

4

Macroeconomic Environment

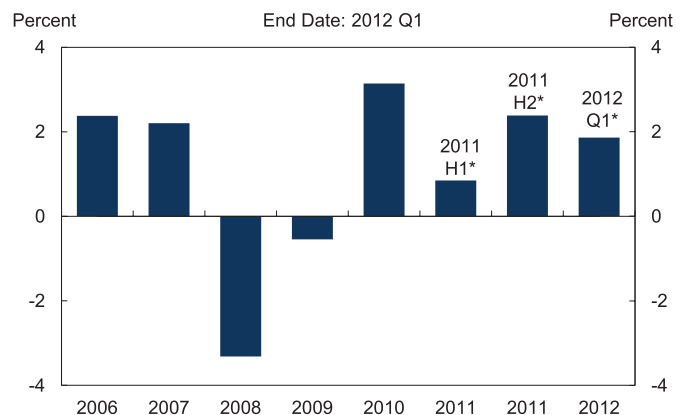
4.1 U.S. Economic Activity

The economic recovery that began in the second half of 2009 continued in 2011 and early 2012. Nonetheless, the pace of activity and employment growth remained quite modest compared with previous economic expansions, as a number of factors have continued to weigh on growth in spending and production. These factors include a depressed housing market, the spillover effects of the fiscal and financial difficulties in Europe, continued fiscal retrenchment of state and local governments within the United States, uncertainty about the federal budget and related policies, and less credit availability for many households and small businesses compared to pre-crisis norms.

4.1.1 Real Gross Domestic Product

Economic growth continued at a modest to moderate pace in 2011 and early 2012. Real GDP increased less than 1 percent at an annual rate in the first half of 2011, as economic activity was held down by temporary factors, particularly supply chain disruptions stemming from a major earthquake and tsunami in Japan and the damping effect of a sharp run-up in energy and commodity prices on consumer spending (**Chart 4.1.1**). Growth picked up in the second half of the year to an annual rate of nearly 2.5 percent, as the effects of these temporary factors waned. Real GDP expanded at an annual rate of 1.9 percent in the first quarter of 2012, and available indicators suggest a continued moderate pace of growth in the second quarter. Among the factors that are hampering growth are a depressed housing market, the spillover effects of the fiscal and financial difficulties in Europe, continued fiscal retrenchment of state and local governments within the United States, uncertainty about U.S. federal budget and policy, and credit availability that is significantly tighter relative to pre-crisis norms for many households and small businesses.

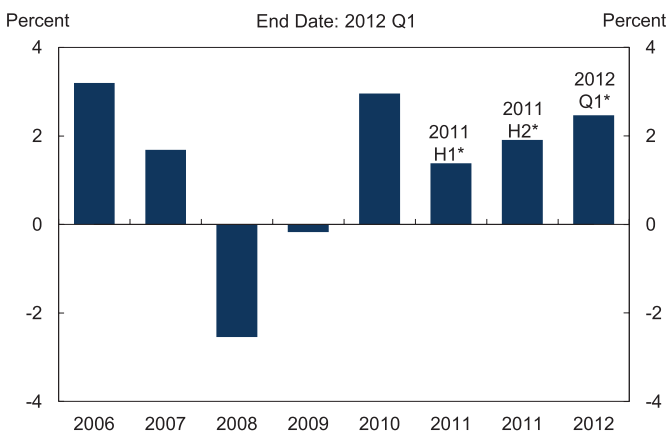
Chart 4.1.1 Change in Real Gross Domestic Product



Source: BEA

Note: Annual changes are Q4/Q4. *Annualized rate.

Chart 4.1.2 Change in Real Personal Consumption Expenditures



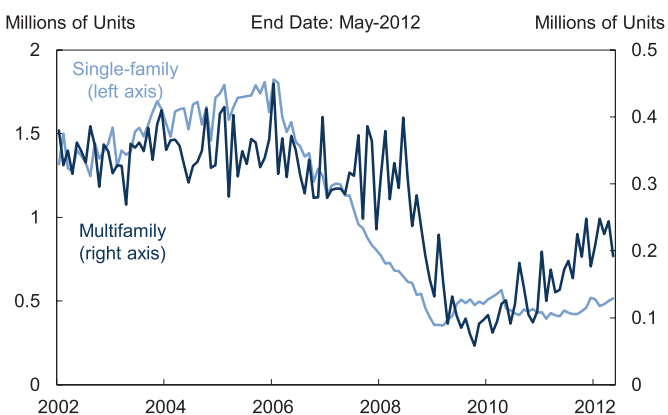
Source: BEA Note: Annual changes are Q4/Q4. *Annualized rate.

Chart 4.1.3 Personal Saving Rate



Source: BEA Note: As a percent of disposable personal income.

Chart 4.1.4 Private Housing Starts



Source: Census Bureau, Haver Analytics Note: Seasonally adjusted at an annualized rate.

Consumption and Residential Investment

Real personal consumption expenditures (PCE) increased 1.6 percent in 2011 (Q4/Q4) and 2.5 percent (annualized rate) in the first quarter of this year (**Chart 4.1.2**). Real disposable income rose more modestly, held down by the weak labor market. The weak pace of income growth over 2011 and early 2012, combined with increases in consumer outlays, brought the personal saving rate down from 5.2 percent in late 2010 to 3.7 percent in the first quarter of 2012 (**Chart 4.1.3**).

In addition to the weak gains in income, a number of other factors also restrained the pace of improvement in consumer expenditures. Household wealth (relative to income) remains well below the elevated levels that prevailed in the mid-2000s, when it was supported by house prices and household equity holdings. Similarly, underwriting standards remain tight for many potential borrowers—particularly for mortgage credit, which continues to weigh down housing demand and refinancing activity despite historically low interest rates. In part, these factors have been reflected in readings on consumer sentiment, which remain low relative to levels before the financial crisis, despite having retraced much of the decline that occurred in the summer of 2011 as difficulties in Europe flared and the debate over the U.S. debt ceiling became heated.

The housing market remains strained. In 2011, both new and existing home sales remained near the low levels that have prevailed, on average, since 2008. Residential construction activity and housing starts remained tepid, especially for single-family homes, given weak demand, the abundant stock of vacant homes, and low housing prices (**Chart 4.1.4**). However, recent indicators have been somewhat more encouraging. Home prices have begun to stabilize, with some measures showing an uptick in early 2012. In addition, multifamily housing starts have been trending upward since early 2010, albeit from low levels.

Business Fixed Investment

Real business fixed investment (BFI) posted a solid increase in 2011, rising 8.1 percent on a Q4/Q4 basis. However, growth has been slower so far in 2012, and BFI as a share of GDP remains considerably below its pre-recession level. Much of the deceleration in BFI this year has been in expenditures on equipment and software (E&S), which rose at an annual rate of just 3.5 percent in the first quarter after rising 9.6 percent (Q4/Q4) in 2011; this step-down in E&S investment may be related in part to renewed concerns among businesses about the global economic and financial situation. Meanwhile, investment in nonresidential structures has increased somewhat, on net, in recent quarters after a period of very steep declines, but conditions in the sector remain difficult: vacancy rates for commercial space are still high, prices of existing structures are low, and financing conditions for builders are still tight despite some signs of recent easing.

Government Purchases

Real government expenditures at the federal, state, and local level continue to contract. Real state and local government purchases fell by 2.5 percent on a Q4/Q4 basis in 2011 due to ongoing budgetary pressures, continuing the pattern seen since the onset of the recession and financial crisis. Real federal government purchases fell throughout 2011 and early 2012 following the withdrawal of the fiscal stimulus provided during the crisis and large declines in federal defense spending in 2011:Q4 and 2012:Q1.

Imports and Exports

Real exports of goods and services rose 4.7 percent over 2011, boosted by continued growth in overall foreign economic activity. The increase in export demand was concentrated in the emerging market economies (EMEs), while exports to the euro area declined toward the end of the year. As U.S. economic activity grew modestly in 2011, real imports of goods and services rose by 3.6 percent. Altogether, the contribution of net exports to growth in real

Chart 4.1.5 Net Change in Payroll Employment

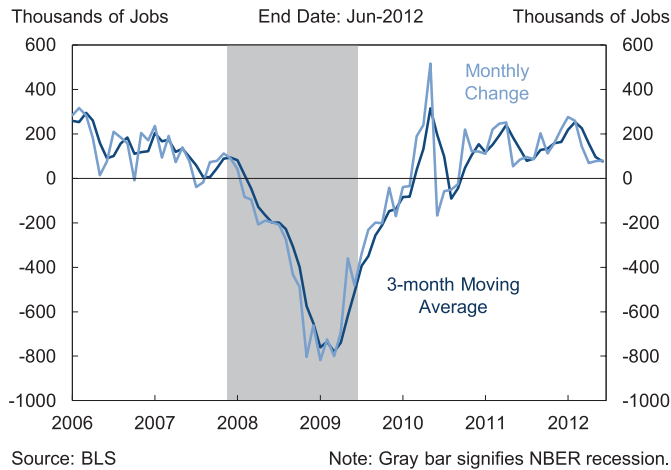
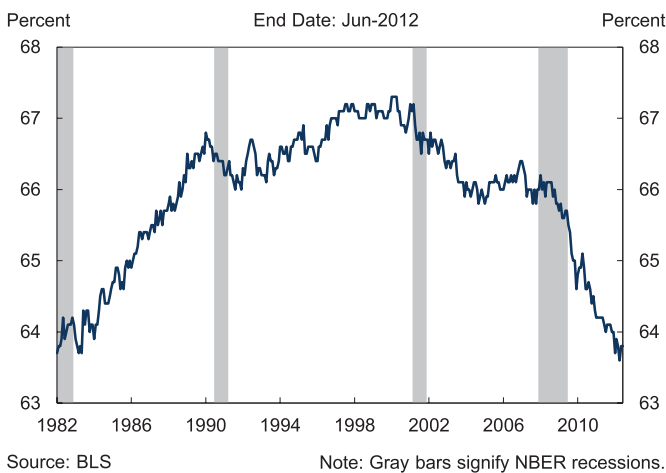


Chart 4.1.6 Civilian Unemployment Rate



Chart 4.1.7 Labor Force Participation Rate



GDP was essentially zero last year and in the first quarter of this year.

