

## **Prefatory Note**

The attached document represents the most complete and accurate version available based on original files from the FOMC Secretariat at the Board of Governors of the Federal Reserve System.

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## **Part 2**

January 22, 2009

# **CURRENT ECONOMIC AND FINANCIAL CONDITIONS**

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## **Recent Developments**

January 22, 2009

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## **Domestic Nonfinancial Developments**

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## Domestic Nonfinancial Developments

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Nearly all major sectors of the economy registered significant declines in activity at the end of 2008. Conditions in the labor market continued to deteriorate in December as payrolls shrank and the unemployment rate climbed further. Available data suggest that consumer spending decreased markedly again in the fourth quarter, and declines in housing construction steepened. Business spending on equipment and software fell sharply late in the year, with all major components contracting. Industrial production plunged in the fourth quarter, as output was reduced in the vast majority of industries. Despite the cutbacks in production, spending by households and businesses fell even faster, and, as a result, inventory overhangs emerged in a number of areas. Consumer prices tumbled in the last three months of 2008, as consumer energy prices plummeted and both food and core consumer price inflation slowed noticeably.

### Labor Market Developments

Labor market conditions continued to deteriorate rapidly in December, as employment on private nonfarm payrolls fell more than ½ million for a second consecutive month. Since the recession began in December 2007, private employment has plummeted 2¾ million, or nearly 2½ percent; in percentage terms, this drop is the largest 12-month decline since 1982. Employment losses were once again spread widely across industries in December, and the 3-month diffusion index of payroll changes fell to 24.1, the lowest reading since the series began in 1991. In addition, the average workweek of production and nonsupervisory workers on private nonfarm payrolls fell 0.2 hour in December. For the fourth quarter as a whole, aggregate hours for this group of workers declined at an annual rate of 7.7 percent.

In the household survey, the unemployment rate increased in December to 7.2 percent, up from 6.8 percent in November and 4.9 percent in December 2007. The fraction of workers who were working part time for economic reasons—another measure of the utilization of labor—surged in December, after steep increases over the preceding two months. Over the 12 months ending in December, the share of employed individuals working part time for economic reasons rose 2.4 percentage points, to 5.6 percent. The labor force participation rate edged down to 65.7 percent in December, 0.3 percentage point below the level a year earlier.<sup>1</sup>

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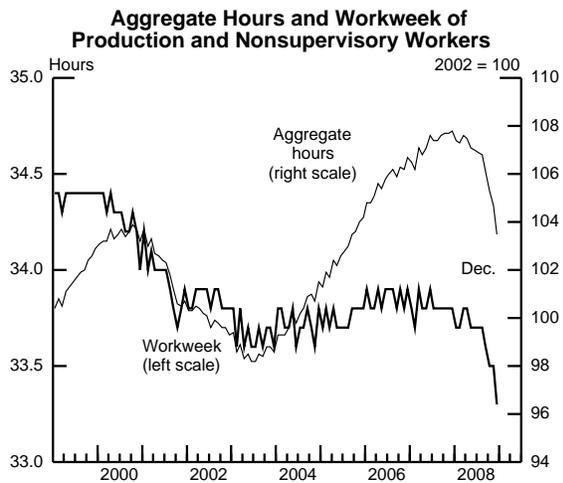
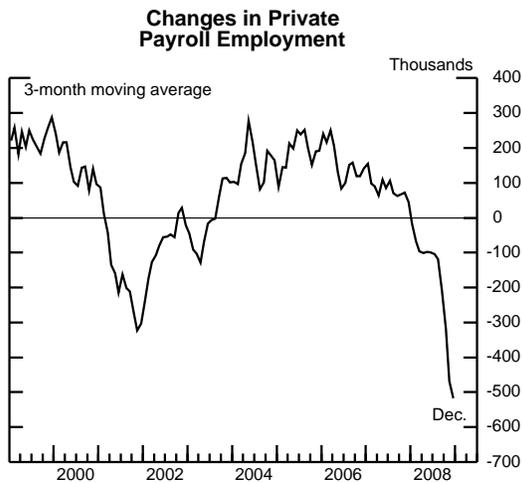
<sup>1</sup> Emergency unemployment insurance benefits have likely boosted labor force participation and the unemployment rate in recent months by encouraging unemployed individuals to remain in the labor force. In December, we estimate that emergency benefits contributed about 0.2 percentage point to the level of the published unemployment rate and about 0.1 percentage point to the level of the published labor force participation rate.

**Changes in Employment**

(Thousands of employees; seasonally adjusted)

Measure and sector	2008	2008					
		Q2	Q3	Q4	Oct.	Nov.	Dec.
		Average monthly change			Monthly change		
Nonfarm payroll employment (establishment survey)	-216	-71	-199	-510	-423	-584	-524
Private	-231	-100	-210	-517	-438	-581	-531
Natural resources and mining	5	6	9	2	1	7	-1
Manufacturing	-66	-39	-57	-125	-123	-104	-149
Ex. motor vehicles	-52	-31	-39	-109	-111	-88	-128
Construction	-53	-49	-33	-88	-79	-85	-101
Residential	-31	-30	-17	-44	-40	-40	-54
Nonresidential	-22	-19	-15	-44	-39	-46	-47
Wholesale trade	-14	-7	-12	-30	-27	-33	-30
Retail trade	-44	-26	-42	-78	-67	-100	-67
Financial activities	-12	-6	-13	-23	-27	-28	-14
Temporary help services	-41	-30	-36	-73	-54	-86	-81
Nonbusiness services <sup>1</sup>	27	63	5	-24	-16	-43	-12
Total government	15	29	11	6	15	-3	7
Total employment (household survey)	-246	-95	-236	-564	-372	-513	-806
Memo:							
Aggregate hours of private production workers (percent change) <sup>2</sup>	-3.0	-.9	-2.2	-7.7	-.8	-.6	-1.1
Average workweek (hours) <sup>3</sup>	33.6	33.7	33.7	33.4	33.5	33.5	33.3
Manufacturing (hours)	40.8	41.0	40.8	40.2	40.4	40.3	39.9

1. Nonbusiness services comprises education and health, leisure and hospitality, and "other."  
 2. Establishment survey. Annual data are percent changes from Q4 to Q4. Quarterly data are percent changes from preceding quarter at an annual rate. Monthly data are percent changes from preceding month.  
 3. Establishment survey.

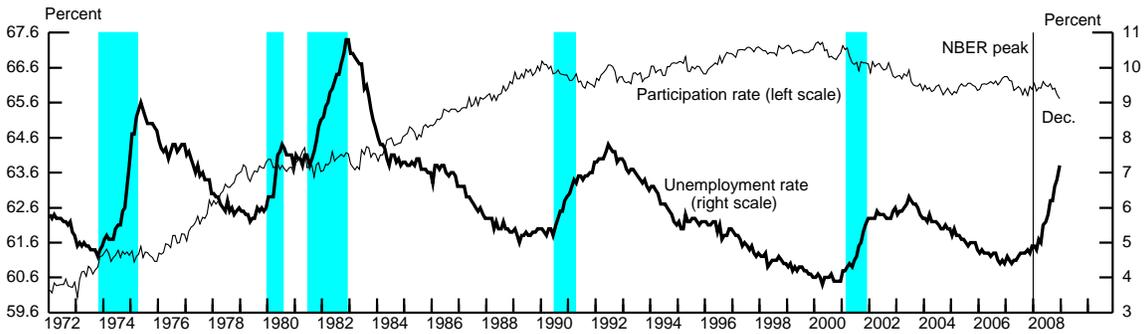


Source: U.S. Department of Labor, Bureau of Labor Statistics.

**Selected Unemployment and Labor Force Participation Rates**  
(Percent; seasonally adjusted)

Rate and group	2008	2008					
		Q2	Q3	Q4	Oct.	Nov.	Dec.
<i>Civilian unemployment rate</i>							
Total	5.8	5.4	6.0	6.9	6.6	6.8	7.2
Teenagers	18.7	17.7	19.7	20.7	20.7	20.4	20.8
20-24 years old	10.2	9.8	10.6	11.3	10.6	11.1	12.1
Men, 25 years and older	4.8	4.2	5.1	6.0	5.6	5.9	6.4
Women, 25 years and older	4.4	4.1	4.5	5.2	5.1	5.2	5.4
<i>Labor force participation rate</i>							
Total	66.0	66.1	66.1	65.9	66.0	65.8	65.7
Teenagers	40.2	41.3	40.3	38.7	39.7	38.2	38.3
20-24 years old	74.4	74.6	74.8	74.1	74.0	73.9	74.3
Men, 25 years and older	75.4	75.3	75.6	75.2	75.4	75.2	74.9
Women, 25 years and older	60.0	60.0	60.0	60.1	60.1	60.1	60.1

**Labor Force Participation Rate and Unemployment Rate**

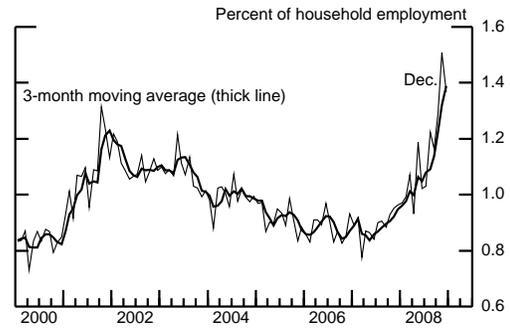


Note. Shaded bars indicate periods of business recession as defined by the National Bureau of Economic Research (NBER). The NBER peak is the last business cycle peak as defined by the NBER.

**Persons Working Part Time for Economic Reasons**



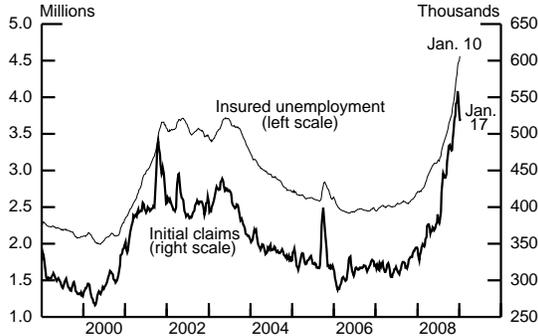
**Job Losers Unemployed Less Than 5 Weeks**



Source: U.S. Department of Labor, Bureau of Labor Statistics.

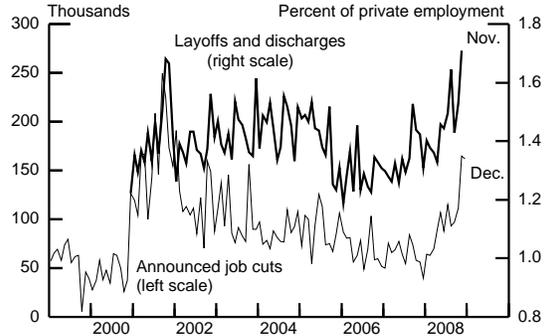
## Labor Market Indicators

Unemployment Insurance



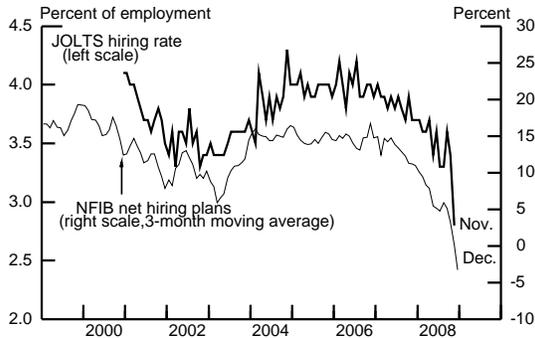
Note: 4-week moving averages.  
Source: U.S. Dept. of Labor, Employment and Training Administration.

Layoffs and Job Cuts



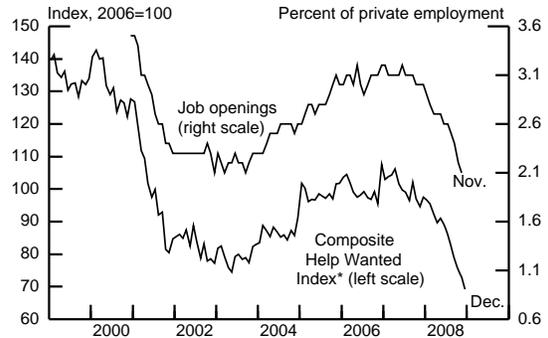
Note: Both series are seasonally adjusted by FRB staff.  
Source: For layoffs and discharges, Job Openings and Labor Turnover Survey; for job cuts, Challenger, Gray, and Christmas, Inc.

Hiring



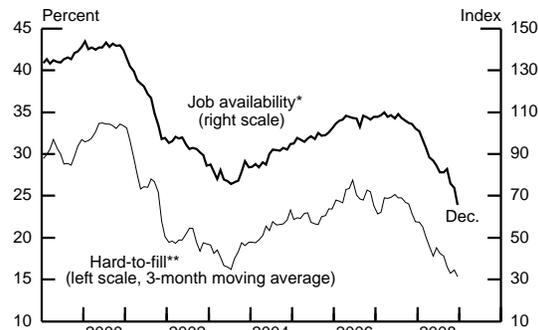
Note: NFIB is the percent planning an increase in employment minus the percent planning a reduction.  
Source: National Federation of Independent Business (NFIB); Job Openings and Labor Turnover Survey (JOLTS).

Job Openings



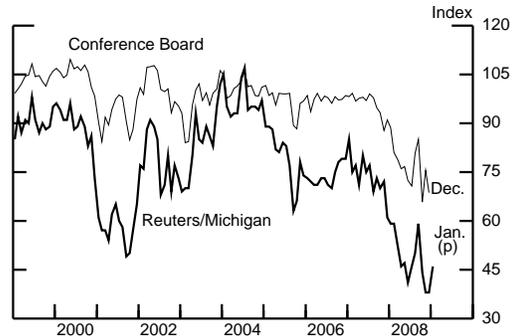
\*Index of staff composite help wanted advertising as a percent of private payroll employment.  
Source: For job openings, Job Openings and Labor Turnover Survey; for Help Wanted Index, Conference Board and staff calculations.

Job Availability and Hard-to-Fill Positions



\*Proportion of households believing jobs are plentiful, minus the proportion believing jobs are hard to get, plus 100.  
\*\*Percent of small businesses surveyed with at least one "hard-to-fill" job opening. Seasonally adjusted by FRB staff.  
Source: For job availability, Conference Board; for hard-to-fill, National Federation of Independent Business.

Expected Labor Market Conditions



Note: The proportion of households expecting labor market conditions to improve, minus the proportion expecting conditions to worsen, plus 100.  
p Preliminary.  
Source: Conference Board; Reuters/University of Michigan Surveys of Consumers.

**Output per Hour**

(Percent change from preceding period at an annual rate;  
seasonally adjusted)

Sector	2006:Q3 to 2007:Q3	2007:Q3 to 2008:Q3	2007	2008		
			Q4	Q1	Q2	Q3
Nonfarm business						
All persons	2.5	2.1 <sup>1</sup>	.8	2.6	3.6	1.5 <sup>1</sup>
All employees <sup>2</sup>	2.2	1.7 <sup>1</sup>	-.7	2.5	4.1	1.0 <sup>1</sup>
Nonfinancial corporations <sup>3</sup>	.7	3.5	1.9	-.2	7.7	4.9

1. Staff estimates.

2. Assumes that the growth rate of hours of non-employees equals the growth rate of hours of employees.

3. All corporations doing business in the United States except banks, stock and commodity brokers, and finance and insurance companies. The sector accounts for about two-thirds of business employment. Nonfinancial corporate output is calculated as an income-side measure.

Source: For output, U.S. Dept. of Commerce, Bureau of Economic Analysis; for hours, U.S. Dept. of Labor, Bureau of Labor Statistics.

Other indicators also point to an ongoing weakening in the labor market. Measures of involuntary separations—short-term job losers in the household survey, initial and continuing claims for unemployment insurance, and announcements of job cuts as reported by Challenger, Gray, and Christmas, Inc.—have remained high. Indicators of vacancies and hiring—the job openings and hiring rates from the Job Openings and Labor Turnover Survey, the Help Wanted Index, and hiring plans from the National Federation of Independent Business (NFIB) survey—have declined further. Meanwhile, alternative gauges of labor market slack—job availability as reported in the Conference Board survey and hard-to-fill positions in the NFIB survey—continued to worsen. Finally, according to both the Reuters/University of Michigan and the Conference Board surveys, household expectations of future labor market conditions remained pessimistic.

**Industrial Production**

Producers have continued to aggressively pare back production in response to weakening domestic and foreign demand. Industrial production (IP) fell 2.0 percent in December, and for the fourth quarter as a whole, IP dropped at an annual rate of 11½ percent. Even this dismal fourth-quarter figure understates the pace of decline in activity; excluding the bounceback in aircraft production after the end of the machinists' strike at Boeing and the rebound in output after the September hurricanes, total production is estimated to have fallen 14 percent last quarter. In the past few months, the declines in output have become increasingly widespread across industries; the diffusion index of three-month changes in IP remained near a 28-year low last month. Furthermore, lower production pushed down December's factory operating rate to 70.2 percent, a rate that was 9.5 percentage points

**Selected Components of Industrial Production**  
(Percent change from preceding comparable period)

Component	Proportion 2008 (percent)	2008 <sup>1</sup>	2008		2008		
			Q3	Q4	Oct.	Nov.	Dec.
			Annual rate		Monthly rate		
<b>Total</b>	<b>100.0</b>	<b>-6.0</b>	<b>-8.9</b>	<b>-11.5</b>	<b>1.8</b>	<b>-1.3</b>	<b>-2.0</b>
Previous	100.0	...	-8.9	...	1.5	-6	...
Manufacturing	78.7	-7.7	-8.7	-16.2	.9	-2.2	-2.3
Ex. motor veh. and parts	73.6	-6.7	-8.8	-15.0	1.2	-2.2	-2.1
Ex. high-tech industries	69.3	-7.2	-9.2	-14.1	1.4	-2.0	-1.9
Mining	11.6	.5	-7.6	4.5	7.4	2.2	-1.6
Utilities	9.7	-1	-11.6	9.0	2.1	1.0	-1
<i>Selected industries</i>							
Energy	24.7	.6	-11.4	9.8	7.2	.9	-.6
High technology	4.3	-.5	-2.1	-29.3	-2.3	-5.8	-4.1
Computers	1.0	-6.2	-20.7	-29.4	-2.6	-2.9	-3.8
Communications equipment	1.3	3.4	-9.2	-6.5	.9	-3.0	-.6
Semiconductors <sup>2</sup>	2.0	-.6	13.4	-41.9	-4.2	-9.1	-6.9
Motor vehicles and parts	5.1	-22.2	-7.4	-35.3	-3.6	-2.5	-7.2
Aircraft and parts	2.3	-12.2	-27.3	-20.4	-5.8	21.4	15.9
<i>Total ex. selected industries</i>	63.6	-7.6	-7.6	-16.2	.5	-2.5	-2.8
Consumer goods	19.9	-3.3	-4.2	-5.6	.1	-.7	-1.7
Durables	3.6	-15.3	-13.6	-28.2	-1.5	-4.2	-2.5
Nondurables	16.3	-.7	-2.1	-.5	.4	.0	-1.5
Business equipment	6.4	-5.6	-1.0	-16.2	-1.7	-1.6	-2.2
Defense and space equipment	1.2	-2.9	-7.1	-2.3	2.0	.0	-1.1
Construction supplies	4.2	-11.2	-3.6	-26.2	-1.4	-4.6	-3.5
Business supplies	7.4	-8.0	-8.3	-14.4	.4	-2.2	-2.4
Materials	24.5	-11.0	-12.3	-23.7	1.7	-4.3	-4.0
Durables	12.8	-10.5	-6.7	-28.4	-2.2	-4.2	-4.6
Nondurables	11.7	-11.5	-17.9	-18.3	6.3	-4.3	-3.4

1. From fourth quarter of preceding year to fourth quarter of year shown.

2. Includes related electronic components.

... Not applicable.

Source: Federal Reserve, G.17 Statistical Release, "Industrial Production and Capacity Utilization."

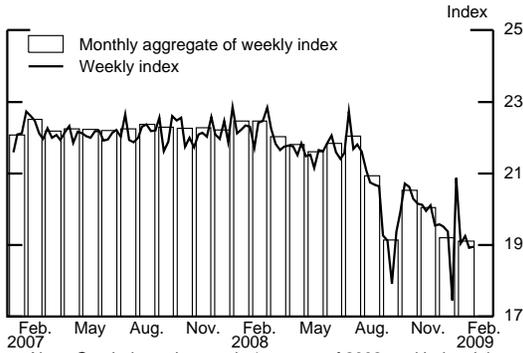
**Capacity Utilization**  
(Percent of capacity)

Sector	1972- 2007 average	1994- 95 high	2001- 02 low	2008				
				Q2	Q3	Q4	Nov.	Dec.
<b>Total industry</b>	<b>81.0</b>	<b>85.1</b>	<b>73.6</b>	<b>79.7</b>	<b>77.6</b>	<b>75.0</b>	<b>75.2</b>	<b>73.6</b>
Manufacturing	79.7	84.6	71.5	77.5	75.5	71.9	71.9	70.2
Mining	87.5	88.7	84.8	90.8	88.9	89.7	90.8	89.3
Utilities	86.8	93.9	84.6	85.6	82.6	84.0	84.3	84.0
<i>Stage-of-process groups</i>								
Crude	86.6	89.5	81.9	89.2	86.2	85.1	85.7	83.9
Primary and semifinished	82.2	88.2	74.6	79.8	77.4	74.2	74.1	72.1
Finished	77.7	80.4	69.9	76.0	74.5	72.0	72.4	71.4

Source: Federal Reserve, G.17 Statistical Release, "Industrial Production and Capacity Utilization."

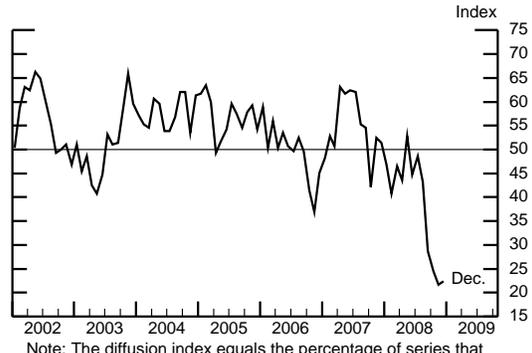
## Indicators of Industrial Activity

Weekly Production Index



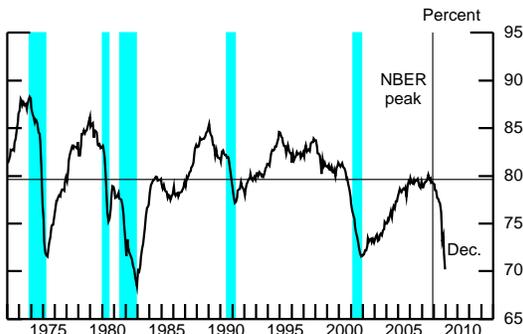
Note: One index point equals 1 percent of 2002 total industrial output.  
Source: Federal Reserve, G.17 Statistical Release, "Industrial Production and Capacity Utilization."

Manufacturing IP Diffusion Index



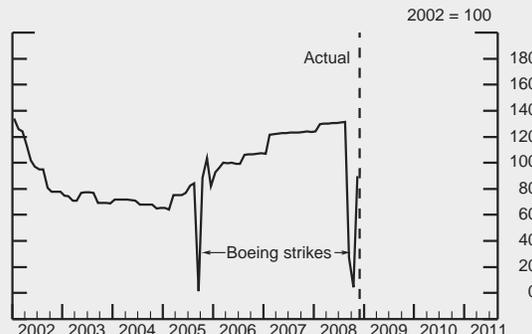
Note: The diffusion index equals the percentage of series that increased over 3 months plus one-half the percentage that were unchanged.  
Source: Federal Reserve, G.17 Statistical Release, "Industrial Production and Capacity Utilization."

Manufacturing Capacity Utilization



Note: Horizontal line is 1972-2007 average. Shaded bars indicate periods of business recession as defined by the National Bureau of Economic Research (NBER). The NBER peak is the last business cycle peak as defined by the NBER.  
Source: Federal Reserve, G.17 Statistical Release, "Industrial Production and Capacity Utilization."

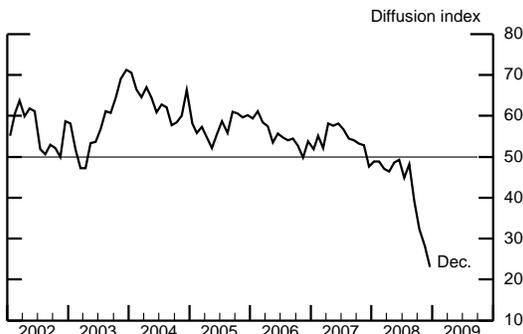
Boeing Commercial Aircraft Completions: Actual



Note: 1998 price-weighted index. Actual completions equal deliveries plus the change in the stock of finished aircraft.  
Source: Boeing.

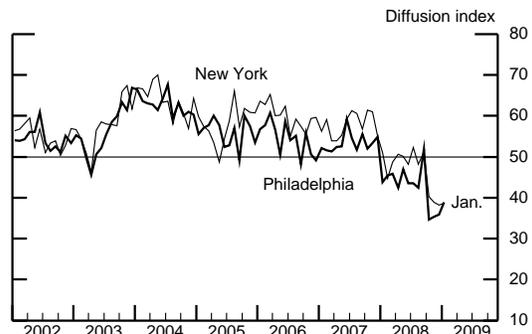
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ISM New Orders Diffusion Index



Note: The diffusion index equals the percentage of respondents reporting greater levels of new orders plus one-half the percentage of respondents reporting that new orders were unchanged.  
Source: Institute for Supply Management (ISM).

New Orders: FRB New York Survey and FRB Philadelphia Survey



Note: The diffusion index equals the percentage of respondents reporting greater levels of new orders plus one-half the percentage of respondents reporting that new orders were unchanged.  
Source: Federal Reserve.

below its 1972–2007 average and 1.3 percentage points below its trough in the 2001 downturn.

Light vehicle assemblies fell to an annual rate of 6.4 million units in December and averaged only 7.2 million units in the fourth quarter. The pace of production has dropped in each of the past three months, as automakers have struggled to align vehicle inventories with the low levels of demand; despite the production cuts, stocks of light vehicles increased in the fourth quarter and days' supply rose to almost 100 days, well above the industry norm. As a result, automakers recently slashed their already-modest assembly plans for the first quarter; the currently scheduled rate of 5.9 million units, if realized, will be the slowest pace of production since the first quarter of 1982 and will push the industry operating rate to under 45 percent.

The production of aircraft and parts bounced back in December after having been held down in the autumn by a strike and by disruptions related to a faulty component. The backlog of orders for Boeing aircraft remains enormous, which should support commercial aircraft production for several years. Nevertheless, Boeing recently announced job cuts of 4,500 nonproduction workers, and press reports indicate that some customers are deferring deliveries. As yet, however, cancellations have not increased significantly.

The output of high-technology goods posted a second consecutive decline in the fourth quarter, and losses were widespread across subcategories. Semiconductor production fell at an annual rate of more than 40 percent, with a particularly sizable drop in the output of microprocessors. Production of communications equipment contracted 6½ percent, and the output of computers declined further; information from International Data Corporation shows a general weakening in demand for both personal computers and servers.

The available indicators point to a further weakening in high-tech output in the near term. The months' supply of computers, communications equipment, and semiconductors has risen despite sizable cuts to production. For semiconductors, Intel's internal estimate for first-quarter revenue is consistent with another decline in microprocessor production, and recent projections from consultancies, such as Gartner and iSuppli, predict a marked decline in global chip sales in 2009. Orders for circuit boards have continued to trend down, on net, and suggest a weakening in production within the broader electronics sector. Data from the Semiconductor Equipment and Materials International association

**Production of Domestic Light Vehicles**  
(Millions of units at an annual rate except as noted)

Item	2008			2009	2008			
	Q2	Q3	Q4	Q1	Sept.	Oct.	Nov.	Dec.
U.S. production <sup>1</sup>	8.5	8.5	7.2	5.9	8.2	7.9	7.4	6.4
Autos	3.7	4.2	3.4	2.5	4.0	3.8	3.4	2.9
Light trucks	4.9	4.3	3.9	3.4	4.2	4.0	4.0	3.6
Days' supply <sup>2</sup>	72	76	98	n.a.	77	96	100	98
Autos	48	67	98	n.a.	68	87	103	96
Light trucks	94	84	99	n.a.	85	105	98	99
Inventories <sup>3</sup>	2.41	2.40	2.47	n.a.	2.40	2.45	2.46	2.47
Autos	0.78	0.96	1.14	n.a.	0.96	1.06	1.11	1.14
Light trucks	1.63	1.44	1.33	n.a.	1.44	1.39	1.36	1.33
Memo: U.S. production, total motor vehicles <sup>4</sup>	8.8	8.8	7.4	6.1	8.4	8.1	7.6	6.7

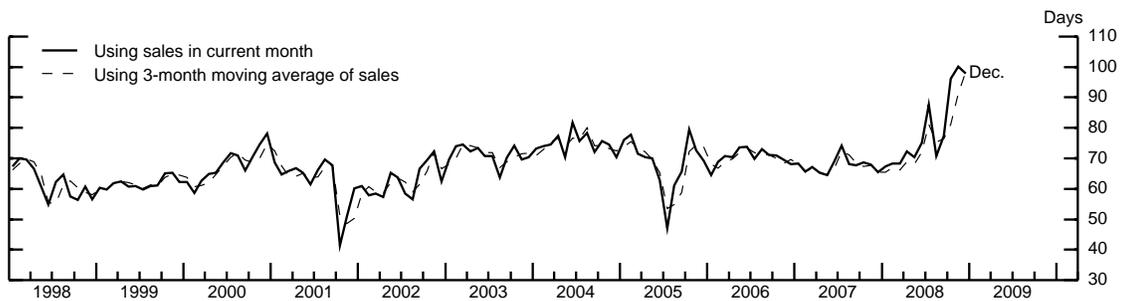
Note: FRB seasonals. Components may not sum to totals because of rounding.  
 1. Production rates for the first quarter of 2009 reflect the latest industry schedules.  
 2. Quarterly values are calculated with end-of-period stocks and average reported sales.  
 3. End-of-period stocks.  
 4. Includes medium and heavy trucks.  
 n.a. Not available.  
 Source: Ward's Communications.

