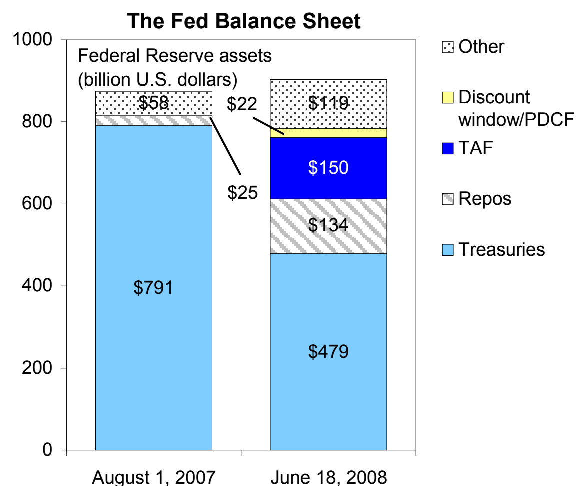
31. **To prevent a damaging overadjustment in house prices, staff favor further expanding the scope of the government's mortgage guarantee program**. Congress is likely to pass a bill supporting voluntary mortgage writedowns by allowing the FHA to guarantee up to $300 billion of loans (2 percent of GDP)—provided that the borrower qualifies and that the new mortgages are at a significant discount to current appraised value. The latter is important, because price declines are estimated to have already left 5–10 percent of homeowners with negative equity (i.e., with houses worth less than mortgage debt), which reduces incentives to service debt. The legislation also includes regulatory reform of government-sponsored enterprises as well as FHA modernization, measures long-sought by both the Administration and the staff. While views vary, and full agreement between Congress and the Administration has yet to be reached, most officials believed that the final package would likely be targeted enough to limit undesirable side-effects (e.g., strategic borrower defaults in order to extract concessions). Correspondingly, a number of observers thought the scheme may be "too little, too late" (too tightly defined to have a significant impact on the foreclosure problem, and taking too long before the FHA gears up to the task).

32. **In staff's view, a scheme with greater creditor incentives could better limit macroeconomic risks without significantly adding moral hazard**. Issuing "negative equity warrants" that allow the creditor to share profits from future sales could expand the scope of the current scheme, which runs the risk of limited take-up by lenders. In addition, bankruptcy reform allowing judges to "cram down" reduced mortgage principal on primary residences—as is already allowed for other houses and all other debt—would provide further incentives for creditors to participate. This is particularly important where writedowns are complicated by second lien holders (some 40 percent of subprime and Alt-A mortgages) and by servicers of securitized assets (some 75 percent of mortgages originated in 2007 were securitized). Both actors have limited incentives to pursue loan modifications that crystallize losses upfront. While allowing courts such discretion could raise borrowing costs to homeowners, it could also encourage better risk management by lenders, and recent evidence suggests that the effect on mortgage costs through moral hazard is likely to be small.

33. **Officials emphasize that the Administration is responding flexibly to housing woes, but that moral hazard concerns constrain policy options**. In their view, the focus of policies should be on helping homeowners who had bought the "right" house (i.e., a fundamentally affordable one) with the "wrong" loan (i.e., with low teaser rates subject to sharp jumps). Accordingly, the Administration supports FHA modernization that would provide more leeway in risk-based pricing of guarantees, and is wary of rigid rules for FHA mortgage support. The Administration also opposes bankruptcy reform on the grounds that abrogation of contracts would curtail future mortgage lending.

D. Bank Support

34. **Recent experience underlines the difficulty of letting systemic institutions fail given the complexity of their operations**. Staff background work underlines high interdependencies across institutions that appear to rise at times of stress, exacerbating systemic risks (*Selected Issues*, Chapter 6). Thus, the collapse of Bear Stearns last March led to the Fed's taking on an exposure of $29 billion (¼ percent of GDP) as part of the firm's takeover by JPMorgan Chase. The Fed's leading role was unavoidable, given the speed of Bear Stearns' loss of liquidity, the span and complexity of its financial linkages, and the risk of a broader asset "fire sale". That said, staff believe it is more appropriate to use a government agency for any future assumption of assets so as to make transparent the risks to the public purse.



Source: Board of Governors of the Federal Reserve System.

35. **In the face of illiquid markets, the Fed gradually widened access to its liquidity facilities and in time reduced systemic risks (Table 3)**. Conventional open market operations proved inadequate as counterparties and collateral were too narrowly defined for the unusually strained market circumstances, while stigma limited the use of the discount window. In response, the Fed steadily widened its eligibility criteria for institutions and instruments, increased the maturity of its operations, and lowered its penalty spreads. The process culminated in a facility accepting investment grade asset-backed securities from depositories and—in a striking departure from past practice—from primary dealers, including major investment banks. While calming market concerns about systemic risks, the extension of Fed lending to investment banks implies a reexamination of the rationale for prudential oversight.

36. **Notwithstanding moral hazard concerns, were the market instability of last March to recur, staff see a role for longer liquidity facilities**. Despite the large capital enhancements and investment banks' access to Fed loans, such market instability could recur—in which case wider-ranging options for improving the certainty of future market liquidity should be considered. In particular, significantly extending the length of existing swaps of mortgage-backed securities for Treasuries using the government's balance sheet, as in the United Kingdom, could limit disruption from further market illiquidity. As banks would retain the capital gains and losses on their collateral, the fiscal cost should be limited. Moreover, by giving financial institutions more time to strengthen their balance sheets, such a scheme would facilitate an orderly deleveraging process. Officials observed that the length of swap facilities had been extended as part of the response to financial problems, and that further extension was not contemplated at this time.

37. **In staff's view, any further emergency asset operations should be made by the Treasury rather than via proxies that can obscure potential costs**. In addition to the Fed's taking on an exposure of $29 billion of Bear Stearns' assets, nearly $300 billion (2 percent of GDP) of secured loans have been made by the Federal Home Loan Banks to mortgage lenders over the past year. More indirectly, the already-light capital requirements for Fannie Mae and Freddie Mac have been loosened further even though they bear the system's largest exposures to housing-related credit risk. Moreover, recent increases in size limits on conforming mortgages that Fannie or Freddie may purchase reinforce perceptions of an implicit government guarantee of these privately-owned enterprises. Officials view the lifting of Fannie and Freddie's capital surcharge requirements as response to their improved accounting practices rather than forbearance. However, authorities agreed on the importance of a tighter regulatory regime for these government-sponsored enterprises, as proposed in housing legislation now in Congress.

38. **The Fed is well-placed to expand on its existing role as a stability regulator that internalizes systemic risks**. This reflects its supervisory powers over bank holding companies and knowledge of market conditions, including counterparty risk concentrations. The Fed is already contributing to improved market infrastructure, e.g.,

for the netting and settlement of derivative positions. Officials recognize the importance of a systemic supervisor and, pending a thorough overhaul of the system, are strengthening arrangements between the Fed and the Securities and Exchange Commission (SEC) on oversight of major investment banks.

VI. Financial Regulation

39. **A key medium-term challenge for policymakers will be to restore confidence in segments of U.S. financial markets, most notably for securitized products**. While recognition of the limits of financial engineering has led to a dramatic fall in issuance of structured assets, securitization is likely to recover eventually given its benefits, but with simpler and more transparent instruments. The financial boom also exposed weaknesses from excessively procyclical financial lending, limited consumer protection in the mortgage origination process, and poor incentives within the securitization chain. Private sector actors will address many of these problems, but financial market turmoil has added urgency to the need to improve the fragmented U.S. regulatory system. While specific reforms warrant further consideration, including through the Fund's Financial Sector Assessment Program starting next year, the staff team initiated a preliminary discussion of the key issues.

A. Bank and Securities Regulation

40. **The Treasury blueprint, which sensibly emphasizes regulatory consolidation, is a useful starting point for reform**. As discussed in last year's staff report, regulatory fragmentation and turf battles slow decision-making, blur lines of responsibility, and permit regulatory arbitrage. The Treasury proposes an objectives-based system, with: (1) a prudential supervisor covering depositories and insurance companies; (2) a business conduct regulator for investor and consumer protection; and (3) the Fed as a market stability regulator. However, the blueprint does not address who should regulate investment banks or government-sponsored enterprises. In addition, staff and Fed officials view it as important that, in developing a macro-prudential framework, the Fed retains supervisory powers to ensure it interacts closely with the system it is overseeing.

41. **The extension of the financial safety net after Bear Stearns justifies stronger oversight of major investment banks and of liquidity management by all banks**. One medium-term option would be to put all systemic financial intermediaries under a single set of regulations and regulator—e.g., by extending umbrella Fed supervision to cover major investment bank and thrift holding companies and also the main government-sponsored housing enterprises. In addition, persistent market pressures suggest liquidity cushions at these institutions, and at commercial bank holding companies, should be managed and supervised more conservatively at the group level, with contingency funding plans that factor-in interruptions of secured financing. Fed officials were

sympathetic to the thrust of these views, some of which echo public remarks by the New York Fed president.

42. **A tighter focus could also be placed on adequate capital coverage during booms**. International efforts through the Financial Stability Forum, the Fund, and the Basel Committee are revisiting capital and liquidity risks, including the use of ratings and treatment of off-balance sheet affiliates. Officials also emphasized the role of the U.S. leverage ratio, which uses the unweighted value of assets—but currently excludes off-balance sheet items—in potentially limiting procyclical lending. Staff discussed other counter-cyclical capital requirements, such as dynamic provisioning already used in Spain, and officials confirmed the general issue was being considered. Some regulators felt fair value accounting rules for hard-to-value assets could be used more flexibly, but most observed that investors remain strongly in favor of fair value accounting's increased transparency. With market sentiment still delicate, staff agree with the Treasury's view that the issue should be revisited only after financial conditions have normalized.

43. **A Financial Sector Assessment Program, scheduled to start in late 2009, will provide the Fund an opportunity to contribute to the U.S. regulatory debate**. Serious consideration of major regulatory reforms will probably have to wait until after the November 2008 election and will likely be a long process. Reforming the regulatory system has been difficult in the past, and the Treasury blueprint already faces resistance.

B. Business Conduct Regulation

44. **Staff support creating a business conduct regulator with responsibilities for consumer and investor protection, as discussed in last year's report**. The Treasury blueprint appropriately suggests merging the SEC and the Commodity Futures Trading Commission, whose responsibilities often overlap, and moving responsibility for mortgage consumer protection from the Fed to this new body.

45. **In the wake of the housing bust, public attention has focused on the extension of inappropriate loans to unsophisticated borrowers**. Provisions under the Home Ownership and Equity Protection Act, the most relevant federal law, did not apply to the vast majority of subprime loans because their rates did not trip unrealistically high interest rate triggers, while enforcement often relied on state regulators. Stricter prudential guidance to banks on nontraditional and subprime mortgage lending was delayed by the need for agreement across five federal agencies. Finally, borrowers who were provided with misleading loan information generally have little redress, particularly when the originator has gone out of business.

46. **Legislation can allow higher national standards to be enforced through federal courts**. Given the macroeconomic costs coming from imprudent mortgage loans, the Fed is appropriately proposing that subprime mortgage lenders be required to ensure that borrowers can afford the full cost of the loan (not simply low initial rates), to verify a

borrower's income and assets, to ensure local taxes and other costs are placed in escrow accounts, and to limit pre-payment penalties. Also, legislation before Congress rightly triggers federal regulation of mortgage brokers if state supervision is insufficient. Finally, the issue of legal recourse if originators go out of business could be addressed through capped liability for bundlers (see ¶49).

C. Securitization

47. **Recent events have highlighted the need to improve incentives in the originate-to-distribute lending model**. In a typical mortgage securitization chain, a nonbank originator sells loans to a bundler—generally an investment or commercial bank. The bundler pools the loans into trusts funded by mortgage-backed securities. The trusts pay servicers to collect payments from borrowers and to deal with delinquencies and defaults. Rating agencies are paid to assess the quality of the securities, and "monoline" bond insurers provide insurance against payment shortfalls. Incentives broke down as investors became overly reliant on ratings, while originators and bundlers—who were best placed to assess underlying risks—had few incentives to maintain loan quality.