4.1.2 The Labor Market

The labor market strengthened over the course of 2011 and the first several months of 2012. Nonetheless, the improvement in employment and other labor market indicators since the end of the recession has been modest, and the labor market has a considerable distance to go before returning to the conditions that prevailed prior to the recession and financial crisis.

Nonfarm payroll employment increased at an average monthly rate of 153,000 jobs in 2011 (**Chart 4.1.5**). The private sector added an average of 175,000 jobs monthly last year, while government payrolls dropped at an average rate of 22,000 per month (mostly at state and local governments). During the first half of 2012, private payrolls advanced about 159,000 per month, just below the average pace in 2011, and the pace of job loss at governments has moderated somewhat. Overall through June 2012, the level of payroll employment remains about five million below its peak in January 2008.

The unemployment rate has declined significantly, from its peak of 10 percent in October 2009 to 8.2 percent in June 2012, although it remains far above levels that prevailed prior to the recession (**Chart 4.1.6**). Some of this decline in the unemployment rate is attributable to reduced labor force participation (**Chart 4.1.7**). While part of the reduction in participation reflects demographic shifts associated with an aging baby boomer population, the weak economy has played an important role by discouraging many workers from continuing to search for positions. In addition, long-duration joblessness continues to account for an especially large share of the total. In June 2012, 5.2 million persons among those counted as unemployed—about 42 percent of the total—had been out of work for more than six months (**Chart 4.1.8**). The number of workers employed part-time for economic reasons has fallen somewhat over the past year, though it remains high by historical norms.

4.2 Private Nonfinancial Balance Sheets and Credit Flows

4.2.1 Nonfinancial Corporate Sector

The ratio of debt to net worth in the nonfinancial corporate sector, which had spiked during the downturn, continued to decline in 2011. Credit flows to this sector have remained relatively strong, with robust bond issuance and an increased pace of lending from bank and nonbank companies. Credit quality indicators remain solid, with low delinquency and default rates.

Nonfinancial corporate balance sheets deteriorated significantly during the recession, with measures of balance sheet leverage reaching historical highs. Corporate balance sheets improved markedly in 2010 and a bit more in 2011. The ratio of debt to net worth in this sector is now in line with its average level over the past 20 years (Chart 4.2.1). Profits at nonfinancial corporations increased sharply in 2010 and remained high in 2011, driving equity market values for nonfinancial corporations back to near pre-crisis levels and allowing nonfinancial corporations to boost capital through retained earnings. In particular, nonfinancial corporations have accumulated a substantial buffer stock of liquid assets (Chart 4.2.2).

This improvement in corporate profits and credit quality supported high levels of borrowing by nonfinancial corporate firms. In bond markets, which comprise the largest source of credit to the corporate sector, gross issuance by investment grade nonfinancial firms has been very strong (Chart 4.2.3), although issuing firms appear to have mainly used these bonds to refinance existing debt. Issuance of high-yield bonds dropped in the second half of 2011, but the pace of issuance through May 2012 remained above the 2001-2012 average annual pace. Corporate bond spreads widened during fall of 2011 as investors became more cautious in the wake of the U.S. debt ceiling talks in August 2011 and developments in European markets (Chart 4.2.4). As of July 6, 2012 corporate spreads still remained elevated relative to early 2011. The amount of

Chart 4.1.8 Long-Term Unemployment*

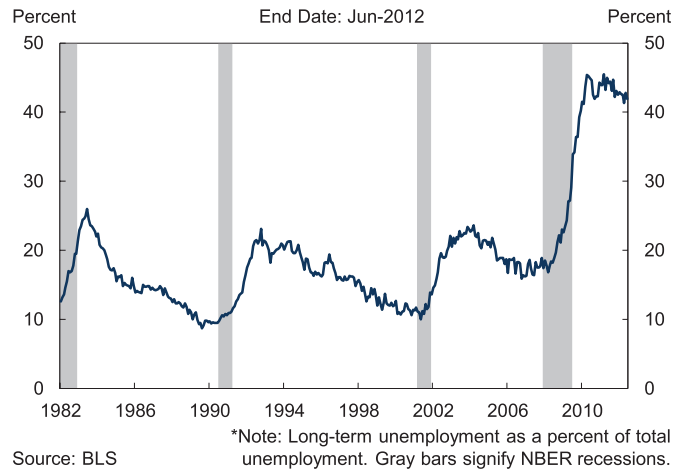


Chart 4.2.1 Nonfinancial Corporate Credit Market Debt to Net Worth

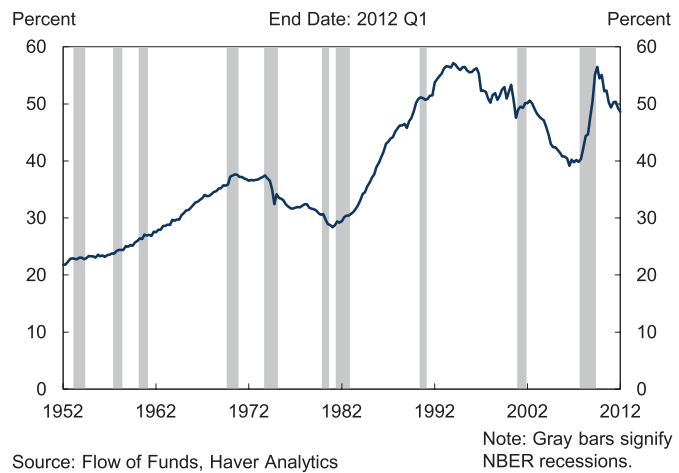


Chart 4.2.2 Financial Ratios for Nonfinancial Corporations

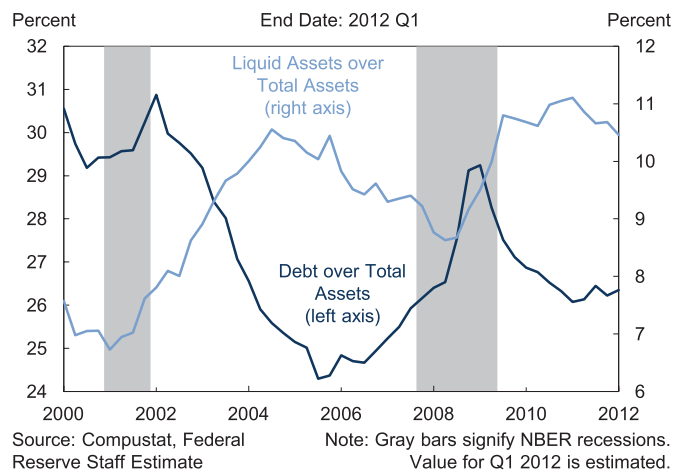
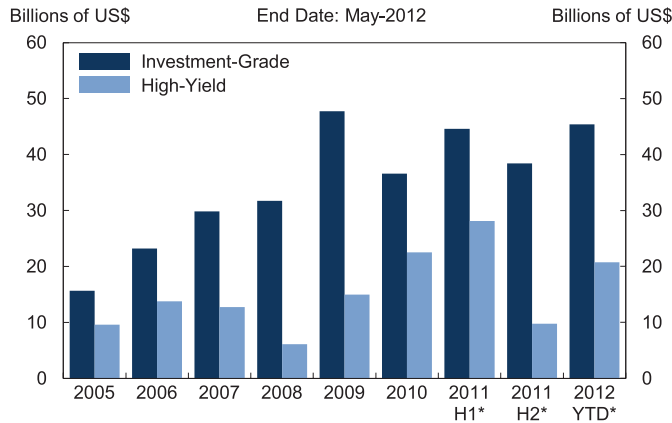
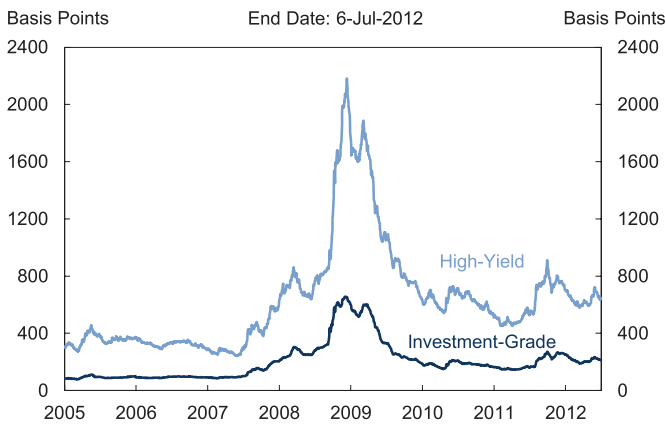


Chart 4.2.3 Bond Issuance by Nonfinancial Firms



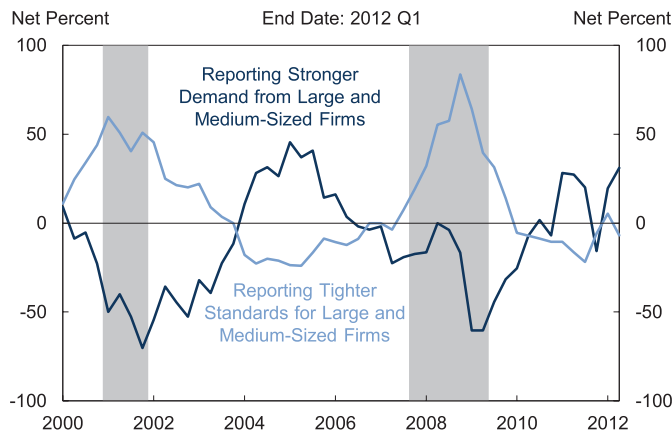
Source: Dealogic Note: U.S. marketed issuances only. *Annualized rate.

Chart 4.2.4 Corporate Bond Spreads



Source: Bank of America Merrill Lynch, Haver Analytics Note: Spreads to Treasuries.

Chart 4.2.5 Bank Business Lending Standards and Demand



Source: SLOOS Note: Gray bars signify NBER recessions.

commercial paper issued by businesses edged up only slightly over the past year despite relatively stable cost of issuance.