**Inventories of Light Vehicles**



Source: Ward's Communications. Adjusted using FRB seasonals.

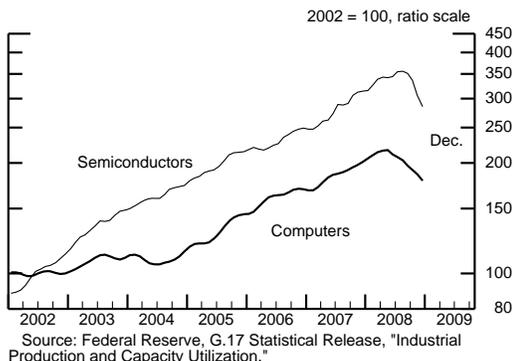
**Days' Supply of Light Vehicles**



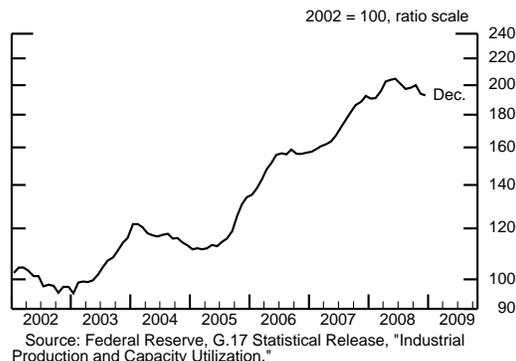
Source: Constructed from Ward's Communications data. Adjusted using FRB seasonals.

### Indicators of High-Tech Manufacturing Activity

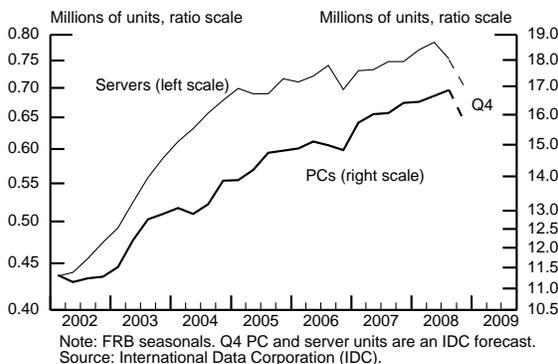
IP: Computers and Semiconductors



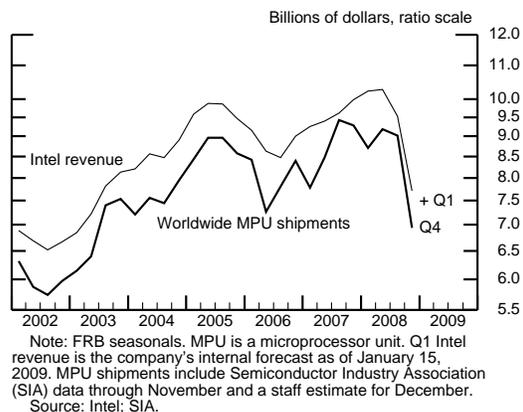
IP: Communications Equipment



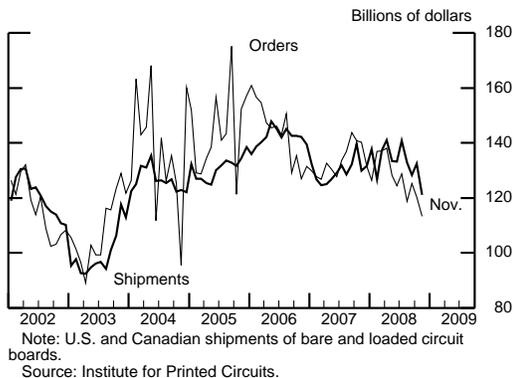
U.S. Personal Computer and Server Absorption



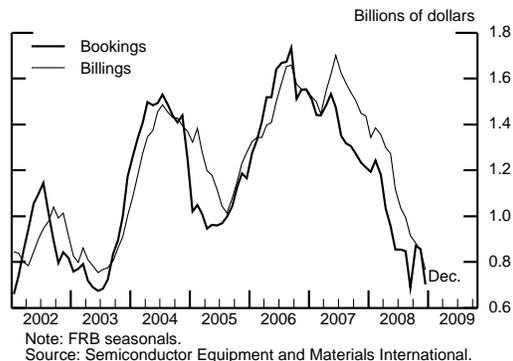
MPU Shipments and Intel Revenue



Circuit Board Orders and Shipments



Bookings and Billings for Semiconductor Equipment



show that bookings for the equipment used to fabricate semiconductors fell back in December, and orders remain well below year-earlier levels.

Outside of energy, motor vehicles and parts, aircraft and parts, and high-technology industries, production plunged at an annual rate of 16¼ percent in the fourth quarter, with sharp declines in each of the major market groups. The output of consumer goods decreased at a 5½ percent rate, with particular weakness in consumer durables, such as appliances, furniture, and carpeting. Business equipment production fell at a 16¼ percent rate in the fourth quarter, partly because of a sharp decline in farm, construction, and semiconductor fabricating machinery. The indexes for construction supplies and for materials both dropped at about a 25 percent rate, while production of business supplies fell at a 14½ percent rate.

The indicators of near-term manufacturing activity suggest that manufacturing output will continue to contract sharply over the next few months. For January, motor vehicle assemblies have been slashed, and the available weekly data on the output of appliances, lumber, and steel point to further declines in those categories. In addition, the various new orders diffusion indexes—which help predict near-term changes in industrial production—have been exceptionally weak. The Institute for Supply Management’s new orders diffusion index fell to the lowest level in its 60-year history, while the first readings on orders activity in January, from the New York and Philadelphia Federal Reserve Bank surveys, remained at very low levels.

### **Motor Vehicles**

Motor vehicle demand remains very weak. Sales of new automobiles and light trucks totaled only 10.3 million units at an annual rate in December, and industry contacts report that sales so far this month have continued to run close to that pace. Surveys of consumer attitudes toward car-buying conditions have shown some improvement over the past two months, as customer incentives were maintained at a generous level, and credit conditions, though still tight, appear to have improved.<sup>2</sup> Nonetheless, the surveys showed that many consumers remain concerned about the economic outlook and have postponed purchases of new vehicles.

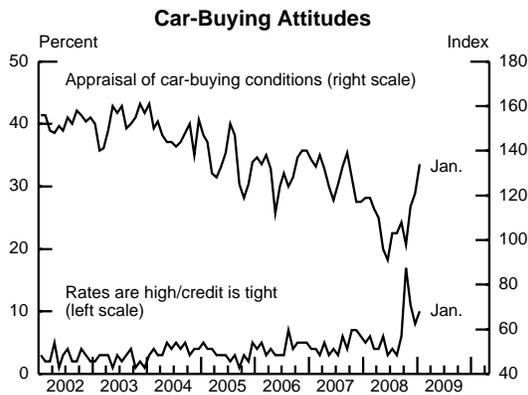
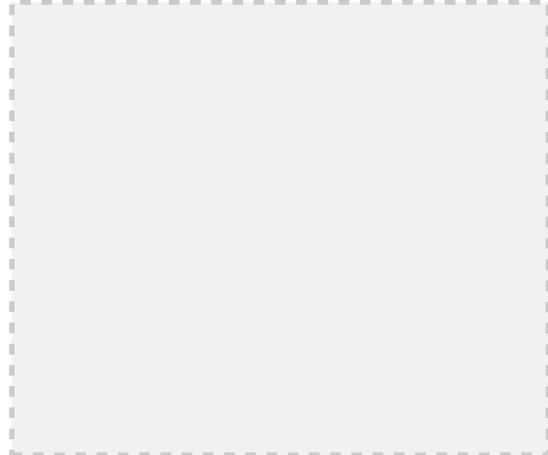
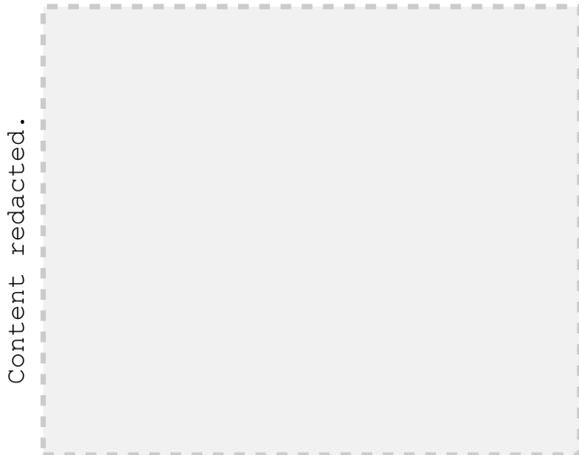
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<sup>2</sup> GMAC Financial Services expanded its lending programs on December 29, a move that followed the approval of its application to become a bank holding company. GMAC resumed writing loans for some customers with FICO scores below 720, a practice it had suspended in October, and it participated in a zero-interest loan promotion at GM in the final days of December.

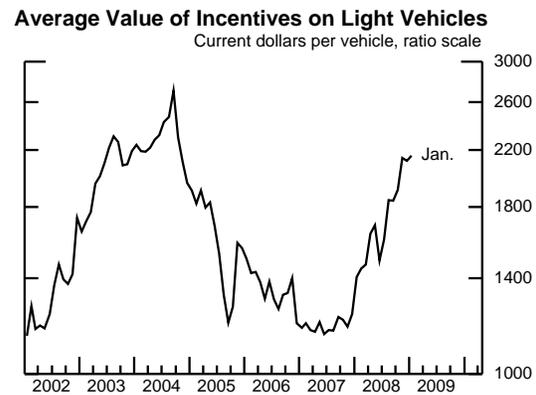
**Sales of Light Vehicles**  
(Millions of units at an annual rate; FRB seasonals)

Category	2008	2008					
		Q2	Q3	Q4	Oct.	Nov.	Dec.
Total	13.1	14.1	12.9	10.3	10.5	10.1	10.3
Autos	6.7	7.6	6.6	5.2	5.6	5.0	5.2
Light trucks	6.4	6.5	6.3	5.1	4.9	5.2	5.1
North American <sup>1</sup>	9.8	10.3	9.7	7.7	7.8	7.6	7.8
Autos	4.5	5.0	4.4	3.6	3.8	3.3	3.6
Light trucks	5.3	5.3	5.3	4.1	4.0	4.3	4.1
Foreign-produced	3.3	3.8	3.2	2.6	2.7	2.6	2.5
Autos	2.2	2.7	2.2	1.7	1.8	1.7	1.6
Light trucks	1.1	1.1	1.0	.9	.9	.9	.9
Memo: Detroit Three domestic market share (percent) <sup>2</sup>	47.6	45.9	46.7	47.5	46.0	47.8	48.9

Note: Components may not sum to totals because of rounding.  
 1. Excludes some vehicles produced in Canada that are classified as imports by the industry.  
 2. Domestic market share excludes sales of foreign brands affiliated with the Detroit Three.  
 Source: Ward's Communications. Adjusted using FRB seasonals.



Source: Reuters/University of Michigan Surveys of Consumers.



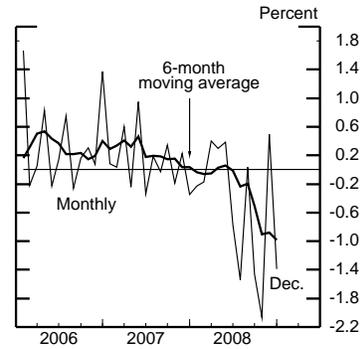
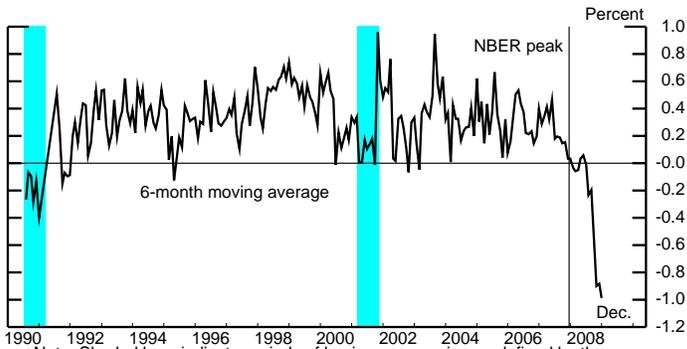
Note: Seasonally adjusted weighted average of customer cash rebate and the present value of interest rate reduction. January figure is based on data through January 18.  
 Source: J.D. Power and Associates.

**Real Personal Consumption Expenditures**  
(Percent change from preceding comparable period)

Category	2007	2008		2008		
		Q3	Q4	Oct.	Nov.	Dec.
		Annual rate		Monthly rate		
<b>Total real PCE<sup>1</sup></b>	<b>2.8</b>	<b>-3.8</b>	<b>-3.9</b>	<b>-0.6</b>	<b>.3</b>	<b>-0.6</b>
Motor vehicles	2.0	-26.6	-39.7	-9.5	-.9	-.2
Goods ex. motor vehicles	3.2	-7.4	-9.1	-1.4	.6	-1.5
Ex. energy	3.5	-6.5	-12.7	-1.6	-.5	-1.4
Services	2.6	-.1	n.a.	.3	.1	n.a.
Ex. energy	2.6	.9	n.a.	.2	.0	n.a.
Memo: Nominal retail control <sup>2</sup>	5.3	.4	-22.3	-2.9	-2.4	-3.0

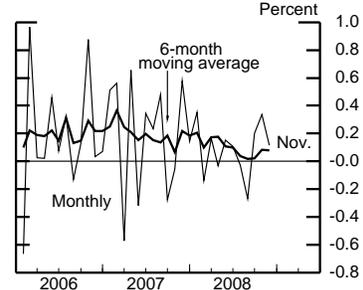
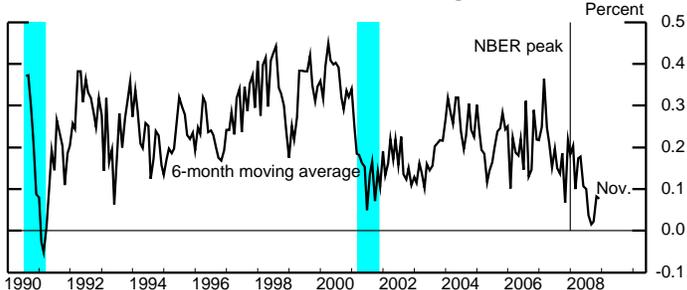
1. The values for Q4 and October, November, and December are staff estimates based on available data.  
 2. Total sales less outlays at building material and supply stores and automobile and other motor vehicle dealers.  
 n.a. Not available.  
 Source: U.S. Department of Commerce, Bureau of Economic Analysis.

**Change in Real PCE Goods**



Note: Shaded bars indicate periods of business recession as defined by the National Bureau of Economic Research (NBER). The NBER peak is the last business cycle peak as defined by the NBER.  
 Source: U.S. Department of Commerce, Bureau of Economic Analysis.

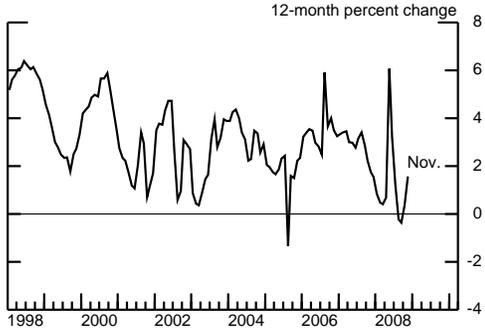
**Change in Real PCE Services**



Note: Shaded bars indicate periods of business recession as defined by the National Bureau of Economic Research (NBER). The NBER peak is the last business cycle peak as defined by the NBER.  
 Source: U.S. Department of Commerce, Bureau of Economic Analysis.

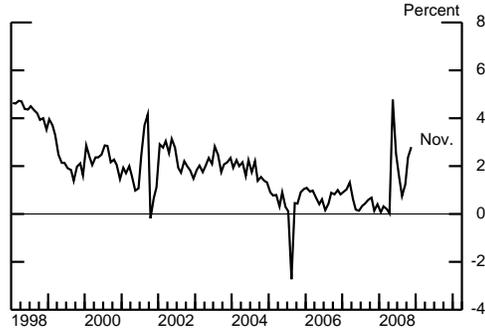
## Fundamentals of Household Spending

Change in Real Disposable Personal Income



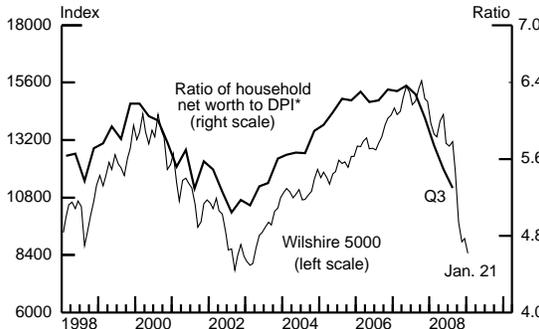
Note: Values for December 2004 and December 2005 exclude the effect on income of the one-time Microsoft dividend in December 2004.  
 Source: U.S. Department of Commerce, Bureau of Economic Analysis.

Personal Saving Rate



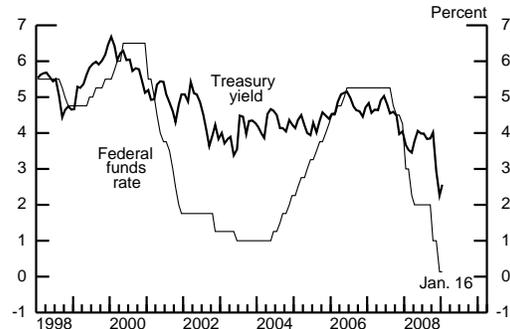
Note: The value for December 2004 excludes the effect on income of the one-time Microsoft dividend in that month.  
 Source: U.S. Department of Commerce, Bureau of Economic Analysis.

Household Net Worth and Wilshire 5000



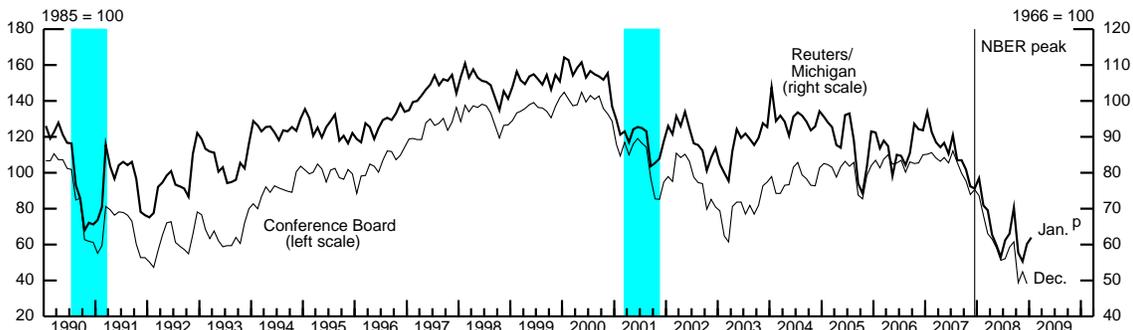
\* The value for 2004:Q4 excludes the effect on income of the one-time Microsoft dividend in December 2004.  
 Source: Federal Reserve Board; U.S. Department of Commerce, Bureau of Economic Analysis; *Wall Street Journal*.

Target Federal Funds Rate and 10-Year Treasury Yield



Source: Federal Reserve Board.

Consumer Confidence



Note: Shaded bars indicate periods of business recession as defined by the National Bureau of Economic Research (NBER). The NBER peak is the last business cycle peak as defined by the NBER.  
 p Preliminary.

Source: Reuters/University of Michigan Surveys of Consumers; Conference Board.

**Consumer Spending**

After having fallen at an annual rate of 3.8 percent in the third quarter, real personal consumption expenditures (PCE) apparently contracted further in the fourth quarter of last year, as consumers continued to grapple with sizable losses of wealth, weakening labor market conditions, and tight credit conditions. The latest data on retail sales and consumer prices suggest that real spending on goods excluding motor vehicles fell 1½ percent in December, more than reversing November's increase; over the last six months of the year, real outlays in this category are estimated to have fallen at an annual rate of 9¼ percent. Motor vehicle outlays edged down further in the final two months of the year after a sharp decline in October. Though services spending rose modestly in November—the last month of available data—its six-month moving average appears to have slowed, on net, over the course of last year. Early indicators of spending in January, including weekly chain store sales and industry reports, point to continued soft demand so far this quarter.

The fundamentals of consumer spending were generally weak through the end of the year. Household wealth contracted sharply; house prices continued to decline steadily in the final months of 2008, and equity prices dropped 30 percent between September and yearend. While households drew some relief from sharply lower energy prices in the fourth quarter, large-scale and widespread job losses likely pushed down nominal compensation and fueled greater uncertainty about income. Consistent with more cautious spending behavior, the personal saving rate rose further in November, to 2.8 percent, after hovering near zero earlier in the year. Meanwhile, the latest Senior Loan Officer Opinion Survey on Bank Lending Practices suggests that banks further tightened the terms and standards on consumer credit in recent months (see the appendix to the “Domestic Financial Developments” section). In line with these challenging conditions, consumer sentiment remained at very low levels through the end of 2008 and showed little improvement in early January.

**Housing**

Declines in housing activity steepened in the last two months of the year. Single-family housing starts dropped at an average monthly rate of 14 percent in November and December, much faster than the 4 percent average rate of decline seen in the first 10 months of the year. Adjusted permit issuance in this sector—a useful month-ahead indicator of starts—was 7 percent below the level of starts in December. In the multifamily sector, starts plunged 34 percent in the last two months of 2008. Although the contraction in multifamily starts accelerated in the second half of the year, the decline

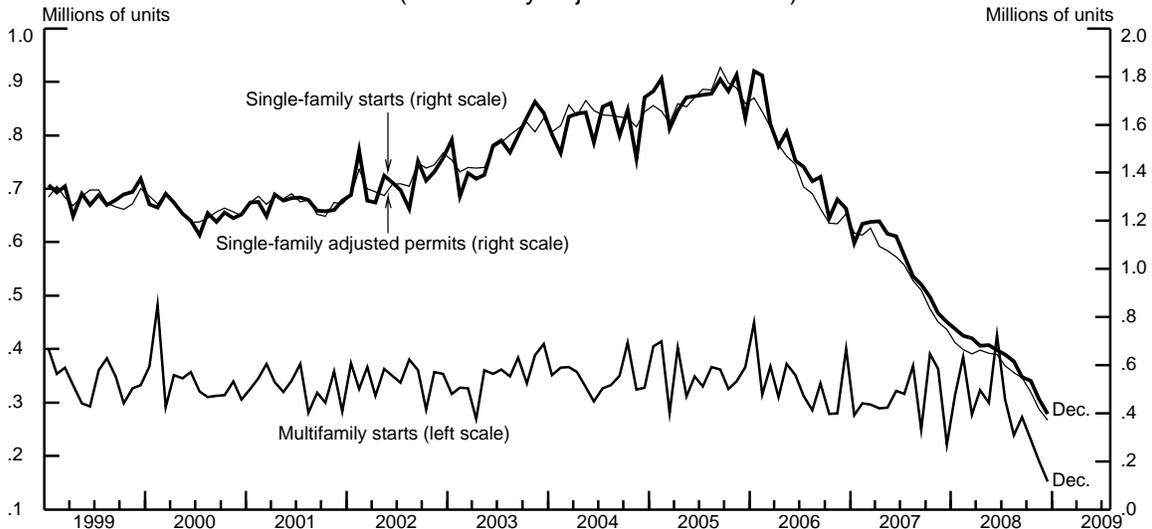
**Private Housing Activity**

(Millions of units, seasonally adjusted; annual rate except as noted)

Sector	2008	2008					
		Q2	Q3	Q4	Oct.	Nov.	Dec.
<i>All units</i>							
Starts	.90	1.03	.88	.66	.77	.65	.55
Permits	.89	1.03	.87	.63	.73	.62	.55
<i>Single-family units</i>							
Starts	.62	.68	.60	.47	.54	.46	.40
Permits	.57	.63	.56	.42	.47	.41	.36
Adjusted permits <sup>1</sup>	.58	.65	.57	.43	.49	.42	.37
Permit backlog <sup>2</sup>	.070	.089	.081	.070	.077	.071	.070
<i>New homes</i>							
Sales	n.a.	.52	.47	n.a.	.42	.41	n.a.
Months' supply <sup>3</sup>	n.a.	10.55	11.01	n.a.	11.51	11.03	n.a.
<i>Existing homes</i>							
Sales	n.a.	4.34	4.45	n.a.	4.37	4.02	n.a.
Months' supply <sup>3</sup>	n.a.	10.27	9.53	n.a.	9.43	10.54	n.a.
<i>Multifamily units</i>							
Starts	.282	.350	.273	.191	.231	.191	.152
Permits	.323	.400	.308	.215	.260	.201	.186
Permit backlog <sup>2</sup>	.053	.068	.062	.053	.059	.056	.053
<i>Mobile homes</i>							
Shipments	n.a.	.088	.080	n.a.	.070	.068	n.a.
<i>Condos and co-ops</i>							
Existing home sales	n.a.	.573	.577	n.a.	.540	.470	n.a.

1. Adjusted permits equal permit issuance plus total starts outside of permit-issuing areas.
  2. Number outstanding at end of period. Excludes permits that have expired or have been canceled, abandoned, or revoked. Not at an annual rate.
  3. At current sales rate; expressed as the ratio of seasonally adjusted inventories to seasonally adjusted sales. Quarterly and annual figures are averages of monthly figures.
- n.a. Not available.  
Source: Census Bureau.

**Private Housing Starts and Permits**  
(Seasonally adjusted annual rate)



Note: Adjusted permits equal permit issuance plus total starts outside of permit-issuing areas.  
Source: Census Bureau.

in activity from its peak is still a good bit smaller than the comparable decrease in single-family starts.

Housing demand also remains very weak, reflecting, in part, heightened uncertainty about employment and income prospects. Moreover, expectations of further house price declines are likely making many potential buyers reluctant to purchase homes. In November, the Census Bureau's measure of new single-family home sales fell 3 percent to a level 35 percent below its year-earlier level.

. Although the stock of unsold new single-family homes continued to move down in November to a level one-third below its peak in mid-2006, inventories remain extremely elevated relative to the current pace of sales.