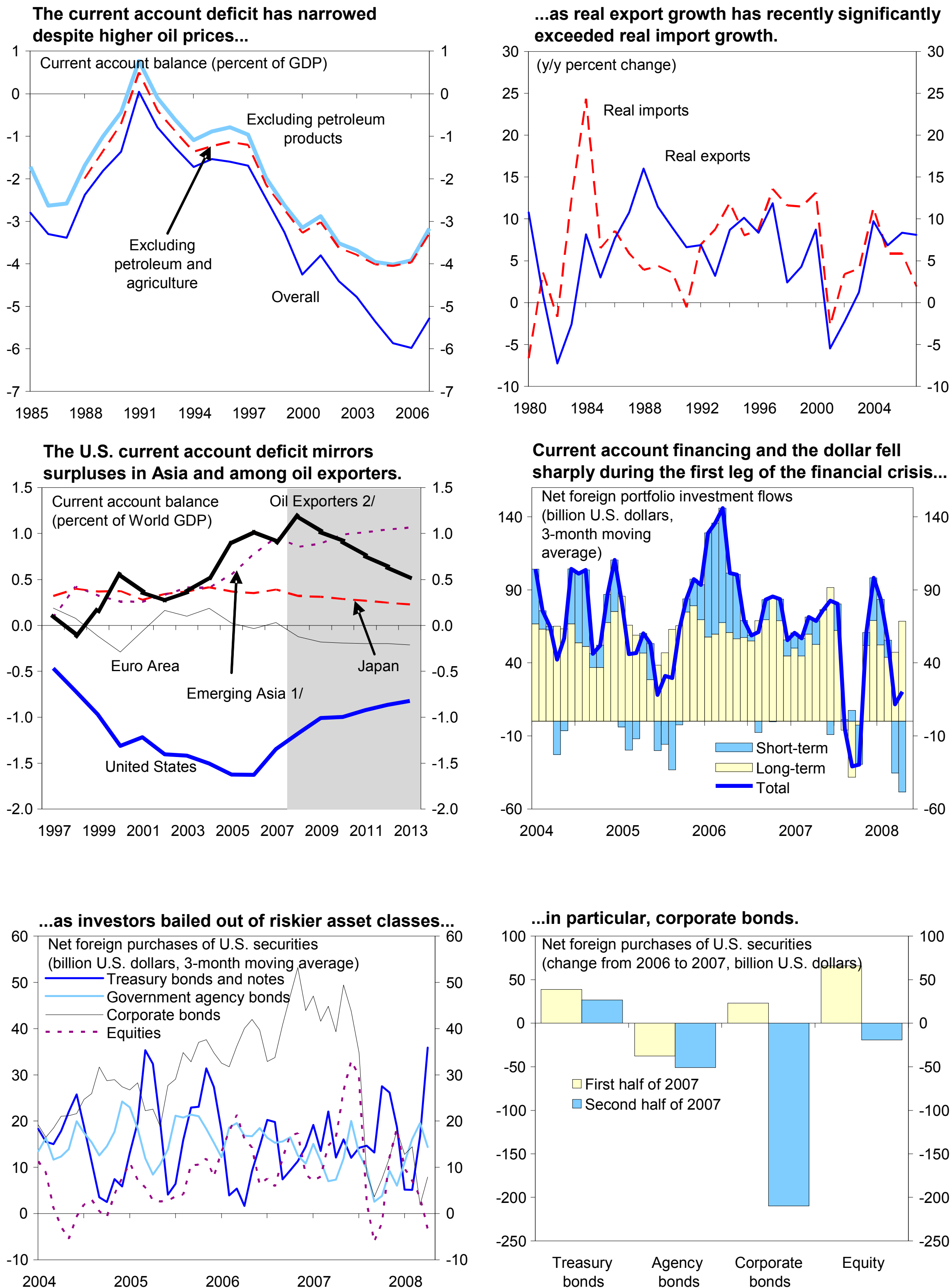
48. **As discussed in the Spring 2008 *Global Financial Stability Report*, capital charges and ratings transparency of structured credit products could be improved**. The Basel committee is revisiting capital charges for off-balance sheet activities, while stronger safeguards against conflicts of interest between advice on structuring products and eventual ratings has been suggested by the International Organization of Securities Commissions. More generally, greater transparency throughout the rating process would allow more effective exercise of due diligence by investors. Newly proposed rules from the SEC are strong first steps, and are expected to be followed by measures to limit references to external credit ratings in bank and securities regulation.

49. **Holding bundlers of securitized assets partially legally liable for the assets they create is another possible way of improving securitization incentives**. With securitization having increased specialization in finance, the rightful place for quality control in the securitization chain, arguably, is the assembly line. The impact of alternative levels of liability on loans can be examined as some U.S. states and cities have rules assigning capped legal liability to bundlers for "predatory" loans within securitized pools. Academic studies suggest that providing some liability for bundlers improves monitoring of loan quality and standards of loan originators although unlimited assignee liability shuts down the securitization process completely (see IMF working paper WP/07/188). Officials recognize the faulty incentives in the securitization process, but could not commit to specific remedies at this point.

VII. External Adjustment and the Dollar

50. **Recent dollar depreciation has moved the dollar significantly closer to medium-term equilibrium (Figure 11)**. The U.S. current account deficit rose to a record

Figure 11. United States: U.S. Competitiveness



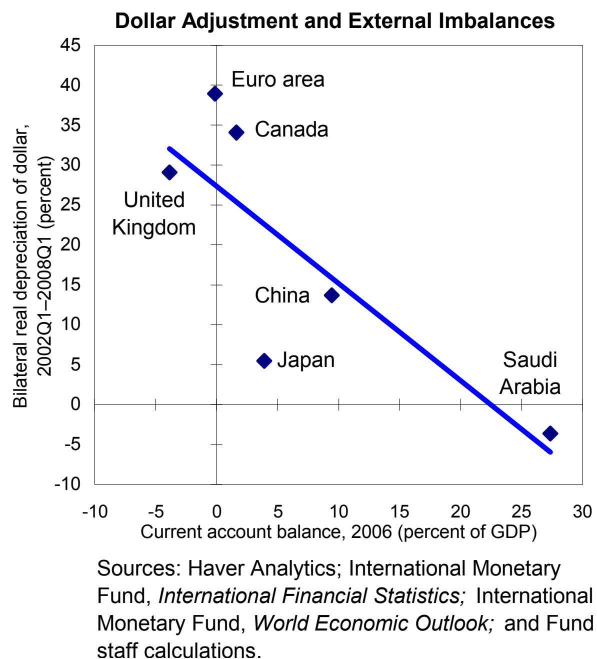
Sources: Haver Analytics; International Monetary Fund, *World Economic Outlook*; and Fund staff calculations.

of around 6 percent of GDP in 2005 and 2006 despite gradual depreciation since 2002. This partly reflected strong activity over the housing boom that was supported by heightened foreign demand for U.S. bonds, including mortgage-backed securities. Subsequently, despite a substantially higher oil import bill, this process has gone into reverse, with the current account narrowing rapidly to 5 percent of GDP in the wake of dollar depreciation, slowing domestic demand, and falling foreign net purchases of private U.S. bonds. At current exchange rates, the current account deficit is projected to fall to a more manageable level of just under 4 percent of GDP by 2013, still a bit above the level consistent with medium-term fundamentals.

51. **Financial turmoil has reduced capital inflows, contributing to recent dollar depreciation**. The dollar lost about 10 percent of its trade-weighted value between mid-2007 and March 2008 before rallying somewhat more recently. Officials view this depreciation as a continuation of the trend initiated in early 2002, reflecting fundamentals such as relative cyclical positions and interest rate differentials. While accepting that these factors play a role, staff see the rapid improvement of the current account as also reflecting capital account developments, notably the sharp reduction in foreign demand for private bonds as a result of financial turmoil: virtually all of the decline in the capital account surplus has fallen on private bonds.

52. **Multilateral dollar depreciation has lowered a key global vulnerability—the U.S. external deficit—but the benefit has been diminished by lop-sided bilateral currency movements**. In particular, the depreciation of the dollar has generally been larger against freely-floating currencies, such as the euro, rather than against less flexible currencies associated with large external surpluses, such as the renminbi. As a result of these bilateral movements, significant international exchange rate and trade tensions remain.

Dollar Adjustment and External Imbalances



Sources: Haver Analytics; International Monetary Fund, *International Financial Statistics;* International Monetary Fund, *World Economic Outlook;* and Fund staff calculations.

53. **This underlines the importance of implementing the strategy agreed during the Multilateral Consultation to combat external imbalances**. To maintain growth, the strategy sees the amelioration of global current account imbalances requiring the rebalancing of demand across key countries, not just in the United States. Given short-term economic weakness in the United States, it makes sense to defer progress toward the

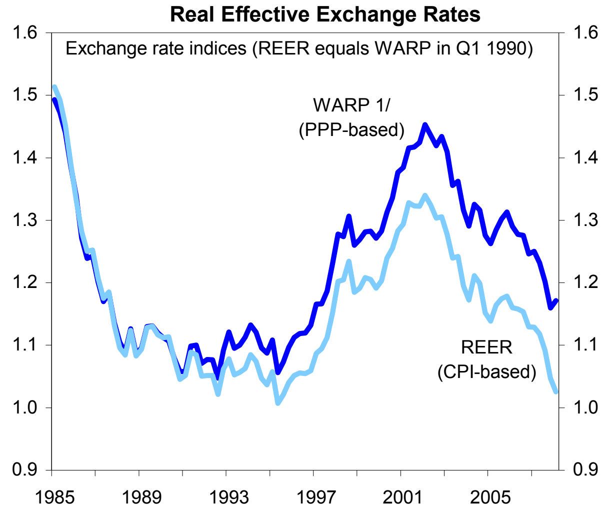
medium-term objective of a balanced U.S. budget. On the other policy goals set out in the Multilateral Consultation, the U.S. authorities have proposed the following steps, the first three of which still require Congressional action:

- *Reforming the budget process to contain spending growth.* This year's budget again proposes earmark reform and requests the legislative line-item veto.
- *Entitlement reform.* The budget again proposes reform of Social Security and a health insurance deduction, plus new initiatives to restructure health insurance markets.
- *Further tax incentives to support private saving.* The FY2009 Budget again proposes schemes to expand incentives for saving, including Lifetime Savings Accounts.
- *Enhancing energy efficiency.* Congress has passed tighter fuel efficiency standards, with ethanol subsidies also reducing consumption of gasoline.
- *Pro-growth, open investment policies.* The Administration has reiterated that it is committed to policies that make the United States attractive to foreign investment.
- *Capital market competitiveness.* The Treasury's Blueprint suggests an improved regulatory structure for the long term and a number of intermediate steps.

54. **Staff now consider the dollar closer to the level implied by medium-term fundamentals, although still somewhat on the strong side**. Estimates of the equilibrium rate vary significantly. As of early-June, the Fund's Consultative Group on Exchange Rates' exchange rate equation suggests slight undervaluation, its comparison with medium-term saving-investment fundamentals suggests a modest overvaluation, and its calculation based on stabilizing the path of net foreign assets as a ratio to GDP implies a 15 percent overvaluation. These differences across the methodologies have been apparent for some time. However, long-term trends in U.S. trade flows and net foreign assets tend to narrow this range, without materially changing the staff's overall assessment (Box 2). Adjusting for these factors suggest that all three methodologies imply modest dollar overvaluation of 0-10 percent in real effective terms. While not taking a position on the level of the dollar, U.S. officials noted that the dollar had moved in line with fundamentals, including interest rate differentials and relative output.

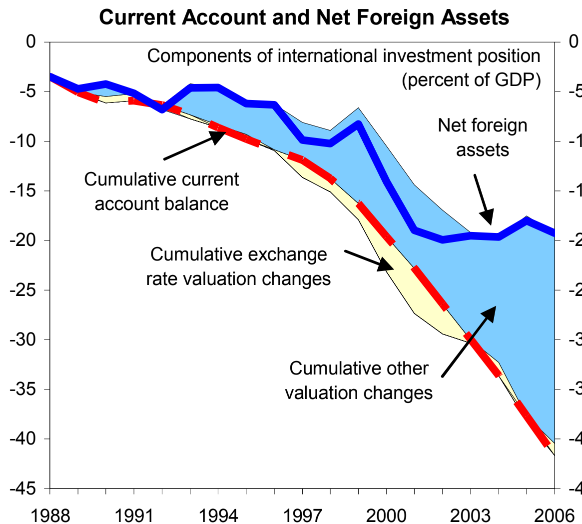
Box 2. Special Considerations in the Assessment of the Dollar

The trend switch in U.S. trade toward low-cost producers may mean conventional real effective exchange rate measures overstate the dollar weakness. The basic point is that, even if all prices and exchange rates were constant, the mere fact of growing trade with low cost countries is an implicit loss of competitiveness. Thus, the growing importance of producers with low levels of costs, such as China and Mexico, in U.S. trade may be blunting the benefit from recent dollar depreciation. Conventional exchange rate indices ignore this effect as they either assume fixed trade patterns or ignore differences in cost levels across countries. The implied bias can be estimated using a weighted average relative price (WARP) exchange rate index. This combines updated trade weights with absolute measures of competitiveness derived from purchasing power parities. Results suggest that, using the mid-1990s as a base, the dollar may be 10 percent more appreciated than implied by the Fed's standard real effective exchange rate index. Furthermore, using WARP indices improves the fit and stability of trade volume equations.



1/ Calculation parallels the methodology in Thomas, Marquez, and Fahle (2008).

On the other hand, the U.S. net foreign asset position has fallen much less than cumulative current account deficits—implying lower depreciation to stabilize net debt. The rise in the net foreign debt position from 3 percent of GDP in 1989 to currently 20 percent is well under half of that implied by accumulating current account deficits. While revaluation from dollar weakness has played some role in recent years, it is negligible over the longer term (reflecting the longer-term stability of the dollar). Rather, U.S. investors have consistently made greater capital gains on portfolio and FDI investments, partly reflecting a greater willingness of U.S. investors to take risks. Staff projections assume that, including this difference in risk tolerance, overall valuations changes reduce the implied fall in net foreign assets by some 1 percent of GDP (per year) relative to the amount implied by future current account deficits.



VIII. Staff Appraisal

55. **Despite impressive resilience, the United States faces a difficult situation as the housing bust weakens household demand and worsens credit conditions**. The staff's baseline forecast envisages extremely low growth of GDP in 2008 (Q4/Q4) followed by gradual recovery in 2009. Although inflation expectations have ticked up on surging commodity prices, price pressures should be contained as commodity prices peak and economic slack rises. The outlook crucially hinges on the evolution of house prices, and the dynamic interaction of financial sector and housing cycles. Thus, there are large uncertainties around any projection and policy response to this first national-level housing bust in at least 40 years.

56. **Monetary policy should stay on hold for now, while being prepared to raise rates as recovery becomes established**. With the real fed funds rate already negative (even using core CPI inflation), monetary policy is already consistent with a robust response to recession risks. Meanwhile, although wage demands remain moderate, elevated headline inflation may have already started seeping into near-term inflation expectations. Given the high cost of reversing such expectations once they become entrenched, the bias going forward should be toward a decisive tightening once recovery is established and financial conditions ease further.