The net amount of loans to the nonfinancial corporate sector, which includes loans from bank and nonbank sources, rose at an annual rate of \$132 billion in 2011, with the same pace of growth continuing in the first quarter of 2012. Bank lending to commercial and industrial (C&I) borrowers continued to rise between June 2011 and April 2012, reaching \$1.4 trillion. While the bulk of this increase has been organic, charter conversions by thrifts boosted C&I loans in the banking sector by about \$16 billion over this period. Over the same period, respondents to the Senior Loan Officer Opinion Survey (SLOOS) generally continued to report less stringent underwriting standards and lower spreads on C&I loans to large and medium-sized firms (Chart 4.2.5).

Available indicators of credit quality remain solid: the default rate on nonfinancial corporate bonds is at a low level by historical standards (Chart 4.2.6); C&I loan delinquency rates continued to decline through the first quarter of 2012 (Chart 4.2.7); and expected year-ahead default rates for nonfinancial firms as measured by Moody's KMV model remain steady.

4.2.2 Commercial Real Estate Sector

Financing conditions in the commercial real estate sector remain strained following a long period of banks reporting tighter underwriting standards and subdued commercial mortgage-backed security (CMBS) issuance.

In contrast to the relatively sanguine credit conditions for corporate borrowers, financial conditions in the commercial real estate (CRE) sector remain strained amid weak underlying economic fundamentals and tight underwriting standards by banks. Prices for some segments of commercial properties have remained at low levels, and vacancy and delinquency rates continue to be elevated. After a sustained period of tightening, recent

SLOOS data show that lenders have generally refrained from further tightening standards on CRE loans. At the same time, moderate fractions of respondents indicated stronger demand for CRE loans in recent quarters. Consistent with these results, the decline in CRE loans on banks' balance sheets has slowed over the past year. Nonetheless, credit conditions for CRE remain tight by historical standards. In particular, respondents to a special question in the July 2011 SLOOS reported that CRE standards were at or near their strictest levels since 2005, and the survey results have shown little change in standards, on net, since July 2011.

After relatively strong post-crisis issuance of CMBS in the first half of 2011, the amount of new CMBS issuance has been more subdued recently, and issuance in early 2012 was slightly below the pace set in the first half of 2011 (Chart 4.2.8). CMBS delinquency rates and spreads remained high as borrowers struggled to refinance much of the approximately \$33 billion in maturing five-year loans that were originated at the peak of CRE prices in 2007.

4.2.3 Noncorporate Business Sector

Small business lending remains subdued, in part because of the ongoing low real estate prices that have reduced the value of potential collateral for small business loans. There are some signs, however, that credit conditions for small business are gradually improving.

Net worth in the noncorporate sector, which is composed primarily of small businesses, fell sharply during the downturn but turned up in 2010 and grew a bit more in 2011. Real estate comprises a large share of the assets held by the noncorporate sector (Chart 4.2.9), so changes in real estate values tend to have a very large impact on small business balance sheets. The value of real estate assets fell 12 percent in the noncorporate sector from 2007 to 2009, leading to a significant increase in the ratio of debt to net worth (Chart 4.2.10). This ratio recovered some in 2010 and 2011, as net worth improved

Chart 4.2.6 Nonfinancial Corporate Bond Default Rate

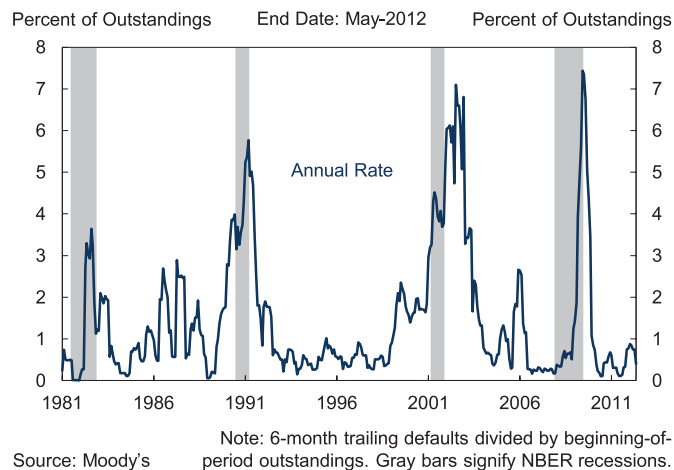


Chart 4.2.7 Noncurrent Commercial & Industrial (C&I) Loans

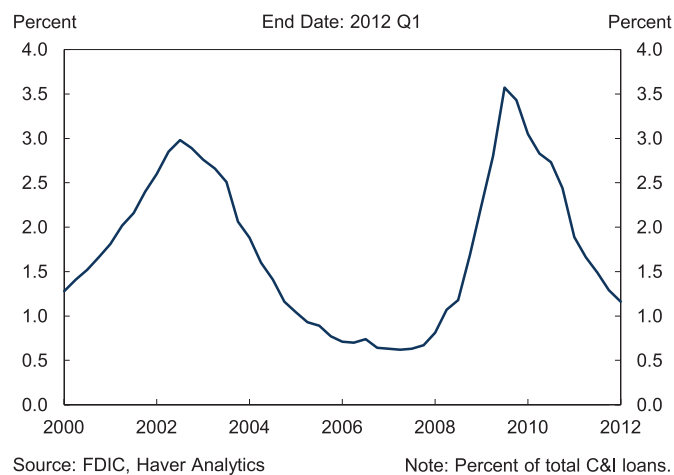


Chart 4.2.8 CMBS New Issuance

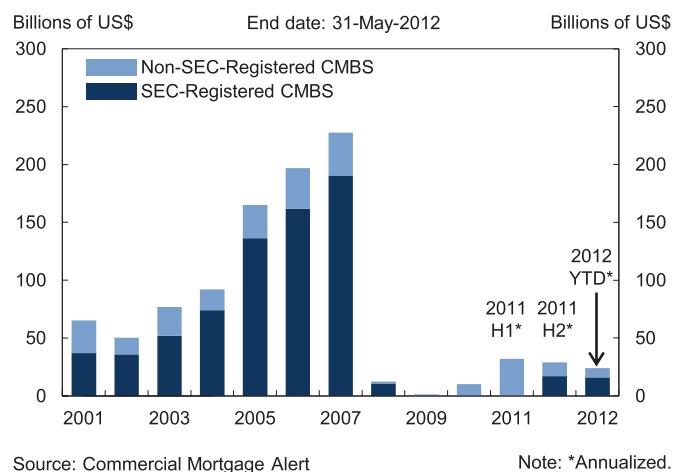
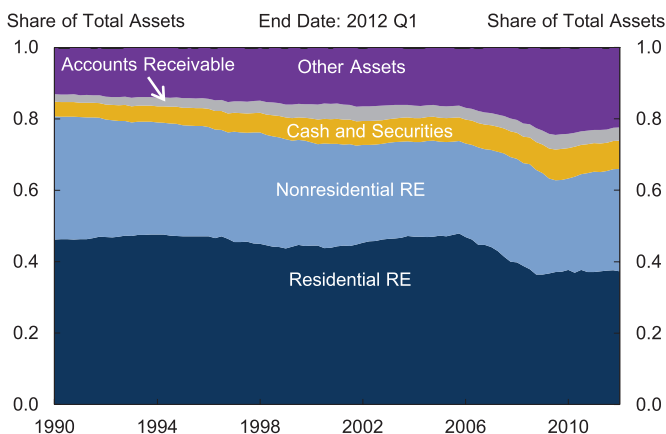
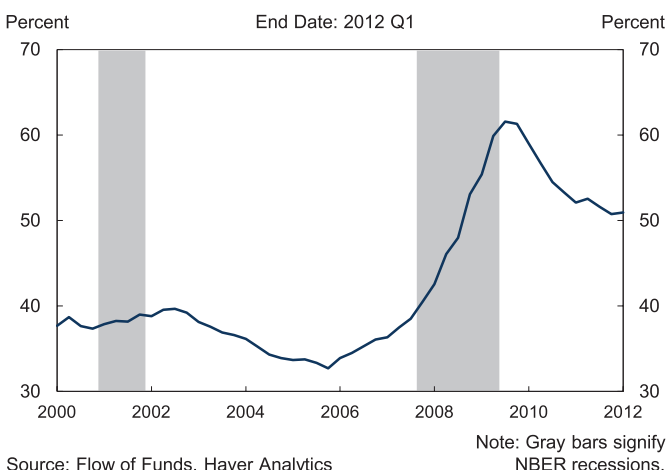


Chart 4.2.9 Noncorporate Assets



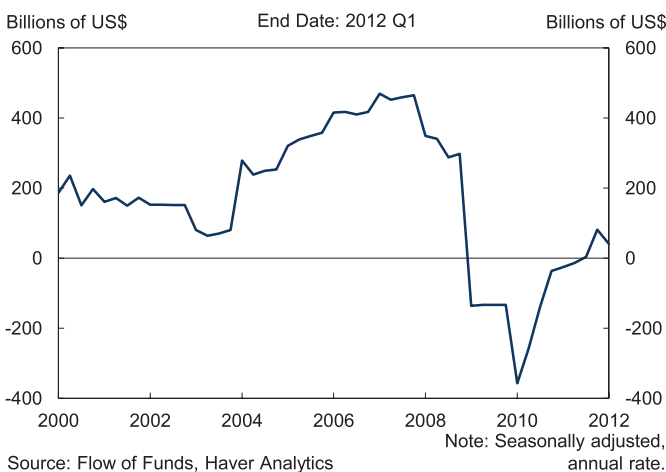
Source: Flow of Funds, Haver Analytics

Chart 4.2.10 Noncorporate Credit Market Debt to Net Worth



Source: Flow of Funds, Haver Analytics

Chart 4.2.11 Net Borrowing by Nonfinancial Noncorporate Businesses



Source: Flow of Funds, Haver Analytics

and debt contracted slightly, but it remains well above pre-recession levels.