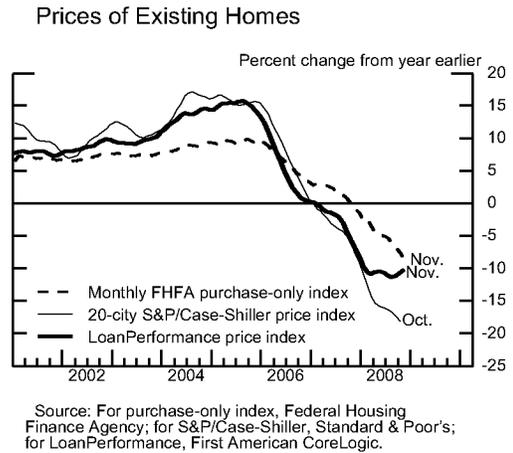
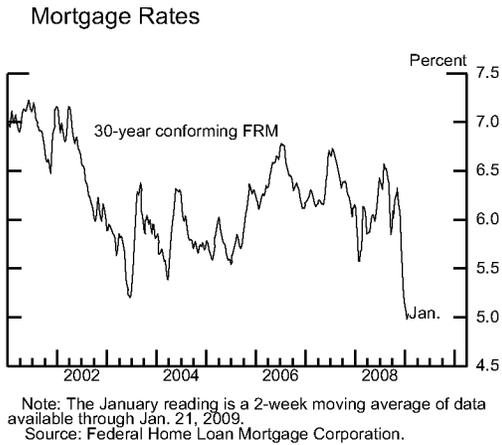
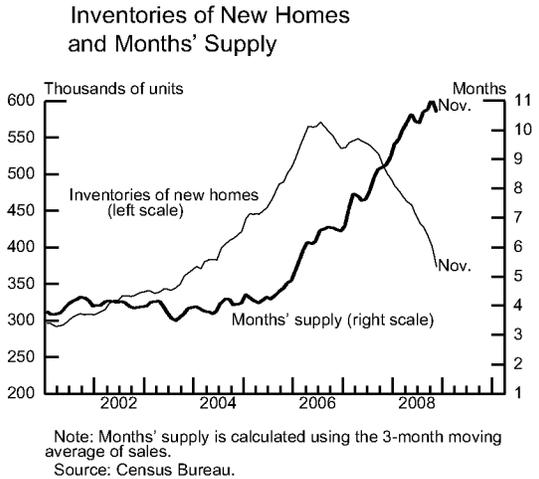
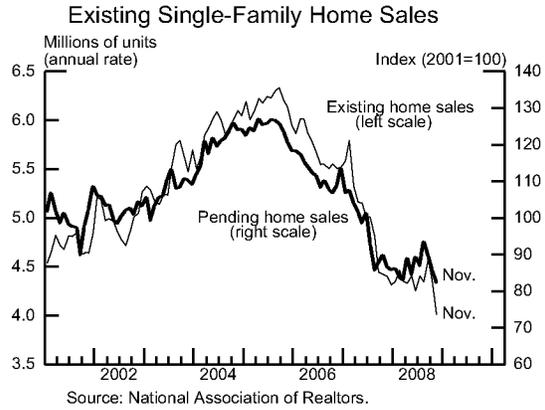
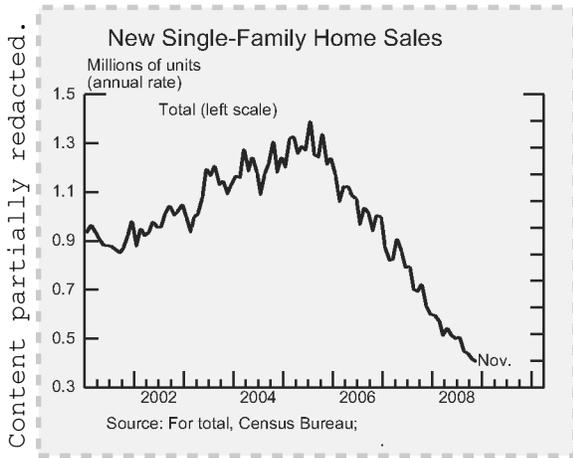
Sales of existing single-family homes dropped 8 percent in November and were 9 percent below their year-earlier level. Nevertheless, the decline in existing home sales over the 12 months ending in November was much smaller than the 35 percent contraction in new home sales. The comparative strength in existing home sales is partly attributable to increases in foreclosure-related and other distressed sales, which tend to take place at much lower prices than those of owner-occupied homes.<sup>3</sup>

Mortgage rates for prime borrowers moved somewhat lower recently. Rates for conforming 30-year fixed-rate mortgages fell another 35 basis points from early December to mid-January after a somewhat larger decline in late November. The nominal 30-year fixed mortgage rate has ranged between 5.0 percent and 5.1 percent since late December; these values are the lowest since the series began in 1971. In contrast, the market for nonconforming loans (that is, loans that cannot be purchased by Fannie Mae or Freddie Mac) remains severely impaired. Although the Federal Housing Administration (FHA) has offered an alternative source of mortgage financing for some nonprime and near-prime borrowers, the FHA's relatively strict lending standards and higher costs suggest that such lending is likely to have replaced only a small part of the reduction in credit from other sources.

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<sup>3</sup> Although the data on existing home sales include only sales handled by real estate agents, many foreclosure-related sales are included in the existing home sales statistics because banks frequently hire real estate agents to sell repossessed properties.

### Indicators of Single-Family Housing



House prices remain on a downward trajectory. The repeat-sales price index for existing single-family homes calculated by LoanPerformance (LP)—a recently developed index that is more representative than either the Federal Housing Finance Agency (FHFA) or S&P/Case-Shiller indexes—fell 10 percent over the 12 months ending in November.<sup>4</sup>

### **Equipment and Software**

Real equipment and software (E&S) investment contracted sharply toward the end of last year, and the declines appear to have encompassed all major spending categories.

Business spending on transportation equipment has been falling for more than a year, while spending on computers and software began to step down in the third quarter. More recently, incoming data on orders and shipments suggest that spending outside of these two categories likely declined noticeably in the fourth quarter after having been about flat over the first three quarters of the year.

Forward-looking indicators of real E&S spending portray a grim outlook. Monthly readings of overall business conditions—from both regional and national purchasing manager surveys—remain at extremely depressed levels. In addition, credit conditions remain tight: The latest Senior Loan Officer Opinion Survey indicates that many banks further tightened lending standards on commercial and industrial loans in recent months, and an increasing fraction of small businesses reported difficulty obtaining credit in the December NFIB survey. Corporate bond yields, and spreads over Treasury yields, have receded in recent weeks, but spreads remain at very high levels.

The steep decline in business outlays on transportation equipment continued into the fourth quarter. Business purchases of light vehicles fell considerably, though a boost in deliveries to daily rental companies pushed up sales in December. Sales of medium and heavy trucks moved down in December, and new orders dropped noticeably. Combined with lackluster volumes for freight shipping, the lower level of orders suggests that sales of medium and heavy trucks are likely to decline further in the near term. Turning to aircraft, although the machinists' strike and other production problems limited deliveries of Boeing's planes for much of the fourth quarter, deliveries rebounded in December and order books are full, an indication that domestic aircraft investment will likely pick up this quarter.

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<sup>4</sup> Unlike the FHFA index (formerly known as the OFHEO index, calculated by the Office of Federal Housing Enterprise Oversight), the LP index includes both conforming and nonconforming loans. In addition, the LP index has better geographic coverage than the S&P/Case-Shiller (CS) index. The LP and CS indexes showed similar movements from 2002 to 2007, but more recently the LP index has declined by less than the CS index.

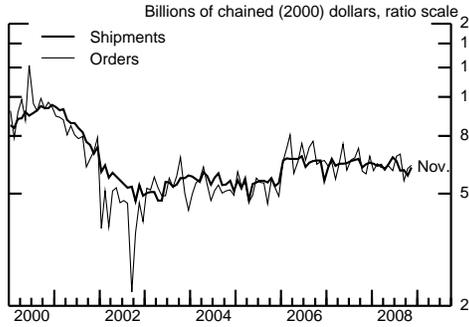
**Orders and Shipments of Nondefense Capital Goods**

(Percent change; seasonally adjusted current dollars)

Category	2008				
	Q2	Q3	Sept.	Oct.	Nov.
	Annual rate		Monthly rate		
Shipments	3.4	-8	1.1	-4.5	-1.0
Excluding aircraft	5.9	-3	1.7	-3.7	-2
Computers and peripherals	-19.0	-28.7	-1.3	-1.6	-7.5
Communications equipment	5.8	-10.7	.7	-4.5	6.5
All other categories	8.8	4.0	2.1	-3.8	-2
Orders	-6.8	-14.0	-1.1	-6.5	-1.5
Excluding aircraft	10.2	-5.2	-3.4	-6.7	3.9
Computers and peripherals	-5.3	-36.6	-2.5	-9.1	12.5
Communications equipment	.2	16.7	-19.4	10.4	2.6
All other categories	12.9	-3.5	-1.9	-7.9	3.3
Memo: Shipments of complete aircraft <sup>1</sup>	43.1	38.1	24.6	17.5	14.2

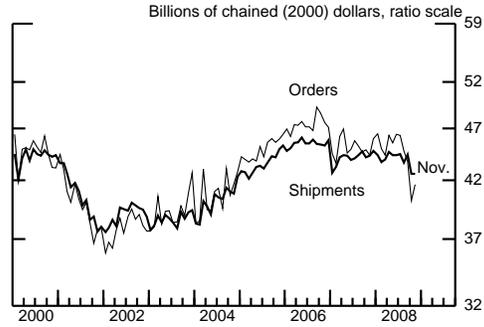
1. From Census Bureau, Current Industrial Reports; billions of dollars, annual rate.  
Source: Census Bureau.

**Communications Equipment**



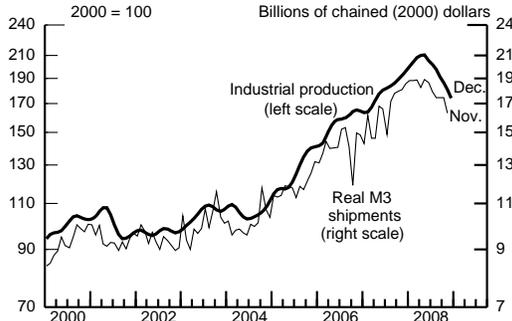
Note: Shipments and orders are deflated by a price index that is derived from the quality-adjusted price indexes of the Bureau of Economic Analysis and uses the producer price index for communications equipment for monthly interpolation.  
Source: Census Bureau.

**Non-High-Tech, Nontransportation Equipment**



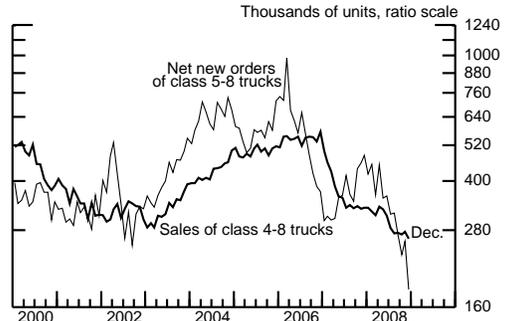
Note: Shipments and orders are deflated by the staff price indexes for the individual equipment types included in this category. Indexes are derived from the quality-adjusted price indexes of the Bureau of Economic Analysis.  
Source: Census Bureau.

**Computers and Peripherals**



Note: Ratio scales. Shipments are deflated by the staff price index for computers and peripheral equipment, which is derived from the quality-adjusted price indexes of the Bureau of Economic Analysis.  
Source: Census Bureau; FRB Industrial Production.

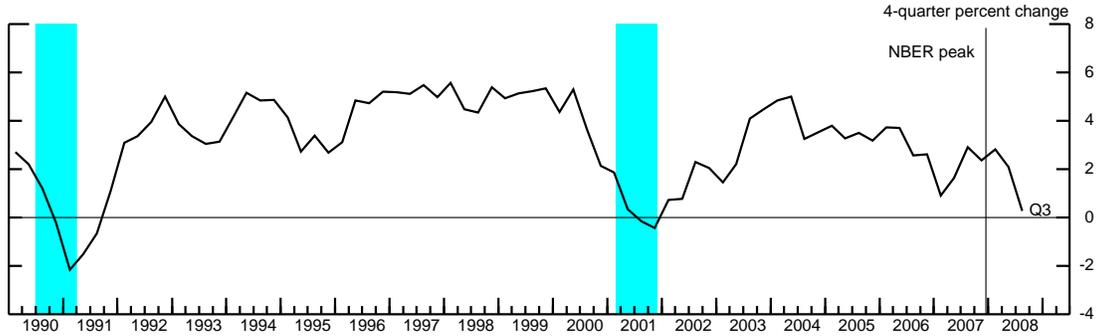
**Medium and Heavy Trucks**



Note: Annual rate, FRB seasonals.  
Source: For sales, Ward's Communications; for orders, ACT Research.

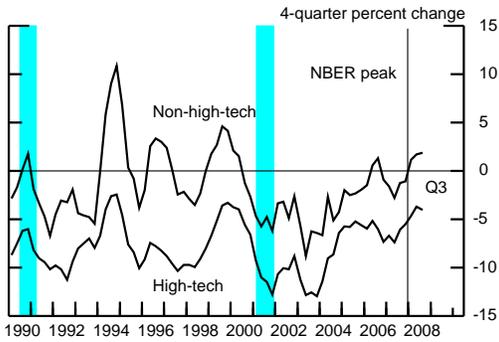
## Fundamentals of Equipment and Software Investment

Real Business Output



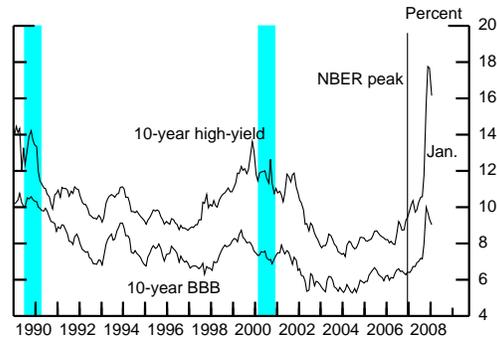
Note: Shaded bars indicate periods of business recession as defined by the National Bureau of Economic Research (NBER). The NBER peak is the last business cycle peak as defined by the NBER.  
 Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

User Cost of Capital



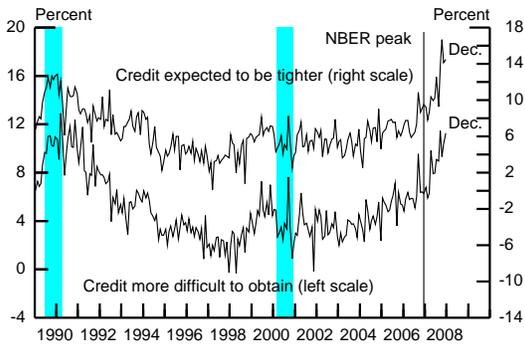
Source: Staff calculation.

Corporate Bond Yields



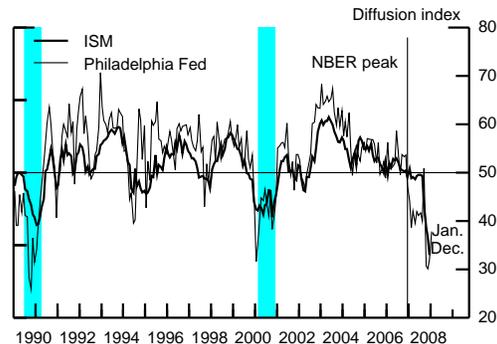
Note: End of month. January value as of Jan. 21.  
 Source: Merrill Lynch.

NFIB: Survey on Loan Availability



Note: Of borrowers who sought credit in the past three months, the proportion that reported (expected) more difficulty in obtaining credit less the proportion that reported (expected) more ease in obtaining credit. Seasonally adjusted.  
 Source: National Federation of Independent Business.

Surveys of Business Conditions



Source: Institute for Supply Management (ISM), Manufacturing ISM Report on Business; Philadelphia Fed Business Outlook Survey.

### Nonresidential Construction and Indicators

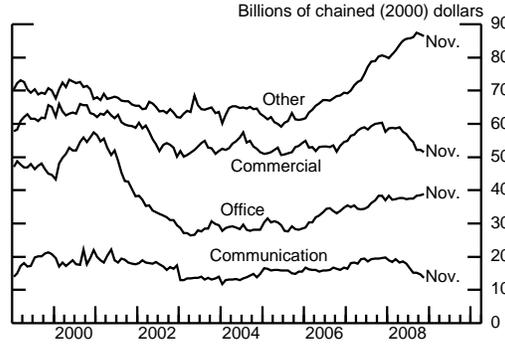
(All spending series are seasonally adjusted at an annual rate; nominal CPIP deflated by BEA prices through Q3 and by staff projection thereafter)

Total Structures



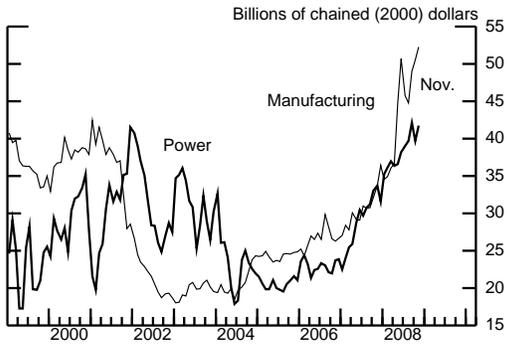
Source: Census Bureau.

Office, Commercial, Communication, and Other



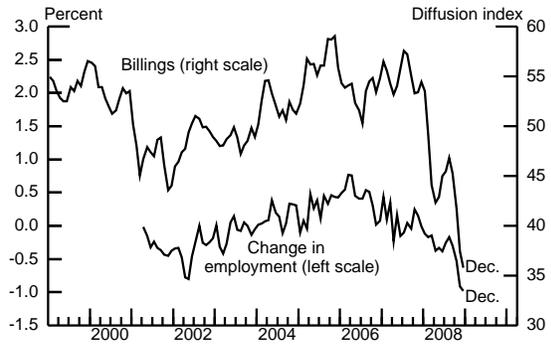
Note: Other consists of structures for religious organizations, education, lodging, amusement and recreation, transportation, and health care.  
Source: Census Bureau.

Manufacturing and Power



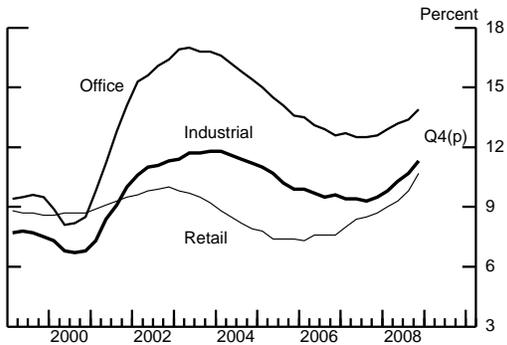
Source: Census Bureau.

Architectural Billings and Nonresidential Construction Employment



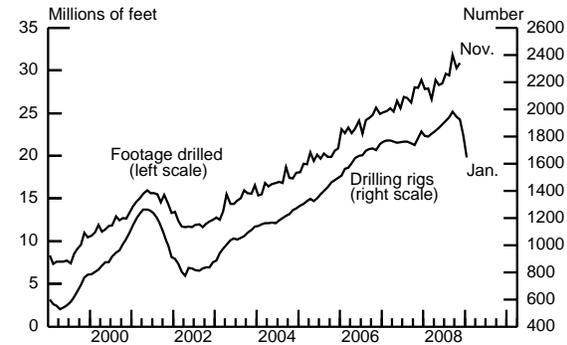
Note: Both series are 3-month moving averages. Employment consists of industrial, commercial, and specialty trade construction.  
Source: For billings, American Institute of Architects; for employment, U.S. Department of Labor, Bureau of Labor Statistics.

Vacancy Rates



Note: Industrial space includes both manufacturing structures and warehouses. Q4 values are preliminary.  
Source: Torto Wheaton Research.

Drilling and Mining Indicators



Note: The January readings for drilling rigs are based on data through January 16, 2009. Both series are seasonally adjusted by FRB staff.  
Source: For footage drilled, U.S. Department of Energy, Energy Information Agency; for drilling rigs, Baker Hughes.

In high-tech, business spending on computers declined sharply in the third quarter and appears to have fallen further in the fourth quarter. Shipments of computers and peripherals continued to recede in the fourth quarter, and, as noted earlier, the industrial production index for computers shrank again. Similarly, domestic demand for communications equipment likely dropped off, as imports plummeted in October and November. Other signs of weakening demand include layoff announcements and cuts to capital spending plans by a growing number of prominent manufacturers of high-tech products.

Spending on equipment other than high-tech and transportation appears to have fallen sharply in the fourth quarter after remaining about flat, on balance, over the first three quarters of last year. In October and November, imports of capital goods dropped back, and orders and shipments posted steep declines for many types of equipment; the most recent data show orders running well below shipments.

### **Nonresidential Construction**

Nominal construction expenditures on nonresidential buildings (that is, structures other than drilling and mining) rose 0.8 percent in November to a level 2 percent above the third-quarter reading. Real investment stagnated or declined for many types of buildings over the past six months. In contrast, construction in the power and manufacturing sectors continued to increase briskly in the second half of 2008, as spending related to petroleum refining (a subcategory of the manufacturing sector) and power generation and distribution responded to the surge in energy prices in the first half of 2008.<sup>5</sup>

Construction in these sectors remained elevated in the second half of the year even as energy prices plunged, but trade reports have indicated that some already-begun petroleum refinery renovations have been canceled or delayed.

Falling energy prices have also affected investment in drilling and mining structures. The latest data on drilling activity suggest that real spending on these structures—which also increased substantially in the first three quarters of 2008—flattened out in the fourth quarter and dropped sharply in January.

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<sup>5</sup> These expenditures may not significantly increase refining capacity in the next year or two. Because of the long time required to complete renovations to petroleum refineries, the new projects started in 2008 are not likely to come online for some time. Moreover, some of the recent construction may be aimed at maintaining existing capacity.

**Nonfarm Inventory Investment**  
(Billions of dollars; seasonally adjusted annual rate)

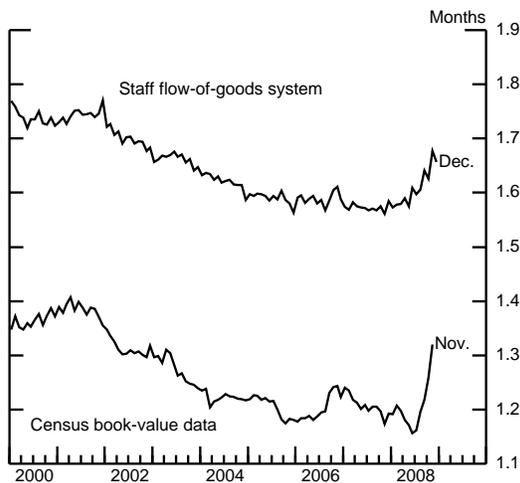
Measure and sector	2008					
	Q1	Q2	Q3	Sept.	Oct.	Nov.
<i>Real inventory investment</i> (chained 2000 dollars)						
<b>Total nonfarm business</b>	<b>-17.9</b>	<b>-55.1</b>	<b>-33.3</b>	<b>n.a.</b>	<b>n.a.</b>	<b>n.a.</b>
Motor vehicles	-15.3	-10.9	8.1	n.a.	n.a.	n.a.
Nonfarm ex. motor vehicles	-2.6	-44.2	-41.3	n.a.	n.a.	n.a.
<b>Manufacturing and trade ex. wholesale and retail motor vehicles and parts</b>						
Manufacturing	13.7	-26.0	-25.6	-45.7	1.0 <sup>e</sup>	n.a.
Wholesale trade ex. motor vehicles & parts	.0	4.9	10.4	-.4	-9.1 <sup>e</sup>	n.a.
Retail trade ex. motor vehicles & parts	-8.2	-3.1	-1.6	5.8	2.3 <sup>e</sup>	n.a.
<i>Book-value inventory investment</i> (current dollars)						
<b>Manufacturing and trade ex. wholesale and retail motor vehicles and parts</b>	<b>95.8</b>	<b>97.5</b>	<b>46.3</b>	<b>-58.6</b>	<b>-106.4</b>	<b>-101.1</b>
Manufacturing	60.5	39.3	10.7	-53.8	-39.7	-18.8
Wholesale trade ex. motor vehicles & parts	39.0	48.5	24.8	-21.0	-60.9	-38.9
Retail trade ex. motor vehicles & parts	-3.7	9.6	10.9	16.2	-5.9	-43.4

n.a. Not available.

<sup>e</sup> Staff estimate of real inventory investment based on revised book-value data.

Source: For real inventory investment, U.S. Dept. of Commerce, Bureau of Economic Analysis; for book-value data, Census Bureau.

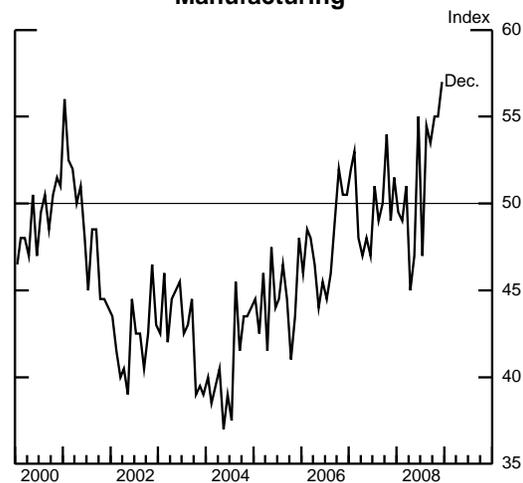
**Inventory Ratios ex. Motor Vehicles**



Note: Flow-of-goods system covers total industry ex. motor vehicles and parts, and inventories are relative to consumption. Census data cover manufacturing and trade ex. motor vehicles and parts, and inventories are relative to sales.

Source: Census Bureau; staff calculation.

**ISM Customers' Inventories: Manufacturing**



Note: A number above 50 indicates inventories are "too high."  
Source: Institute for Supply Management (ISM), Manufacturing ISM Report on Business.

Outside of energy-related construction, the fundamentals of nonresidential investment have deteriorated further and point to a contraction in real construction outlays in coming quarters. Vacancy rates continued to trend upward in the fourth quarter of 2008, and the January Senior Loan Officer Opinion Survey suggests that financing for new construction projects has become even more difficult to acquire. In addition, the architectural billings index fell to an extremely low level in the fourth quarter, and the declines in nonresidential construction employment steepened.

### **Business Inventories**

Firms continued to pare stocks of inventories through November, but with sales falling even more sharply, overhangs have developed in a number of areas. For the nonfarm sector as a whole, the ratio of book-value inventories to sales (excluding motor vehicles) continued its steep increase in October and November. Similarly, the overall inventory picture from the staff's flow-of-goods system has also deteriorated: Real inventories appear to have declined at a fairly brisk pace through December, but months' supply reached an elevated level at year-end, and this deterioration was widespread across categories. Finally, the Institute for Supply Management's index of customers' inventories has trended up over the past few months and remained well above 50 in December.

### **Federal Government Sector**

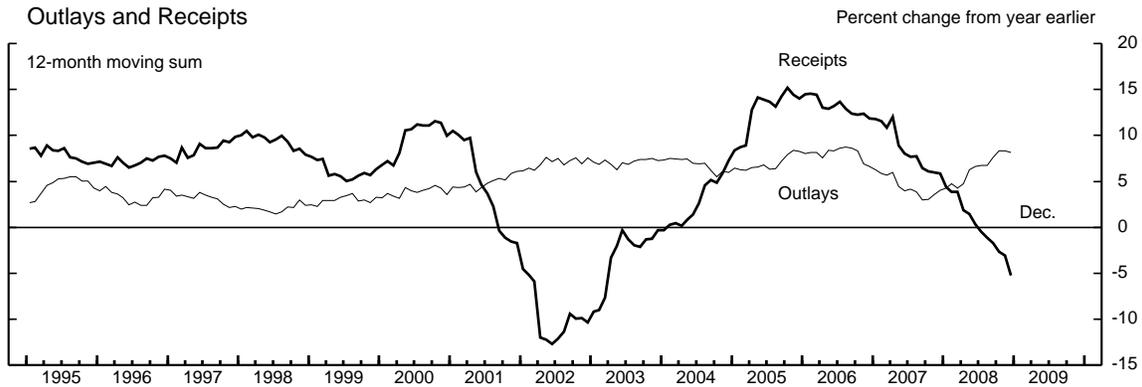
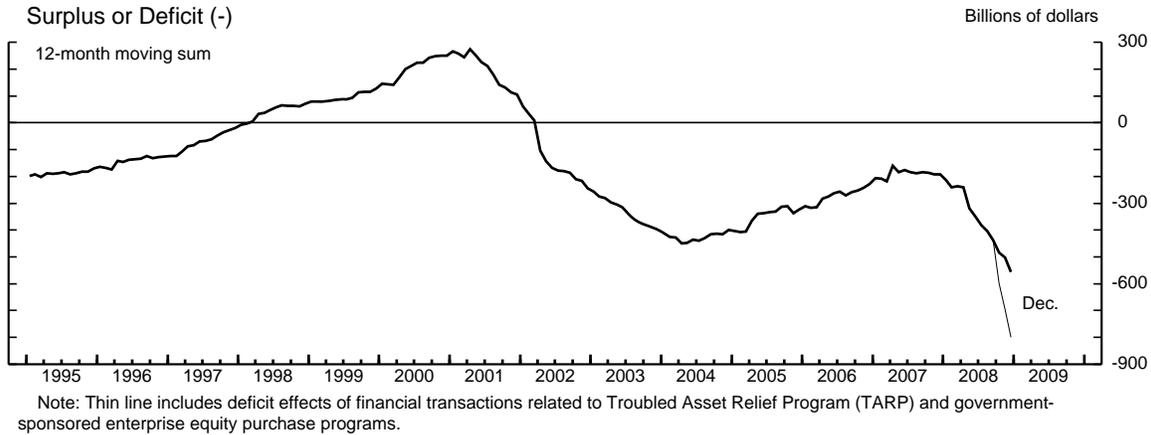
In the first three months of fiscal 2009, the deficit in the federal unified budget widened significantly.<sup>6</sup> Federal receipts dropped nearly 10 percent relative to the same year-earlier period. Personal tax payments fell 3½ percent, likely because of slowing gains in nominal personal income and lower bonus payments and realized capital gains. Corporate tax payments plummeted 45 percent relative to the same period a year earlier, which reflected the decline in business profits. After excluding financial transactions

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<sup>6</sup> The Treasury and the Office of Management and Budget (OMB) recorded a deficit of \$485 billion for the three months ending in December. This figure includes the cost of financial transactions related to the Troubled Asset Relief Program (TARP) and the housing-related government-sponsored enterprises (GSEs). (Treasury and OMB treat capital purchases under the TARP on a cash-flow basis and do not incorporate the GSEs as part of the federal government but instead score only the costs of financial transactions associated with placing the GSEs in conservatorship.)