57. **Fiscal stimulus is providing support to activity at a critical time, but medium-and long-term fiscal challenges limit the room for further initiatives**. The fiscal stimulus package was relatively well targeted toward those who are most likely to spend the money, and its rapid passage in Congress has ensured its benefits are timely. While automatic stabilizers should be allowed to operate, in the face of significant medium-term fiscal challenges, any needed further government support should focus on using balance sheets to support housing and financial markets. A more ambitious medium-term target of balance excluding the social security surplus as well as major entitlement reform remain key to restoring fiscal sustainability.

58. **Given the risks, the government should be prepared to widen support for housing and, if serious dislocations reappear, in financial markets**. It is true that policies need to be mindful of moral hazard, that the housing sector is already the recipient of large tax subsidies, and that house prices still need to adjust down. Still, there is a clear risk that prices could fall significantly below equilibrium, with painful economic consequences. Given that house prices are falling rapidly and the inventory-sales ratio is at a near-record high, there is a role for public policy to overcome coordination difficulties by using FHA guarantees to encourage lenders to make voluntary write-downs on mortgage principal to new, more affordable loans. Ideally, such legislation would provide additional incentives for lenders to participate. If major systemic financial disruptions recur, the government could support market stability by

significantly extending the term of asset swaps, as has been done with Treasury backing in the United Kingdom.

59. **Financial regulation could be consolidated and specialized, and liquidity and capital requirements strengthened, including for off-balance sheet lending**. The housing boom revealed multiple weaknesses in financial regulation and supervision. While private sector responses will plug some of the gaps, the Treasury blueprint, which includes many proposals highlighted in last year's report, provides a sensible basis for comprehensive reform. Pending further analysis, including under the Financial Sector Assessment Program, reform options could include reducing the procyclicality of bank lending (e.g., by augmenting risk-based capital ratios) and bringing the oversight of major investment banks and government-sponsored enterprises closer to that of commercial bank holding companies. Finally, with liquidity having emerged as a major and under-emphasized risk, draft recommendations from the Basel Committee will need to be implemented swiftly, taking into account U.S.-specific considerations.

60. **Dollar depreciation has moved U.S. competitiveness closer to medium-term fundamentals, but tensions remain in the pattern of bilateral adjustment**. The narrowing of the U.S. external deficit has been a welcome global development. However, bilateral rate adjustments have not corresponded to the existing pattern of imbalances, with larger changes against freely-floating currencies (such as the euro) than against currencies of countries with large current account surpluses. Thus, the reduction in the tensions in the international exchange rate and trade system has been more limited than suggested by the trend in the dollar's real effective rate. This emphasizes the importance of multilateral efforts to reduce global current account imbalances.

61. It is proposed to hold the next Article IV Consultation on a 12-month cycle.

Table 1. United States: Long-Standing Fund Policy Advice

Issue	Staff Position	Authorities' Position
Trade Policy and Foreign Aid		
There are concerns about U.S. leadership in advancing global trade liberalization.	Proliferation of U.S. preferential trade agreements could undermine the multilateral fabric of world trade unless the agreements include open-access clauses and simple rules of origin.	U.S. free trade agreements contain elements that complement and advance the multilateral trade agenda, and include rules of origin regimes that are simple and efficient to administer and operate.
Official development assistance (ODA) as a percent of GDP is lower in the U.S. than in most other industrial countries.	U.S. ODA should be increased, in line with G-8 commitments to increase aid to Africa, the Millennium Challenge Account, and HIV/AIDS and malaria initiatives.	The U.S. government is on track to meet its G8 commitment to double aid to Africa, and, more broadly, remains the largest bilateral donor. Authorities do not subscribe to an ODA-as-percent of GDP target; rather, they emphasize aid effectiveness and development impact.
Financial Policy		
There are concerns about the supervisory level-playing field with regard to industrial finance companies (ILCs). Unlike owners of commercial banks, owners of ILCs are not subject to consolidated supervision under the Bank Holding Company Act.	ILCs are, in essence, state-chartered commercial banks, and are insured by the Federal Deposit Insurance Corporation (FDIC). All commercial bank holding companies should be subject to the same consolidated supervision provisions.	The FDIC imposed a moratorium on applications for deposit insurance by ILCs that ended in January 2008. The FDIC will process ILC applications and impose conditions and safeguards on ILC parents on a case-by-case basis. The degree of supervision necessary for nonfinancial corporate owners of ILCs remains an open issue.
Regulation of the insurance sector is entirely in the hands of state Insurance Commissioners, with little federal oversight.	A single, unified regulator should be established. State regulation results in higher costs, regulatory arbitrage, and politically-driven interference in local insurance markets.	The Administration has suggested the need for a stronger federal role in insurance regulation. The Treasury Blueprint for a Modernized Financial Regulatory Structure recommends an optional federal charter for insurers.
The adequacy of savings for retirement could be improved: many defined-benefit (DB) plans remain underfunded, and weak incentives hamper employee enrollment in defined-contribution (DC) plans.	Reduce tax disincentives to overfunding DB plans to bolster cushions during market downturns; the Public Benefit Guaranty Corporation (PBGC) should set risk-based premia; 'automatic' enrollment in employer-sponsored DC plans should be facilitated. Concern that the PBGC recently adopted a riskier investment strategy moving away from matching assets and liabilities.	The Pension Protection Act (PPA) of 2006 generally implemented changes reflecting these suggestions, including provisions that are expected to encourage more employers to adopt auto enrollment.
As noted in the September 2006 AML/CFT ROSC, the AML/CFT regime has strengthened significantly, but there remain areas where compliance with FATF recommendations could be tighter.	Areas for improvement include, *inter alia*: (i) strengthening customer due diligence; (ii) making corporate ownership information more readily available; and (iii) extending AML/CFT requirements to certain designated nonfinancial businesses and professions.	The September 2006 AML/CFT ROSC noted not only strong overall progress since the last mutual evaluation in 1997, but also satisfactory compliance with the FATF recommendations on enhanced due diligence for correspondent banking relationships and requirements for money remittance services.

Table 1. United States: Long-Standing Fund Policy Advice

Issue	Staff Position	Authorities' Position
There are concerns about the impact of Basel II implementation on minimum capital floors and that it may engender procyclical lending.	Staff supports implementation of Basel II as a modern risk-sensitive capital standard. However, it acknowledges concerns about the potential impact on minimum capital floors and thus supports the cautious and methodical approach to implementing the new framework, especially in light of lessons to be learned from the recent financial crisis.	Banking regulators have taken a cautious approach to implementation. The final rule issued in November 2007 specified a parallel run for at least a year, before three transitional years with maximum reductions in risk-weighted capital. Banks would also continue to be subject to the U.S. leverage ratio and prompt corrective action requirements.
Fiscal Policy		
Entitlement growth makes the long-term fiscal position unsustainable.	Linking Medicare contributions to income would be helpful, but not sufficient, and assumed reduction in provider payments is unrealistic. Systemic reform, with emphasis on the effectiveness of medical spending and better targeting, is necessary. Progressive indexation of Social Security benefits is a promising approach. More ambitious medium-term consolidation would help alleviate long-term pressure.	The essential mechanics involved with reforming Social Security are well understood; it is now a question of the political will to undertake reform. The problems with Medicare and Medicaid cost growth are intrinsically linked to overall health care cost growth, and thus solutions are more difficult. Administration emphasizes market-based and consumer-driven solutions to lowering the rate of health care cost growth and the rate of Medicare/Medicaid cost growth.
Revenue reform	With budget deficits projected to rise despite a squeeze in non-defense discretionary spending, revenue increases need to be considered in the medium term. Consumption taxes, energy or carbon taxes, and elimination of unlimited tax deductions for employers' health insurance and mortgage interest would improve efficiency.	Federal revenue as a share of GDP is projected to exceed its historical average throughout most of the next decade even if the growth-enhancing 2001/03 tax cuts are made permanent, as advocated by the Administration. There is little political support for efficiency-improving tax reform.
Monetary Policy		
Improvements in the Fed's communications strategy would bolster its ability to comply with the dual mandate of price stability and full employment.	Quantifying the Fed's long-term inflation objective might help further anchor expectations. Recent increase in detail provided on economic projections is welcome, but more could be done.	The FOMC has not specified a numerical inflation target or range to quantify its price stability objective. Given the irreversibility of increased flow of information from the Fed to the public, changes in communications strategy are best introduced gradually.
The absence of a financial stability report (FSR).	As in many other industrialized countries, publication of an FSR could improve markets' understanding of U.S. financial sector risks and vulnerabilities and, potentially, facilitate greater coordination amongst regulators.	Although the Federal Reserve publishes a range of information that is relevant to the analysis of financial stability, including in its semiannual monetary policy report, it does not currently publish a separate financial stability report.

Table 2. United States: Measures to Support the Housing Market—Selected Actions and Proposals

Administration's actions

The FHASecure program has extended eligibility for Federal Housing Administration (FHA) guarantees to delinquent home owners if late payment was caused by a rate reset, and it is planned to also allow FHA insurance on loans to borrowers who have missed up to three payments for other reasons, provided the lender is willing to write down the principal sufficiently below the current appraised value of the house. The Administration was also instrumental in setting up HOPE NOW—an alliance of mortgage servicers aimed at reaching distressed home owners and finding alternatives to foreclosures. HOPE NOW members, supported by the American Securitization Forum, say they have provided loan workouts to approximately 1½ million homeowners (with about one third involving loan modifications such as interest rate freezes and FHASecure refinancing), but the Office of the Comptroller of the Currency has suggested the extent of loan mitigation is much smaller.

U.S. Housing Market Numbers	
Total housing units	129 million
Single-family	88 million
Occupied units	111 million
Owner-occupied	75 million
Residential mortgages	57 million
Subprime/Alt-A	11 million
Mortgages outstanding	$12 trillion
Subprime/Alt-A	$2 trillion
Foreclosures started in 2007	1.5 million

Congressional Housing Package Provisions

Federal Housing Administration expansion

Congressional draft legislation envisages the FHA providing guarantees for troubled mortgages over three years. To qualify, the principal of the modified loan would have to be written down to no more than 90 percent of the current appraised value of the house; a 3 percent loan loss reserve must be established; origination and closing costs for the new loan up to 2 percent would be paid by existing mortgage holders; and all other claims must be extinguished. The refinanced borrower would pay an exit fee in the future upon selling or refinancing the property, and share a declining fraction of home price appreciation with the FHA. The Congressional Budget Office has estimated that the program would help about 400,000 borrowers and cost around $700 million, which would be covered by temporarily diverting GSE contributions from the affordable housing funds.

Federal Housing Administration modernization

Legislation would permanently increase FHA loan guarantee limits, extend their maximum term, allow more flexibility in underwriting criteria, reduce minimum down-payments, and permit greater flexibility to charge fees to reflect differences in credit risk across borrowers.

Government-Sponsored Enterprise overhaul

An independent supervisor with broad safety and soundness powers would oversee Freddie Mac, Fannie Mae, and the Federal Home Loan Banks. The GSEs' conforming loan limits in high cost areas would be raised permanently to the smaller of 175 percent of the national limit ($729,750 currently) or 125 percent of the local median home price (House bill), or to the smaller of 150 percent of the national limit or the local median home price (Senate bill). (The Economic Stimulus Act has raised the limits temporarily until the end of this year). Part of GSE profits would finance newly established affordable housing funds.

Table 3. United States: Forms of Federal Reserve Lending to Financial Institutions

	Regular OMOs	Single-Tranche OMO Program (announced Mar. 7, 2008)	Discount Window	Term Discount Window Program (announced Aug. 17, 2007)	Term Auction Facility (announced Dec. 12, 2007)	Primary Dealer Credit Facility (announced Mar. 16, 2008)	Securities Lending	Term Securities Lending Facility (announced Mar. 11, 2008)
Who can borrow?	Primary dealers, including investment banks	Primary dealers, including investment banks	Depository institutions	Primary credit-eligible depository institutions	Primary credit-eligible depository institutions	Primary dealers, including investment banks	Primary dealers, including investment banks	Primary dealers, including investment banks
What are they borrowing?	Funds	Funds	Funds	Funds	Funds	Funds	U.S. Treasuries	U.S. Treasuries
What collateral can be pledged?	U.S. Treasuries, agencies, agency MBS	U.S. Treasuries, agencies, agency MBS	Full range of Discount Window collateral	Full range of Discount Window collateral	Full range of Discount Window collateral	U.S. Treasuries, agencies, agency MBS, investment-grade debt securities	U.S. Treasuries	U.S. Treasuries, agencies, agency MBS, AAA/Aaa-rated private-label RMBS and CMBS, agency CMO
Is there a reserves impact?	Yes	Yes	Yes	Yes	Yes	Yes	No (loans are bond-for-bond)	No (loans are bond-for-bond)
What is the term of loan?	Typically, term is overnight-14 days	28 days	Typically overnight but up to several weeks	Up to 90 days	28 days	Overnight	Overnight	28 days
How frequently are operations conducted?	Typically once or more daily	Typically weekly	As requested	As requested	Every other week	As requested	Daily	Weekly

Table 4. United States: Selected Economic Indicators

(Percentage change from previous period at annual rate, unless otherwise indicated)