Small businesses generally have access to a narrower range of financing options than corporations and thus depend more on bank loans, frequently secured by real estate. Since the beginning of the financial crisis, lower real estate collateral values and strains in the banking sector have constrained credit availability for many small businesses. However, there are signs that credit conditions for small businesses are gradually improving. Net borrowing by nonfinancial noncorporate businesses turned positive in the second half of 2011, after declining substantially during the crisis (**Chart 4.2.11**). Furthermore, after a sustained period of tightening of standards and terms on loans to small businesses, respondents to the SLOOS noted some easing on loan standards and spreads in recent quarters (**Chart 4.2.12**). In addition, since the beginning of 2012, the fraction of banks reporting stronger demand for C&I loans from small businesses has edged up. While the stock of small loans to businesses on bank balance sheets at the end of last year was more than 15 percent below its peak before the crisis, these loans ticked up in the fourth quarter of 2011, registering their first increase since 2008, and continued to increase in the first quarter of 2012.

Business lending by credit unions, which predominantly lend to small businesses, increased by 6 percent in 2011 to reach nearly \$16.5 billion. Similar improvements in credit conditions are evident in the small business surveys conducted by the National Federation of Independent Business. The fraction of firms reporting that credit had become more difficult to obtain declined through the first quarter of 2012 (**Chart 4.2.13**).

Notwithstanding these improvements, the fraction of firms reporting difficulty obtaining credit remains elevated relative to the pre-crisis period. Owners of new businesses, who might have tapped into the equity in their homes or used their homes as collateral for small

business loans, have found conditions especially challenging in recent years. In addition, business receivables at finance companies, an important source of small business financing, continued to decline through February 2012 and were down nearly 30 percent from their peak in July 2008.

4.2.4 Household Sector

Household net worth improved slightly, on net, from the end of 2010 to the first quarter of 2012. The fraction of household income needed to cover debt service payments decreased further, though mortgage-related debt remains high relative to home values. Consumer credit has grown steadily, mostly owing to an expansion in non-revolving credit, including a significant increase in the amount of student loans to finance higher education.

Aggregate household net worth rose almost \$1 trillion in 2011 to \$60.0 trillion (nominal) in 2011:Q4, then jumped an additional \$2.8 trillion in 2012:Q1. This large increase in household net worth in the first quarter primarily reflected gains on corporate equity (directly and indirectly held), although gains on real estate assets and net saving also contributed to this increase in net worth (Chart 4.2.14). As discussed earlier, home prices continued to decline in 2011 but appear to have stabilized, and some measures of home prices have shown upticks recently. Owners' equity in housing has remained near a record low of approximately 40 percent since mid-2008 through March 2012, roughly 20 percentage points lower than its average over 1990 to 2005 (Chart 4.2.15). All told, the ratio of household net worth to disposable personal income is now around its post-WWII average level, although it is far below the level reached in 2007. However, not all households have experienced a significant improvement in their balance sheet positions. For example, lower-income households with smaller exposures to the stock market have not benefitted much from the recovery in equity prices over the past several years.

Household debt outstanding, about three-quarters of which is accounted for by home

Chart 4.2.12 Bank Business Lending Standards and Demand

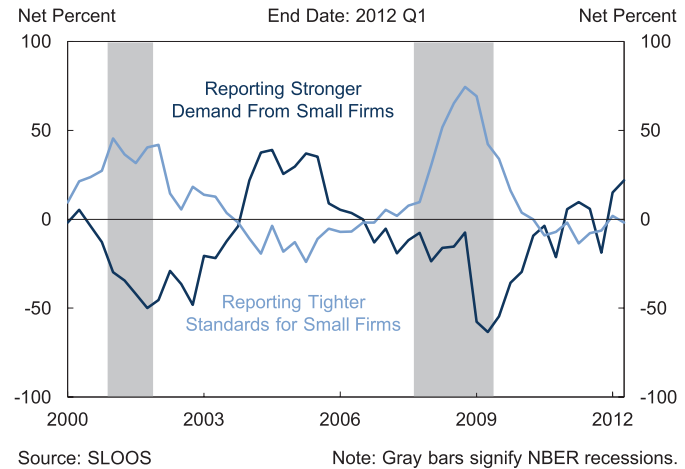


Chart 4.2.13 Small Businesses' Difficulty Obtaining Credit

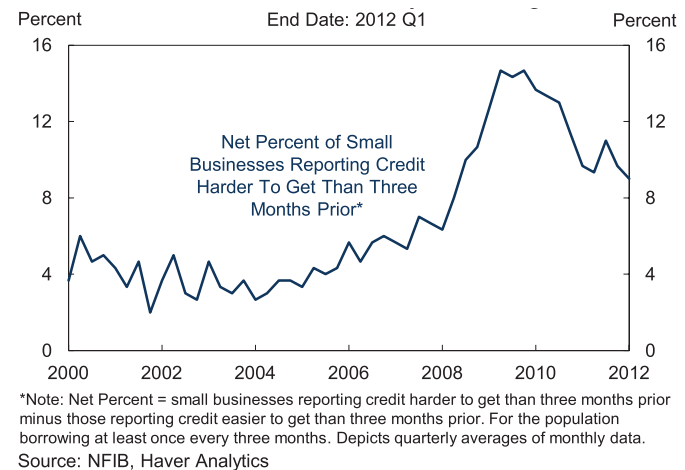


Chart 4.2.14 Household and Nonprofit Balance Sheets

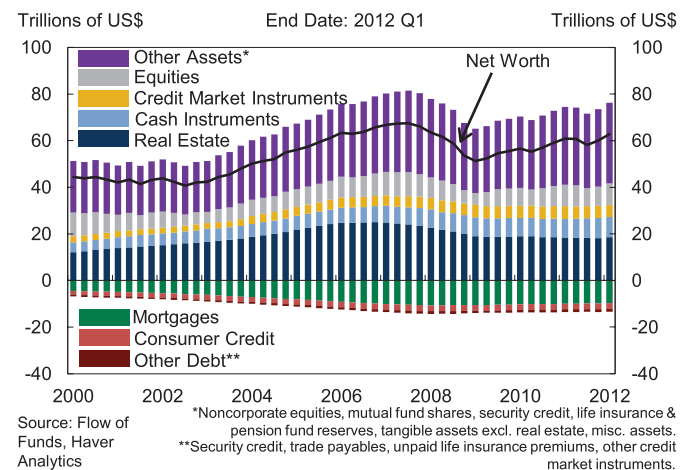


Chart 4.2.15 Share of Owners' Equity in Household Real Estate

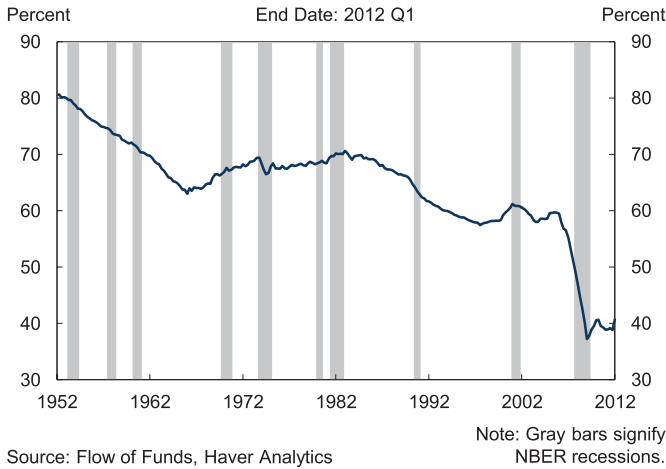


Chart 4.2.16 Household Debt Service Ratio

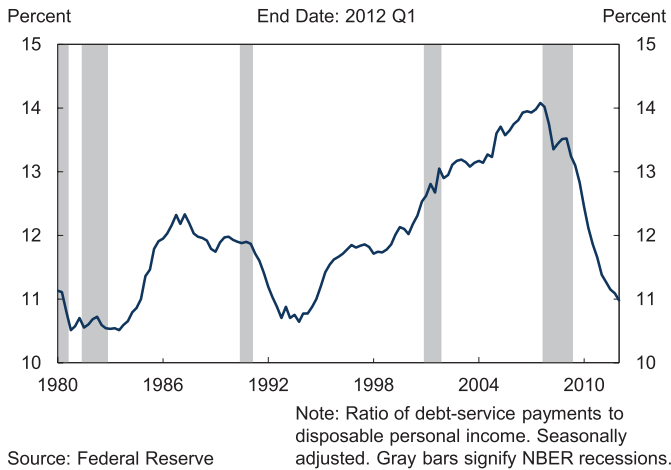
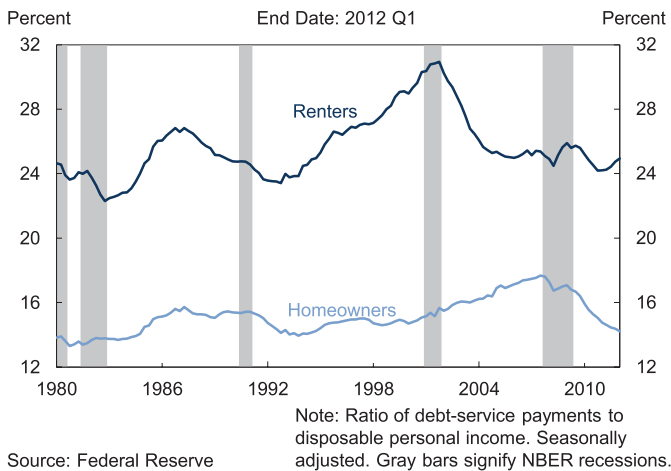


Chart 4.2.17 Household Financial Obligations Ratio



mortgages, declined further in 2011. This decline represented, to some degree, efforts by households to pay down their existing debt, as well as a low volume of new mortgage originations. It also reflects the effects of foreclosures and “short sales,” which have, in the aggregate, reduced mortgage debt on household balance sheets. Moreover, access to residential mortgages remains constrained by tight underwriting standards, discussed further in Section 5.1.4. Deleveraging by households, along with low interest rates, various government tax and transfer programs, and rising employment and income, have helped households manage their monthly debt burdens. The household debt service ratio—the fraction of disposable income needed to cover household debt payments—continued to fall last year (**Chart 4.2.16**). The financial obligations ratio, which measures a household’s burden from a broader measure of commitments, including rent payments and homeowners’ insurance, also moved down last year for homeowners (**Chart 4.2.17**).