On January 7, the Congressional Budget Office (CBO) released an update of its outlook for the federal budget. The CBO's budget projection includes the cost of the TARP, estimated as the net present value of all of the program's financial transactions. Also, CBO includes in the budget all of the outlays, revenues, and net financial losses associated with the GSEs, treating these institutions as part of the federal government. For fiscal 2009 as a whole, CBO projects a deficit of almost \$1.2 trillion, more than 8 percent of gross domestic product, or GDP. Using CBO's accounting methodology for the TARP and the GSEs, we estimate a deficit of \$300 billion for the three months ending in December.

**Federal Government Budget**  
(Unified basis; adjusted for payment-timing shifts and financial transactions; data from Monthly Treasury Statement)



**Recent Federal Outlays and Receipts**

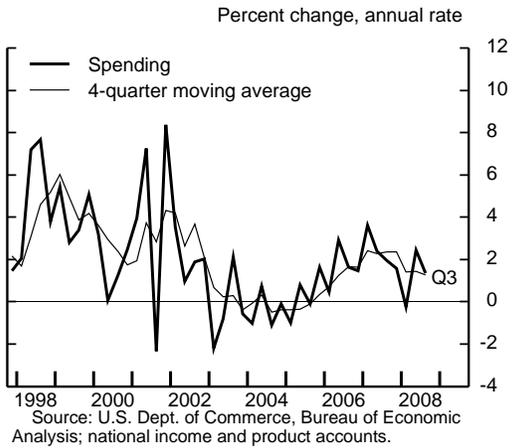
(Billions of dollars except as noted; adjusted for payment-timing shifts and financial transactions)

Function or source	October-December			12 months ending in December		
	2007	2008	Percent change	2007	2008	Percent change
<b>Outlays</b>						
Outlays	703.8	763.8	8.5	2,793.5	3,021.6	8.2
Net interest	62.1	54.7	-11.8	247.9	241.5	-2.6
National defense	161.0	177.0	10.0	573.9	640.5	11.6
Major transfers <sup>1</sup>	373.6	402.4	7.7	1,540.3	1,670.8	8.5
Other	107.1	129.7	21.1	431.4	468.7	8.7
<b>Receipts</b>						
Receipts	606.2	547.4	-9.7	2,600.4	2,464.9	-5.2
Individual income and payroll taxes	463.9	447.8	-3.5	2,018.1	1,980.4	-1.9
Corporate income taxes	92.5	50.4	-45.6	364.0	262.2	-28.0
Other	49.7	49.2	-1.0	218.2	222.3	1.8
<b>Surplus or deficit (-)</b>	-97.6	-216.4	...	-193.1	-556.7	...
<b>Memo:</b>						
Unadjusted surplus or deficit (-)	-106.8	-485.2	...	-187.9	-833.2	...

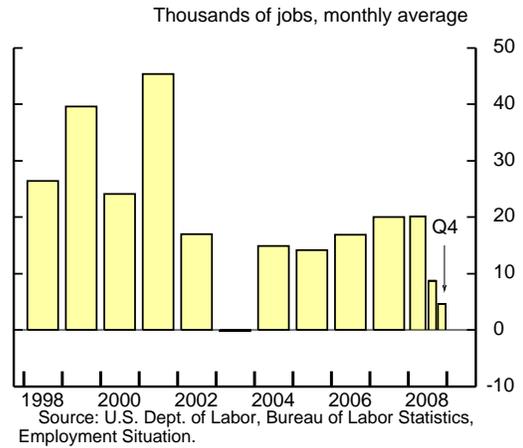
1. Includes Social Security, Medicare, Medicaid, and income security programs.  
... Not applicable.

## State and Local Indicators

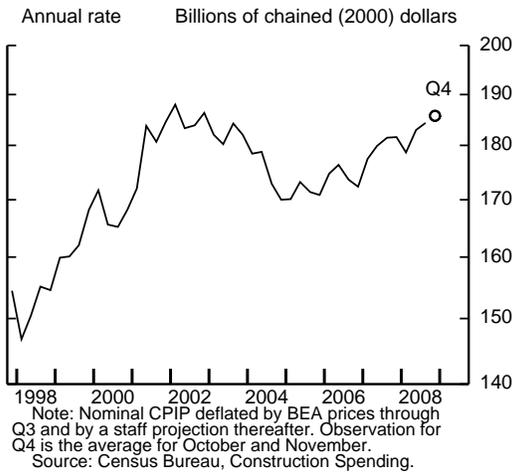
### Real Spending on Consumption & Investment



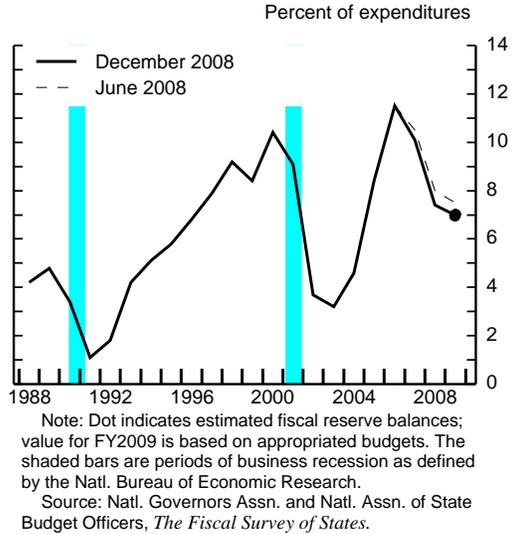
### Net Change in Employment



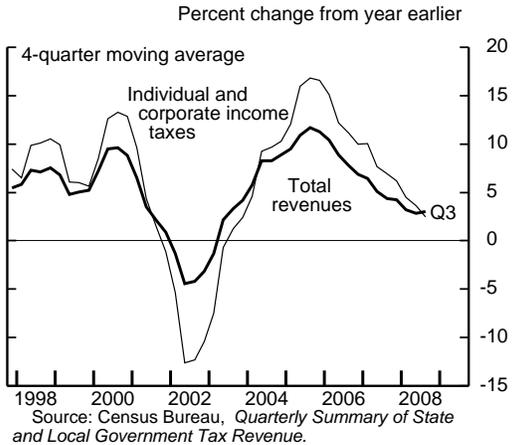
### Real Construction



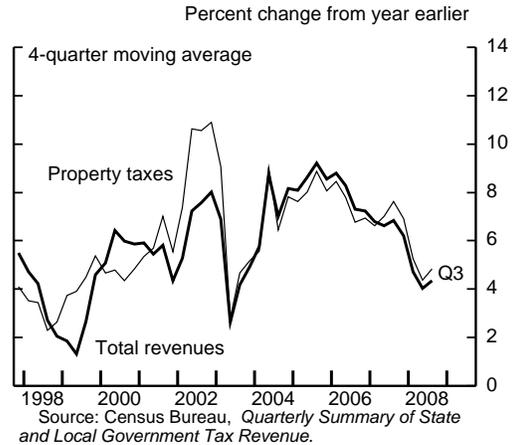
### State Fiscal Reserve Balances at Year-End



### State Revenues



### Local Revenues



(such as those associated with the Troubled Asset Relief Program and the conservatorship of the housing-related government-sponsored enterprises) and adjusting for payment-timing shifts, federal outlays rose 8½ percent in the past three months relative to the same year-earlier period. Weakening economic conditions boosted spending for low-income support programs, including unemployment insurance benefits and food stamps. Outlays for defense, federal health programs, and Social Security also posted sizable advances relative to a year earlier.

### **State and Local Government Sector**

Incoming data for the state and local government sector have been mixed. The pace of hiring by these governments slowed to an average of 5,000 per month in the fourth quarter, well below the average monthly gain of approximately 15,000 during the first three quarters of 2008 and consistent with reports of deteriorating fiscal conditions in many of these jurisdictions. In contrast, construction spending continued to expand at a fairly rapid clip: Average nominal construction expenditures in October and November were 2 percent (not at an annual rate) above the third-quarter level.

The National Association of State Budget Officers recently reported that the sluggish inflow of state revenues has generated an aggregate budget gap across all states of \$30 billion (equal to 4½ percent of annual expenditures).<sup>7</sup> However, fiscal conditions vary significantly across states: California alone accounts for one-third of the aggregate budget gap, whereas Texas, whose reserve funds have been boosted in recent years by oil-related tax revenue, is facing relatively less fiscal stress. According to press reports, many states are moving to close their budget gaps, largely by cutting spending and drawing down reserve funds.

### **Prices**

Consumer price inflation continued to slow in the fourth quarter. Overall personal consumption expenditure (PCE) prices are estimated to have fallen ½ percent in December and to have tumbled at an annual rate of 8¼ percent in the last three months of 2008.<sup>8</sup> Over the 12 months ending in December, PCE prices rose ¾ percent after an average annual increase of 3 percent over the previous four years. Excluding food and energy, PCE prices are estimated to have been essentially unchanged in December for the third consecutive month. The 12-month change in core PCE prices slowed to 1¾ percent in 2008 from 2¼ percent in 2007. The prices of goods at earlier stages of production, both for intermediate products and spot commodities, have declined sharply since July.

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<sup>7</sup> Annual expenditures refer to general fund expenditures only.

<sup>8</sup> PCE prices for December are staff estimates based on data from the CPI and PPI releases.

**Price Measures**  
(Percent change)

Measures	12-month change		3-month change		1-month change	
	Dec. 2007	Dec. 2008	Annual rate		Monthly rate	
			Sept. 2008	Dec. 2008	Nov. 2008	Dec. 2008
<i>CPI</i>						
<b>Total</b>	<b>4.1</b>	<b>.1</b>	<b>2.6</b>	<b>-12.7</b>	<b>-1.7</b>	<b>-.7</b>
Food	4.9	5.9	8.7	1.4	.2	-.1
Energy	17.4	-21.3	-4.9	-76.6	-17.0	-8.3
<b>Ex. food and energy</b>	<b>2.4</b>	<b>1.8</b>	<b>2.7</b>	<b>-.3</b>	<b>.0</b>	<b>.0</b>
Core goods	.1	-.6	1.4	-3.4	-.2	-.3
Core services	3.3	2.7	3.2	1.0	.1	.1
Shelter	3.1	1.9	2.3	1.1	.2	.1
Other services	3.6	3.7	4.5	.9	.0	.2
Chained CPI (n.s.a.) <sup>1</sup>	3.7	-.5	...	...	...	...
Ex. food and energy <sup>1</sup>	2.1	1.3	...	...	...	...
<i>PCE prices</i> <sup>2</sup>						
<b>Total</b>	<b>3.5</b>	<b>.7</b>	<b>2.5</b>	<b>-8.2</b>	<b>-1.1</b>	<b>-.5</b>
Food and beverages	4.6	6.1	9.1	3.0	.3	.0
Energy	18.7	-23.4	-4.6	-78.2	-17.7	-9.0
<b>Ex. food and energy</b>	<b>2.3</b>	<b>1.7</b>	<b>2.0</b>	<b>-.1</b>	<b>.0</b>	<b>.0</b>
Core goods	-.3	-.3	1.2	-2.7	-.2	-.3
Core services	3.3	2.4	2.3	.9	.1	.1
Housing services	3.1	2.2	2.3	1.6	.2	.1
Other services	3.4	2.5	2.3	.6	.0	.1
Core market-based	1.9	1.6	2.3	.0	.0	.0
Core non-market-based	4.0	2.0	.9	-.3	-.1	.1
<i>PPI</i>						
<b>Total finished goods</b>	<b>6.2</b>	<b>-.9</b>	<b>-.4</b>	<b>-24.3</b>	<b>-2.2</b>	<b>-1.9</b>
Food	7.6	3.7	3.4	-6.4	.0	-1.5
Energy	17.8	-20.3	-17.2	-75.7	-11.2	-9.3
<b>Ex. food and energy</b>	<b>2.0</b>	<b>4.3</b>	<b>5.9</b>	<b>2.9</b>	<b>.1</b>	<b>.2</b>
Core consumer goods	2.4	4.5	6.1	2.9	.1	.3
Capital equipment	1.4	4.0	5.6	2.9	.1	.2
Intermediate materials	7.1	-1.7	1.2	-39.7	-4.3	-4.2
Ex. food and energy	3.3	3.2	12.8	-24.6	-2.3	-3.0
Crude materials	19.8	-25.0	-46.2	-79.4	-12.5	-5.3
Ex. food and energy	15.6	-24.3	-27.8	-82.5	-20.4	-2.2

1. Higher-frequency figures are not applicable for data that are not seasonally adjusted (n.s.a.).

2. PCE prices in December 2008 are staff estimates.

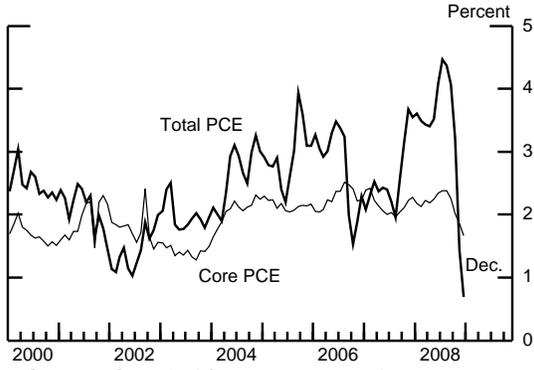
... Not applicable.

Source: For consumer price index (CPI) and producer price index (PPI), U.S. Dept. of Labor, Bureau of Labor Statistics; for personal consumption expenditures (PCE), U.S. Dept. of Commerce, Bureau of Economic Analysis.

### Consumer Prices

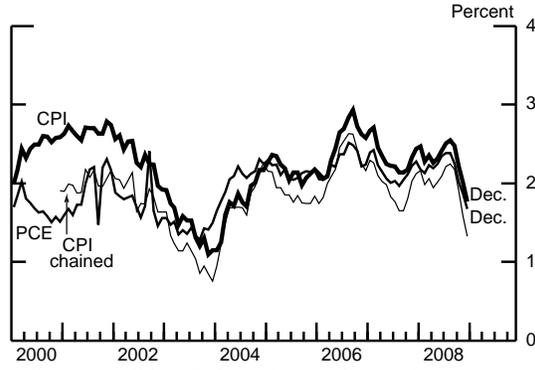
(12-month change except as noted; PCE prices in December are staff estimates.)

PCE Prices



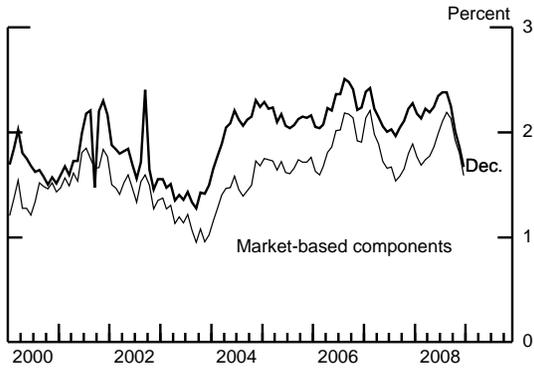
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

CPI and PCE ex. Food and Energy



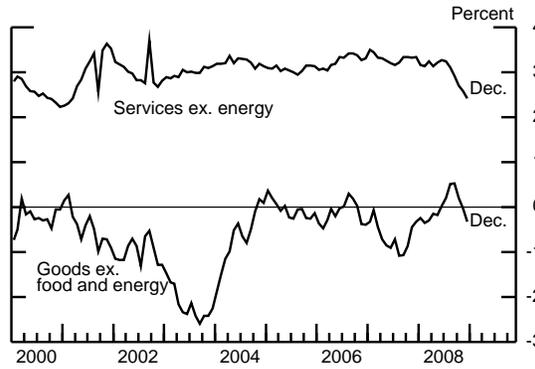
Source: For CPI, U.S. Dept. of Labor, Bureau of Labor Statistics; for PCE, U.S. Dept. of Commerce, Bureau of Economic Analysis.

PCE excluding Food and Energy



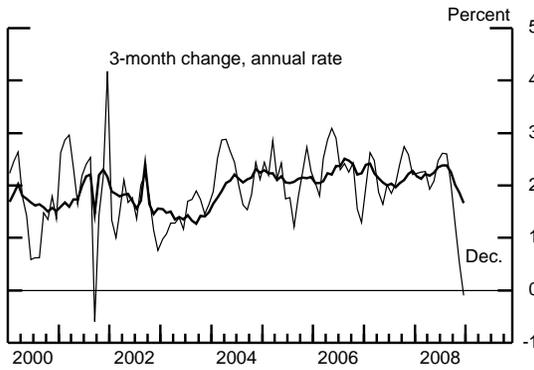
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

PCE Goods and Services



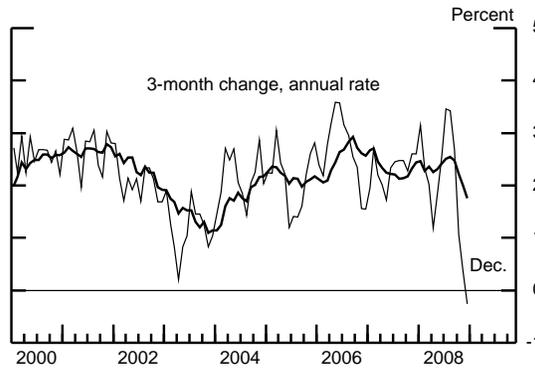
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

PCE excluding Food and Energy



Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

CPI excluding Food and Energy

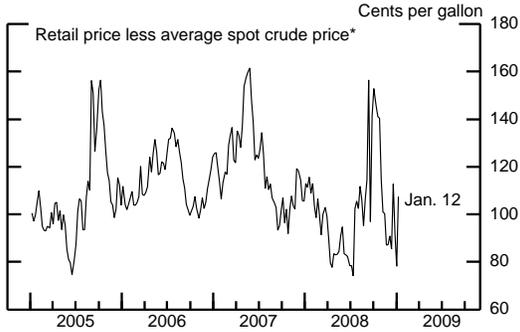


Source: U.S. Dept. of Labor, Bureau of Labor Statistics.

### Energy and Food Price Indicators

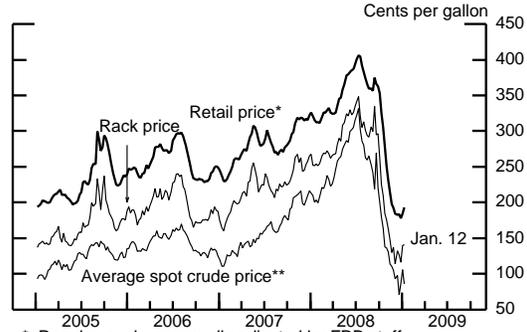
(Data from U.S. Department of Energy, Energy Information Administration except as noted)

Total Gasoline Margin



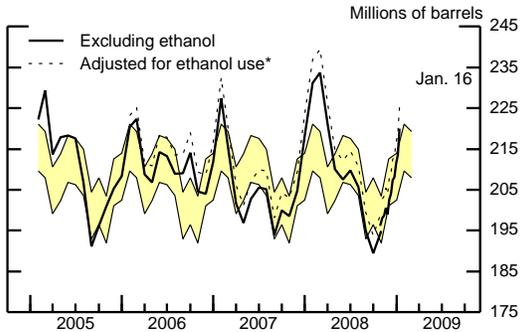
\* Regular grade seasonally adjusted by FRB staff, less average spot crude price: 60% West Texas intermediate, 40% Maya heavy crude. Includes gasoline taxes.

Gasoline Price Decomposition



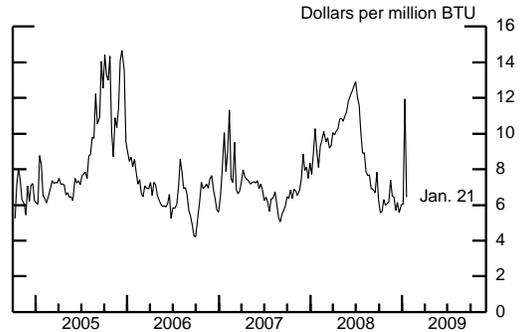
\* Regular grade seasonally adjusted by FRB staff.  
\*\* 60% West Texas intermediate, 40% Maya heavy crude.

Gasoline Inventories



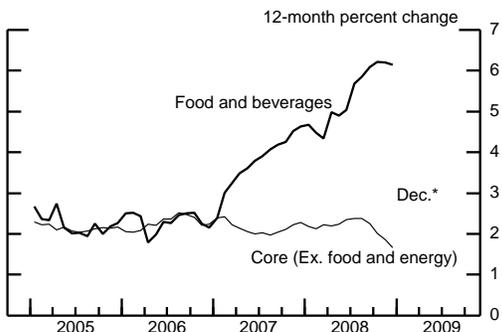
Note: Shaded region is average historical range as calculated by U.S. Dept. of Energy. Monthly data through October 2008, weekly data thereafter.  
\* Adjustment for approximate amount of fuel ethanol to be added to the gasoline blendstock (RBOB) component of inventories; estimated by FRB staff.

Natural Gas Prices



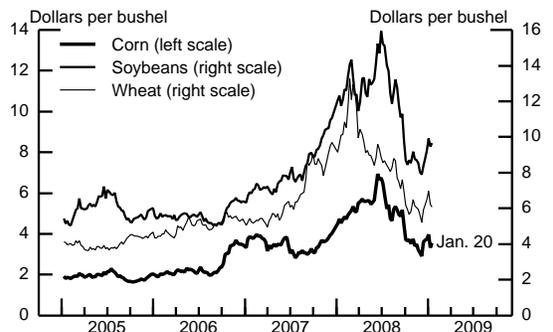
Note: National average spot price.  
Source: Bloomberg.

PCE: Food and Core Prices



\*Staff estimate.  
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

Spot Agricultural Commodity Prices



Source: Commodity Research Bureau.

Consumer energy prices began to move down in August and are estimated to have dropped 9 percent in December after having plunged 18 percent in November. The drop in energy prices during the second half of last year largely reflected the pass-through of falling crude oil prices to gasoline prices. Crude prices have shown little trend since the middle of December, and the latest survey readings suggest a small increase in retail gasoline prices in January.

Consumer food price increases began to moderate toward the end of last year. Over the past three months, consumer food prices increased at an annual rate of 3 percent, considerably less than the 9 percent rise posted over the previous three months, albeit still well above the rate of change in other consumer prices. Agricultural commodity prices, as measured by the Commodity Research Bureau (CRB) index of spot foodstuffs, have declined substantially since July, largely reflecting flagging demand (both at home and abroad) for domestic agricultural commodities. Although farm prices have turned up a touch since the December Greenbook, this rise is mainly attributable to weather-related concerns about the Latin American harvest rather than to strengthening demand.

PCE prices excluding food and energy also decelerated sharply over the final three months of 2008. The deceleration was fairly widespread across categories, although it was particularly steep among goods (especially motor vehicles and apparel) and the more erratic services categories (especially lodging away from home and imputed banking services). These recent soft price readings have been associated with heavy discounting in an environment of weak demand and excess inventories, as well as lessening cost pressures from energy, other materials, and imports.

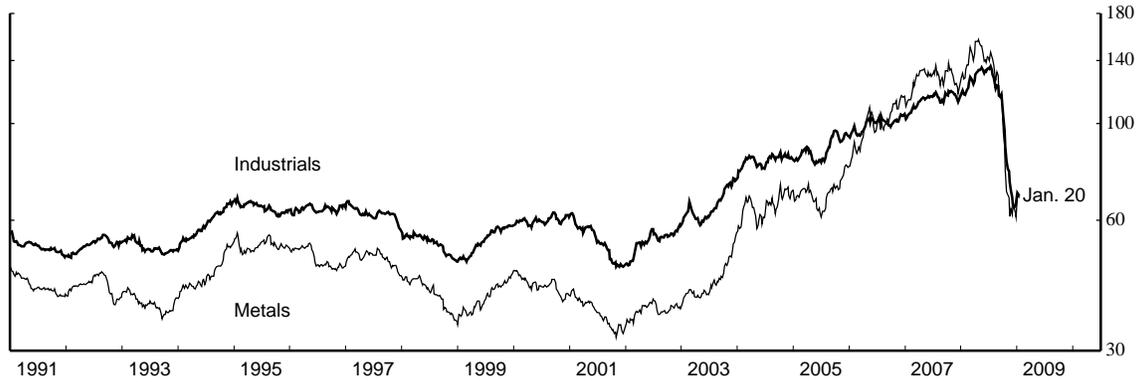
Prices at earlier stages of processing have also retreated in recent months. After rising rapidly during the first nine months of the year, the producer price index for core intermediate materials tumbled at an annual rate of 25 percent in the last three months of 2008. The recent drop in intermediate materials prices likely reflected some pass-through of a precipitous decline in commodity prices in the second half of last year. Although commodity prices have moved up somewhat of late, the *Journal of Commerce* index of industrial materials prices is nonetheless 41 percent below its level of 12 months earlier, while the CRB index of spot industrials is 32 percent lower.

Near-term inflation expectations in the Reuters/University of Michigan survey have declined considerably in recent months. The preliminary January reading of median expected inflation over the next 12 months was 2.0 percent, up a bit from December's reading but substantially below its peak of 5.2 percent in May. Meanwhile, median

## Commodity Price Indexes

Journal of Commerce

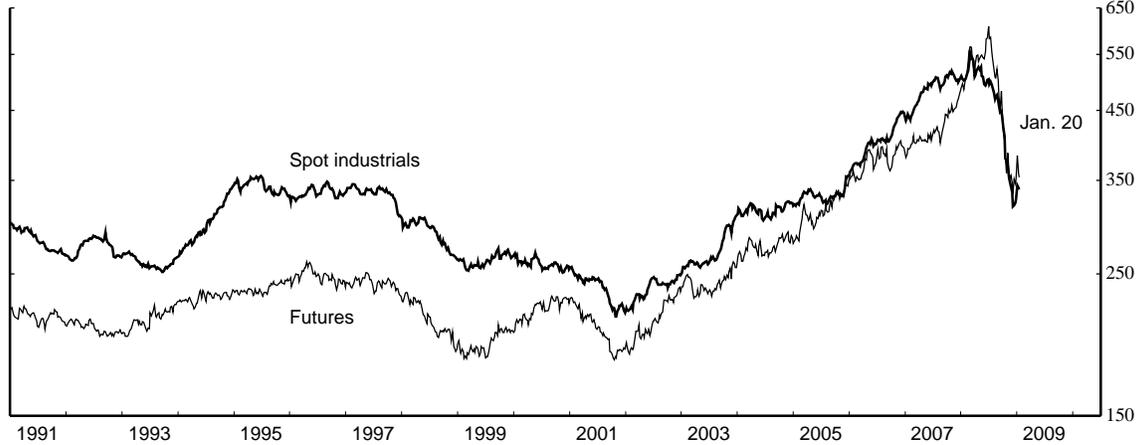
Ratio scale, 2006 = 100



Note: The *Journal of Commerce* (JOC) industrial price index is based almost entirely on industrial commodities, with a small weight given to energy commodities. Copyright for JOC data is held by CIBCR, 1994.

Commodity Research Bureau

Ratio scale, 1967 = 100



Note: The Commodity Research Bureau (CRB) spot industrials index consists entirely of industrial commodities, excluding energy. The CRB futures index gives about a 60 percent weight to food commodities and splits the remaining weight roughly equally among energy commodities, industrial commodities, and precious metals.