	2006	2007	2008	2009	2010	2011	2012	2013	2007 Q1	Q2	Q3	Q4	2008 Q1
National production and income													
Real GDP	2.9	2.2	1.3	0.8	3.0	3.5	3.0	2.6	0.6	3.8	4.9	0.6	1.0
Net Exports 1/	-0.1	0.6	0.9	0.7	0.1	0.0	0.0	0.1	-0.5	1.3	1.4	1.0	0.8
Total domestic demand	2.8	1.5	0.4	0.1	2.8	3.4	2.9	2.5	1.1	2.4	3.3	-0.4	0.2
Final domestic demand	2.7	1.8	0.6	0.1	2.8	3.4	2.9	2.4	1.7	2.1	2.5	1.3	0.1
Private final consumption	3.1	2.9	1.4	0.6	2.5	2.5	2.1	1.8	3.7	1.4	2.8	2.3	1.1
Public consumption expenditure	1.4	1.9	2.3	1.9	2.1	3.2	2.3	2.9	-0.4	3.3	3.5	2.0	3.1
Gross fixed domestic investment	2.6	-2.0	-4.2	-3.7	4.9	7.5	7.0	4.5	-3.8	4.0	0.3	-2.9	-6.1
Private fixed investment	2.4	-2.9	-5.3	-4.9	5.5	8.5	8.1	4.9	-4.4	3.1	-0.7	-4.0	-6.9
Equipment & software	5.9	1.3	0.3	-4.2	5.8	10.6	10.3	6.1	0.3	4.7	6.2	3.1	0.2
Structures (non-residential)	8.4	12.9	4.4	-4.2	3.2	6.3	6.6	3.0	6.3	26.2	16.4	12.4	1.3
Structures (residential)	-4.6	-17.0	-21.3	-7.0	7.4	6.7	5.5	4.5	-16.3	-11.8	-20.5	-25.2	-24.5
Public fixed investment	3.7	2.4	0.9	1.1	2.8	3.6	2.6	3.0	-0.9	8.0	5.2	1.8	-2.6
Change in private inventories 1/	0.1	-0.3	-0.2	0.0	0.0	0.0	0.0	0.0	-0.7	0.2	0.9	-1.8	0.0
Nominal GDP	6.1	4.9	3.7	2.9	5.3	5.8	5.3	4.8	4.9	6.6	6.0	3.0	3.7
Personal saving ratio (% of DI)	0.4	0.5	1.0	0.9	1.0	1.4	1.9	2.6	1.0	0.3	0.4	0.2	0.4
Private investment rate (% of GDP)	16.7	15.4	13.8	12.8	12.9	13.3	13.8	14.0	15.6	15.5	15.5	14.8	14.4
Employment and inflation													
Output gap (percent of potential)	0.5	0.1	-1.0	-2.6	-2.0	-1.0	-0.3	0.0	-0.3	0.0	0.6	0.1	-0.3
Potential GDP	2.7	2.6	2.5	2.4	2.5	2.4	2.3	2.3	2.6	2.6	2.6	2.5	2.5
Unemployment rate (percent)	4.6	4.6	5.4	6.3	5.8	5.2	5.0	4.9	4.5	4.5	4.7	4.8	4.9
CPI inflation	3.2	2.9	3.9	2.3	2.3	2.4	2.2	2.2	3.7	4.6	2.8	5.0	4.3
GDP deflator	3.2	2.7	2.4	2.0	2.2	2.2	2.2	2.2	4.2	2.6	1.0	2.4	2.7
Financial policy indicators													
Central gov't balance ($ b, public accounts)	-248	-162	-432	-451	-378	-394	-300	-346					
In percent of FY GDP	-1.9	-1.2	-3.0	-3.1	-2.5	-2.4	-1.8	-1.9					
Central government balance ($ b, NIPA)	-263	-284	-533	-530	-466	-442	-364	-393					
In percent of CY GDP	-2.0	-2.1	-3.7	-3.6	-3.0	-2.7	-2.1	-2.2					
General government balance ($ b, NIPA)	-345	-371	-608	-603	-550	-537	-505	-510					
In percent of CY GDP	-2.6	-2.7	-4.2	-4.1	-3.5	-3.3	-2.9	-2.8					
Three-month Treasury bill rate	4.8	4.5	1.6	2.7	4.7	4.8	4.8	4.8	5.1	4.9	4.4	3.5	2.1
Ten-year government bond rate	4.8	4.6	3.8	3.9	4.7	5.8	5.8	5.8	4.7	4.8	4.7	4.3	3.7
Balance of payments													
Current account balance ($ b)	-788	-731	-712	-650	-682	-676	-689	-680	-788	-776	-692	-669	-706
Merchandise trade balance ($ b)	-838	-819	-890	-849	-855	-880	-899	-913	-813	-824	-805	-836	-844
Balance on invisibles ($ b)	50	88	178	199	173	203	210	233	26	47	113	167	139
Current account balance (% of GDP)	-6.0	-5.3	-5.0	-4.4	-4.4	-4.1	-4.0	-3.7	-5.8	-5.6	-5.0	-4.8	-5.0
Merchandise trade balance (% of GDP)	-6.4	-5.9	-6.2	-5.7	-5.5	-5.3	-5.2	-5.0	-6.0	-6.0	-5.8	-5.9	-5.9
Balance on invisibles (% of GDP)	0.4	0.6	1.2	1.3	1.1	1.2	1.2	1.3	0.2	0.3	0.8	1.2	1.0
Export volume 2/	9.9	7.9	7.1	7.7	7.5	7.1	6.8	6.3	0.9	6.6	26.2	3.9	1.5
Import volume 2/	6.0	1.6	-1.0	1.1	5.0	5.8	5.4	4.8	4.1	-2.9	4.8	-2.7	-3.6
Saving and investment (as a share of GDP)													
Gross national saving	14.1	13.4	12.0	11.8	11.9	12.6	13.2	13.6	13.9	13.9	13.3	12.7	11.9
General government	0.5	0.4	-0.7	-0.7	-0.1	0.2	0.5	0.6	0.4	0.7	0.3	0.2	-0.5
Private	13.6	13.0	12.7	12.4	12.0	12.4	12.7	13.0	13.4	13.2	13.0	12.4	12.4
Personal	0.3	0.3	0.8	0.7	0.8	1.1	1.4	1.9	0.7	0.2	0.3	0.1	0.3
Business	13.3	12.7	11.9	11.7	11.2	11.4	11.3	11.1	12.7	13.0	12.7	12.3	12.1
Gross domestic investment	20.0	18.7	17.2	16.2	16.3	16.7	17.2	17.4	19.0	18.9	18.9	18.2	17.8

Sources: Haver Analytics; and Fund staff estimates.

1/ Contributions to growth.

2/ NIPA basis, goods.

Table 5. United States: Balance of Payments
(Billion U.S. dollars, unless otherwise indicated)

			Projection					
	2006	2007	2008	2009	2010	2011	2012	2013
Current account	-788	-731	-712	-650	-682	-676	-689	-680
Percent of GDP	-6.0	-5.3	-5.0	-4.4	-4.4	-4.1	-4.0	-3.7
Goods and services	-753	-700	-733	-662	-640	-638	-629	-614
Merchandise trade	-838	-819	-890	-849	-855	-880	-899	-913
Exports	1,023	1,148	1,330	1,468	1,604	1,755	1,912	2,069
Imports	-1,861	-1,968	-2,221	-2,317	-2,459	-2,635	-2,811	-2,982
Services	85	119	157	187	215	241	269	298
Receipts	434	497	565	613	665	724	785	847
Payments	-349	-378	-408	-425	-451	-483	-516	-549
Income	57	82	141	122	68	75	58	57
Receipts	685	818	796	846	1,097	1,287	1,415	1,553
Payments	-628	-736	-655	-724	-1,029	-1,212	-1,357	-1,496
Unilateral transfers, net	-92	-113	-119	-110	-110	-113	-117	-122
Capital account transactions, net	-4	-2	-2	-2	-2	-3	-3	-3
Financial account	809	768	662	652	684	679	691	682
Private capital	293	386	323	431	451	432	431	410
Direct investment	1	-96	-154	-165	-175	-186	-198	-211
Outflows	-241	-333	…	…	…	…	…	…
Inflows	242	238	…	…	…	…	…	…
Securities	262	431	180	308	310	325	342	357
Outflows	-365	-289	…	…	…	…	…	…
Inflows	627	720	…	…	…	…	…	…
Other investment	30	50	297	288	315	293	288	263
Outflows	-674	-639	…	…	…	…	…	…
Inflows	704	689	…	…	…	…	…	…
U.S. official reserves	2	0	0	0	0	0	0	0
Foreign official assets	488	411	336	222	233	247	260	272
Other items	26	-29	3	0	0	0	0	0
Statistical discrepancy	-17	-35	53	0	0	0	0	0
Memo item: Current account excluding petroleum	-517	-438	-236	-132	-143	-108	-93	-60

Sources: Haver Analytics; and Fund staff calculations.

Table 6. United States: Indicators of External and Financial Vulnerability

(In percent of GDP, unless otherwise indicated)

	2000	2001	2002	2003	2004	2005	2006	2007
External indicators								
Exports of goods and services (percent change)	10.8	-6.1	-3.0	4.4	14.0	10.6	13.5	13.0
Imports of goods and services (percent change)	17.8	-5.5	2.1	8.3	16.7	12.8	10.8	6.1
Terms of trade (percent change)	-4.6	2.8	1.5	-1.3	-1.7	-4.0	-1.2	0.6
Current account balance	-4.3	-3.8	-4.4	-4.8	-5.3	-5.9	-6.0	-5.3
Capital and financial account balance	4.9	3.9	4.8	4.8	4.5	5.6	6.1	5.5
Of which:								
Net portfolio investment	3.1	3.3	4.5	4.2	6.2	5.0	5.7	5.9
Net foreign direct investment	1.7	0.2	-0.7	-0.8	-1.5	0.6	0.0	-0.7
Net other investment	0.2	0.4	1.0	1.5	-0.2	0.0	0.4	0.3
Official reserves (billion dollars)	67.6	68.7	79.0	85.9	86.8	65.1	65.9	70.6
Central bank foreign liabilities (billion dollars)	0.3	0.1	0.1	0.2	0.1	0.1	0.2	0.1
Official reserves (months of imports)	0.6	0.6	0.7	0.7	0.6	0.4	0.4	0.4
Net international investment position 1/	-13.6	-18.5	-19.5	-19.0	-19.2	-15.5	-16.9	-17.6
Of which: General government debt 2/	11.6	12.1	13.8	15.6	17.7	19.1	20.7	23.4
External debt-to-exports ratio	1.2	1.9	2.1	2.1	1.9	1.5	1.5	1.5
External interest payments to exports (percent) 3/	24.8	23.7	20.7	19.0	20.5	25.9	32.5	35.9
Nominal effective exchange rate (percent change)	2.6	5.2	0.0	-6.4	-4.9	-2.6	-1.5	-4.3
Real effective exchange rate (percent change)	3.3	5.6	-0.2	-6.4	-4.6	-1.4	-0.4	-3.9
Financial market indicators								
General government gross debt	54.2	53.7	56.1	59.4	60.4	60.8	60.1	60.9
Three-month Treasury bill yield (percent)	6.0	3.5	1.6	1.0	1.4	3.2	4.8	4.5
Three-month Treasury bill yield (percent, real)	2.5	0.6	0.0	-1.2	-1.2	-0.2	1.6	1.6
Equity market index								
(percent change in S&P500, year average)	7.6	-16.4	-16.5	-3.2	17.3	6.8	8.6	12.7
Banking sector risk indicators (percent unless otherwise indicated) 4/								
Total assets (in billions of dollars)	6,246	6,552	7,077	7,601	8,414	9,040	10,090	11,176
Total loans and leases to assets	61.1	59.3	58.7	58.3	58.3	59.5	59.3	59.3
Total loans to deposits	91.3	88.7	88.6	88.0	87.7	88.6	88.9	90.7
Problem loans to total loans and leases 5/	1.1	1.4	1.5	1.2	0.9	0.8	0.8	1.3
Nonperforming assets to assets	0.7	0.9	0.9	0.8	0.6	0.5	0.5	0.9
Loss allowance to:								
Total loans and leases	1.7	1.9	1.9	1.7	1.5	1.3	1.2	1.3
Noncurrent loans and leases	149.4	132.4	127.2	145.7	174.7	170.5	147.6	102.8
Return on equity	14.0	13.2	14.4	15.3	13.7	12.9	13.0	9.3
Return on assets	1.2	1.2	1.3	1.4	1.3	1.3	1.3	1.0
Total capital to risk-weighted assets	12.1	12.7	12.8	12.8	12.6	12.3	12.4	12.2
Core capital ratio	7.7	7.8	7.8	7.9	7.8	7.9	7.9	7.6

Sources: IMF, *International Financial Statistics;* Federal Deposit Insurance Corporation; and Haver Analytics.

1/ With FDI at market value.

2/ Excludes foreign private holdings of U.S. government securities other than Treasuries.

3/ External interest payments: income payments on foreign-owned assets (other private payments plus U.S. government payments).

4/ FDIC-insured commercial banks.

5/ Noncurrent loans and leases.