As of the first quarter of 2012, non-mortgage consumer credit outstanding increased nearly 5 percent from a year earlier to \$2.5 trillion. Most of this increase in consumer borrowing is in non-revolving credit (**Chart 4.2.18**), which accounts for nearly two-thirds of total consumer credit as of the first quarter in 2012. Among non-revolving credit, student and auto loans have been the fastest-growing categories, with new student loans primarily originated by the federal government.

Growth in revolving credit, on the other hand, has continued to be weak, even contracting recently after posting gains in the fourth quarter of 2011. The reduction in revolving credit is in part driven by the fact that all but “super prime” borrowers continue to face tight underwriting standards for credit cards as lenders pursue higher-quality borrowers. While the credit card limits for super prime borrowers with credit scores greater than 750 have been increasing since 2011, limits for “prime” borrowers with credit scores between

650 and 749 picked up only slightly. In contrast, credit card limits for “subprime” borrowers with credit scores less than 650 continued to edge down until the end of 2011 (Chart 4.2.19). Data on credit card solicitations show a similar preference by banks toward higher quality borrowers.

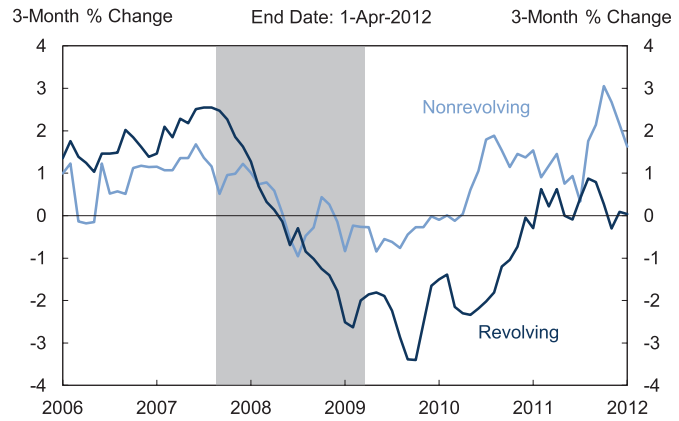
Delinquency rates for consumer credit remain low. Student loan delinquencies and defaults are above pre-crisis level, but are below the peaks seen during the recession. Relatively low delinquency rates for revolving credit and auto loans likely reflect, in part, the composition shift toward higher-quality borrowers. In particular, the increases in delinquency rates on credit card and auto loans during the crisis were largely driven by a sharp rise in the delinquency rate of subprime borrowers, which remains significantly above historical levels (Chart 4.2.20). In contrast, the delinquency rates on credit card and auto loans to super prime and prime consumers were more stable through the crisis and are currently at their historical averages.

At the same time, demand for credit by most consumers continues to be modest relative to the pre-crisis period as households continue to recalibrate their balance sheets in the wake of large wealth losses during the crisis, tepid gains in labor markets, moderate economic growth, and economic uncertainties. Only a small fraction of respondents to the SLOOS, on net, report stronger demand for credit by consumers. Looking across the credit spectrum, credit applications increased slightly over the past year but, through the first quarter of 2012, remained largely subdued relative to the pre-crisis period (Chart 4.2.21).

4.3 Government Sectors

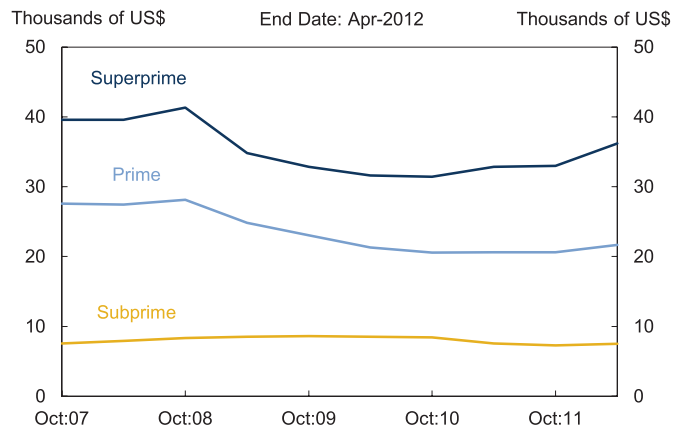
Government finances in the United States deteriorated sharply during the recession, as public sector borrowing largely replaced private borrowing in credit markets (Chart 4.3.1). So far, global financial markets have been able to absorb the substantial increase in U.S. federal debt, but

Chart 4.2.18 Nonmortgage Consumer Credit Flows



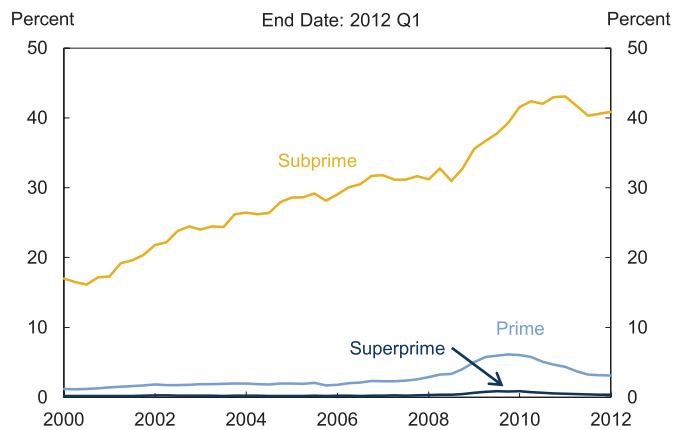
Source: Federal Reserve Note: Gray bar signifies NBER recession.

Chart 4.2.19 Average Amount of Revolving Credit Available



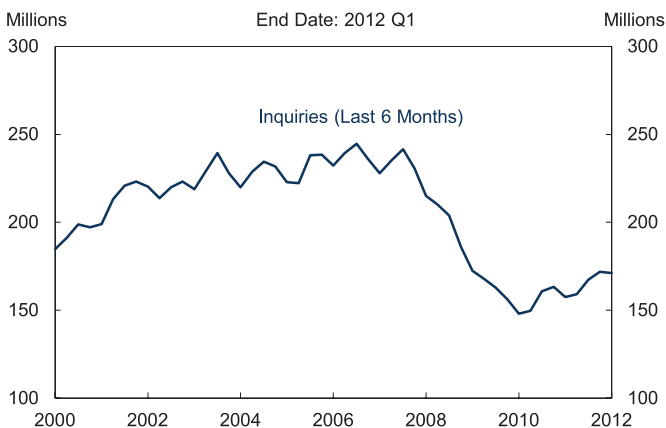
Source: FICO Note: Subprime < 650, Prime 650-749, Superprime ≥ 750.

Chart 4.2.20 Credit Card Delinquency Rates by Credit Score



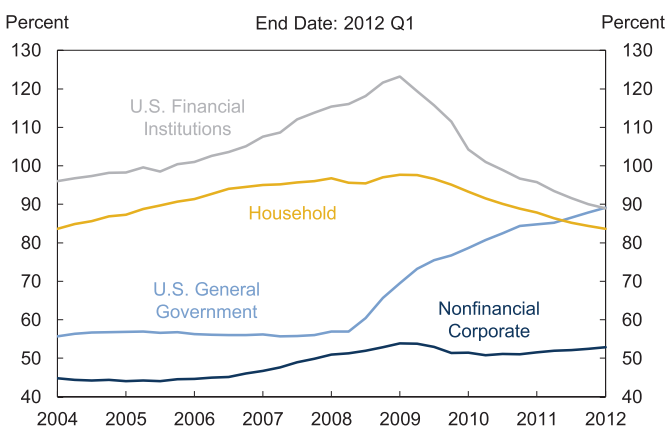
Source: Equifax Note: Subprime < 659, Prime 659-780, Superprime > 780.

Chart 4.2.21 Applications for Credit



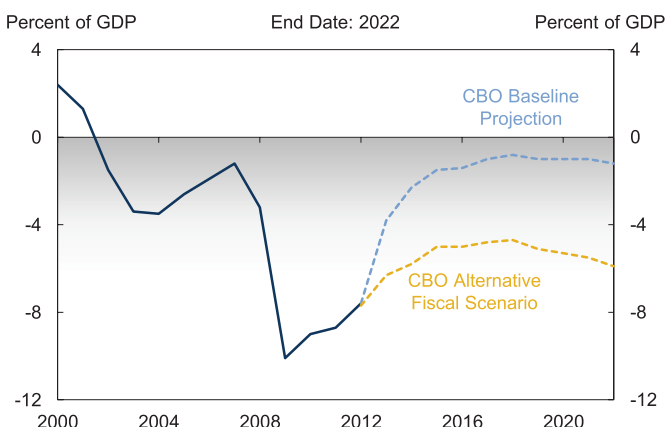
Source: FRBNY

Chart 4.3.1 Net Debt Outstanding as a Percent of GDP



Source: Flow of Funds, BEA, Haver Analytics

Chart 4.3.2 Federal Unified Budget Surplus



Source: Congressional Budget Office

Note: Negative values denote a deficit. Data for fiscal years.

concerns about the prospects for meaningful deficit reduction in coming years persist.

4.3.1 Federal Government

The deficit in the federal unified budget widened significantly during the recession and gradually narrowed thereafter. The Congressional Budget Office (CBO) projects the deficit in the current fiscal year to be 7.6 percent of nominal GDP—1.1 percentage points lower than in 2011 but substantially above the average value of 1.3 percent of GDP for pre-crisis fiscal years 2000 to 2007 (Chart 4.3.2). This appreciable increase in the deficit mostly reflects the usual cyclical response of revenues and spending to a weak economy, as well as the fiscal actions taken to ease the effects of the recession and aid the recovery.

The outlook for the budget over the medium term is subject to considerable uncertainty with respect to both the performance of the economy and the policy path that will be followed. The CBO presents two scenarios based on different assumptions about expenditure and tax configurations. In the CBO baseline projection for the period through 2022, which assumes that current laws generally remain unchanged, the deficit shrinks appreciably over the next couple of years and remains small thereafter. However, in the CBO “Alternative Fiscal Scenario,” which is arguably more plausible because it generally maintains the tax and spending policies that have recently been in effect, the deficit narrows much less in the near term and turns back up after 2018, mainly because of the budgetary pressures stemming from the aging of the population and rapidly rising costs for health care. Consistent with this projection for the deficit, federal debt held by the public is expected to rise from 68 percent of GDP at the end of fiscal year 2011 to 93 percent of GDP in 2022 (Chart 4.3.3).