### Selected Commodity Price Indexes (Percent change)

Index	2007 <sup>1</sup>	12/18/07 to 12/9/08 <sup>2</sup>	12/9/08 <sup>2</sup> to 1/20/09	52-week change to 1/20/09
JOC industrials	7.6	-42.1	4.8	-41.8
JOC metals	2.1	-45.3	5.0	-46.8
CRB spot industrials	11.1	-36.0	6.3	-32.4
CRB spot foodstuffs	25.5	-18.9	8.6	-14.0
CRB futures	18.2	-28.6	6.0	-27.0

1. From the last week of the preceding year to the last week of the year indicated.

2. December 9, 2008, is the Tuesday preceding the publication of the December Greenbook.

**Broad Measures of Inflation**

(Percent change, Q3 to Q3)

Measure	2005	2006	2007	2008
<i>Product prices</i>				
GDP price index	3.4	3.2	2.5	2.6
Less food and energy	3.2	3.2	2.3	2.2
Nonfarm business chain price index	3.5	3.1	1.8	2.4
<i>Expenditure prices</i>				
Gross domestic purchases price index	3.9	3.3	2.4	4.1
Less food and energy	3.1	3.1	2.3	2.4
PCE price index	3.2	2.9	2.2	4.3
Less food and energy	2.1	2.5	2.0	2.3
PCE price index, market-based components	3.1	2.7	2.0	4.5
Less food and energy	1.7	2.1	1.6	2.1
CPI	3.8	3.3	2.4	5.3
Less food and energy	2.1	2.8	2.1	2.5
Chained CPI	3.4	3.1	2.0	4.6
Less food and energy	1.8	2.6	1.7	2.2
Median CPI	2.4	3.1	3.0	3.3
Trimmed mean CPI	2.5	2.8	2.5	3.5
Trimmed mean PCE	2.4	2.9	2.4	2.7

Source: For CPI, U.S. Dept. of Labor, Bureau of Labor Statistics; for all else, U.S. Dept. of Commerce, Bureau of Economic Analysis.

**Surveys of Inflation Expectations**

(Percent)

Period	Actual CPI inflation <sup>1</sup>	Reuters/Michigan Survey				Professional forecasters (10 years) <sup>4</sup>	
		1 year <sup>2</sup>		5 to 10 years <sup>3</sup>		CPI	PCE
		Mean	Median	Mean	Median		
2007:Q1	2.4	3.6	3.0	3.4	2.9	2.4	2.0
Q2	2.7	4.2	3.3	3.5	3.0	2.4	2.0
Q3	2.4	4.1	3.2	3.5	3.0	2.4	2.1
Q4	4.0	4.1	3.3	3.3	2.9	2.4	2.1
2008:Q1	4.1	4.2	3.8	3.3	3.0	2.5	2.2
Q2	4.4	6.4	5.0	3.8	3.3	2.5	2.2
Q3	5.3	5.4	4.7	3.6	3.1	2.5	2.2
Q4	1.6	3.0	2.8	2.9	2.8	2.5	2.2
2008:Sept.	4.9	4.6	4.3	3.3	3.0	...	...
Oct.	3.7	4.3	3.9	3.1	2.9	...	...
Nov.	1.1	2.9	2.9	3.1	2.9	2.5	2.2
Dec.	.1	1.7	1.7	2.6	2.6	...	...
2009:Jan.	n.a.	2.5	2.0	3.7	3.0	...	...

1. Percent change from the same period in the preceding year.

2. Responses to the question, By about what percent do you expect prices to go up, on average, during the next 12 months?

3. Responses to the question, By about what percent per year do you expect prices to go up, on average, during the next 5 to 10 years?

4. Median CPI and PCE price projections.

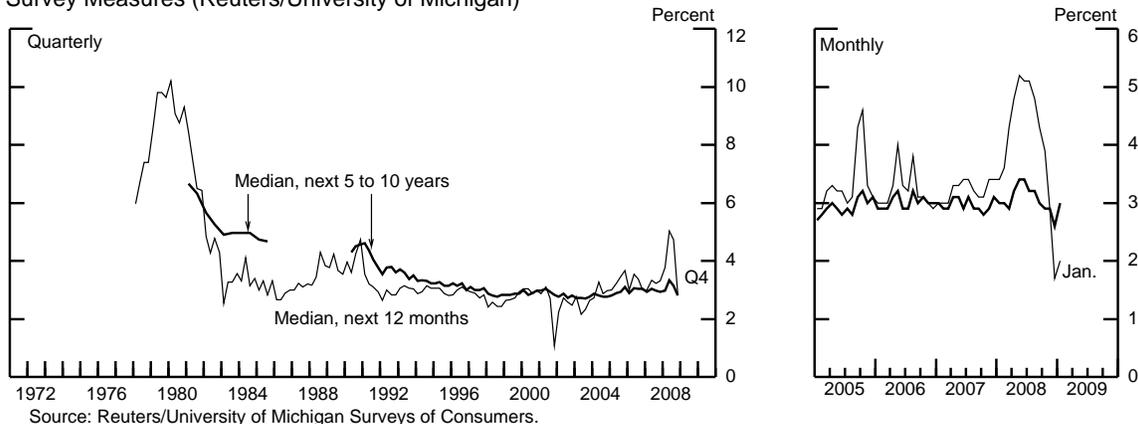
... Not applicable.

n.a. Not available.

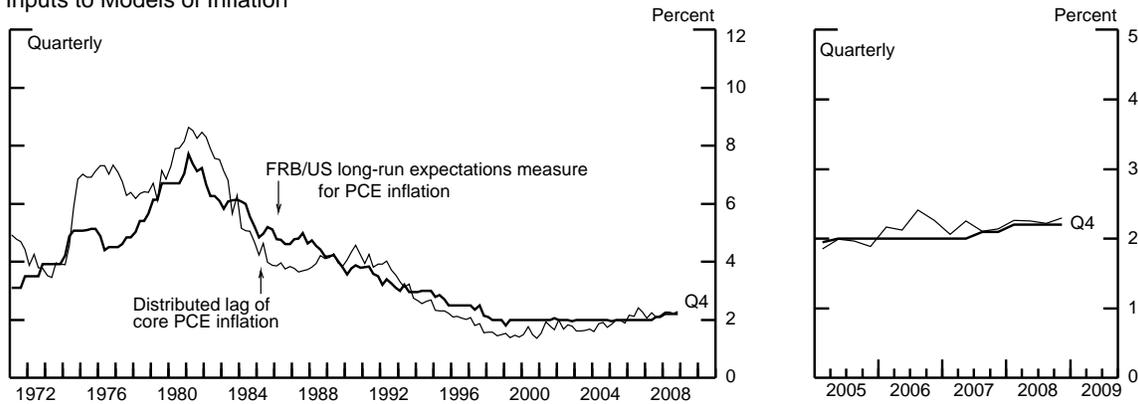
Source: For CPI, U.S. Dept. of Labor, Bureau of Labor Statistics; for Reuters/Michigan Survey, Reuters/University of Michigan Surveys of Consumers; for professional forecasters, the Federal Reserve Bank of Philadelphia.

## Measures of Expected Inflation

### Survey Measures (Reuters/University of Michigan)

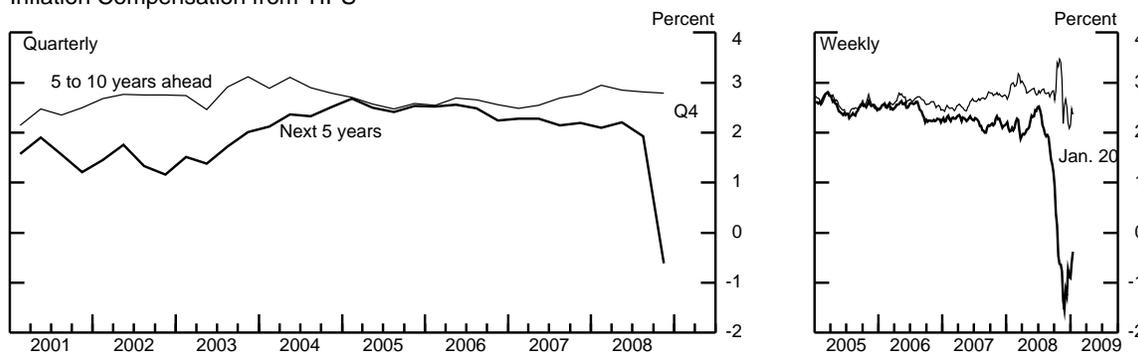


### Inputs to Models of Inflation



Note: The distributed lag of core PCE inflation is derived from one of the reduced-form Phillips curves used by Board staff.  
 Source: For the distributed lag of core PCE inflation, FRB staff calculations; for the FRB/US measure, for 2007 forward, the median projection for PCE inflation over the next 10 years from the Survey of Professional Forecasters (SPF); for 1990 to 2006, the equivalent SPF projection for the CPI; for 1981 to 1989, a related survey for the CPI conducted by Richard Hoey; and for the period preceding 1981, a model-based estimate constructed by Board staff. The survey data before 2007 are adjusted down 0.5 percentage point to put the CPI projections approximately on a PCE basis.

### Inflation Compensation from TIPS



Note: Based on a comparison of an estimated TIPS (Treasury inflation-protected securities) yield curve with an estimated nominal off-the-run Treasury yield curve, with an adjustment for the indexation-lag effect.  
 Source: FRB staff calculations.

expected inflation over the next 5 to 10 years stood at 3.0 percent in early January, also up from last month but down from 3.4 percent in May. As discussed in the “Domestic Financial Developments” section, the increase in implied inflation compensation calculated from Treasury inflation-protected securities (TIPS) appears to reflect improved liquidity conditions in the TIPS market more than a significant upward revision to inflation expectations.

**Labor Costs**

We have received very little information on labor costs since the December Greenbook. Average hourly earnings of production and nonsupervisory workers rose 0.3 percent in December, which brought the 12-month change to 3.7 percent, the same as its increase over the previous 12 months.

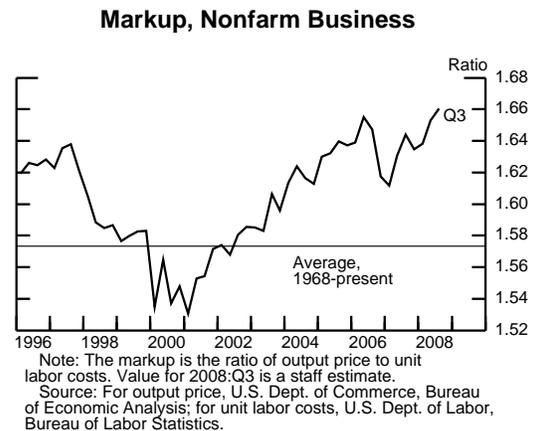
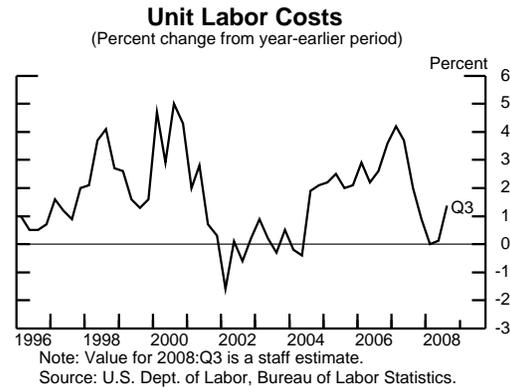
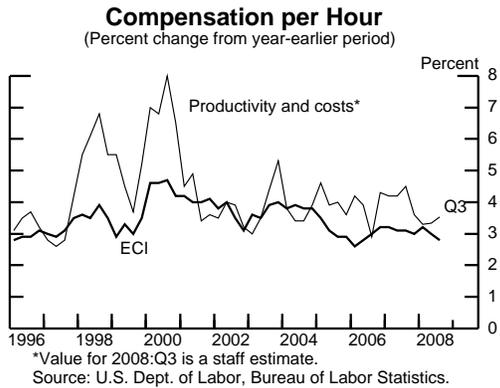
### Hourly Compensation and Unit Labor Costs

(Percent change from preceding period at compound annual rate; based on seasonally adjusted data)

Category	2006:Q3 to 2007:Q3	2007:Q3 to 2008:Q3 <sup>e</sup>	2007	2008		
			Q4	Q1	Q2	Q3 <sup>e</sup>
<i>Compensation per hour</i> Nonfarm business	4.5	3.5	5.3	3.8	.9	4.1
<i>Output per hour</i> Nonfarm business	2.5	2.1	.8	2.6	3.6	1.5
<i>Unit labor costs</i> Nonfarm business	2.0	1.4	4.5	1.2	-2.6	2.6

<sup>e</sup> Staff estimate.

Source: U.S. Dept. of Labor, Bureau of Labor Statistics.



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## **Domestic Financial Developments**

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III-T-1  
**Selected Financial Market Quotations**  
(One-day quotes in percent except as noted)

Instrument	2007	2008		2009	Change to Jan. 21 from selected dates (percentage points)			
	Aug. 6	Oct. 28	Dec. 15	Jan. 21	2007 Aug. 6	2008 Oct. 28	2008 Dec. 15	
<i>Short-term</i>								
FOMC intended federal funds rate	5.25	1.50	1.00	.13	-5.12	-1.37	-.87	
Treasury bills <sup>1</sup>								
3-month	4.74	.76	.04	.11	-4.63	-.65	.07	
6-month	4.72	1.23	.28	.30	-4.42	-.93	.02	
Commercial paper (A1/P1 rates) <sup>2</sup>								
1-month	5.26	2.71	.53	.40	-4.86	-2.31	-.13	
3-month	5.29	2.89	1.35	.62	-4.67	-2.27	-.73	
Large negotiable CDs <sup>1</sup>								
3-month	5.34	3.63	1.85	1.05	-4.29	-2.58	-.80	
6-month	5.27	3.73	2.24	1.58	-3.69	-2.15	-.66	
Eurodollar deposits <sup>3</sup>								
1-month	5.33	3.75	1.50	1.00	-4.33	-2.75	-.50	
3-month	5.35	4.50	2.55	1.75	-3.60	-2.75	-.80	
Bank prime rate	8.25	4.50	4.00	3.25	-5.00	-1.25	-.75	
<i>Intermediate- and long-term</i>								
U.S. Treasury <sup>4</sup>								
2-year	4.49	1.49	.48	.65	-3.84	-.84	.17	
5-year	4.52	2.81	1.57	1.71	-2.81	-1.10	.14	
10-year	4.82	4.43	3.08	3.14	-1.68	-1.29	.06	
U.S. Treasury indexed notes <sup>5</sup>								
5-year	2.43	3.64	2.99	2.01	-.42	-1.63	-.98	
10-year	2.48	3.29	2.66	2.15	-.33	-1.14	-.51	
Municipal general obligations (Bond Buyer) <sup>6</sup>	4.51	5.32	5.85	4.80	.29	-.52	-1.05	
Private instruments								
10-year swap	5.44	4.26	2.76	2.52	-2.92	-1.74	-.24	
10-year FNMA <sup>7</sup>	5.34	5.36	3.50	3.71	-1.63	-1.65	.21	
10-year AA <sup>8</sup>	6.12	8.26	6.86	6.17	.05	-2.09	-.69	
10-year BBB <sup>8</sup>	6.57	9.77	9.59	9.02	2.45	-.75	-.57	
10-year high yield <sup>8</sup>	9.21	16.27	18.30	15.92	6.71	-.35	-2.38	
Home mortgages (FHLMC survey rate)								
30-year fixed	6.59	6.46	5.19	5.12	-1.47	-1.34	-.07	
1-year adjustable	5.65	5.38	4.94	4.92	-.73	-.46	-.02	
<b>Stock exchange index</b>								
	Record high		2008		2009	Change to Jan. 21 from selected dates (percent)		
	Level	Date	Oct. 28	Dec. 15	Jan. 21	Record high	2008 Oct. 28	2008 Dec. 15
Dow Jones Industrial	14,165	10-9-07	9,065	8,565	8,228	-41.91	-9.23	-3.93
S&P 500 Composite	1,565	10-9-07	941	869	840	-46.32	-10.66	-3.26
Nasdaq	5,049	3-10-00	1,649	1,508	1,507	-70.15	-8.63	-.08
Russell 2000	856	7-13-07	483	453	457	-46.63	-5.34	.93
Wilshire 5000	15,807	10-9-07	9,341	8,664	8,484	-46.32	-9.17	-2.08

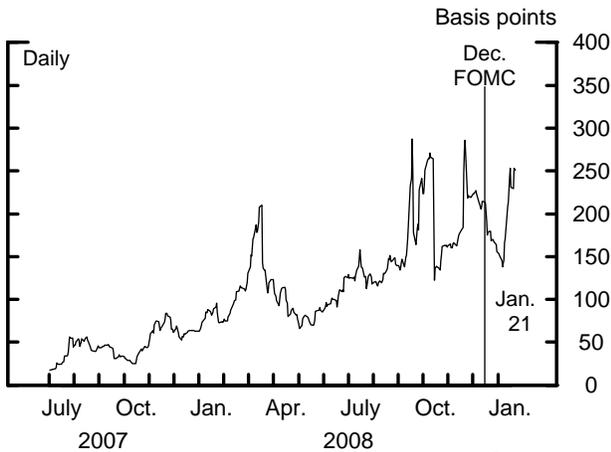
1. Secondary market.
2. Financial commercial paper.
3. Bid rates for Eurodollar deposits collected around 9:30 a.m. eastern time.
4. Derived from a smoothed Treasury yield curve estimated using off-the-run securities.
5. Derived from a smoothed Treasury yield curve estimated using all outstanding securities and adjusted for the carry effect.
6. Most recent Thursday quote.
7. Constant-maturity yields estimated from Fannie Mae domestic noncallable coupon securities.
8. Derived from smoothed corporate yield curves estimated using Merrill Lynch bond data.

**NOTES:**

August 6, 2007, is the day before the August 2007 FOMC meeting.  
October 28, 2008, is the day before the October 2008 FOMC monetary policy announcement.  
December 15, 2008, is the day before the most recent FOMC monetary policy announcement.  
Data for the 3-month commercial paper rate on December 15, 2008, are from December 4, 2008, the most recent date for which a sufficient volume of new issues was available to calculate this rate.

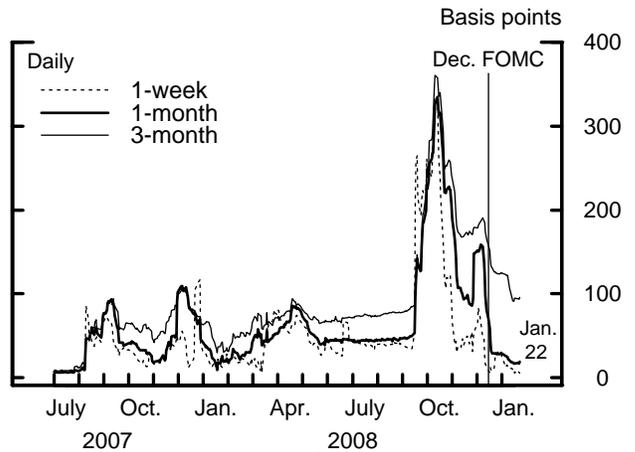
# III-C-1 Financial Institutions and Short-Term Funding Markets

CDS Spreads for Bank Holding Companies



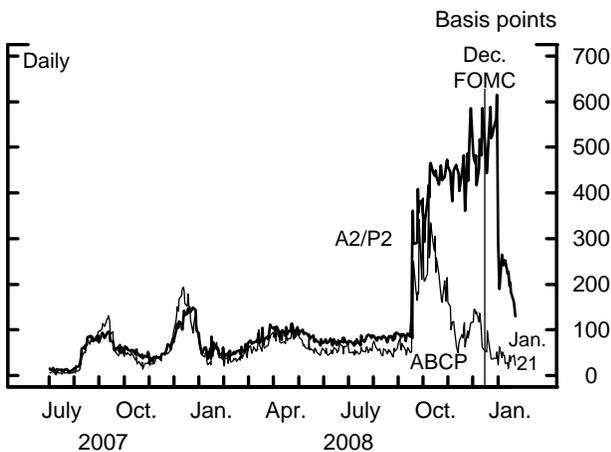
Note: Median credit default swap (CDS) spreads for 6 bank holding companies.  
Source: Markit.

Spread between Libor and OIS Rates



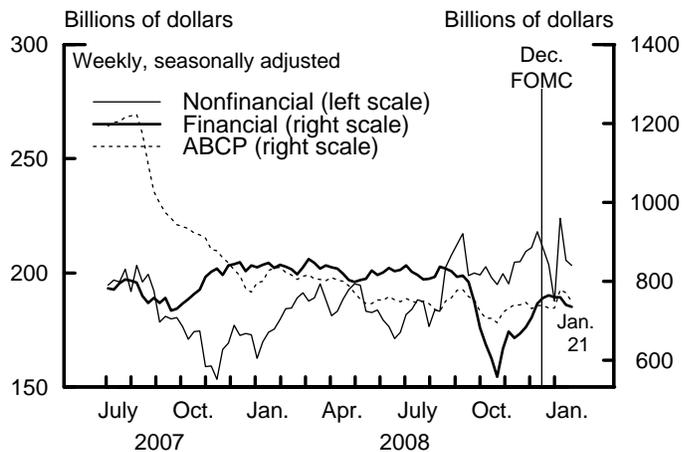
Note: Libor quotes are taken at 6:00 a.m., and the overnight index swap (OIS) rate quotes are observed at the close of business of the previous trading day.  
Source: British Banker's Association.

Spreads on 30-day Commercial Paper



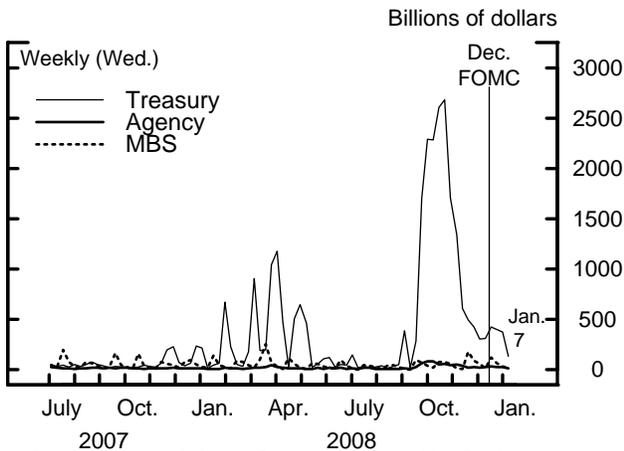
Note: The asset-backed commercial paper (ABCP) spread is the AA ABCP rate minus the AA nonfinancial rate. The A2/P2 spread is the A2/P2 nonfinancial rate minus the AA nonfinancial rate.  
Source: Depository Trust & Clearing Corporation.

Commercial Paper Outstandings



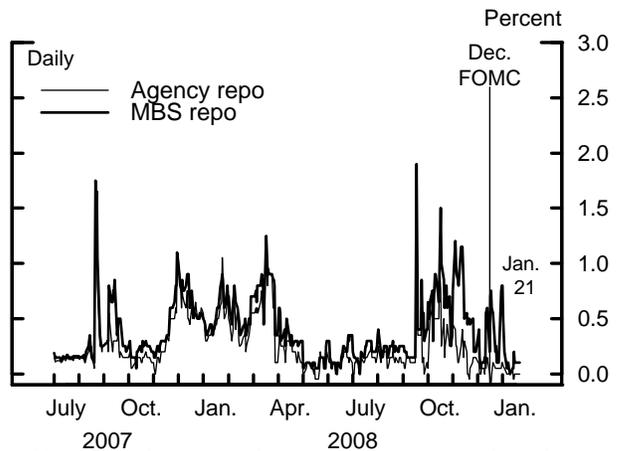
Source: Depository Trust & Clearing Corporation.

Fails to Deliver



Source: FR2004 Primary Government Securities Dealers Reports.

Spreads on MBS and Agency Repos



Note: Spreads on 1-month repurchase agreements (repos) over 1-month Treasury general collateral repos. MBS are mortgage-backed securities.  
Source: Bloomberg.

## Domestic Financial Developments

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### Overview

Over the intermeeting period, conditions in short-term funding markets improved, particularly after year-end. However, investors' concerns about the economy and the health of the banking industry appeared to increase, and the expected path for the federal funds rate moved down. Market participants currently expect the funds rate to remain within its current target range through the middle of this year. Yields on long-term nominal Treasury securities were little changed over the intermeeting period as a whole, and interest rates on conforming fixed-rate home mortgages only edged down. Broad equity-price indexes declined, and stock prices for banking institutions underperformed substantially. Spreads on investment-grade and speculative-grade corporate bonds fell over the intermeeting period but remained very high by historical standards. While bond issuance by highly rated corporations was solid in recent weeks, issuance by lower-rated companies remained weak. In the January Senior Loan Officer Opinion Survey on Bank Lending Practices, sizable fractions of banks reported having tightened lending standards and terms further on all major loan categories, although the fractions were not as large as in recent surveys.

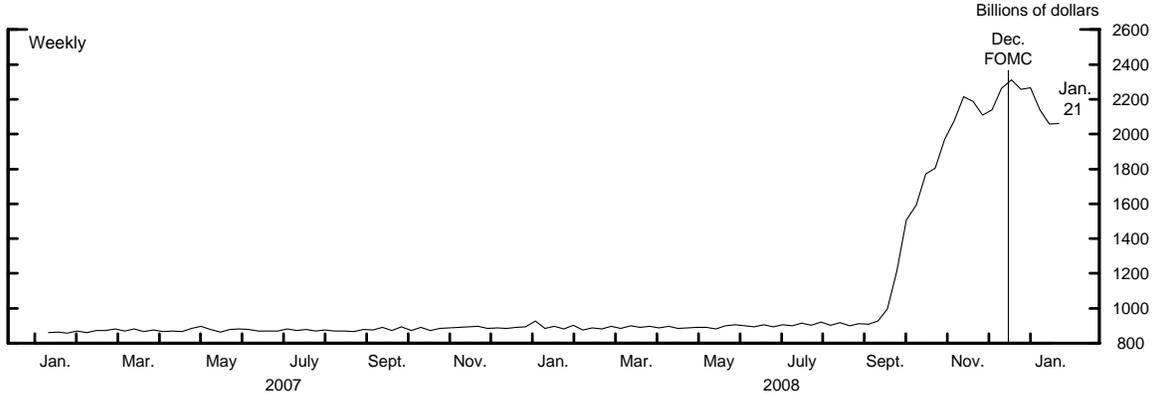
### Financial Institutions

Although investors' concerns about financial institutions appeared to have eased early in the intermeeting period, the significant fourth-quarter losses reported recently by a number of large banking institutions contributed to a deterioration in market sentiment toward the sector. On net, bank stock prices plummeted over the intermeeting period, and spreads on the credit default swaps of large banking institutions rose. Among the banks that have reported earnings to date—a group that covers most large institutions and about one-third of all publicly traded banks—average losses in the fourth quarter were considerably worse than analysts had anticipated. Sizable increases in loan loss provisions contributed importantly to fourth-quarter losses, and several banks took appreciable one-time impairment charges by writing down the fair value of certain assets.

On January 16, Citigroup and Bank of America (BOA) announced large losses for the fourth quarter and, more important, major restructuring plans in conjunction with their dismal fourth-quarter earnings reports. Citigroup provided a plan for dividing the firm into two units, and BOA announced a new agreement with the Treasury, the Federal Deposit Insurance Corporation, and the Federal Reserve that will protect the firm against the possibility of unusually large losses on a pool of certain assets, the large majority of which BOA assumed as a result of its acquisition of Merrill Lynch. As part of the

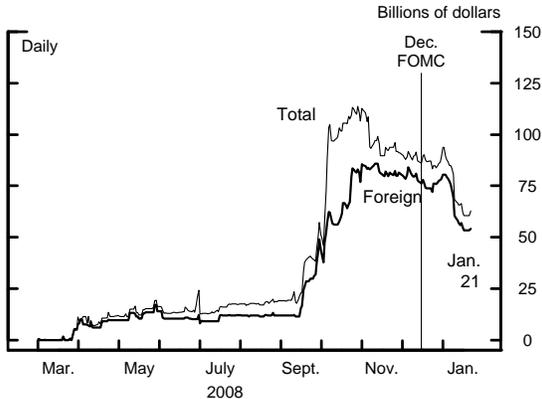
### Federal Reserve Liquidity Provision

Total Federal Reserve Assets



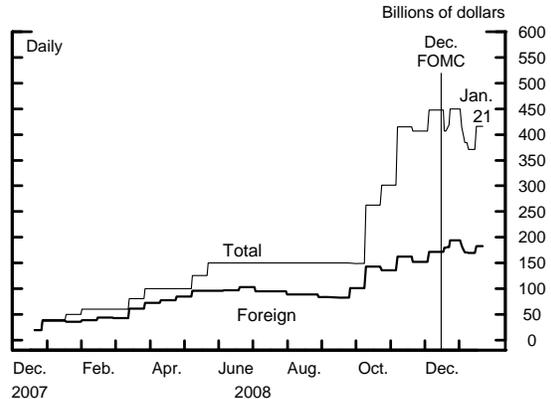
Source: Board of Governors of the Federal Reserve System, Statistical Release H.4.1, "Factors Affecting Reserve Balances."

Primary Credit



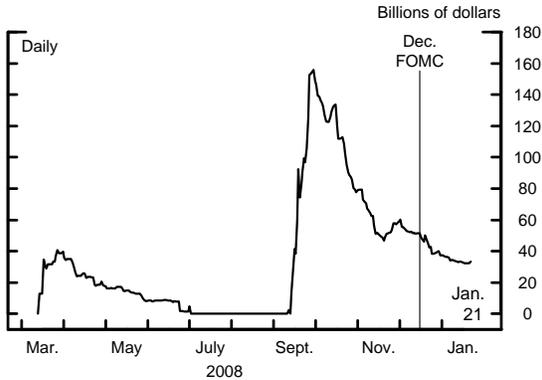
Source: Federal Reserve Board.