Table 7. United States: Fiscal Indicators

(Fiscal years; in percent of GDP except where otherwise indicated)

			Projection					
	2006	2007	2008	2009	2010	2011	2012	2013
FY 2009 Budget, Administration								
Outlays	20.4	20.0	20.5	20.7	19.6	19.1	18.5	18.6
Debt service	1.7	1.7	1.7	1.7	1.8	1.8	1.7	1.7
Other	18.6	18.2	18.8	18.9	17.8	17.3	16.8	17.0
Revenue	18.5	18.8	17.6	18.0	18.6	18.5	18.8	18.8
Unified balance	-1.9	-1.2	-2.9	-2.7	-1.0	-0.6	0.3	0.2
Primary balance	-0.2	0.5	-1.2	-1.0	0.8	1.2	2.0	1.8
Unified balance exc. social security	-3.3	-2.6	-4.2	-4.1	-2.4	-2.0	-1.2	-1.1
Unified balance (billion dollars)	-248	-162	-410	-407	-160	-95	48	29
Debt held by the public	37.2	36.6	37.8	38.7	37.9	36.6	34.7	32.9
FY 2009 Budget, Adjusted for Staff's Assumptions 1/								
Outlays	20.4	20.0	20.5	21.4	20.9	20.6	20.0	20.2
Debt service	1.7	1.7	1.7	1.8	1.9	2.0	2.0	2.0
Other	18.6	18.2	18.8	19.6	19.0	18.7	18.0	18.1
Revenue	18.5	18.8	17.4	18.3	18.4	18.2	18.3	18.2
Unified balance	-1.9	-1.2	-3.0	-3.1	-2.5	-2.4	-1.8	-1.9
Primary balance	-0.2	0.5	-1.3	-1.3	-0.6	-0.5	0.2	0.1
Unified balance exc. social security	-3.3	-2.6	-4.4	-4.5	-3.9	-3.9	-3.2	-3.2
Unified balance (billion dollars)	-248	-162	-432	-451	-378	-394	-300	-346
Debt held by the public	37.2	36.8	38.4	40.7	41.5	41.9	41.9	42.3
Memorandum items:								
Structural unified balance 2/	-2.2	-1.7	-3.0	-2.8	-2.3	-2.4	-1.7	-1.9
Primary structural unified balance	-0.5	0.0	-1.3	-1.1	-0.5	-0.4	0.3	0.1
Administration's economic projections (in percent, calendar-year basis)								
Real GDP growth	2.9	2.2	2.7	3.0	3.0	2.9	2.8	2.8
CPI inflation	3.2	2.9	2.7	2.1	2.3	2.3	2.3	2.3
Three-month Treasury bill rate	4.8	4.5	3.7	3.8	4.0	4.1	4.1	4.1
Central government balance 3/	-2.0	-2.1	-3.7	-3.6	-3.0	-2.7	-2.1	-2.2
General government balance 3/	-2.6	-2.7	-4.2	-4.1	-3.5	-3.3	-2.9	-2.8

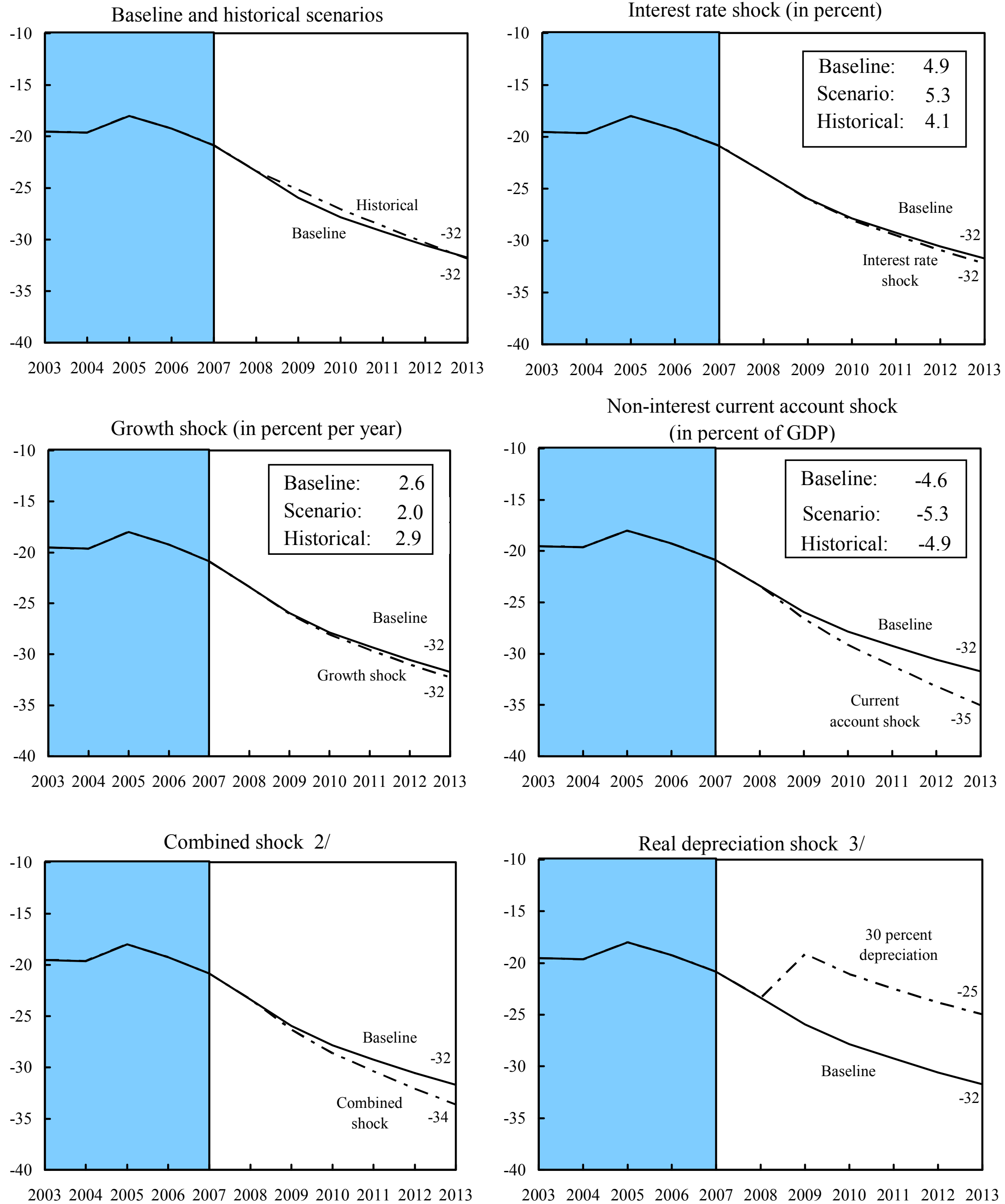
Sources: FY 2009 Budget (February 4, 2008); and Fund staff estimates.

1/ Staff projections are based on the Administration's estimates adjusted for: differences in macroeconomic projections; staff estimates of the costs of the war on terror; staff estimates of the cost of the stimulus package; some additional nonsecurity discretionary expenditure; additional Medicare spending; and continued AMT relief beyond FY2008. PRAs are also assumed not to be introduced.

2/ As a percent of potential GDP, based on proposed measures, under IMF staff's economic assumptions. Also incorporates CBO adjustments for one-off items.

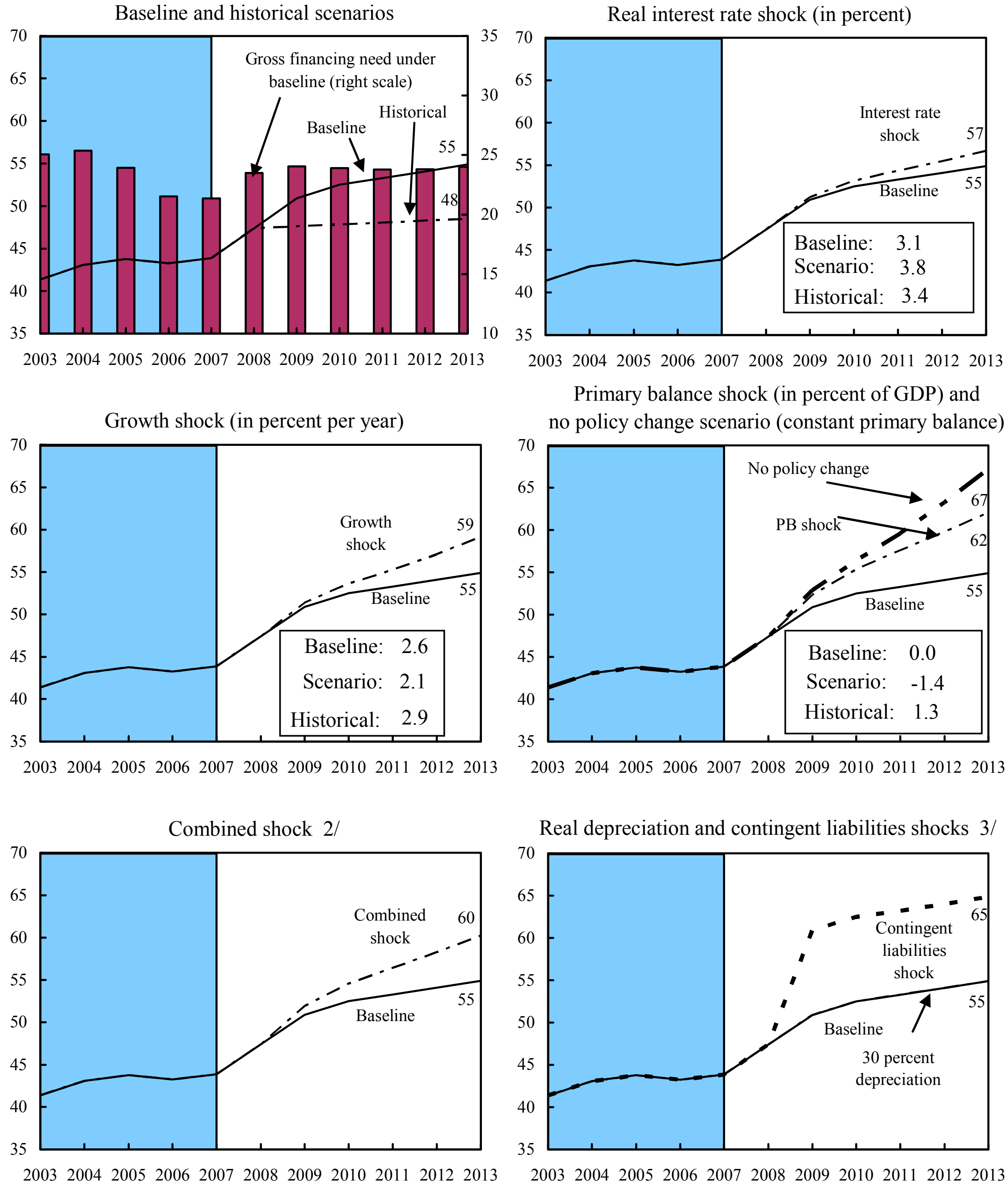
3/ Calendar year, on a national accounts basis. The projections use Fund staff budget and economic assumptions.

Appendix Figure 1. United States: Net Foreign Asset Sustainability: Bound Tests 1/
(Net foreign assets in percent of GDP)



Source: Fund staff estimates.
1/ Shaded areas represent actual data. Individual shocks are permanent one-half standard deviation shocks. Figures in the boxes represent average projections for the respective variables in the baseline and scenario being presented. Ten-year historical average for the variable is also shown.
2/ Permanent 1/4 standard deviation shocks applied to real interest rate, growth rate, and current account balance.
3/ One-time real depreciation of 30 percent occurs in 2009.

Appendix Figure 2. United States: Public Debt Sustainability: Bound Tests 1/
(Public debt in percent of GDP)



Source: Fund staff estimates.

1/ Shaded areas represent actual data. Individual shocks are permanent one-half standard deviation shocks. Figures in the boxes represent average projections for the respective variables in the baseline and scenario being presented. Ten-year historical average for the variable is also shown.

2/ Permanent 1/4 standard deviation shocks applied to real interest rate, growth rate, and primary balance.

3/ One-time real depreciation of 30 percent and 10 percent of GDP shock to contingent liabilities occur in 2009, with real depreciation defined as nominal depreciation (measured by percentage fall in dollar value of local currency) minus domestic inflation (based on GDP deflator).

Appendix Table 1. United States: Net Foreign Asset Position Sustainability Framework, 2003–2013

(In percent of GDP, unless otherwise indicated)

		Actual					Projections						
		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	NFA-stabilizing non-income current account 5/
1	**Baseline: Net Foreign Asset Position**	-19.5	-19.6	-18.0	-19.2	-20.9	**-23.4**	**-25.9**	**-27.8**	**-29.2**	**-30.6**	**-31.7**	**0.2**
2	Change in net foreign asset position	0.4	-0.1	1.6	-1.2	-1.6	-2.5	-2.6	-1.9	-1.4	-1.3	-1.2	
3	Identified external liability-creating flows (4+8)	4.9	5.4	6.0	6.1	5.8	5.9	5.4	4.7	4.4	4.3	4.2	
4	Current account deficit excluding income flows	5.2	5.9	6.4	6.4	5.9	5.9	5.2	4.8	4.6	4.3	4.1	
5	Deficit in balance of goods and services	4.5	5.2	5.7	5.7	5.1	5.1	4.5	4.1	3.9	3.6	3.4	
6	Exports	9.3	9.9	10.3	11.0	11.9	13.2	14.1	14.6	15.1	15.6	16.1	
7	Imports	13.8	15.1	16.0	16.8	16.9	18.3	18.6	18.7	18.9	19.2	19.5	
8	Automatic debt dynamics 1/	0.3	0.6	0.4	0.3	0.1	0.0	-0.2	0.1	0.2	0.0	-0.2	
9	Contribution from nominal interest rate	-0.6	-0.6	-0.7	-0.8	-0.8	-0.8	-0.9	-1.2	-1.4	-1.5	-1.6	
10	Contribution from real GDP growth	0.5	0.7	0.6	0.5	0.4	0.3	0.2	0.7	0.9	0.8	0.8	
11	Contribution from price changes 2/	0.4	0.5	0.6	0.6	0.5	0.5	0.5	0.5	0.6	0.6	0.6	
12	Residual (2-3) 3/	5.3	5.3	7.6	4.9	4.2	3.4	2.9	2.8	3.0	3.0	3.1	
	Net foreign liabilities-to-exports ratio (in percent)	-210.3	-197.7	-174.4	-174.3	-175.4	-177.2	-184.2	-190.8	-194.1	-196.3	-197.5	
	Scenario with key variables at their historical averages 4/						**-23.4**	**-25.2**	**-27.1**	**-28.7**	**-30.3**	**-31.9**	**-0.4**
	Key Macroeconomic Assumptions Underlying Baseline												
	Real GDP growth (in percent)	2.5	3.6	3.1	2.9	2.2	1.3	0.8	3.0	3.5	3.0	2.6	
	GDP deflator in US dollars (change in percent)	2.1	2.9	3.2	3.2	2.7	2.4	2.0	2.2	2.2	2.2	2.2	
	Nominal external interest rate (in percent)	3.1	3.5	4.0	4.5	4.5	3.8	3.8	4.9	5.2	5.3	5.3	
	Growth of exports (US dollar terms, in percent)	4.4	14.0	10.6	13.5	13.0	15.2	9.8	9.1	9.3	8.8	8.1	
	Growth of imports (US dollar terms, in percent)	8.3	16.7	12.8	10.8	6.1	12.0	4.3	6.1	7.2	6.7	6.1	
	Current account balance, excluding interest payments	-5.2	-5.9	-6.4	-6.4	-5.9	-5.9	-5.2	-4.8	-4.6	-4.3	-4.1	

1/ Derived as $[r - g - \rho(1+g) + \varepsilon\alpha(1+r)]/(1+g+\rho+g\rho)$ times previous period debt stock, with r = nominal effective interest rate on external debt; ρ = change in domestic GDP deflator in US dollar terms, g = real GDP growth rate, ε = nominal appreciation (increase in dollar value of domestic currency), and α = share of domestic-currency denominated debt in total external debt.