Concerns about the budget outlook weighed on the rating agencies’ assessments of U.S. sovereign debt. In August 2011, Standard and Poor’s downgraded the long-term sovereign credit rating of the United States, citing that

the effectiveness, stability, and predictability of American policymaking and political institutions had weakened at a time of fiscal and economic challenges. (See **Box A: Impacts of Downgrade of U.S. Treasury Securities.**) Moody's and Fitch have U.S. sovereign debt on negative outlook. These rating actions do not appear to have affected the demand for Treasury securities, as market participants continue to purchase U.S. debt for its relative safety and liquidity. Bid-to-cover ratios at Treasury security auctions remain at the top end of historical ranges, and indicators of foreign participation have remained on trend with recent years.

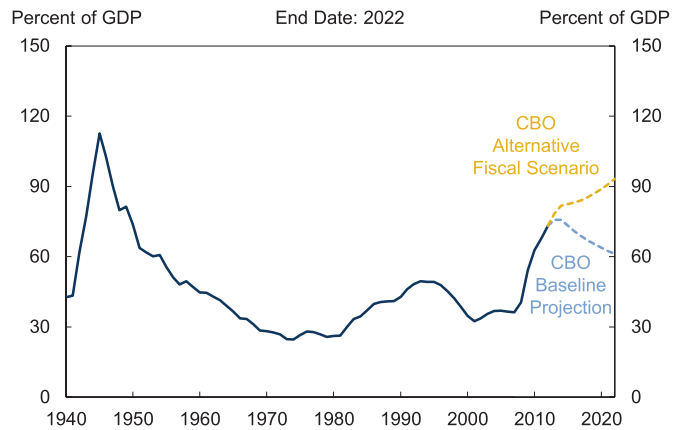
Despite the sizable increase in public debt outstanding, net interest costs amounted to only about 1.5 percent of GDP in recent years, consistent with trends of the past decade but lower than average values during the 1990s of about 3 percent of GDP (**Chart 4.3.4**). This decline reflects the fact the interest rates have fallen to historically low levels even as debt outstanding has increased. The average maturity of public debt outstanding has risen sharply since late 2008 and is above its 30-year average.

4.3.2 State and Local Governments

State and local budgets were strained during the recession, and municipalities continue to struggle to repair their fiscal positions. From the middle of 2008 to April 2012, these governments cut roughly 650,000 jobs (more than 3 percent of their workforces) and trimmed other operating expenditures to satisfy balanced budget requirements. They have also reduced capital expenditures, which, in real terms, have fallen to their lowest levels since the late 1990s. In part because of the weakness in capital spending, state and local borrowing has decelerated noticeably since the onset of the recession, and posted a small decline in 2011 and in the first quarter of 2012 (**Chart 4.3.5**).

State and local government tax revenues, in aggregate, began to register mild growth in 2010 after declining in the aftermath of the

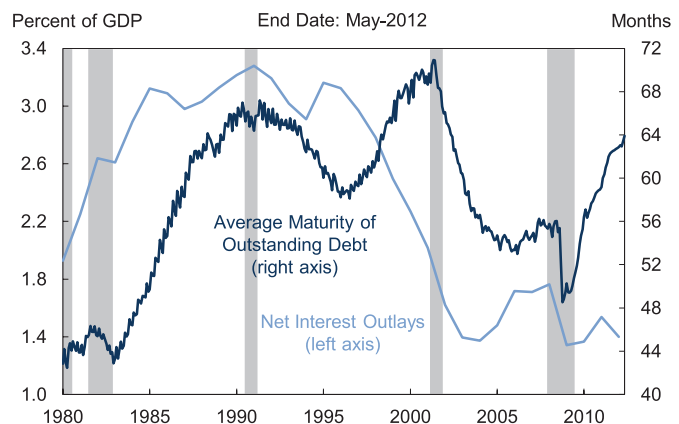
Chart 4.3.3 Federal Debt Held by the Public



Source: Congressional Budget Office

Note: Data for fiscal years.

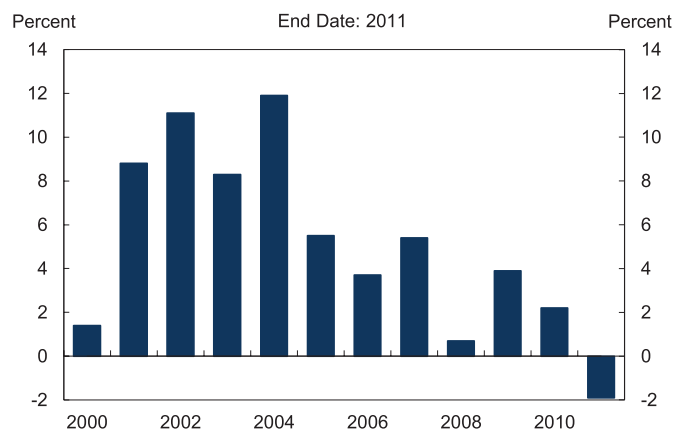
Chart 4.3.4 Interest Outlays and Average Maturity of U.S. Public Debt



Source: OMB, U.S. Department of Treasury

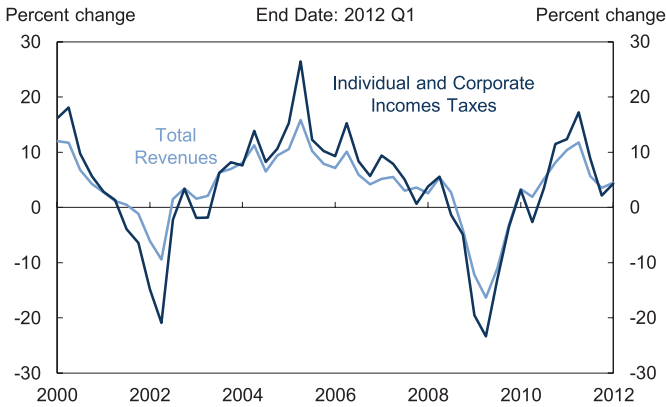
Note: Gray bars signify NBER recessions. 2012 outlays data is an OMB estimate.

Chart 4.3.5 Change in State and Local Government Debt



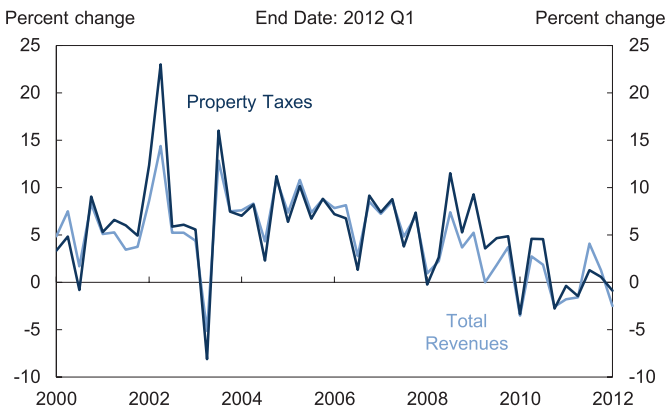
Source: Flow of Funds

Chart 4.3.6 Change in State Tax Revenue



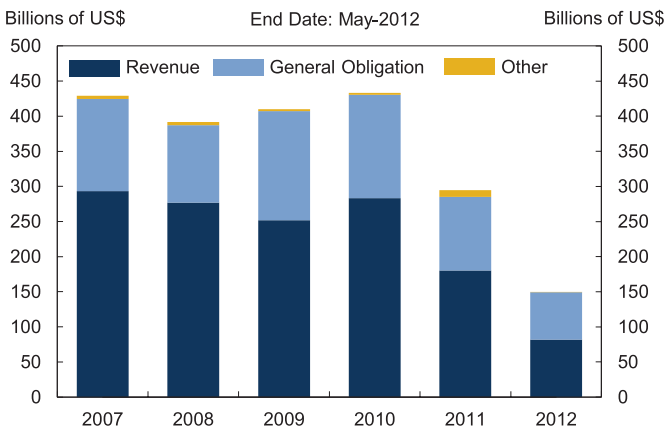
Note: Percent change from same quarter 1 year ago. Source: Census Bureau. Total Revenues is a sum of all tax revenue components.

Chart 4.3.7 Change in Local Tax Revenue



Note: Percent change from same quarter 1 year ago. 2008:Q4-2009:Q3 adjusted to reflect change in sample. Source: Census Bureau. Total Revenues is a sum of all tax revenue components.

Chart 4.3.8 Municipal Bond Issuance by Type



Note: 2012 is year-to-date data. Source: Thomson Reuters

financial crisis (Chart 4.3.6). Much of the improvement has been at the state level, where personal income tax receipts in particular have picked up as the economic recovery has proceeded. In contrast, tax collections at the local level have exhibited essentially no growth over the past two years, mainly because property tax collections, which account for roughly three-fourths of local tax revenues, have been depressed by the downturn in home prices and a reluctance to raise tax rates at a time when real incomes of constituents are under pressure (Chart 4.3.7).

Overall, the resources available to state and local governments to finance their spending remain tight. The sector's tax revenues are only slightly higher than they were in 2008. The federal stimulus grants provided under the American Recovery and Reinvestment Act of 2009 have largely wound down, and other initiatives (e.g., the Build America Bonds program) have expired. Many states have cut back on assistance to their localities in order to shore up their own budgets. Finally, balances in reserve funds, which provide an important safety valve in times of budgetary stress, have been depleted in many cases.