Term Auction Facility



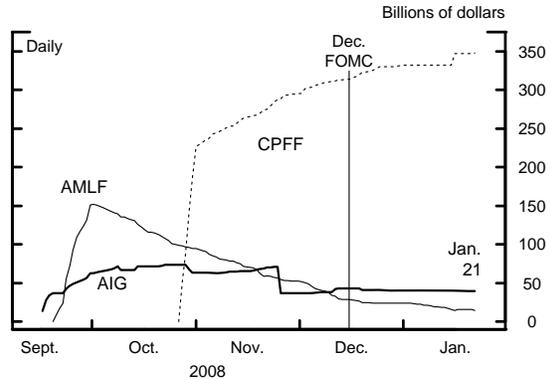
Source: Federal Reserve Board.

Primary Dealer Credit Facility



Source: Federal Reserve Board.

Other Credit Extensions



Note: AMLF is Asset-Backed Commercial Paper Money Market Mutual Fund Lending Facility; AIG is American International Group, Inc.; CPFF is Commercial Paper Funding Facility.  
Source: Federal Reserve Board.

agreement, the Treasury will invest \$20 billion in BOA, using funds from the Troubled Asset Relief Program in exchange for preferred stock with an 8 percent dividend.

### **Short-Term Funding Markets**

Conditions in short-term funding markets improved, on balance, over the intermeeting period. In interbank markets, spreads between Libor and overnight index swap rates (OIS) narrowed further, on net, reportedly helped, in part, by the ample dollar liquidity provided by a number of central banks over the turn of the year. So far this month, Libor-OIS spreads for maturities of one month or less have been only slightly above the levels prevailing before the onset of financial turmoil in the summer of 2007, while the three-month spread has remained somewhat above normal levels. Spreads on A2/P2-rated commercial paper soared in the weeks leading up to year-end, but pressures eased at the end of December. Spreads on asset-backed commercial paper (ABCP) continued to narrow, with spreads this month generally staying in the lower end of the range over the past year. Unsecured commercial paper outstanding—at financial and nonfinancial firms—and ABCP outstanding were both little changed on net.

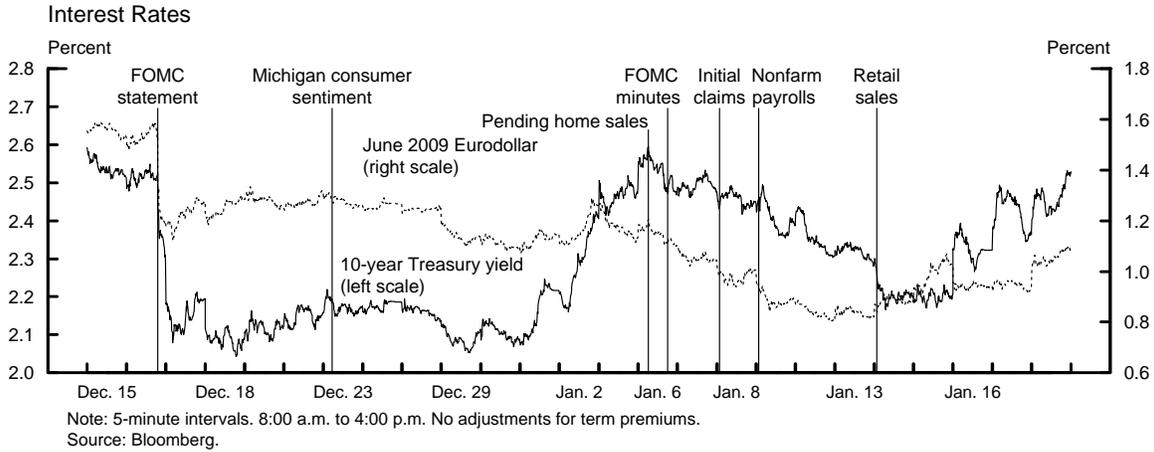
Functioning of the market for repurchase agreements (repos) also continued to improve. Overnight rates for Treasury repos moved up from near zero around the December FOMC meeting, and spreads between repo rates for mortgage-backed securities (MBS) and for Treasury general collateral remained volatile but trended down. Although reports of narrower bid-asked spreads in many collateral markets suggest recent improvements in market functioning, volumes in the repo market generally remained low, and “haircuts” on collateral stayed high. Fails to deliver continued to decline from peak levels, owing, in part, to industry efforts to mitigate fails.

### **Federal Reserve Facilities and Programs**

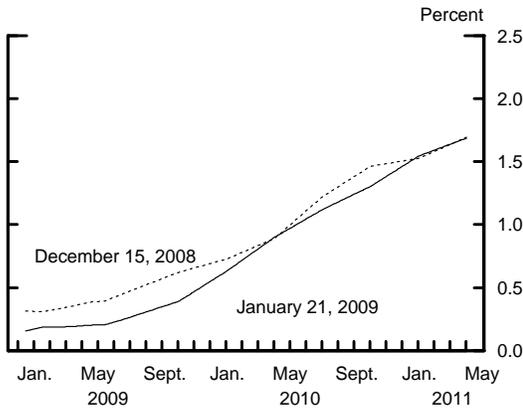
Through January 15, the level of total Federal Reserve assets decreased from the peak levels posted in mid-December. Primary credit fell substantially, mainly because of reduced demand from a few foreign institutions. Credit outstanding under the Term Auction Facility decreased about \$30 billion over the period to around \$420 billion. Borrowing through the Primary Dealer Credit Facility also continued to trend down, and the auctions under the Term Securities Lending Facility continued to be undersubscribed. Credit extended to American International Group was about unchanged.

Credit extended under the ABCP Money Market Mutual Fund Liquidity Facility (AMLF) continued to trend down, as sizable net inflows to prime money market mutual funds

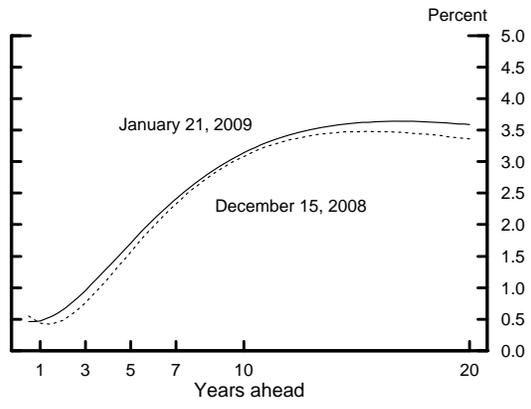
### Policy Expectations and Treasury Yields



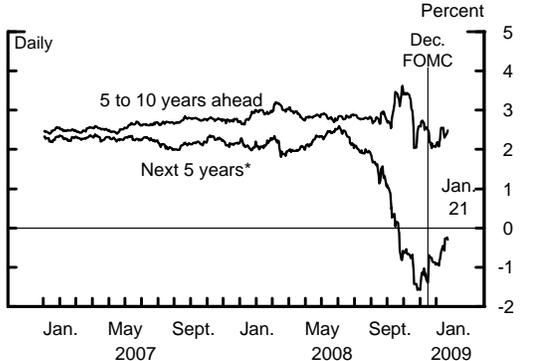
**Implied Federal Funds Rate**



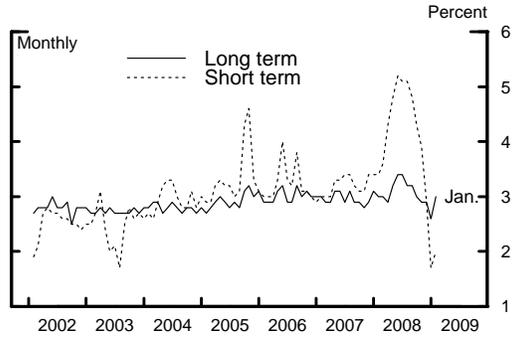
**Treasury Yield Curve**



**Inflation Compensation**



**Inflation Expectations from the Michigan Survey**



relieved pressures on money fund managers to sell ABCP in secondary markets to meet redemptions. Despite the reduction in credit extended, this program has reportedly continued to be an important backstop for money market mutual funds. Meanwhile, credit extended under the Commercial Paper Funding Facility moved up to about \$350 billion. Most of this credit is due to mature at the end of January.

The Federal Reserve conducted several auctions to purchase agency debt and agency MBS over the intermeeting period. In total, the System Open Market Account purchased about \$20 billion in agency debt and almost \$34 billion in agency MBS. The Federal Reserve announced that it expects the purchase of up to \$100 billion in agency debt and up to \$500 billion of agency MBS to be completed by the end of June. Spreads on agency debt were mixed, but market sentiment appeared to improve recently, and Freddie Mac and Fannie Mae issued long-term debt for the first time in several months. Spreads on agency MBS decreased notably, on balance, over the intermeeting period. Despite reports focusing on the financial condition of several Federal Home Loan Banks (FHLB), spreads on FHLB debt held fairly steady over the intermeeting period.

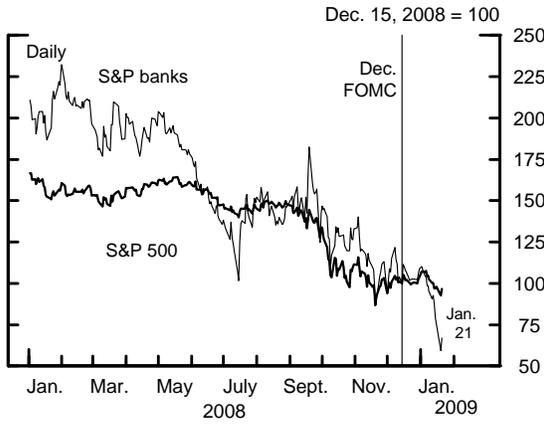
### **Policy Expectations and Treasury Yields**

The expected path for the federal funds rate edged down over the intermeeting period, including a notable decrease after the December FOMC statement. Market participants were reportedly surprised by the size of the reduction in the target rate at the meeting and by the statement that policy rates would likely remain at exceptionally low levels for some time. On balance, market expectations fell somewhat further in early January on weaker-than-expected economic data and renewed concerns about losses at some large banks. Current market quotes imply that the federal funds rate will trade within the target range set at the December meeting through the middle of this year. Under our standard assumptions about term premiums, the expected effective rate increases gradually to about 50 basis points by the end of 2009 and to around 1½ percent by the end of 2010. However, current economic conditions could well have pushed term premiums higher than our standard assumption, which would imply a flatter trajectory for the expected federal funds rate. Indeed, in a survey conducted by the New York Fed's Domestic Trading Desk this week, none of the economists at primary dealers reported expecting the first increase in the target federal funds rate to occur this year.

Over the intermeeting period, 2-year nominal Treasury yields increased about 15 basis points, on net, while 10-year yields rose about 5 basis points. Medium- and long-term yields dropped sharply after the FOMC announcement on December 16, apparently in

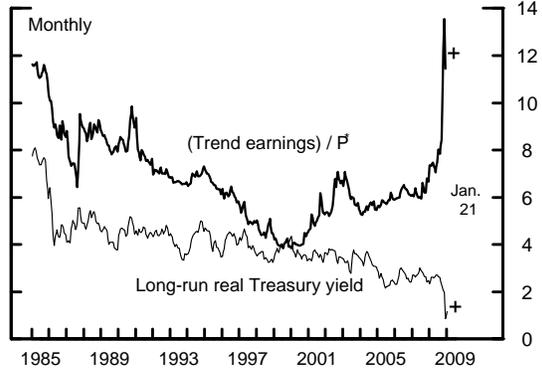
### Corporate Yields, Risk Spreads, and Stock Prices

Selected Stock Price Indexes



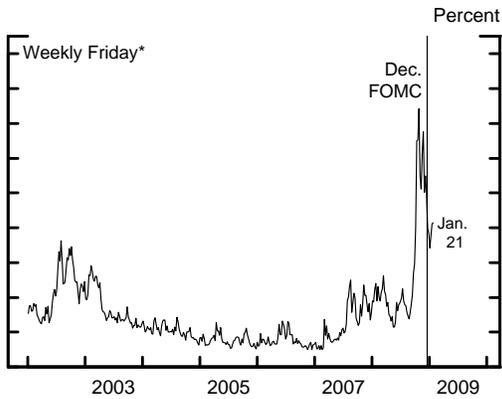
Source: Standard & Poor's.

Ratio of Trend Earnings to Price for S&P 500 and Long-Run Treasury Yield



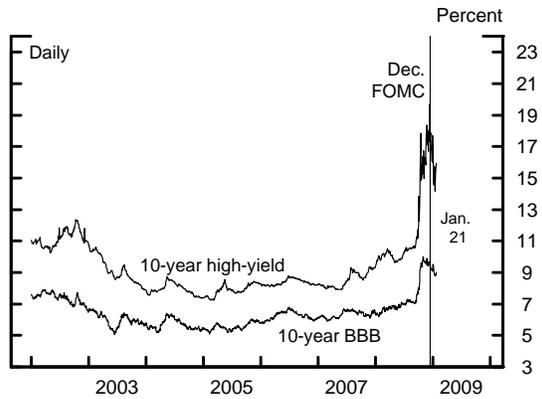
\* Trend earnings are estimated using analysts' forecasts of year-ahead earnings from I/B/E/S.  
 + Denotes the latest observation using daily interest rates and stock prices and latest earnings data from I/B/E/S.  
 Source: Thomson Financial.

Implied Volatility on S&P 500 (VIX)



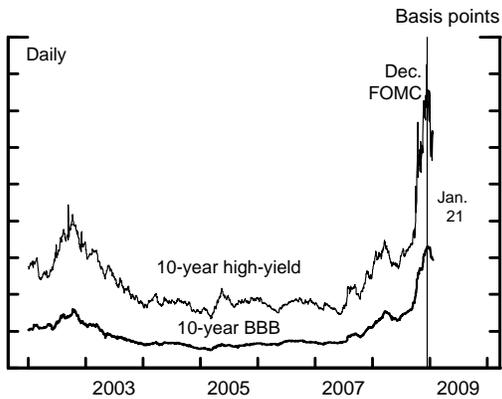
\* Latest observation is for most recent business day.  
 Source: Chicago Board of Exchange.

Corporate Bond Yields



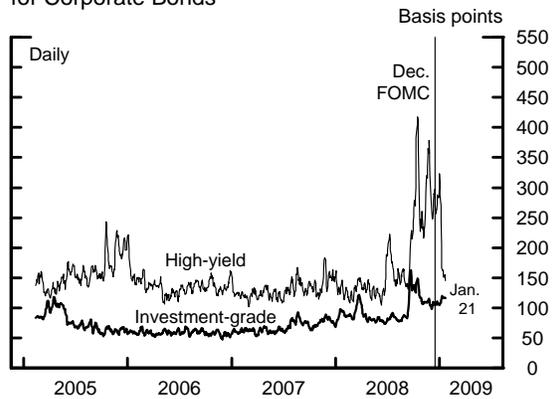
Note: Yields from smoothed yield curves based on Merrill Lynch bond data.

Corporate Bond Spreads



Note: Corporate yields from smoothed yield curves based on Merrill Lynch bond data and spreads measured relative to comparable-maturity Treasury securities.

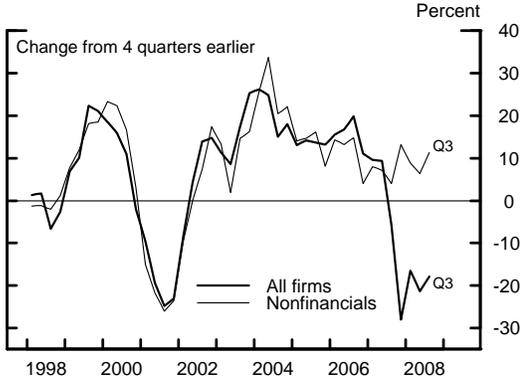
Estimated Median Bid-Ask Spread for Corporate Bonds



Source: Staff estimate using data from the National Assn. of Securities Dealers' Trade Reporting and Compliance Engine.

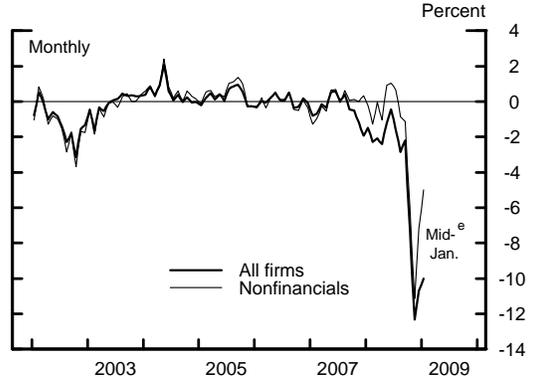
### Corporate Earnings and Credit Quality

S&P 500 Earnings Per Share



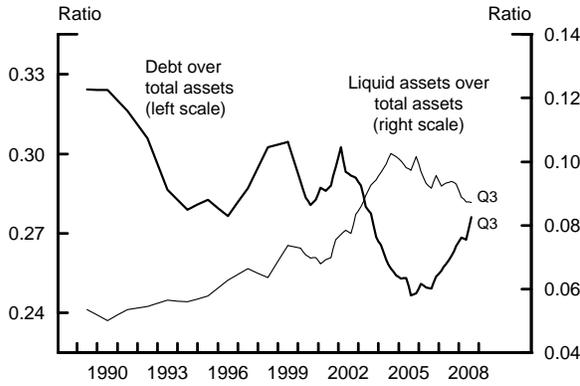
Source: Thomson Financial.

Revisions to Expected S&P 500 Earnings



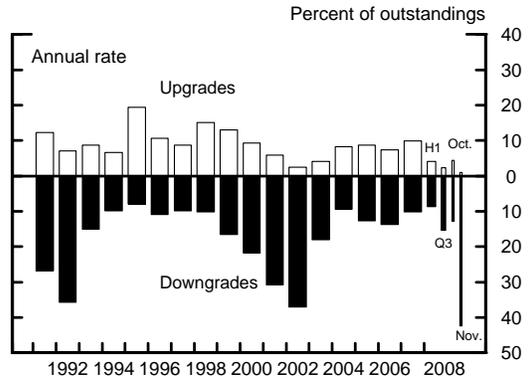
Note: Index is a weighted average of the percent change in the consensus forecasts of current-year and following-year earnings per share for a fixed sample.  
 e Staff estimate.  
 Source: Thomson Financial.

Financial Ratios for Nonfinancial Corporations



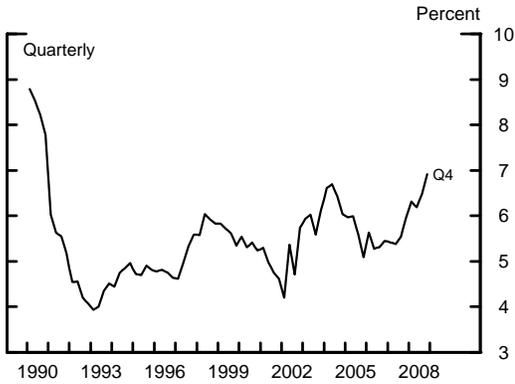
Note: Data are annual through 1999 and quarterly starting in 2000:Q1.  
 Source: Calculated using Compustat data.

Bond Ratings Changes of Nonfinancial Companies



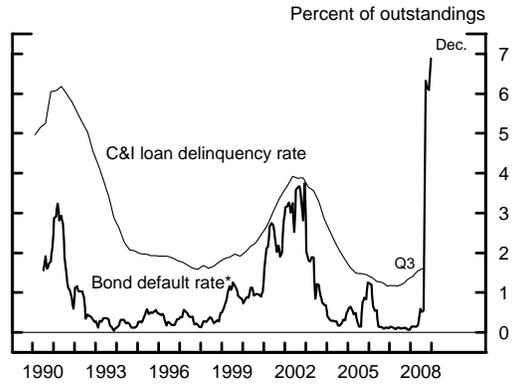
Source: Calculated using data from Moody's Investors Service.

Deep Junk Share of Bonds Outstanding



Note: Nonfinancial bonds outstanding rated B3 or below over total bonds outstanding.  
 Source: Moody's Investors Service.

Selected Default and Delinquency Rates



\* 6-month moving average.  
 Source: For default rate, Moody's Investors Service; for delinquency rate, Call Report.

### Business Finance

#### Gross Issuance of Securities by U.S. Corporations

(Billions of dollars; monthly rates, not seasonally adjusted)

Type of security	2004	2005	2006	2007	2008			2009
					H1	Q3	Q4	Jan. <sup>P</sup>
<i>Nonfinancial corporations</i>								
Stocks <sup>1</sup>	5.4	4.6	4.7	5.5	3.5	3.0	5.0	2.0
Initial public offerings	1.6	1.7	1.8	1.6	.6	.1	.0	.0
Seasoned offerings	3.8	2.8	2.9	3.8	2.9	2.9	4.9	2.0
Bonds <sup>2</sup>	22.4	18.7	29.3	35.1	34.7	14.5	22.2	26.0
Investment grade	8.3	8.7	13.1	17.5	24.9	10.5	17.9	24.0
Speculative grade	8.2	5.2	6.2	7.5	3.1	.7	.2	2.0
Other (sold abroad/unrated)	5.9	4.8	10.1	10.0	6.7	3.3	4.1	.0
<i>Memo</i>								
Net issuance of commercial paper <sup>3</sup>	1.7	-.2	2.4	-.4	-.5	6.2	1.2	13.0
Change in C&I loans at commercial banks <sup>3</sup>	2.4	9.6	11.4	20.9	13.9	20.6	-3.3	n.a.
<i>Financial corporations</i>								
Stocks <sup>1</sup>	6.9	5.0	5.3	8.6	17.2	10.5	9.2	.5
Bonds <sup>2</sup>	134.1	170.4	180.6	151.7	66.0	20.0	28.2	40.0

Note: Components may not sum to totals because of rounding.

1. Excludes private placements and equity-for-equity swaps that occur in restructurings.

2. Data include regular and 144a private placements. Bond totals reflect gross proceeds rather than par value of original discount bonds.

Bonds are categorized according to Moody's bond ratings or to Standard & Poor's if unrated by Moody's.

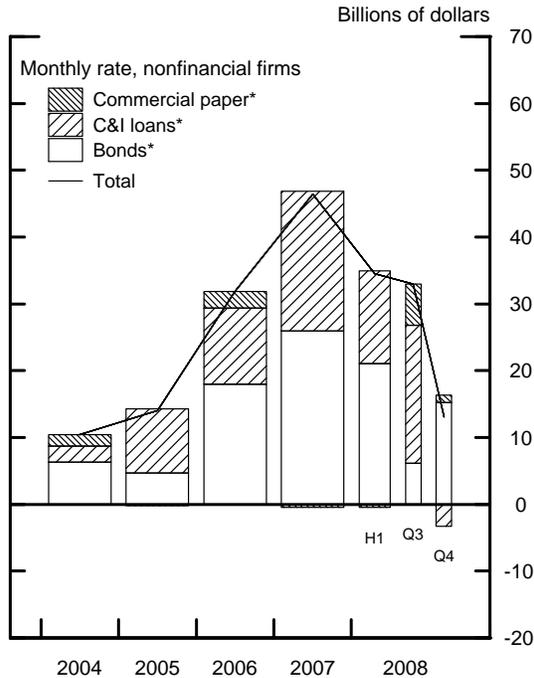
3. End-of-period basis, seasonally adjusted.

n.a. Not available.

p Forecast based on preliminary data.

Source: Depository Trust & Clearing Corporation; Thomson Financial; Federal Reserve Board.

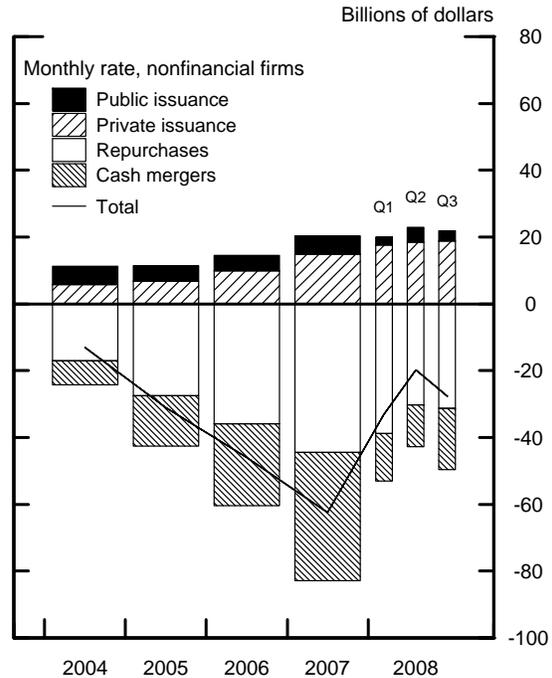
#### Selected Components of Net Debt Financing



\* Seasonally adjusted, period-end basis.

Source: Depository Trust & Clearing Corporation; Thomson Financial; Federal Reserve Board.

#### Components of Net Equity Issuance



Source: Thomson Financial; Investment Benchmark Report; Money Tree Report by PricewaterhouseCoopers, National Venture Capital Association, and Venture Economics.

part because investors interpreted the statement as suggesting that the Federal Reserve might increase its holdings of long-term Treasury securities. However, these price movements were more than reversed this month, reportedly on the unwinding of year-end positions and in anticipation of significant future issuance by the Treasury.

Over the intermeeting period, yields on Treasury inflation-protected securities (TIPS) decreased significantly across the term structure. Thus, as measured by the difference between yields on nominal and inflation-protected Treasury securities, inflation compensation over the next 5 years increased more than 100 basis points, to -30 basis points, while inflation compensation over the next 10 years increased about 60 basis points, to around 1 percent. According to market reports, the sharp decreases in TIPS yields—and the associated increases in implied inflation compensation—were more a reflection of improved liquidity conditions in the TIPS market than of significant upward revisions to inflation expectations. Nonetheless, measures of inflation expectations from the Reuters/University of Michigan and the Bluechip surveys also increased somewhat.

### **Stock Prices, Corporate Yields, and Risk Spreads**

Over the intermeeting period, broad equity-price indexes decreased about 3 percent, on net, and stock prices for banks substantially underperformed the broader market. The spread between the 12-month forward trend-earnings-price ratio for S&P 500 firms and an estimate of the real long-run Treasury yield—a rough measure of the equity premium—remained extraordinarily wide. Option-implied volatility on the S&P 500 index decreased, on net, but stayed high by historical standards.

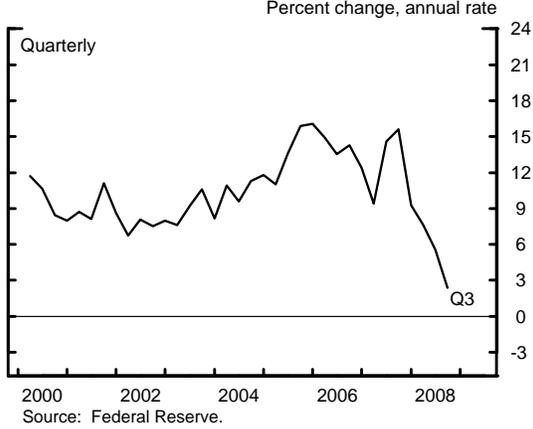
Yields and spreads on corporate bonds decreased noticeably over the intermeeting period, particularly for speculative-grade firms, but spreads remained extremely high by historical standards. Measures of liquidity in the secondary market for speculative-grade corporate bonds showed substantial improvement. In contrast, bid-asked spreads in the secondary market for syndicated leveraged loans (not shown) remained exceptionally wide.