2/ The contribution from price changes is defined as $[-\rho(1+g)]/(1+g+\rho+g\rho)$ times previous period debt stock. ρ increases with a rising GDP deflator.

3/ Line includes the impact of exchange rate changes.

4/ The key variables include real GDP growth; nominal interest rate; dollar deflator growth; and both non-interest current account and non-debt inflows in percent of GDP.

5/ Long-run, constant balance that stabilizes the net foreign asset ratio assuming that key variables (real GDP growth, nominal interest rate, dollar deflator growth, and non-debt inflows in percent of GDP) remain at their levels of the last projection year.

Appendix Table 2. United States: Public Sector Debt Sustainability Framework, 2002–2012

(In percent of GDP, unless otherwise indicated)

	Actual					Projections						
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	**Debt-stabilizing primary deficit 9/**
1 **Baseline: Public sector debt 1/**	41.4	43.1	43.8	43.3	43.9	**47.1**	**50.4**	**52.0**	**53.0**	**53.8**	**54.7**	**0.3**
o/w foreign-currency denominated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2 Change in public sector debt	2.9	1.7	0.7	-0.5	0.6	3.2	3.3	1.6	1.0	0.8	0.9	
3 Identified debt-creating flows (4+7+12)	2.2	1.0	0.2	-0.7	-0.2	1.8	2.0	0.3	-0.3	-0.5	-0.4	
4 Primary deficit	2.1	1.7	0.8	-0.2	-0.2	1.3	1.0	0.3	-0.1	-0.5	-0.7	
5 Revenue and grants	28.0	28.1	29.1	30.1	30.7	29.8	30.5	30.5	30.4	30.5	30.5	
6 Primary (noninterest) expenditure	30.0	29.8	29.9	29.9	30.4	31.1	31.6	30.9	30.4	30.0	29.8	
7 Automatic debt dynamics 2/	0.2	-0.7	-0.6	-0.5	0.1	0.5	1.0	-0.1	-0.3	0.0	0.3	
8 Contribution from interest rate/growth differential 3/	0.2	-0.7	-0.6	-0.5	0.1	0.5	1.0	-0.1	-0.3	0.0	0.3	
9 Of which contribution from real interest rate	1.1	0.7	0.6	0.7	1.0	1.1	1.4	1.4	1.4	1.5	1.6	
10 Of which contribution from real GDP growth	-0.9	-1.4	-1.2	-1.2	-0.9	-0.6	-0.4	-1.5	-1.7	-1.5	-1.3	
11 Contribution from exchange rate depreciation 4/	0.0	0.0	0.0	0.0	0.0	...	...	...	...	...	...	
12 Other identified debt-creating flows	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
13 Privatization receipts (negative)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
14 Recognition of implicit or contingent liabilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
15 Other (specify, e.g. bank recapitalization)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
16 Residual, including asset changes (2-3) 5/	0.7	0.7	0.5	0.2	0.8	1.4	1.3	1.3	1.3	1.3	1.3	
Public sector debt-to-revenue ratio 1/	148.0	153.3	150.4	143.9	143.1	158.1	165.1	170.3	174.1	176.4	179.4	
Gross financing need 6/	25.1	25.3	23.9	21.5	21.4	23.2	23.8	23.7	23.7	23.8	24.0	
in billions of U.S. dollars	2746.2	2962.3	2975.9	2839.3	2956.1	3335.6	3514.8	3687.6	3904.5	4114.4	4352.6	
Scenario with key variables at their historical averages 7/						**47.1**	**47.3**	**47.5**	**47.7**	**47.9**	**48.2**	**0.2**
Scenario with no policy change (constant primary balance) in 2006-2011						**47.1**	**52.3**	**55.6**	**58.7**	**62.1**	**65.9**	**1.2**
Key Macroeconomic and Fiscal Assumptions Underlying Baseline												
Real GDP growth (in percent)	2.5	3.6	3.1	2.9	2.2	1.3	0.8	3.0	3.5	3.0	2.6	
Average nominal interest rate on public debt (in percent) 8/	5.1	4.8	4.9	4.9	5.1	5.0	5.0	5.1	5.2	5.3	5.3	
Average real interest rate (nominal rate minus change in GDP deflator, in percent)	3.0	1.9	1.7	1.8	2.4	2.6	3.0	3.0	3.0	3.1	3.1	
Nominal appreciation (increase in US dollar value of local currency, in percent)	0.0	0.0	0.0	0.0	0.0	...	...	...	...	...	...	
Inflation rate (GDP deflator, in percent)	2.1	2.9	3.2	3.2	2.7	2.4	2.0	2.2	2.2	2.2	2.2	
Growth of real primary spending (deflated by GDP deflator, in percent)	4.9	2.8	3.4	2.7	4.2	3.4	2.5	0.8	1.9	1.9	1.9	
Primary deficit	2.1	1.7	0.8	-0.2	-0.2	1.3	1.0	0.3	-0.1	-0.5	-0.7	

1/ General government net debt.

2/ Derived as $[(r - \pi(1+g) - g + \alpha\varepsilon(1+r)]/(1+g+\pi+g\pi))$ times previous period debt ratio, with r = interest rate; π = growth rate of GDP deflator; g = real GDP growth rate; α = share of foreign-currency denominated debt; and ε = nominal exchange rate depreciation (measured by increase in local currency value of U.S. dollar).

3/ The real interest rate contribution is derived from the denominator in footnote 2/ as $r - \pi (1+g)$ and the real growth contribution as -g.

4/ The exchange rate contribution is derived from the numerator in footnote 2/ as $\alpha\varepsilon(1+r)$.

5/ For projections, this line includes exchange rate changes.

6/ Defined as public sector deficit, plus amortization of medium and long-term public sector debt, plus short-term debt at end of previous period.

7/ The key variables include real GDP growth; real interest rate; and primary balance in percent of GDP.

8/ Derived as nominal interest expenditure divided by previous period gross debt stock.

9/ Assumes that key variables (real GDP growth, real interest rate, and other identified debt-creating flows) remain at the level of the last projection year.

INTERNATIONAL MONETARY FUND

UNITED STATES

United States 2008 Article IV Consultation Staff Report—Informational Annex

Prepared by Western Hemisphere Department

July 21, 2008

Contents | Page

I. Fund Relations 2

II. Statistical Issues 4

Annex I. United States: Fund Relations

(As of May 31, 2008)

I. **Membership Status**: Joined 12/27/45; Article VIII

II. **General Resources Account:**	**SDR Million**	**Percent Quota**
Quota	37,149.30	100.0
Fund holdings of currency	33,994.85	91.5
Reserve position in Fund	3,153.63	8.5

III. **SDR Department:**	**SDR Million**	**Percent Allocation**
Net cumulative allocation	4,899.53	100.0
Holdings	6,029.04	123.1

IV. **Outstanding Purchases and Loans**: None

V. **Financial Arrangements**: None

VI. **Projected Obligations to Fund**: None

VII. **Exchange Rate Arrangements:** The exchange rate of the U.S. dollar floats independently and is determined freely in the foreign exchange market.

VIII. **Payments Restrictions:** The United States maintains restrictions on payments and transfers for current international transactions to the Balkans, Belarus, Cote d'Ivoire, Cuba, Democratic People's Republic of Korea, Iraq, Islamic Republic of Iran, Liberia, Myanmar, Sudan, Syrian Arab Republic, and Zimbabwe and has notified the Fund of these restrictions under Decision No. 144–(52/51). The United States restricts the sale of arms and petroleum to the National Union for the Total Independence of Angola (UNITA) and to the territory of Angola and has prohibitions against transactions with international narcotics traffickers. The United States notified the Fund under Decision No. 144–(52/51) on August 2, 1995 of the imposition of further restrictions on current transactions with Islamic Republic of Iran. On March 21, 2002, the United States notified the Fund of exchange restrictions related to the financing of terrorism. The United States notified the Fund under the Framework of Decision 144 of the imposition of two additional exchange restrictions solely for the preservation of national and international security in March 2007 (EBD/07/34, 3/19/07): (i) the blocking of property of and prohibiting transactions with the Government of Sudan and prohibiting transactions with the petroleum and petrochemical industries in Sudan and (ii) the blocking

of property of certain persons contributing to the conflict in the Democratic Republic of Congo.

IX. **Article IV Consultation**. The 2007 Article IV consultation was concluded in July 2007 and the Staff Report was published as IMF Country Report 07/264. A fiscal ROSC was completed in the context of the 2003 consultation.

The 2008 Article IV discussions were conducted from April 28-June 17. Concluding meetings with Chairman Bernanke of the Board of Governors of the Federal Reserve System and Treasury Secretary Paulson occurred on June 16 and 17. A press conference on the consultation was held on June 20. The team comprised R. Teja (Head), T. Bayoumi, M. Estevão, R. Balakrishnan, V. Klyuev, K. Mathai, and H. Tong (all WHD); A. Bhatia, C. Capuano, J. Kiff, and P. Mills (all MCM); and J. Hallaert (PDR). Ms. Lundsager (Executive Director), Mr. Heath (Alternate Executive Director), and Mr. Lin (Advisor) attended some of the meetings. Outreach included discussions with the private sector and think tanks. The authorities have agreed to the publication of the staff report.

Annex II. Statistical Issues

Statistical Issues: Comprehensive economic data are available for the United States on a timely basis. The quality, coverage, periodicity, and timeliness of U.S. economic data are adequate for surveillance. Coverage of international capital flows in external sector statistics has been improved, with the June 2007 releases of BOP and IIP data on financial derivatives. The United States has subscribed to the Special Data Dissemination Standard (SDDS) and its metadata are posted on the Dissemination Standard Bulletin Board (DSBB).

United States: Table of Common Indicators Required for Surveillance

(As of June 13, 2008)

	Date of latest observation	Date received	Frequency of data[6]	Frequency of reporting[6]	Frequency of publication[6]
Exchange rates	same day	same day	D	D	D
International reserve assets and reserve liabilities of the monetary authorities[1]	Jun. 6	Jun. 12	W	W	W
Reserve/base money	Jun. 4	Jun. 12	B	W	W
Broad money	Jun. 2	Jun. 12	W	W	W
Central bank balance sheet	Jun. 11	Jun. 12	W	W	W
Interest rates[2]	same day	same day	D	D	D
Consumer price index	May 2008	Jun. 13	M	M	M
Revenue, expenditure, balance and composition of financing[3] – general government[4]	2008 Q1	Jun. 5	Q	Q	Q
Revenue, expenditure, balance and composition of financing[3] – central government	May 2008	Jun. 11	M	M	M
Stocks of central government and central government-guaranteed debt	May 2008	Jun. 11	M	M	M
External current account balance	2007 Q4	Mar. 17	Q	Q	Q
Exports and imports of goods and services	Apr. 2008	Jun. 10	M	M	M
GDP/GNP	2008 Q1	May 30	Q	M	M
Gross External Debt	2007 Q4	Mar. 28	Q	Q	Q
International Investment Position[5]	2006	Jul. 9, 2007	A	A	A

[1]Includes reserve assets pledged or otherwise encumbered as well as net derivative positions.
[2]Both market-based and officially-determined, including discount rates, money market rates, rates on treasury bills, notes and bonds.
[3]Foreign, domestic bank, and domestic nonbank financing.
[4]The general government consists of the central government (budgetary funds, extra budgetary funds, and social security funds) and state and local governments.
[5]Includes external gross financial asset and liability positions vis-à-vis nonresidents.
[6]Daily (D), Weekly (W), Biweekly (B), Monthly (M), Quarterly (Q), Annually (A); NA: Not Available.

INTERNATIONAL MONETARY FUND

UNITED STATES

Staff Report for the 2008 Article IV Consultation—Supplement on Government-Sponsored Enterprises

Prepared by the Western Hemisphere Department
(In consultation with other departments)

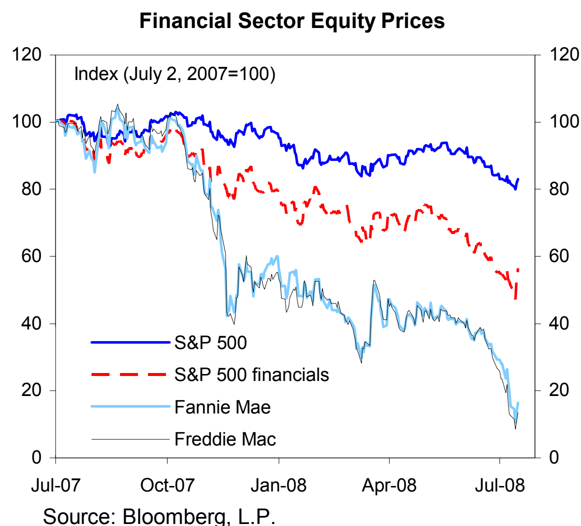
Approved by Anoop Singh and Adnan Mazarei

July 18, 2008

Recent problems at Fannie Mae and Freddie Mac illustrate that the dynamic interactions between the financial sector and housing cycles highlighted in the staff report, and the knock on effects on overall activity, have yet to fully play out. As such, the thrust of the staff appraisal remains unchanged.