As a result of these budgetary issues, net credit flows to state and local governments have been mixed over the past year. While the amount of revenue bonds issued continues to exceed the amount of general obligation bonds, the share of general obligation bonds among the total issuance increased substantially in 2012 (Chart 4.3.8). Net issuance of municipal bonds has been slow as of late, in part reflecting the weakness in infrastructure investment and ratings downgrades by Moody's over the past 12 months, which have substantially outpaced upgrades. At the same time, the cost of municipal bonds—as measured by the yield ratio to similar maturity Treasury securities—has risen, with investors demanding higher returns from issuers facing fiscal challenges (Chart 4.3.9). The issuance of Variable Rate Demand Obligations (VRDOs), an important source of funding for municipalities, has

also been declining since the financial crisis (**Chart 4.3.10**). A primary reason is the gradual retraction of European banks from providing liquidity to this market.

Budget trajectories will remain challenged in coming years, as many state and local governments will need to increase their contributions to their employee pension funds, both to rebuild assets after experiencing significant financial losses and to address chronic underfunding during the past decade. In addition, many governments are not setting aside money to fund their ongoing obligations to provide health care to their retired employees. Unfunded liabilities remain substantial. Estimates of aggregate unfunded pension liabilities span a wide range, in part because of differences in how liabilities are valued, but may be in the range of \$2 trillion to \$3 trillion. (For an additional discussion of accounting issues related to state and local pension funds, see Section 5.3.5.) Estimates for the cost of providing retiree health benefits are subject to even greater uncertainty, in part because of the difficulty of projecting health care costs decades into the future, but one estimate put the states' collective unfunded liability as of 2010 at over \$625 billion.

4.4 External Environment

Outside of the United States, both realized and prospective growth rates have been mixed over the past year. The primary financial stability focus has been on the developments in Europe. Despite ongoing efforts by European authorities to contain the crisis, debt sustainability concerns, fiscal consolidation efforts, bank deleveraging, and funding market stresses on banks and sovereigns continue to weigh on European growth prospects. Outside of the euro area, foreign growth picked up in 2012:Q1, with lower growth in the euro area and China partly offset by more positive developments in other regions. The tone of the incoming data in 2012:Q2 is decidedly weaker.

4.4.1 Advanced Foreign Economies

In the aggregate, the advanced economies maintained positive growth through 2011 and

Chart 4.3.9 Municipal Tax-Exempt Bond Yield Ratios

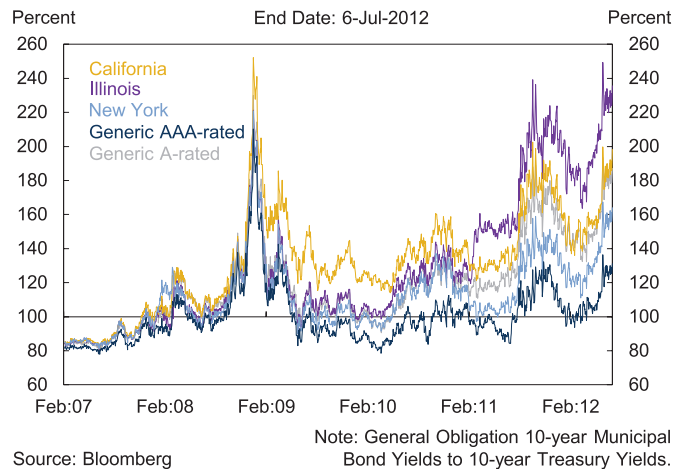


Chart 4.3.10 ARS and VRDO Funding of Long-Term Muni Bonds

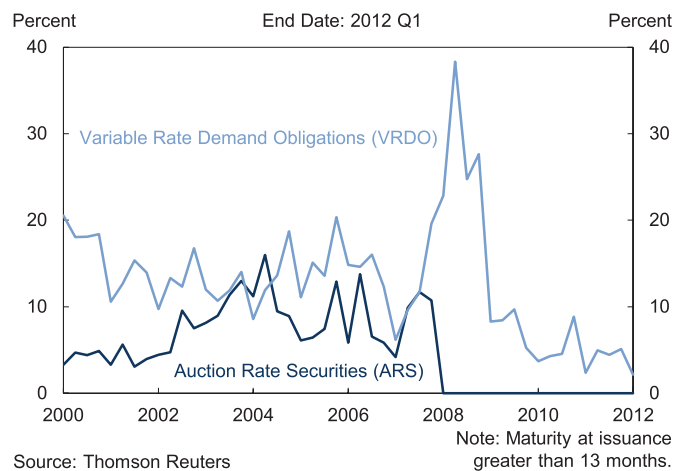
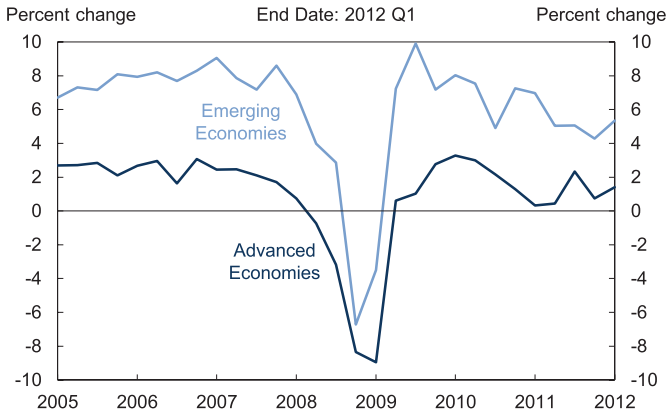
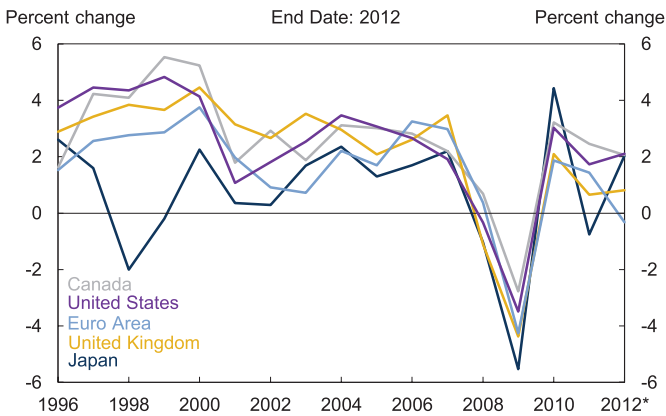


Chart 4.4.1 Real GDP Growth



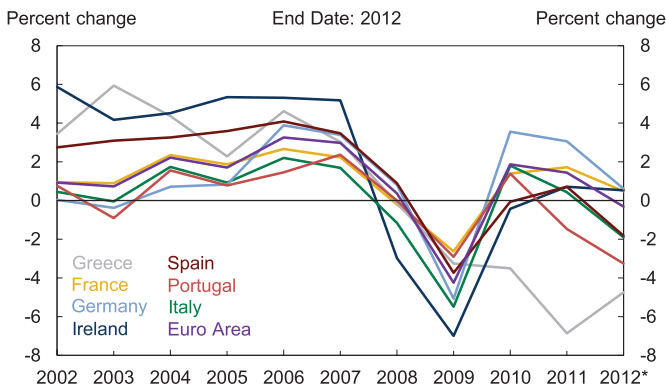
Source: EMED, CEIC, Haver Analytics, FRBNY Calculations Note: Seasonally adjusted, annualized rate.

Chart 4.4.2 Developed Market Economies GDP Growth



Source: IMF, World Economic Outlook Database, April 2012 *Note: Year-over-year percent change. 2012 data is an IMF estimate.

Chart 4.4.3 Euro Area GDP Growth



Source: IMF, World Economic Outlook Database, April 2012 *Note: Year-over-year percent change. 2012 data is an IMF estimate. Not all euro area countries are included.

early 2012 (**Chart 4.4.1**). The growth rates across advanced economies reflect a mix of more positive outcomes in the United States and Japan, among others, and the challenges within European countries in managing fiscal problems, bank funding stress and deleveraging, and structural change (**Chart 4.4.2**).

Euro Area Economic Conditions and Policy Initiatives

Over the last 12 months, the euro area sovereign debt crisis intensified as concerns about the sustainability of public finances and the robustness of banks in some countries soared. Some European financial institutions faced reduced access to funds, reflecting in part their large exposures to stressed sovereigns as well as their reliance on wholesale funding markets, including short-term dollar funding provided by money market funds. European leaders recognize the need to deepen their economic and monetary union, as exemplified by the new fiscal compact treaty signed by most European Union (EU) members in March 2012 and by the proposal to establish a single European banking supervisor put forth in June 2012. Work continues on elaborating a system-wide solution capable of commanding both political and market support.

The euro area economies experienced a widespread slowing of economic activity due to the intensification of the crisis, the effects of banking problems and the related bank deleveraging on lending to the real economy, and the impact of fiscal consolidation efforts. Despite various measures implemented by the European authorities to combat the crisis, discussed below, the euro area GDP contracted by 1.2 percent (annual rate) in the fourth quarter of 2011, and the GDP growth rate for the first quarter of 2012 was near zero. Similarly, labor market conditions deteriorated further, as the unemployment rate reached 11.1 percent in May 2012, the highest level since 1995.

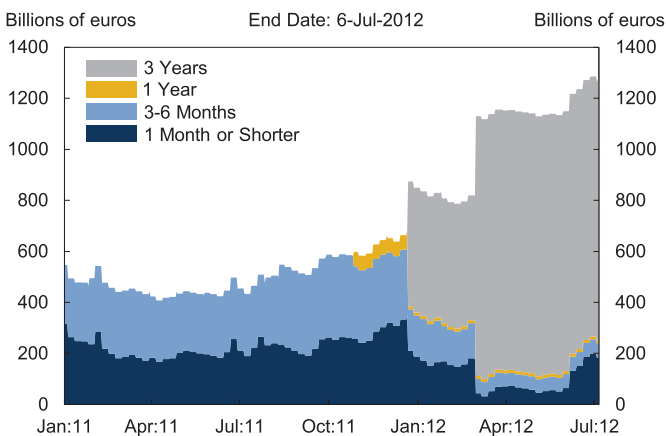
Growth prospects in the euro area differ across countries (**Chart 4.4.3**). Germany, France, and

Ireland continue to grow, although at a more subdued pace, while Italy, Spain, Portugal, and Greece are projected to contract, with unemployment rates rising substantially. Vulnerable European countries continue to face important challenges as they strive to improve fiscal positions, strengthen vulnerable banks, and carry out structural reforms to improve their long-term growth outlook, even as short-term growth is weak or negative. The stresses in the sovereign debt markets of euro area countries are discussed in greater detail in Section 5.1.