### **Corporate Earnings and Credit Quality**

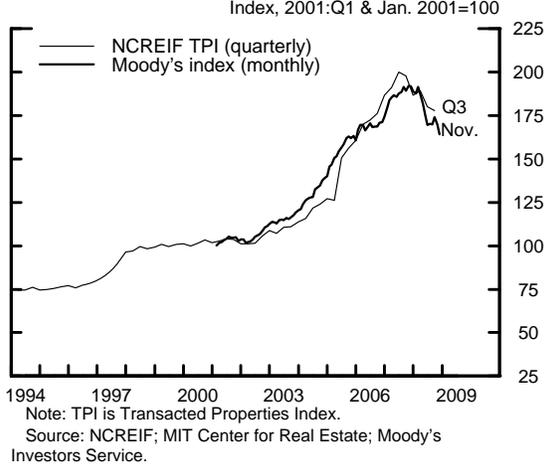
Operating earnings per share for S&P 500 firms in the third quarter were about 20 percent below year-earlier levels, with profit declines concentrated in the financial sector. Analysts' profit forecasts for S&P 500 firms point to continued declines in the fourth quarter, and substantial decreases are now expected for nonfinancial firms as well. In mid-January, an index of analysts' revisions to year-ahead earnings for S&P 500 firms

### Commercial Real Estate

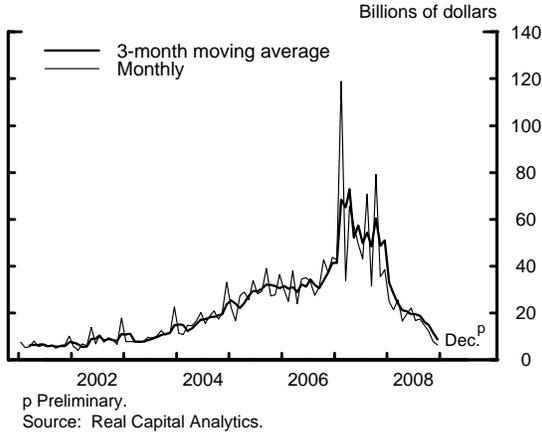
Commercial Mortgage Debt



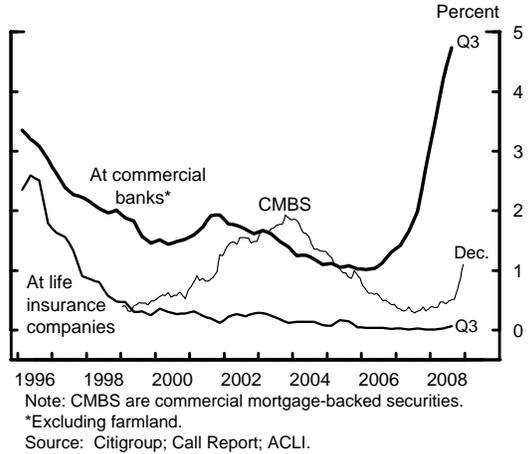
Prices



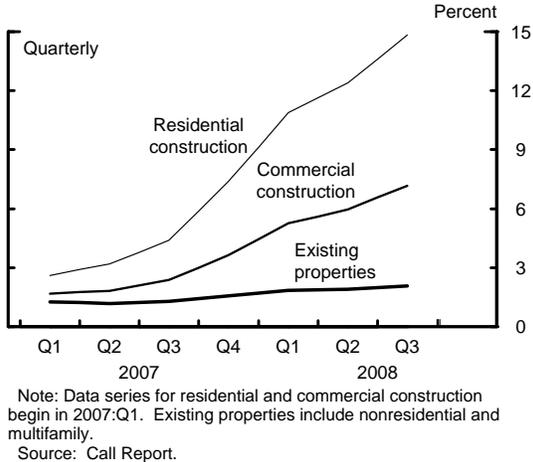
Sales of Commercial Real Estate



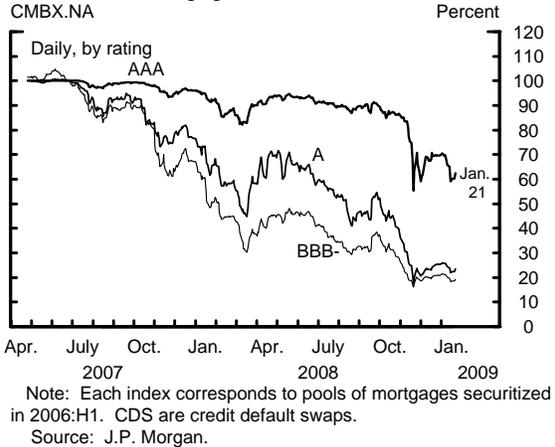
Delinquency Rates on Commercial Mortgages



Delinquency Rates on Commercial Mortgages at Banks



Commercial Mortgage CDS Index Prices



remained quite negative, with substantial markdowns of profit forecasts for both financial and nonfinancial firms.

The credit quality of nonfinancial firms deteriorated further over the past several months. In the third quarter, the aggregate leverage ratio of nonfinancial firms continued to trend up, and the aggregate liquid-asset ratio continued to trend down. In November, the pace of nonfinancial corporate bond downgrades by Moody's jumped to its highest monthly rate since 2002. The downgrades were widespread across sectors, but about 20 percent were accounted for by a few auto manufacturers and parts suppliers. Incomplete data suggest further heavy bond downgrades in December. In addition, the share of corporate bonds outstanding rated "deep junk"—that is, bonds rated B- or below by Moody's—increased again in the fourth quarter, reaching its highest level since the 1990-91 recession. The delinquency rate on commercial and industrial (C&I) loans edged up in the third quarter from a low level, and the six-month trailing bond default rate moved a bit higher in December, reflecting a distressed exchange of bonds by General Motors Acceptance Corporation (GMAC).

### **Business Finance**

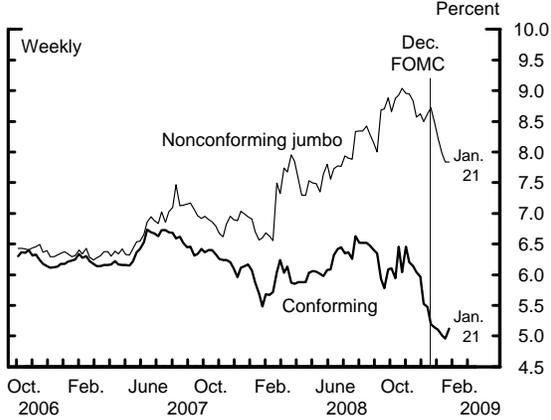
In the nonfinancial sector, gross bond issuance has remained solid in January for investment-grade firms, but issuance has continued to be quite weak for speculative-grade firms. Nonfinancial commercial paper outstanding has rebounded this month, likely because of lower spreads and the easing of year-end pressures. C&I loans increased over the first two weeks of January, owing, in part, to increases at a few banks that funded a large merger in the telecommunications industry. Factoring in the sizable volume of corporate bonds that have matured this month, overall net debt financing by nonfinancial businesses has been moderate.

In terms of equity issuance, both seasoned and initial offerings by nonfinancial corporations remained weak through mid-January, with almost no issuance outside of the energy sector. In the third quarter, equity retirements by nonfinancial firms continued to outpace the combined amount of private and public issuance. However, retirements from completed cash-financed mergers diminished in the fourth quarter, and few firms announced new share repurchase programs.

Gross public equity issuance by financial firms has been weak in January. In contrast, financial firms have continued to issue large volumes of bonds under the Temporary Liquidity Guarantee Program (TLGP) established by the Federal Deposit Insurance

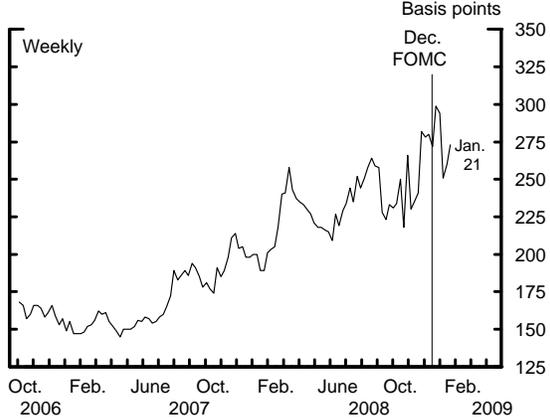
## Residential Mortgages

30-Year Fixed Mortgage Rates



Source: Freddie Mac; Inside Mortgage Finance.

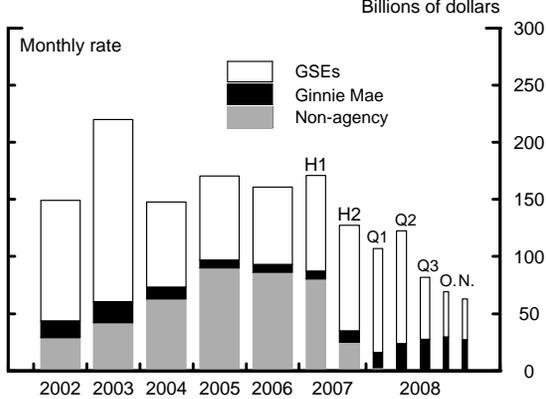
30-Year Conforming Fixed-Rate Mortgage Spread



Note: Spread is quoted relative to the on-the-run 10-year Treasury yield.

Source: Bloomberg; Freddie Mac.

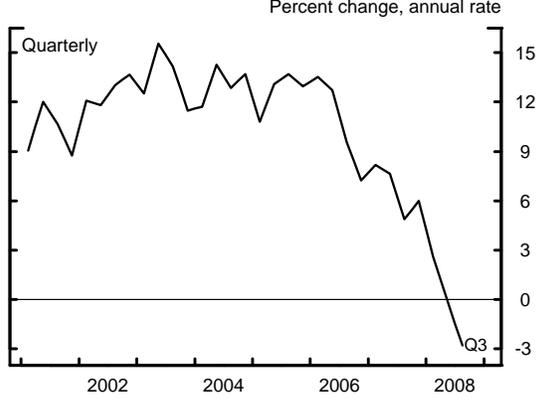
Agency and Non-Agency MBS Issuance



Note: MBS are mortgage-backed securities; GSEs are government-sponsored enterprises.

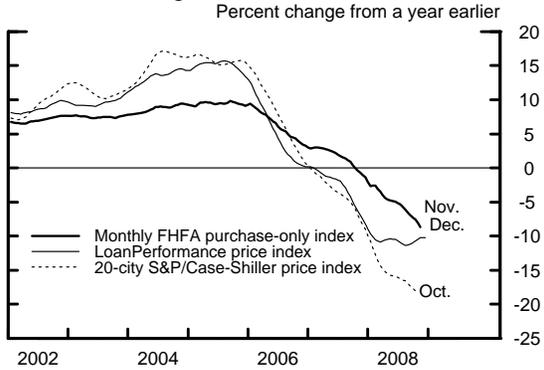
Source: For agency issuance, Fannie Mae, Freddie Mac, and Ginnie Mae. For non-agency, Inside Mortgage Finance.

Mortgage Debt



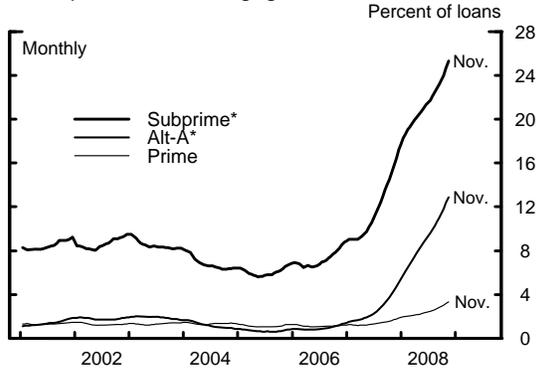
Source: Federal Reserve.

Prices of Existing Homes



Source: For purchase-only index, Federal Housing Finance Agency; for S&P/Case-Shiller, Standard & Poor's; for LoanPerformance, First American CoreLogic.

Delinquencies on Mortgages



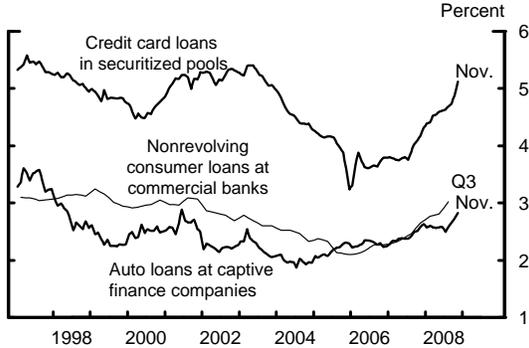
Note: Percent of loans 90 or more days past due or in foreclosure. Prime includes near-prime mortgages.

\* Among securitized loans only.

Source: For subprime and alt-A, LoanPerformance, a division of First American CoreLogic; for prime, McDash.

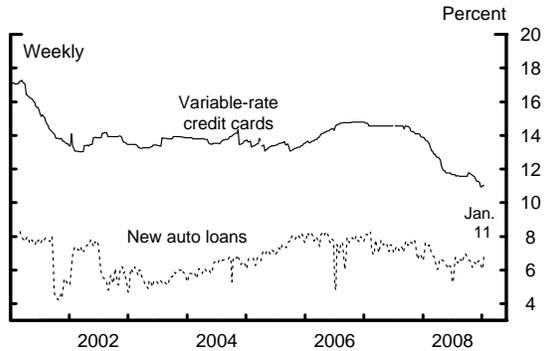
## Consumer Credit and Household Wealth

Delinquencies on Consumer Loans



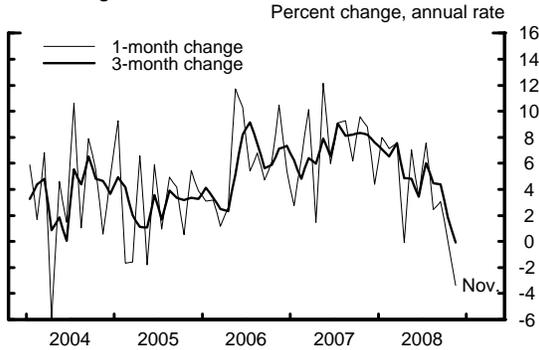
Source: For auto loans, Federal Reserve; for credit cards, Moody's Investors Service; for nonrevolving consumer loans, Call Report.

Consumer Loan Rates



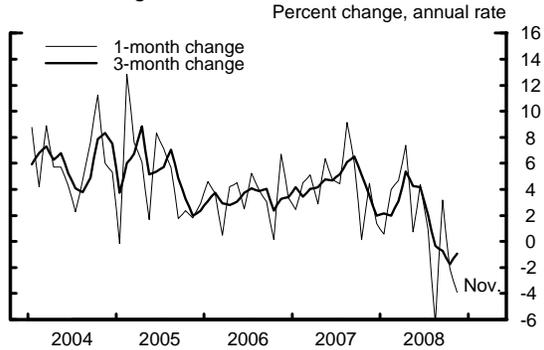
Source: For credit cards, Bankrate, Inc.; for auto, PIN.

Revolving Consumer Credit



Source: Federal Reserve.

Nonrevolving Consumer Credit



Source: Federal Reserve.

## Net Flows into Mutual Funds

(Billions of dollars, monthly rate)

Fund type	2007		2008			Nov.	Dec. <sup>e</sup>	Assets Nov.
	H1	H2	Q1	Q2	Q3			
<b>Total long-term funds</b>	<b>31.5</b>	<b>5.9</b>	<b>1.7</b>	<b>22.6</b>	<b>-34.3</b>	<b>-41.3</b>	<b>-27.1</b>	<b>5,619</b>
<b>Equity funds</b>	<b>14.3</b>	<b>1.2</b>	<b>-14.9</b>	<b>7.8</b>	<b>-34.5</b>	<b>-21.7</b>	<b>-21.1</b>	<b>3,601</b>
Domestic	0.8	-8.4	-13.4	3.3	-18.5	-13.0	-10.2	2,776
International	13.5	9.6	-1.5	4.4	-16.0	-8.7	-10.9	825
<b>Hybrid funds</b>	<b>2.6</b>	<b>1.1</b>	<b>0.7</b>	<b>2.0</b>	<b>-2.7</b>	<b>-5.1</b>	<b>-1.8</b>	<b>482</b>
<b>Bond funds</b>	<b>14.6</b>	<b>3.5</b>	<b>16.0</b>	<b>12.9</b>	<b>2.9</b>	<b>-14.5</b>	<b>-4.2</b>	<b>1,535</b>
High-yield	0.2	-0.7	-1.3	0.9	-0.3	-0.2	2.9	103
Other taxable	12.0	4.8	15.2	8.2	1.8	-13.2	-2.9	1,087
Municipals	2.4	-0.6	2.1	3.7	1.4	-1.1	-4.3	345
<b>Money market funds</b>	<b>26.3</b>	<b>98.8</b>	<b>126.9</b>	<b>-14.8</b>	<b>-7.2</b>	<b>122.6</b>	<b>107.0</b>	<b>3,733</b>

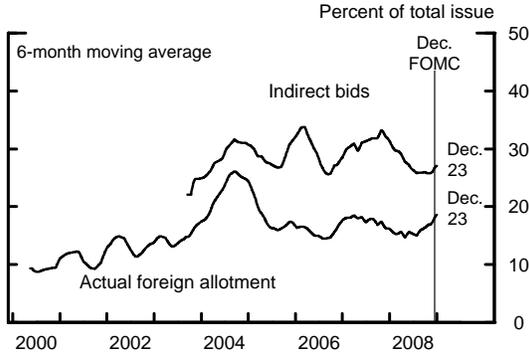
Note: Excludes reinvested dividends.

<sup>e</sup> Staff estimate.

Source: Investment Company Institute.

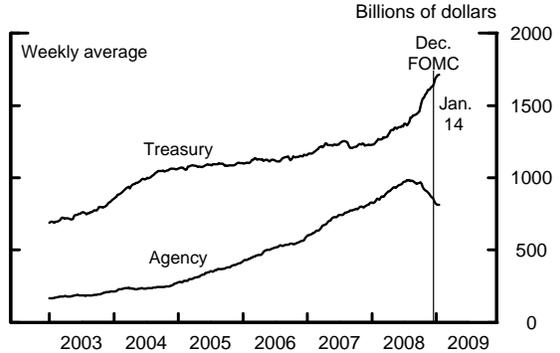
### Treasury Finance

Foreign Participation in Treasury Auctions



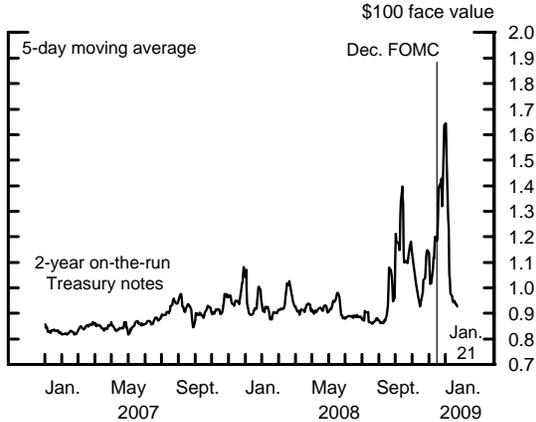
Note: Indirect bids and actual allotment are a percentage of the total amount accepted, including the amount tendered to the Federal Reserve. Moving averages include 2-, 5-, and 10-year original auctions and reopenings.  
Source: Federal Reserve Board.

Foreign Custody Holdings



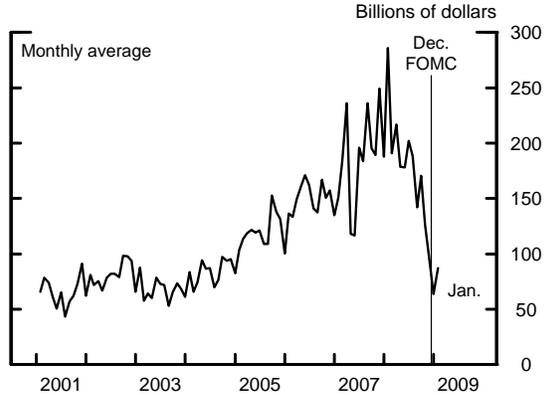
Note: Securities held in custody at the Federal Reserve Bank of New York on behalf of foreign official institutions.  
Source: Federal Reserve Bank of New York.

Treasury Bid-Asked Spread



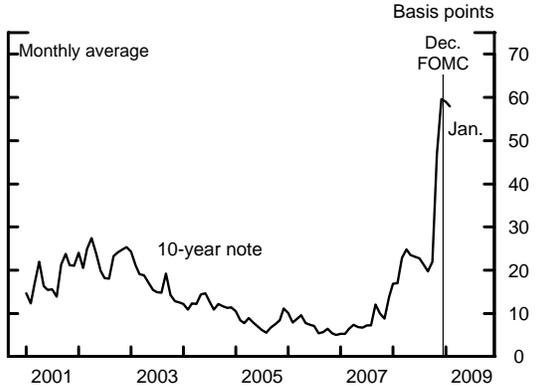
Source: BrokerTec Interdealer Market Data.

Daily Treasury Market Volume



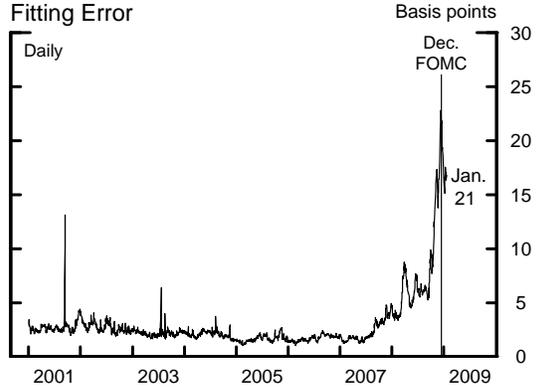
Note: January observation is average for month to date.  
Source: BrokerTec Interdealer Market Data.

Treasury On-the-Run Premium



Note: Computed as the spread of the yield read from an estimated off-the-run yield curve over the on-the-run Treasury yield. January observation is the month-to-date average.  
Source: Federal Reserve Bank of New York.

Average Absolute Nominal Yield Curve Fitting Error



Note: Calculated from securities with 2 to 10 years until maturity, excluding on-the-run and first off-the-run securities.  
Source: Federal Reserve Board.

Corporation (FDIC), although issuance of bonds outside the program has been quite limited. Debt issued under the FDIC program has generally traded at spreads to Treasury securities roughly in line with those of agency debt. The FDIC announced its intention to propose rule changes to extend the maximum maturity of its guarantee under the TLGP from 3 years to 10 years where the debt is supported by collateral and the issuance supports new consumer lending.

### **Commercial Real Estate Finance**

Amid further declines in property prices and a negligible volume of sales, growth of commercial real estate debt slowed dramatically in the third quarter. In addition, against the backdrop of a further deterioration in loan performance, lending conditions in commercial real estate markets remained extremely tight. The delinquency rate on commercial mortgages held by banks rose to nearly 5 percent in the third quarter, which mainly reflected a further deterioration in the performance of construction loans for both residential and commercial properties. The delinquency rate on mortgages held in pools of commercial mortgage-backed securities (CMBS) rose in December to its highest level since early 2005, in part because of deterioration in market fundamentals, as vacancy rates increased, and the growth of rents slowed. Prices of indexes of credit default swaps on CMBS have generally remained quite low this month.

### **Household Finance**

Over the intermeeting period, average interest rates on 30-year conforming fixed-rate mortgages edged down almost 10 basis points to about 5.1 percent, while rates for nonconforming jumbo mortgages dropped around 85 basis points to about 7.8 percent. The spread between interest rates on conforming fixed-rate mortgages and the 10-year Treasury yield edged down, on net, over the intermeeting period, but remained unusually wide.

In secondary mortgage markets, issuance of MBS by the housing-related government-sponsored enterprises (GSEs) continued to decline in November, in part because of reduced mortgage originations amid lower house prices and tight credit conditions. MBS issuance by Ginnie Mae decreased slightly in November, and the non-agency MBS market remained closed. Total home mortgage debt outstanding decreased in the second and third quarters of 2008, the first two quarterly declines in the history of the series, which began in 1951.

## State and Local Government Finance

### Gross Offerings of Municipal Securities

(Billions of dollars; monthly rate, not seasonally adjusted)

Type of security	2004	2005	2006	2007	2008			2009
					H1	Q3	Q4	Jan. <sup>p</sup>
Total	34.7	38.4	36.1	40.4	41.5	36.5	28.9	20.0
Long-term <sup>1</sup>	29.8	34.2	32.5	35.5	38.0	30.0	22.5	17.0
Refundings <sup>2</sup>	10.8	15.6	10.6	12.6	17.9	13.0	8.7	5.0
New capital	19.0	18.6	21.9	22.9	20.1	17.0	13.8	12.0
Short-term	4.9	4.2	3.7	4.9	3.6	6.6	6.3	3.0
Memo: Long-term taxable	2.0	2.1	2.5	2.4	2.7	2.4	1.1	.0

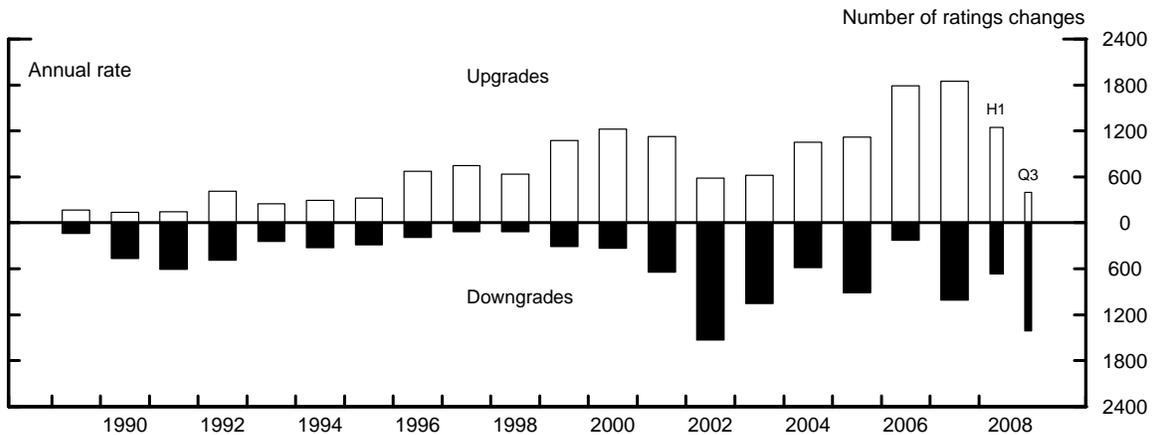
1. Includes issues for public and private purposes.

2. All issues that include any refunding bonds.

<sup>p</sup> Forecast based on preliminary data through January 15, 2009.

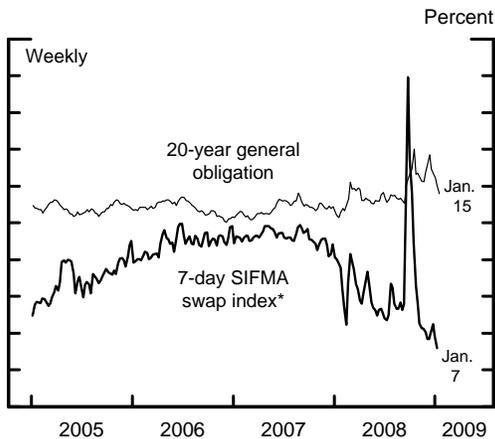
Source: Thomson Financial.

### Ratings Changes



Source: S&P's Credit Week Municipal; S&P's Ratings Direct.

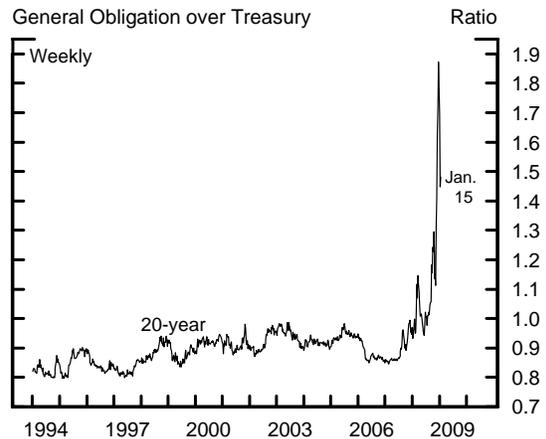
### Municipal Bond Yields



\* SIFMA is the Securities Industry and Financial Markets Association.

Source: Municipal Market Advisors; Bond Buyer.

### Municipal Bond Yield Ratio



Source: Bond Buyer.

Repeat-sales house price indexes continued to show substantial widespread declines into the fourth quarter of last year. Falling home prices and decreasing employment and income have continued to push up mortgage delinquency rates. In November, just under 4 percent of prime mortgages, about 13 percent of mortgages in alt-A pools, and around 25 percent of subprime mortgages were 90 or more days past due or in foreclosure. These rates are well above their levels at the start of last year and have yet to flatten out.

The credit quality of consumer loans has also continued to deteriorate significantly. Delinquency rates for credit card loans in securitized pools, for nonrevolving loans held by commercial banks, and for auto loans held by captive finance companies have all risen significantly, on net, over the past year. All three of these delinquency rates are now close to the levels seen in the recession of 2001.

Interest rates on variable-rate credit card accounts fell over the intermeeting period, as spreads to comparable-maturity Treasury yields narrowed slightly from elevated levels. In contrast, interest rates for new auto loans have risen in recent weeks, and spreads to comparable-maturity Treasury yields continued to trend higher. Outstanding revolving and nonrevolving consumer credit contracted slightly over the three months ending in November. Given the decline in consumer spending, some of the drop-off reflects weaker demand for loans, but lenders also have restricted the supply of credit in response to worsening loan performance and inactive markets for asset-backed securities. Although tight credit remains the norm, at the end of December, GMAC announced that it was resuming lending to borrowers with credit scores below 700—a practice it stopped in the fall.

Regarding selected household assets, long-term mutual funds experienced sizable net outflows in December, although the pace of redemptions was slower than in prior months. In contrast, money market funds attracted considerable net inflows again in December, with prime money market funds accounting for a much larger share of the increase than government money market funds.