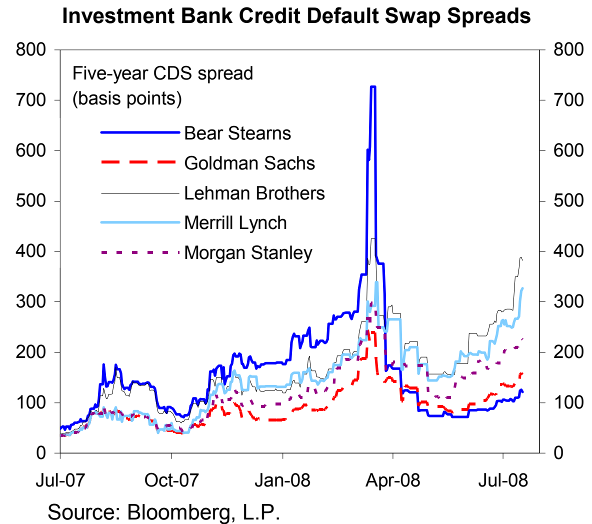
1. **Recent severe market pressures forced a rescue of Fannie Mae and Freddie Mac, including access to Fed loans and a request to Congress for direct government support**. The dramatic loss in confidence in the two main housing government-sponsored enterprises (GSEs) was triggered by reports suggesting that accounting rule changes could take around $75 billion off Fannie and Freddie's capital. Whatever the merits of the analysis, the market response reflects underlying concerns over the GSEs' capital cushions in the face of falling house prices—*not* subprime mortgages—and political pressure to increase their exposure to the housing bust. These come on top of long-standing concerns about an inadequate regulatory regime. On July 13 the Treasury proposed to eliminate the existing $4½ billion cap on its lending authority to the GSEs and to gain permission to buy equity. In the interim, the Fed's balance sheet is now available through collateralized borrowing to provide a liquidity backstop to calm market fears.

2. **As with Bear Stearns, the final outcome of the weekend rescue is likely to be that equity holders lose money but debt holders will be protected**. The GSEs' equity prices fell by 80 percent in the week before the announcement and—with naked short selling of their securities suspended—remain around this level. Auctions of GSE bonds, however, are proceeding smoothly and their spread over Treasuries is stable. With markets concluding that the implicit government guarantee of debt is real, the GSEs should continue to function fairly normally.

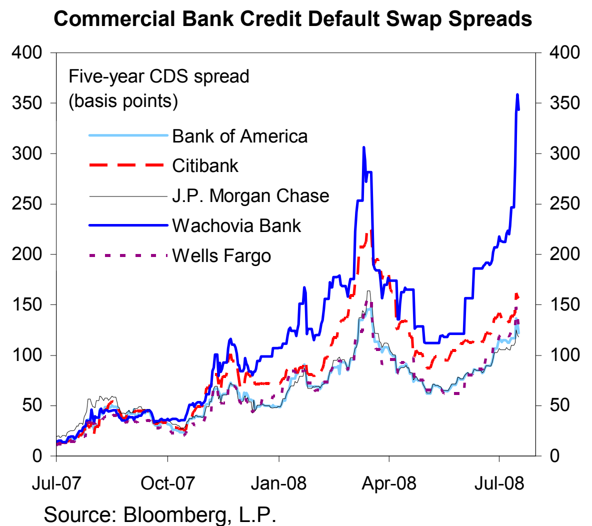


Source: Bloomberg, L.P.

3. **With banks also being pressured by housing woes, the deterioration in overall financial conditions is broadly consistent with the staff's financial forecast**. Reflecting these pressures, a retail deposit run on IndyMac bank, a large Californian mortgage specialist, led to its intervention by federal regulators—the third biggest depository failure in U.S. history. The CDS spreads of large commercial and investment banks have also widened significantly, with those of Lehman Brothers and Wachovia close to or above levels at the time of the Bear Stearns crisis. More generally, interbank spreads remain elevated, the yield curve has steepened, and the high-yield spread has widened close to the levels typical of a recession.



Source: Bloomberg, L.P.



Source: Bloomberg, L.P.

4. **Given the two GSEs' systemic and global importance (Box 1), staff support the rescue, but existing shareholders should take major losses**. The authorities have stressed that they aim to keep these institutions as shareholder-owned entities. One way forward would be government assumption of temporary control through issuance of preferred equity that dilutes current shareholders. Passing the improved regulatory regime—including receivership—already in the proposed housing bill should also be a priority, as discussed in the staff report. Consideration of this bill has been delayed to allow inclusion of requested provisions for the government to provide direct support to the GSEs.

5. **The long-term role of Fannie and Freddie will need to be rethought, with staff contributing via next year's Financial Sector Assessment Program**. The tension has always been that cheap funding from the assumed government guarantee allowed the GSEs to benefit their shareholders by expanding their portfolios while exposing taxpayers to risk. One approach would be to break them into entities small enough to be allowed to fail, removing their special charters and the presumption of government backing. Alternatively, Chairman Bernanke has suggested that they could be kept in their current form—presumably with strict prudential oversight and portfolio limits to constrain their benefit from cheap funding. In any case, as discussed in the staff report, they should be regulated like private institutions to ensure supervisory consistency.

Box 1. Fannie Mae and Freddie Mac: A Primer

These GSEs have long been seen as "too big to fail"—they hold or guarantee about half of U.S. residential mortgages, their securities widely serve as collateral, and their derivatives activity is extensive (see Figure).

Congress created these GSEs to support reliable and affordable mortgage financing, limiting their guarantees to conforming mortgages (with ceilings on size and risk). With their private ownership and public mission involving Congressional oversight, markets have long assumed that they enjoy an implicit government guarantee, although the U.S. authorities have consistently denied this. The belief stems from their size and unique charters that include credit lines from the Treasury, privileged bank regulatory treatment of their bonds, and a weak supervisor with only conservatorship (going concern) not receivership (closure) authority.

Fannie and Freddie, which are highly leveraged, bear the largest exposures to U.S. housing-related credit risk. Their combined balance-sheet size was about $1½ trillion at end-2007 and the GSEs have guaranteed a further $4¼ trillion. Almost one-fifth of total agency issued debt and guaranteed securities are held abroad. Reflecting the traditional risk-insensitivity of their funding costs and relatively loose regulatory requirements, their equity capital to total assets has generally stood at 3-4 percent, similar to that at the large U.S. investment banks, but about half of comparable ratios at U.S. commercial banks.

GSE statistics, end-2007

	USD trillion	Percent of U.S. GDP	Percentage of U.S. mortgages
Housing market			
Owned	1.4	10.4	12.9
Guaranteed	4.2	30.1	37.3
Financial markets			
Debt outstanding	1.5	11.1	13.8
MBS guaranteed	4.2	30.1	37.3
Total held abroad	1.5	10.8	13.4
Core capital	0.08	0.6	0.7

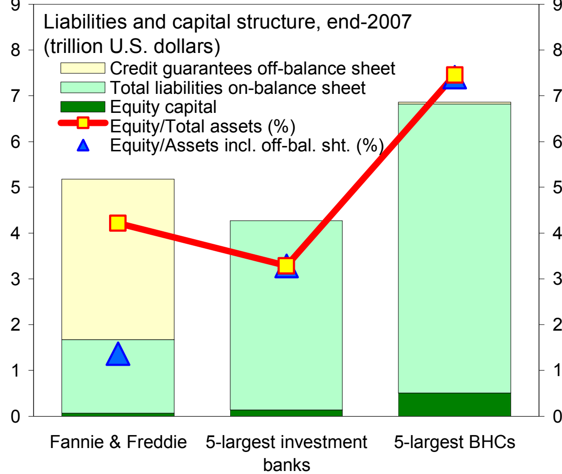
Sources: Federal Reserve Board; OFHEO; Fannie Mae; Freddie Mac; and staff calculations.

In addition to credit risk, the two enterprises also have large exposures to market risk and play a systemic role in derivatives markets. The mortgage guarantees pose credit and reputational risk, while the investment portfolios run the gamut of credit, interest rate, prepayment, and pricing risk. They are also key players in the OTC interest rate derivatives markets as they seek to hedge interest rate and prepayment risks using swaps and options on swaps (swaptions).

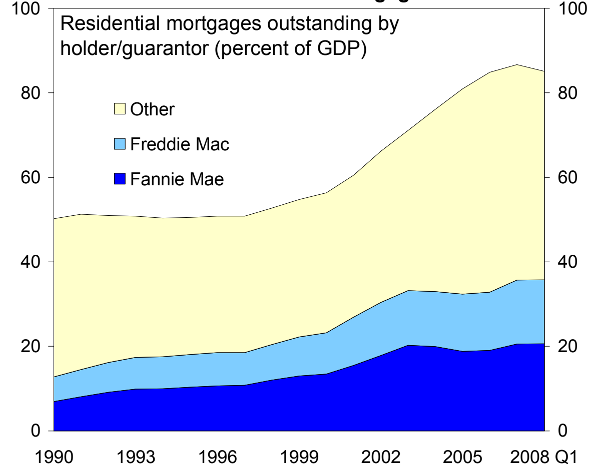
Reflecting their privileged position, the two GSEs were able until recently to raise equity capital cheaply and to produce high returns for their shareholders. The implicit guarantee kept the borrowing cost just above that on Treasury securities, even as the low capital requirement allowed the GSEs to boost their portfolios. Large exposure to mortgages and a thin capital cushion is at the root of market concerns about GSE solvency as the housing crisis has led to a rise in defaults, including on prime mortgages.

The Housing GSEs in Perspective

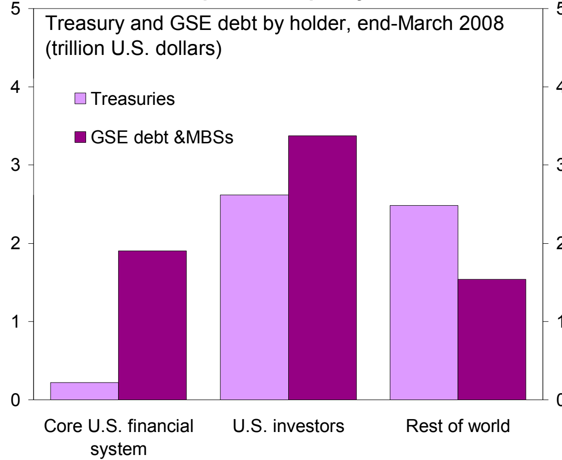
Fannie and Freddie are highly leveraged ...



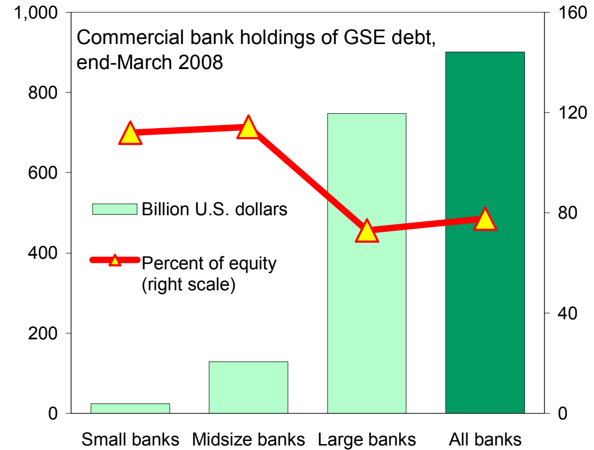
... and own or guarantee a large and growing share of the U.S. residential mortgage market.



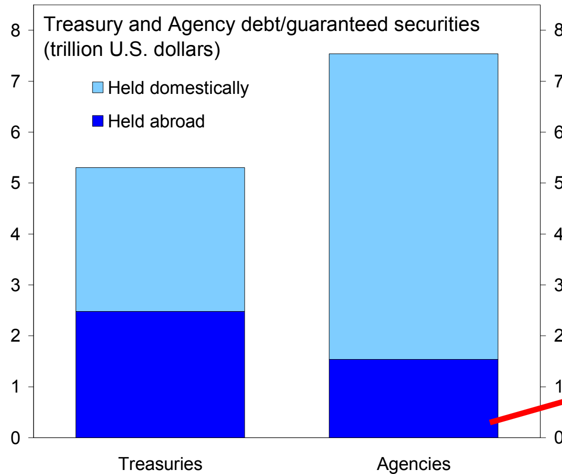
Core U.S. financial intermediaries rely on GSE debt as collateral in repos with liquidity-rich investors ...



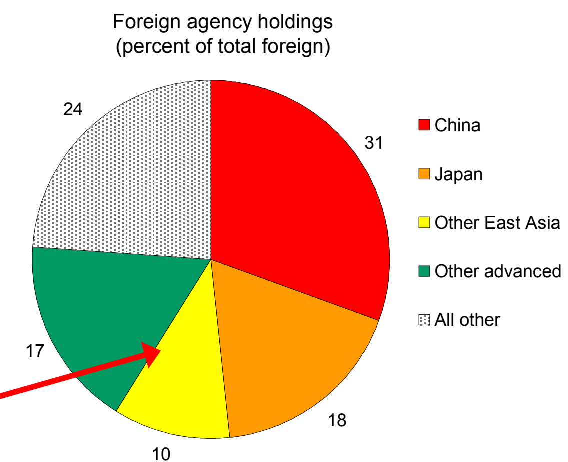
... with small and midsize institutions particularly heavily exposed to the GSEs.



Agency debt is also an important component of foreign securities holdings...



...especially in Asia.



Sources: Board of Governors of the Federal Reserve; Office of Federal Housing Enterprise Oversight; Haver Analytics; and Fund staff estimates.