European authorities responded to these developments with a number of policy measures. In response to Greece's plunging output and challenges meeting fiscal targets, EU and IMF officials, the Greek government, and private creditors finalized an enhanced rescue package in February 2012. This package included a more ambitious private-sector debt exchange involving a significant principal write-down, together with additional official financing through early 2016. **(See Box B: Greek Sovereign Debt Restructuring.)**

Additionally, European authorities took actions to improve the fiscal governance in the region and to enhance their ability to provide financial support to euro area countries under stress. EU members, excluding the United Kingdom and the Czech Republic, signed a new fiscal compact treaty designed to strengthen fiscal rules, enhance surveillance, and improve enforcement. This treaty, if ratified, would require countries to legislate national fiscal rules and should generally limit structural fiscal deficits to 0.5 percent of GDP. Authorities moved up the introduction of the European Stability Mechanism (ESM), a permanent €500 billion lending facility, to July 2012—about a year earlier than originally planned. In addition, they agreed to increase the combined lending capacity of their rescue facilities from €500 billion to €700 billion, of which €500 billion remains uncommitted. Moreover, European authorities augmented the scope and flexibility of the existing facilities, empowering

Chart 4.4.4 ECB Liquidity Providing Operations



Source: ECB

them to purchase sovereign debt in primary and secondary markets and offer debt guarantees.

European policymakers also took steps to strengthen the capital positions of euro area financial institutions. In October of 2011, the European Banking Authority (EBA) announced that large banks would be required to build up “exceptional and temporary” capital buffers to meet a core tier one capital ratio of 9 percent and cover the cost of marking to market their sovereign debt exposures by the end of June 2012. According to a December 2011 EBA report, 62 banks intended to create capital buffers equivalent to €98 billion, about 25 percent larger than required. (This does not include the Greek banks and three other institutions that would be recapitalized separately by national authorities.) More recently, in June 2012, Spain requested EU assistance to recapitalize its banking sector. **(See Box C: Recent Fiscal and Banking Developments in Spain.)** Finally, in an effort to address the link between banks and sovereigns, euro area leaders agreed in late June 2012 to establish a single supervisory mechanism for banks in the euro area and to grant the ESM the possibility of recapitalizing banks directly.

Meanwhile, the European Central Bank (ECB) adopted various policy measures to support liquidity conditions in financial markets. First, in August 2011, the ECB resumed purchases of euro area marketable debt, including the debt of Italy and Spain, in order to improve the functioning of sovereign debt markets and facilitate the transmission of monetary policy in the region. Then, in December 2011, the ECB eased rules on collateral for ECB refinancing operations and scheduled two longer-term refinancing operations (LTROs) to improve banks’ funding conditions. With the LTROs, the value of outstanding ECB liquidity providing operations has increased to over €1.25 trillion (**Chart 4.4.4**). Moreover, in November 2011, the Bank of Canada, the Bank of England, the Bank of Japan, the ECB, the Federal Reserve, and the Swiss National Bank engaged in coordinated actions to enhance

their capacity to provide liquidity support to the global financial system. In particular, the reduced fees applied to draws on dollar liquidity swap lines provided by the Federal Reserve, as well as the extended expiration of these facilities, were intended to ease strains in financial markets and thereby mitigate the effects of such strains on the supply of credit to households and businesses.

These measures contributed to improvements in euro area financial conditions during the first few months of this year, with dollar funding pressures substantially diminished. The net result was a considerable narrowing of euro-dollar foreign exchange (FX) swap basis spreads, reflecting reduced short-term dollar funding pressure for euro area institutions (**Chart 4.4.5**). Recent utilization of the dollar liquidity swap lines peaked at over \$100 billion in February 2012, with the outstanding amount for the Federal Reserve's dollar liquidity swap lines at \$28 billion as of July 4 (**Chart 4.4.6**).

Growth and financial stability conditions in the euro area remain under pressure. Market participants are attentive to the limited capacity of the euro area financial backstop in the context of its multiple possible uses. Although the Greek debt restructuring and subsequent triggering of credit default swap (CDS) contracts, discussed further in **Box B: Greek Sovereign Debt Restructuring**, passed without broad market disruption, much uncertainty remains in the region. Uncertainty about fiscal consolidation and structural reform highlight the challenges of adjustment within a monetary union. Meanwhile, concerns about other European peripherals (including Portugal, Ireland, Italy, and Spain), especially around fiscal sustainability, health of their banking sectors, and general competitiveness of their economies, continue to weigh on real growth and financial activity in these countries.

4.4.2 Emerging Market Economies

In the second half of last year, economic growth in many EMEs slowed slightly, as earlier policy tightening, a weakening of external demand

Chart 4.4.5 Euro-Dollar Implied FX Swap Basis



Chart 4.4.6 Total Swap Line Amount Outstanding

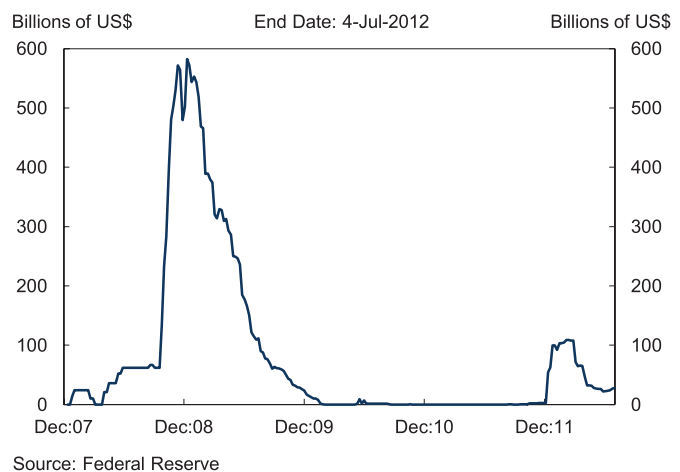
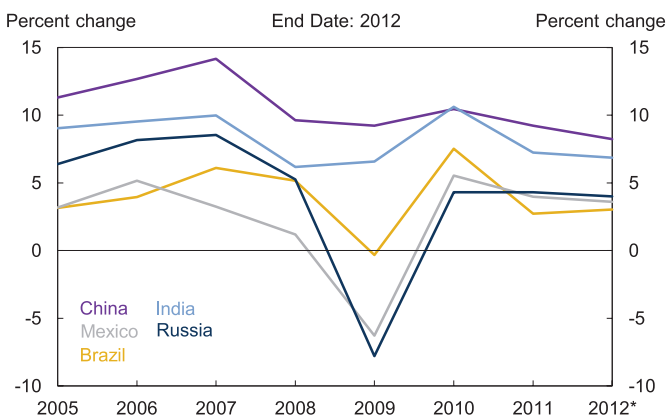
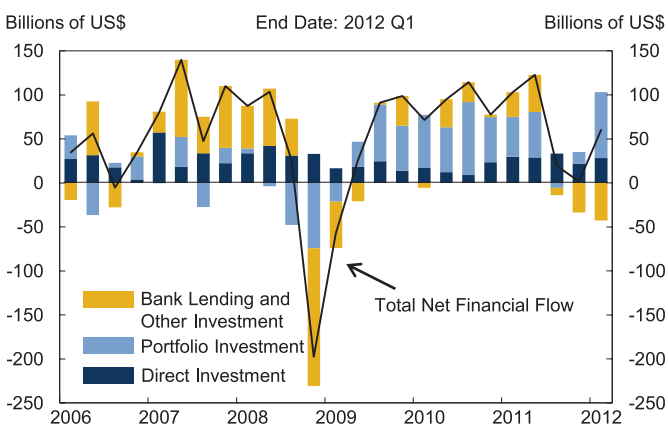


Chart 4.4.7 Emerging Market Economies GDP Growth



Source: IMF, World Economic Outlook Database, April 2012 *Note: Year-over-year percent change. 2012 data is an IMF estimate.

Chart 4.4.8 Net International Financial Flows to EMEs



Source: Haver Analytics, FSOC calculations

owing to the fiscal crisis in Europe, and supply chain disruptions stemming from floods in Thailand weighed on growth (Chart 4.4.7). At the beginning of this year, growth in EMEs rebounded, reflecting a restoration of the normal supply chain and some improvement in demand from advanced economies. However, the indicators for the second quarter of 2012 suggest significantly weaker activity in EMEs.

On balance, EMEs have received substantial volumes of net inflows of capital since late 2009, which also contributed to currency appreciation pressures. These inflows decelerated in the second half of last year, reflecting both a general flight to safety and concerns about growth spillovers from the deteriorating situation in Europe (Chart 4.4.8). Declining commodity prices are also a concern for some emerging economies, particularly in Latin America. Overall, while growth across major EMEs, including Brazil, Mexico, India, Russia, and China, stayed firmly in positive territory, these global headwinds weighed on local prospects.

Chinese growth prospects remain relatively solid by international standards. Year-over-year growth slowed in 2012:Q1 to just above 8 percent, reflecting weaker investment spending, with macro-prudential restrictions weighing on the property sector, and slower export growth, especially to Europe. A possible hard landing of the Chinese economy is a risk that could spill over to other EMEs and the global economy, which has created some anxiety in financial markets. There are growing concerns that weaker external demand in the advanced economies, combined with a deceleration in domestic investment, could lead to a more prolonged economic slowdown in China than was previously expected. Another source of concern is the movement of savings into less-well-regulated nonbank financing channels in an effort to obtain higher yields. Finally, additional risks could emerge from stresses in the banking sector, stemming from the massive increase in credit to the domestic economy (“social financing” in the official Chinese

terminology), deployed as part of China’s policy response to the global financial crisis in 2008-2009 (**Chart 4.4.9**). To contain a potential run-up in inflation, property prices, and debt levels resulting from this credit expansion, Chinese authorities began taking a tighter monetary stance in late 2010, with some success. But with the latest data pointing to weaker-than-expected economic activity in China in the first five months of 2012, authorities began implementing a number of fiscal and monetary measures to support growth.

Chart 4.4.9 Change in Total Chinese Social Financing