6. **Systemic risks from the GSEs have long been a well understood problem and key policy issue, but political consensus in Congress has been elusive**. The Treasury, Fed, and Fund have repeatedly emphasized the topic over many years (Box 2).

Box 2. Staff's Analysis of Fannie Mae and Freddie Mac

Staff reports since 2003 have consistently stressed that, in view of Fannie Mae and Freddie Mac's systemic importance, there is a need to monitor closely their risk management and accounting practices and reform their regulation. More specifically:

- **Size of portfolios**. Staff have supported proposals by the Treasury and the Fed to cap these enterprises' portfolios, to restore their focus on securitization of conforming mortgages, and to limit their special status, to discourage the market perception of an implicit government guarantee of their liabilities.
- **Interest and mortgage prepayment risk**. Staff have also repeatedly observed that the growth of these institutions has concentrated interest rate and mortgage prepayment risk, with the attendant hedging operations also leading to concentration in some derivative markets.
- **Overhauling the supervisory arrangement**. The staff have strongly backed Treasury proposals to create a new regulator with full powers to set risk-based capital requirements, to design stress tests, and to place a housing GSE into receivership in the event of a financial insolvency.

INTERNATIONAL MONETARY FUND

Public Information Notice

EXTERNAL RELATIONS DEPARTMENT

Public Information Notice (PIN) No. 08/95
FOR IMMEDIATE RELEASE
July 30, 2008

International Monetary Fund
700 19th Street, NW
Washington, D. C. 20431 USA

IMF Executive Board Concludes 2008 Article IV Consultation with the United States

On July 23, 2008, the Executive Board of the International Monetary Fund (IMF) concluded the Article IV consultation with the United States.[1]

Background

Problems in the housing and financial markets over the past year have combined to slow the U.S. economy substantially. As the residential investment downturn accelerated and national indices of house prices started falling, mortgage defaults rose sharply, and bank losses mounted. Increased uncertainty about counterparty creditworthiness triggered a full-blown liquidity and credit crisis late last summer, and credit spreads widened. As banks' balance sheets deteriorated, lending standards that had supported the earlier housing boom were rapidly tightened, and a deleveraging cycle began, impairing the extension of credit to the real economy. With consumption and construction weakening in the face of falling house prices, higher oil prices, and tighter credit, the economy has increasingly been supported by net exports. Headline inflation, as well as near-term inflation expectations, have been pushed up recently by surging commodity prices, but growing slack has for now kept a lid on core inflation and wage demands.

Policymakers have responded aggressively to these developments. The Fed cut the federal funds rate target by 325 basis points over just eight months, facilitated JP Morgan's takeover of

[1] Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. A staff team visits the country, collects economic and financial information, and discusses with officials the country's economic developments and policies. On return to headquarters, the staff prepares a report, which forms the basis for discussion by the Executive Board. At the conclusion of the discussion, the [Managing Director], as Chairman of the Board, summarizes the views of Executive Directors, and this summary is transmitted to the country's authorities.

Bear Stearns in March, and introduced a variety of innovative liquidity instruments. These actions have brought greater liquidity and smoother functioning of financial markets, but overall financial conditions have continued to tighten in the face of higher lending standards, falling asset prices, and higher risk spreads. Fiscal policy too has been responsive, with a stimulus package consisting of targeted tax rebates and investment incentives enacted in January. The rebate checks began to arrive at households in late April, providing timely support to the economy.

The international and regional U.S. experience with housing busts suggests that the associated recovery is often slow. With the effects of earlier financial tightening yet to feed fully through the real economy, real GDP growth is likely to remain below potential through mid-2009. Significant uncertainty, however, surrounds this forecast, given the unprecedented nature of the shocks that have hit the U.S. economy. Indeed, many other forecasters view the substantial policy stimulus and rapid raising of bank capital as being likely to ease financial conditions faster than expected in the staff's baseline, suggesting a recovery could start in the second half of 2008.

The turmoil unveiled many weaknesses in the current system of financial regulation and supervision in the United States. The "originate-to-distribute" model has gone into reverse, and assets have returned to banks' balance sheets, straining bank capital at a time when lax mortgage underwriting standards have resulted in substantial losses. The authorities have outlined a blueprint for financial regulatory reform that is a solid starting point for discussion.

The current account deficit has receded from its peak in 2006 on the back of a weakening dollar and robust foreign activity, despite pressures from surging oil prices. At unchanged real exchange rates, the current account deficit is expected to narrow over the medium term. Staff analysis suggests that the dollar is closer to its medium-term equilibrium level, although still on the strong side.

The federal fiscal deficit narrowed substantially in recent years, falling to just above 1 percent of GDP in FY 2007. The growth slowdown and stimulus package are expected to lead to a marked increase in deficits over the next two years, which should then return to about 2 percent of GDP over the medium term. The Administration and Congress share the goal of balancing the budget by FY 2012 but neither outlines a complete plan for achieving the goal, as no provision is made for war-funding authority beyond FY2009, costs of overriding tighter criteria for the alternative minimum tax, or realistic compensation for Medicare providers.

Executive Board Assessment

Executive Directors agreed with the thrust of the staff appraisal. Directors noted that the U.S. economy and financial system are confronting significant challenges, with understandable concerns about their implications for the global economy. The housing correction and the broader financial sector turmoil of recent months have weakened household demand and credit conditions. With added headwinds from oil prices, the U.S. economy will be notably weaker but still register positive growth in 2008, and will recover only gradually in 2009. Although short-term inflation expectations have risen somewhat on surging commodity prices, price pressures are expected to be contained as commodity prices peak and economic slack rises.

Directors observed that the U.S. economy has shown impressive resilience in the face of an unprecedented confluence of shocks, and commended the authorities' decisive and swift policy response. In particular, they welcomed the carefully calibrated and targeted fiscal stimulus, the significant easing of monetary policy, and the willingness to introduce innovative mechanisms to support market liquidity. While not without risk, these measures have helped support economic activity, and played an important role in stabilizing financial markets domestically and globally.

Looking ahead, Directors cautioned that large uncertainties remain, and that the outlook hinges crucially on the evolution of house prices, and the dynamic interaction of financial sector and housing cycles, which have still to play out fully. Directors therefore welcomed the authorities' commitment to carefully monitor developments and continue to respond as necessary to achieve sustainable noninflationary growth and financial stability over the medium term.

Directors generally agreed that monetary policy should stay on hold for now, unless economic and financial conditions deteriorate further. With the real federal funds rate negative, monetary policy is already positioned appropriately to respond to recession risks, although the impact is being dampened by widening spreads and tighter lending standards. Wage demands remain moderate, but there is a risk that elevated headline inflation may seep into inflation expectations. Given the high cost of reversing such expectations once they become entrenched, most Directors underscored that the bias should be toward a decisive tightening once recovery is established and financial conditions ease. At the same time, Directors acknowledged that the downside risks to growth still remain large, adding to the complexity of monetary policy management at this juncture.

While fiscal stimulus is providing well-targeted support to aggregate demand at a critical time, Directors underscored that medium-term fiscal challenges limit the room for further initiatives. Automatic stabilizers should be allowed to operate, and, in the face of looming fiscal challenges that require medium-term fiscal consolidation and reform of unsustainable entitlement programs, any further fiscal action—were it to become necessary—should focus on direct support to housing and financial markets. Directors supported the recent federal backstop to Fannie Mae and Freddie Mac, given the systemic importance of these government-sponsored enterprises in financial and housing markets. They considered that improvements in the regulatory regime of these agencies aimed at better risk management and stricter oversight should also be implemented as a priority.

Directors generally suggested that the government should be prepared to widen support for housing and, if serious dislocations reappear, for financial markets, while limiting the cost to the government and minimizing moral hazard. Housing prices are continuing to fall, and there is a risk that such prices could move significantly below equilibrium, with important macroeconomic consequences. With house prices falling rapidly and the inventory-sales ratio at a near-record high, there is a role for public policy to overcome coordination difficulties by using Federal Housing Administration guarantees to encourage lenders to make voluntary write-downs on mortgage principal to new, more affordable loans. Such legislation would ideally also provide further incentives for lenders to participate. If major systemic financial disruptions recur, the government could support bank liquidity by significantly extending the term of asset swaps. While welcoming the recent regulatory and prudential reforms initiated by the authorities,

Directors considered that a comprehensive policy response to improve financial regulation could include further consolidation and specialization of regulatory institutions, as well as strengthening liquidity requirements and raising capital charges for off-balance sheet lending. Directors emphasized that the housing boom has revealed multiple weaknesses in the current regulatory system, including the inadequate consumer protection for mortgage borrowers and perverse incentives in the securitization chain.

Directors welcomed the authorities' intentions to undertake comprehensive reform of the U.S. regulatory model, and saw the Treasury Blueprint as a useful starting point. In addition, the regulation and supervision of major investment banks and government-sponsored enterprises should be improved, and some Directors saw merit in a more consolidated regulatory structure—for example, by merging the oversight of investment banks and GSEs with that for commercial bank holding companies—although the specific modalities for such improvements remain under discussion. The point was made that regulation should yield the benefits of broadened oversight of investment banks while preserving the dynamism and flexibility of the sector. Regulatory reform could also include further measures to reduce the procyclicality of bank lending by augmenting risk-based capital ratios with ancillary measures. Finally, with liquidity having emerged as a major and under-emphasized risk, forthcoming recommendations from the Basel Committee will also merit early implementation, taking into account U.S.-specific nuances. Directors welcomed the authorities' intention to undertake a Financial Sector Assessment Program with the Fund starting in 2009. Directors recognized the importance of stronger market discipline, as a complement to regulatory actions.

Directors noted the staff assessment that the decline in the dollar's real effective exchange rate has moved U.S. competitiveness relatively close to medium-term fundamentals. A number of Directors cautioned that tensions remain in the pattern of bilateral adjustment. In particular, bilateral rate adjustments have not corresponded to the pattern of imbalances, with larger changes against freely floating currencies such as the euro, rather than against currencies of countries with large current account surpluses. Directors also reiterated the importance of structural reforms in facilitating external adjustment across the main economic areas, as envisaged during the Multilateral Consultation on global imbalances. They looked forward to continued U.S. leadership in fostering a positive outcome to the Doha Round and in working with partners to avoid protectionism in trade and finance.

Public Information Notices (PINs) form part of the IMF's efforts to promote transparency of the IMF's views and analysis of economic developments and policies. With the consent of the country (or countries) concerned, PINs are issued after Executive Board discussions of Article IV consultations with member countries, of its surveillance of developments at the regional level, of post-program monitoring, and of ex post assessments of member countries with longer-term program engagements. PINs are also issued after Executive Board discussions of general policy matters, unless otherwise decided by the Executive Board in a particular case. The staff report (use the free Adobe Acrobat Reader to view this pdf file) for the 2008 Article IV Consultation with the United States is also available.

United States: Selected Economic Indicators

(Annual change in percent, unless otherwise indicated)

	2003	2004	2005	2006	2007	Projection 2/ 2008	2009
National production and income							
Real GDP	2.5	3.6	3.1	2.9	2.2	1.3	0.8
Net Exports 1/	-0.4	-0.7	-0.2	-0.1	0.6	0.9	0.7
Total domestic demand	2.8	4.1	3.1	2.8	1.5	0.4	0.1
Final domestic demand	2.8	3.8	3.3	2.7	1.8	0.6	0.1
Private final consumption	2.8	3.6	3.2	3.1	2.9	1.4	0.6
Public consumption expenditure	2.5	1.5	0.8	1.4	1.9	2.3	1.9
Gross fixed domestic investment	3.2	6.1	5.8	2.6	-2.0	-4.2	-3.7
Private fixed investment	3.4	7.3	6.9	2.4	-2.9	-5.3	-4.9
Of which: residential structures	8.4	10.0	6.6	-4.6	-17.0	-21.3	-7.0
Public fixed investment	2.2	0.9	0.6	3.7	2.4	0.9	1.1
Change in private inventories 1/	0.0	0.4	-0.2	0.1	-0.3	-0.2	0.0
GDP in current prices	4.7	6.6	6.4	6.1	4.9	3.7	2.9
Employment and inflation							
Unemployment rate (percent)	6.0	5.5	5.1	4.6	4.6	5.4	6.3
CPI inflation	2.3	2.7	3.4	3.2	2.9	3.9	2.3
GDP deflator	2.1	2.9	3.2	3.2	2.7	2.4	2.0
Fiscal policy indicators							
Unified federal balance (fiscal year, billions of dollars)	-378	-413	-318	-248	-162	-432	-451
In percent of FY GDP	-3.5	-3.6	-2.6	-1.9	-1.2	-3.0	-3.1
General government balance (NIPA, calendar year, billions of dollars)	-530	-509	-447	-345	-371	-608	-603
In percent of CY GDP	-4.8	-4.4	-3.6	-2.6	-2.7	-4.2	-4.1
Balance of payments							
Current account balance (billions of dollars)	-523	-625	-729	-788	-731	-712	-650
In percent of GDP	-4.8	-5.3	-5.9	-6.0	-5.3	-5.0	-4.4
Merchandise trade balance (billions of dollars)	-551	-670	-787	-838	-819	-890	-849
In percent of GDP	-5.0	-5.7	-6.3	-6.4	-5.9	-6.2	-5.7
Invisibles (billions of dollars)	27	45	58	50	88	178	199
In percent of GDP	0.3	0.4	0.5	0.4	0.6	1.2	1.3
Saving and investment (as a share of GDP)							
Gross national saving	13.3	13.8	14.0	14.1	13.4	12.0	11.8
Gross domestic investment	18.4	19.4	19.9	20.0	18.7	17.2	16.2

Sources: IMF staff estimates; and Haver Analytics.
1/ Contributions to growth.
2/ As of July 2, 2008.