### **Treasury Finance**

Over the intermeeting period, the Treasury conducted several auctions for nominal and inflation-indexed securities. Treasury bill issuance totaled \$675 billion, including \$135 billion issued under the Supplementary Financing Program (SFP). Nonetheless, outstanding bills issued through January 22 under the SFP have fallen to about

**M2 Monetary Aggregate**  
(Based on seasonally adjusted data)

Aggregate and components	Percent change (annual rate) <sup>1</sup>						Level (billions of dollars), Dec. (p)
	2007	2008 (p)	2008				
			Q3	Q4 (p)	Nov.	Dec. (p)	
M2	5.8	8.5	4.8	14.9	8.6	27.3	8,154
Components <sup>2</sup>							
Currency	2.0	5.8	7.1	13.8	12.1	11.5	812
Liquid deposits <sup>3</sup>	4.1	7.0	3.9	9.8	5.0	37.8	4,875
Small time deposits	4.3	10.6	10.4	33.4	31.6	19.9	1,370
Retail money market funds	20.6	15.5	1.0	16.4	-6.3	3.2	1,091
Memo:							
Institutional money market funds	40.2	24.5	9.5	8.4	50.9	32.7	2,389
Monetary base	2.0	70.4	16.4	252.0	321.9	182.3	1,651

1. For years, Q4 to Q4; for quarters and months, calculated from corresponding average levels.

2. Nonbank traveler's checks are not listed.

3. Sum of demand deposits, other checkable deposits, and savings deposits.

p Preliminary.

Source: Federal Reserve.

\$175 billion from a peak of nearly \$560 billion in November. Investor demand for Treasury bills continued to be strong, particularly ahead of year-end. Auctions of nominal longer-term securities were also well received. The auction for newly issued 10-year TIPS had a stop-out rate well below market expectations and the highest bid-to-cover ratio for any TIPS auction since January 2000. Overall, foreign participation at Treasury auctions increased a bit, and foreign custody holdings of Treasury securities continued to climb in recent weeks. In contrast, foreign custody holdings of agency securities fell further.

Treasury market functioning deteriorated in late December but has improved some this month. Ahead of year-end, bid-asked spreads for on-the-run Treasury securities rose to very high levels, but they have fallen sharply since the turn of the year. Other indicators, however, point to continued market strains. Trading volume in the Treasury cash market tumbled in December and has been only a little higher so far this month. In addition, spreads between yields on on- and off-the-run Treasury securities have moved down only a bit this month from last month's extremely elevated average level, and yield-curve fitting errors have remained quite large, as investors evidently have continued to be reluctant to take positions that could profit from unusual price differentials across similar securities.

### **State and Local Government Finance**

Issuance of long-term municipal bonds stepped down a little in January, as did issuance of short-term securities. A substantial number of municipal bonds experienced rating downgrades in the third quarter, amid concerns about the fiscal outlook for state and local governments. Over the intermeeting period, sentiment among municipal bond investors appeared to improve markedly. Yields on long-term municipal bonds decreased noticeably, but ratios of municipal bond yields to those on comparable-maturity Treasury securities remained exceptionally high.

### **Money and Bank Credit**

M2 surged at an annual rate of about 27 percent in December, the fastest pace since September 2001. A substantial increase in liquid deposits accounted for most of the expansion, but small time deposits and currency also increased briskly. Within liquid deposits, demand deposits surged, perhaps reflecting the appeal—particularly among institutional investors—of the unlimited FDIC guarantee of non-interest-bearing transaction accounts in an environment with very low money market rates. Small time deposits increased substantially again last month—despite a decline in their average

**Commercial Bank Credit**

(Percent change, annual rate, except as noted; seasonally adjusted)

Type of credit	2007	2008	H1 2008	Q3 2008	Oct. 2008	Nov. 2008	Dec. 2008	Level <sup>1</sup> Dec. 2008
Total	11.0	5.2	5.4	4.4	20.0	-14.7	-12.7	9,532
<i>Loans<sup>2</sup></i>								
Total	12.1	5.0	7.0	3.0	9.6	-12.5	-5.7	7,163
To businesses								
Commercial and industrial	19.1	14.2	14.3	7.5	48.4	-4.2	-16.9	1,584
Commercial real estate	10.4	6.5	11.0	1.9	2.3	3.4	3.1	1,731
To households								
Residential real estate	8.4	-1.0	2.6	-4.7	-4.8	-8.2	-4.4	2,056
Revolving home equity	7.1	14.1	13.8	12.2	22.2	5.4	13.0	587
Other	8.9	-5.9	-1.1	-10.6	-15.0	-13.4	-11.2	1,469
Consumer	7.9	8.2	7.4	8.7	10.8	7.2	7.4	882
Originated <sup>3</sup>	7.1	6.8	7.6	5.9	12.5	-2.7	1.7	1,298
Other <sup>4</sup>	17.4	-6	-1.4	10.0	-9.0	-80.5	-17.8	910
<i>Securities</i>								
Total	8.1	5.7	.5	8.8	51.8	-21.1	-33.3	2,370
Treasury and agency	-5.5	20.0	1.1	23.3	79.8	61.5	1.3	1,407
Other <sup>5</sup>	26.3	-8.6	-1	-5.9	20.6	-117.5	-80.5	963

Note: Yearly annual rates are Q4 to Q4; quarterly and monthly annual rates use corresponding average levels. Data have been adjusted to remove the effects of mark-to-market accounting rules (FIN 39 and FAS 115), the initial consolidation of certain variable interest entities (FIN 46), the initial adoption of fair value accounting (FAS 159), and the effects of sizable nonbank structure activity in October 2006, March 2007, October 2007, September 2008, and November 2008. Data also account for breaks caused by reclassifications.

1. Billions of dollars. Pro rata averages of weekly (Wednesday) levels.

2. Excludes interbank loans.

3. Includes an estimate of outstanding loans securitized by commercial banks.

4. Includes security loans and loans to farmers, state and local governments, and all others not elsewhere classified. Also includes lease financing receivables.

5. Includes private mortgage-backed securities; securities of corporations, state and local governments, and foreign governments; and any trading account assets that are not Treasury or agency securities.

Source: Federal Reserve.

yield—in large part because a number of commercial banks offered aggressive rates to build core deposits. Persistent strong foreign demand for bank notes contributed to another sizable increase in currency last month. Assets in retail money market mutual funds rose slightly in December, after having contracted the previous month.

Commercial bank credit contracted at an annual rate of almost 13 percent in December, its second consecutive monthly decrease. A large portion of the decline in bank credit stemmed from a runoff of securities, some of which had been financed through the AMLF. In addition, total bank loans outstanding decreased at an annual rate of about 5¾ percent last month. C&I loans contracted sharply, reportedly reflecting broad-based paydowns of existing loans and weaker demand for new loans. Commercial real estate loans continued to grow moderately last month, with some respondents to the January Senior Loan Officer Opinion Survey attributing part of the recent growth in these loans to the shutdown of the CMBS market (see the appendix to this section). Residential mortgages held by banks decreased for the fourth month in a row; reportedly, last month's decline was due in part to increased loan sales to the housing-related GSEs. With terms having remained relatively attractive, credit extended under revolving home equity lines rose substantially in December, even though a number of banks reported in the January Senior Loan Officer Opinion Survey that they had trimmed the unused portion of such lines for some customers. Although originations of consumer loans by banks slowed to an annual rate of just 1¾ percent in December, a sharp decrease in securitizations led to a 7½ percent increase in banks' on-balance-sheet holdings of consumer loans.

The Senior Loan Officer Opinion Survey conducted in January indicated that banks continued to tighten standards and terms over the past three months on all major types of loans to businesses and households, although the net percentage of banks doing so was generally lower than the record-high levels posted in the October survey. All of the respondents in January who reported having tightened lending standards or terms on C&I loans cited the less favorable or more uncertain economic environment as an important reason for having done so; also, most of the respondents cited a worsening of industry-specific problems and a reduced tolerance for risk at their institution. On net, in January, significant fractions of banks reported weaker demand for most types of loans.

## Appendix

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### Senior Loan Officer Opinion Survey on Bank Lending Practices

The January 2009 Senior Loan Officer Opinion Survey on Bank Lending Practices addressed changes in the supply of, and demand for, loans to businesses and households over the past three months. The survey also included three sets of special questions: The first set asked banks about changes in lending policies on commercial real estate loans over the past year and new extensions of such loans over the second half of 2008; the second set queried banks about changes in the size of existing credit lines for businesses and households; and the third set asked banks about the use of interest rate floors in floating-rate loan agreements with both businesses and households. This appendix is based on responses from 53 domestic banks and 23 U.S. branches and agencies of foreign banks.<sup>1</sup>

In the January survey, the net fractions of respondents that reported having tightened their lending policies on all major loan categories over the previous three months stayed very elevated. Relative to the October survey, these net fractions generally edged down slightly or remained unchanged. Demand for loans from both businesses and households at domestic institutions reportedly continued to weaken, on balance, over the survey period.

In response to the special questions on commercial real estate lending, significant net fractions of both foreign and domestic institutions reported having tightened all queried loan policies over the past year. At the same time, about 15 percent of domestic banks, on net, indicated that the shutdown of the securitization market for commercial mortgage-backed securities (CMBS) since the middle of 2008 led to an increased volume of commercial real estate lending at their bank. Regarding the other special questions, banks also reportedly reduced credit limits on existing credit lines across a wide range of borrowers and increased the use of interest rate floors in new loan agreements during 2008.

#### **Lending to Businesses**

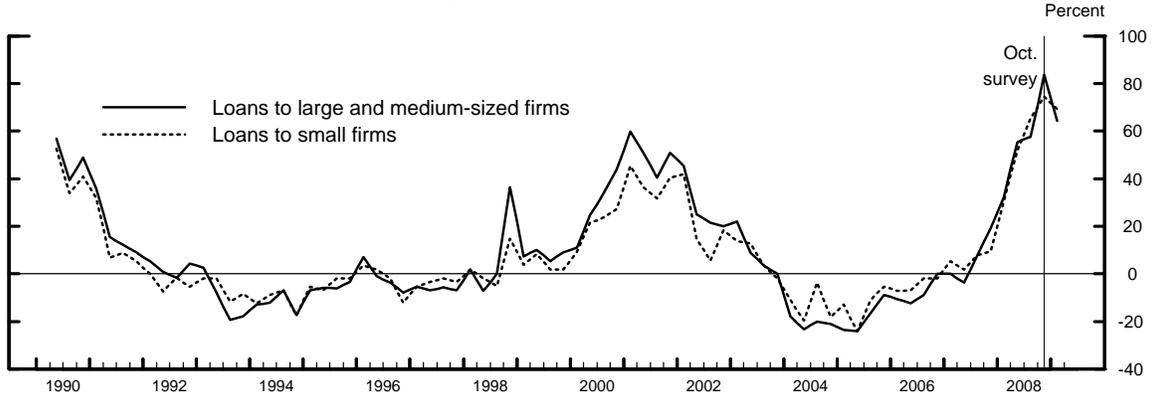
**Questions on commercial and industrial lending.** About 65 percent of domestic banks reported having tightened lending standards on commercial and industrial (C&I) loans to large and middle-market firms over the past three months, down from the percentage that reported tightening in the October survey but still above the previous peaks reported in 1990 and 2001. At about 70 percent, the fraction of domestic respondents that tightened standards on C&I loans to small firms over the past three months was only slightly lower than the one reported in the October survey. Significant majorities of domestic respondents indicated that they had further tightened price terms on C&I loans to firms of all sizes over the past three months. Specifically, around 90 percent of domestic banks indicated that they had increased spreads of loan rates over

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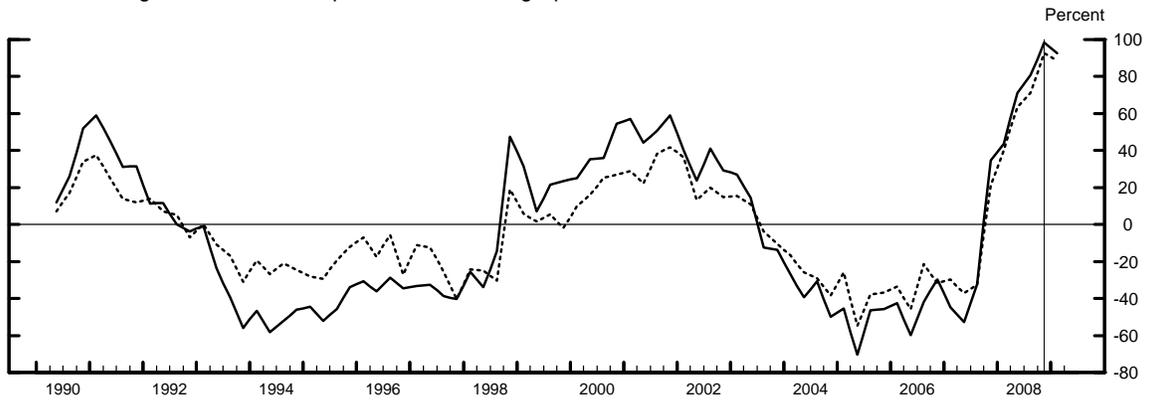
<sup>1</sup> Respondent banks received the survey on or after December 30, 2008, and their responses were due January 13, 2009.

## Measures of Supply and Demand for C&I Loans, by Size of Firm Seeking Loan

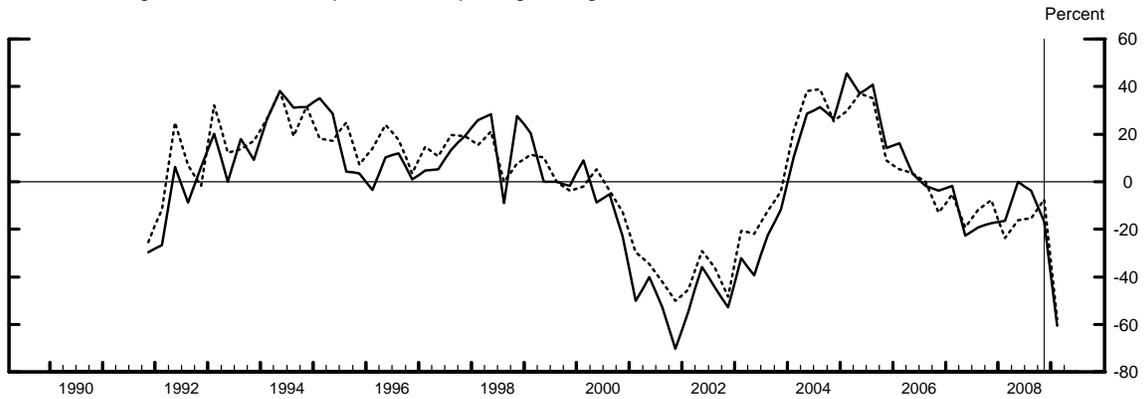
Net Percentage of Domestic Respondents Tightening Standards for Commercial and Industrial Loans



Net Percentage of Domestic Respondents Increasing Spreads of Loan Rates over Banks' Costs of Funds



Net Percentage of Domestic Respondents Reporting Stronger Demand for Commercial and Industrial Loans



their cost of funds for C&I loans to large and middle-market firms and to small firms—fractions comparable with those from the October survey; likewise, very high fractions of banks reported having charged higher premiums on riskier loans and having increased the costs of credit lines to firms of all sizes over the survey period.

On net, the fractions of banks that reported having tightened nonprice terms on C&I loans to large and middle-market firms over the past three months stayed at an elevated level but declined relative to the October survey. Large fractions of banks continued to note that they had reduced both the maximum size and the maximum maturity of loans or credit lines to firms of all sizes. In addition, about 70 percent of all domestic respondents reported having tightened covenants on C&I loans to large and middle-market firms, and about 60 percent reported having done so on such loans to small firms.

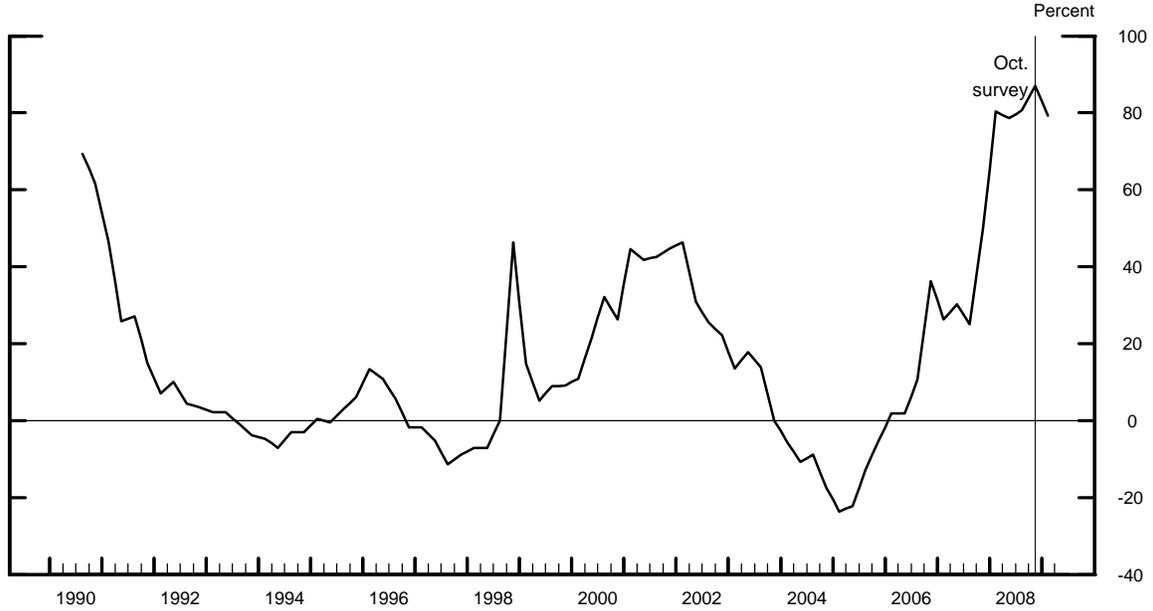
U.S. branches and agencies of foreign banks also tightened their business lending stance further over the past three months. About 65 percent of foreign institutions, a slightly smaller percentage than in October, indicated that they had firmed their lending standards on C&I loans in the January survey. Large fractions of foreign respondents had tightened most price and nonprice terms on C&I loans over the survey period, including increasing the premiums charged on riskier loans, raising the cost of credit lines, and reducing the maximum size of credit lines. Foreign banks also reported that over the past three months they had imposed more-restrictive policies on loan covenants and collateralization requirements for C&I loans.

All domestic and foreign respondents pointed to a less favorable or more uncertain economic outlook as a reason for tightening their lending standards and terms on C&I loans over the past three months. Most respondents indicated that a worsening of industry-specific problems, along with their bank's reduced tolerance for risk, were also important factors in their decision to tighten C&I lending policies. In contrast, only about 25 percent of the domestic respondents that had tightened standards or terms over the past three months noted that a deterioration in their bank's current or expected capital position had contributed to the change, down from approximately 40 percent in the October survey. Large fractions of foreign respondents pointed to decreased liquidity in the secondary market for C&I loans (75 percent of respondents) and an increase in defaults by borrowers in public debt markets (70 percent of respondents) as reasons for tightening standards and terms on C&I loans.

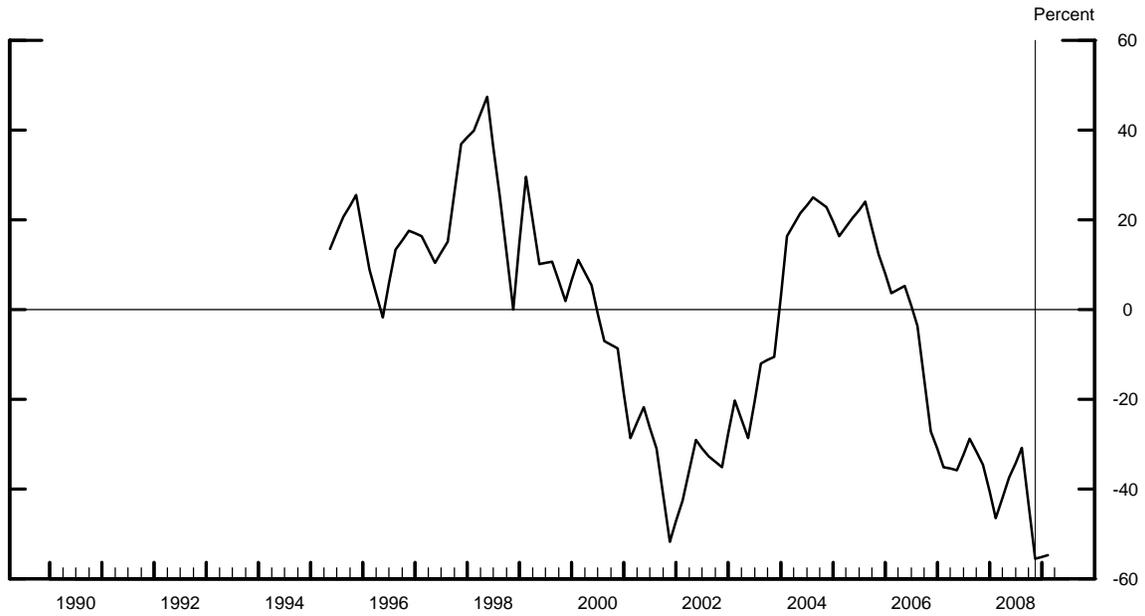
On balance, domestic and foreign respondents reported a further weakening of demand for C&I loans over the past three months. On net, about 60 percent of domestic respondents reported a reduction in demand for such loans from firms of all sizes. About 25 percent, on net, of U.S. branches and agencies of foreign banks saw a decrease in demand for C&I loans over the past three months, compared with the 5 percent of respondents that, on net, had reported an increase in C&I loan demand in the October survey.

## Measures of Supply and Demand for Commercial Real Estate Loans

Net Percentage of Domestic Respondents Tightening Standards for Commercial Real Estate Loans



Net Percentage of Domestic Respondents Reporting Stronger Demand for Commercial Real Estate Loans



Substantial majorities of the domestic institutions that had experienced weaker demand for C&I loans over the past three months pointed to decreases in their customers' needs to finance investment in plant and equipment, to finance mergers and acquisitions, to finance inventories, and to finance customer accounts receivable as reasons for the weaker demand. Among the few domestic respondents that saw an increase in loan demand over the past three months, all indicated that business borrowing had shifted to their bank from other bank or nonbank sources because these other sources had become less attractive. In addition, more than 30 percent of domestic and foreign institutions, on net, reported that inquiries from potential business borrowers had decreased during the survey period.

**Questions on commercial real estate lending.** On balance, about 80 percent of domestic banks reported that they had tightened their lending standards on commercial real estate (CRE) loans over the past three months, slightly less than the roughly 85 percent that had reported doing so in the October survey. Fifty percent of foreign respondents also indicated that they had tightened their lending standards on CRE loans over the survey period. On net, about 55 percent of domestic and foreign respondents reported weaker demand for CRE loans over the past three months.

**Special questions on commercial real estate lending.** Significant net fractions of banks reported having tightened many CRE loan terms. Over 2008 as a whole, the net fraction of domestic banks that increased their loan rate spreads was about 95 percent, while about 80 percent tightened their loan-to-value ratios. About 30 percent of the domestic respondents indicated that the shutdown of the CMBS securitization market had led to an increase in CRE lending at their bank over the second half of 2008. In contrast, about 15 percent of domestic banks reported a reduction in the volume of CRE lending as a result of the shutdown of the CMBS securitization market in the second half of last year.

### **Lending to Households**

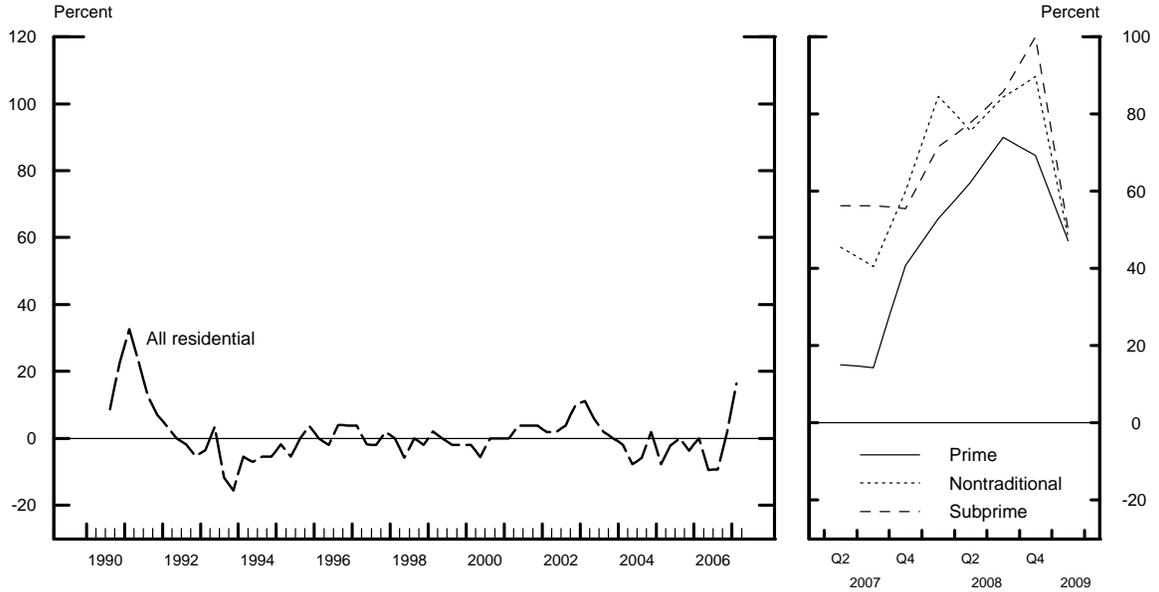
**Questions on residential real estate lending.** Smaller, though still substantial, fractions of domestic respondents continued to report having tightened their lending standards on prime and nontraditional residential mortgages in the January survey. About 45 percent of domestic respondents indicated that they had tightened their lending standards on prime mortgages over the past three months and almost 50 percent of the 25 banks that originated nontraditional residential mortgage loans over the survey period reported having tightened their lending standards on such loans. About 10 percent of domestic respondents saw weaker demand, on net, for prime residential mortgage loans over the past three months, also a significantly lower fraction than the roughly 50 percent that so reported in the October survey.<sup>2</sup> About 65 percent of respondents—

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<sup>2</sup> Even though the survey question asks banks to exclude refinancing, reported demand often increases in periods in which refinancing has picked up. The decline in the fraction for weaker demand likely reflects, in part, the rise in refinancing activity triggered by lower mortgage rates.

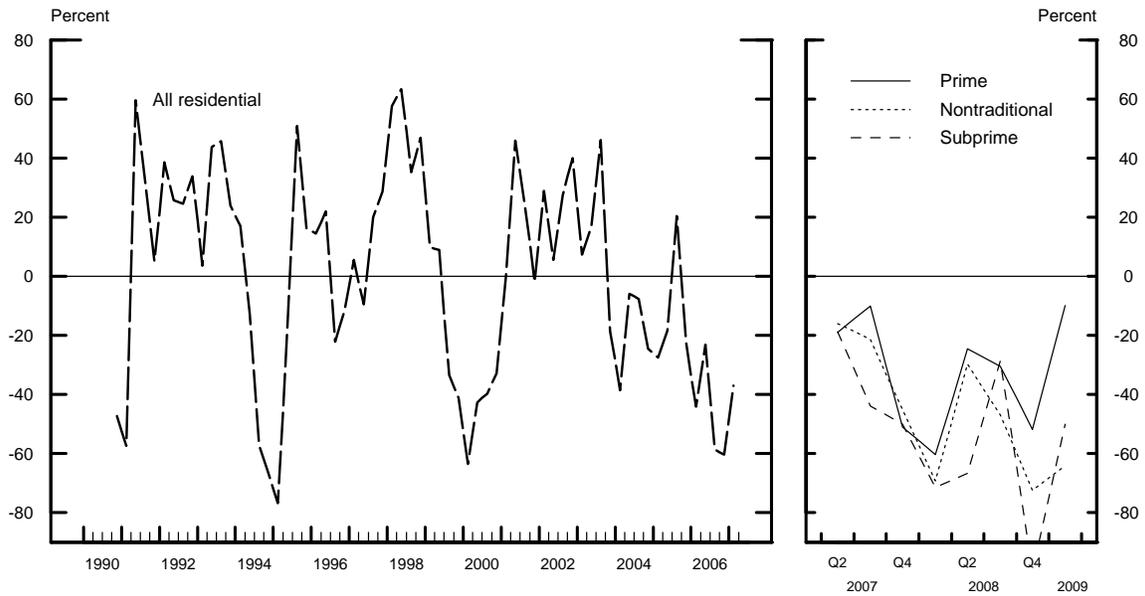
## Measures of Supply and Demand for Residential Mortgage Loans

Net Percentage of Domestic Respondents Tightening Standards for Residential Mortgage Loans



Note: For data starting in 2007:Q2, changes in standards for prime, nontraditional, and subprime mortgage loans are reported separately.

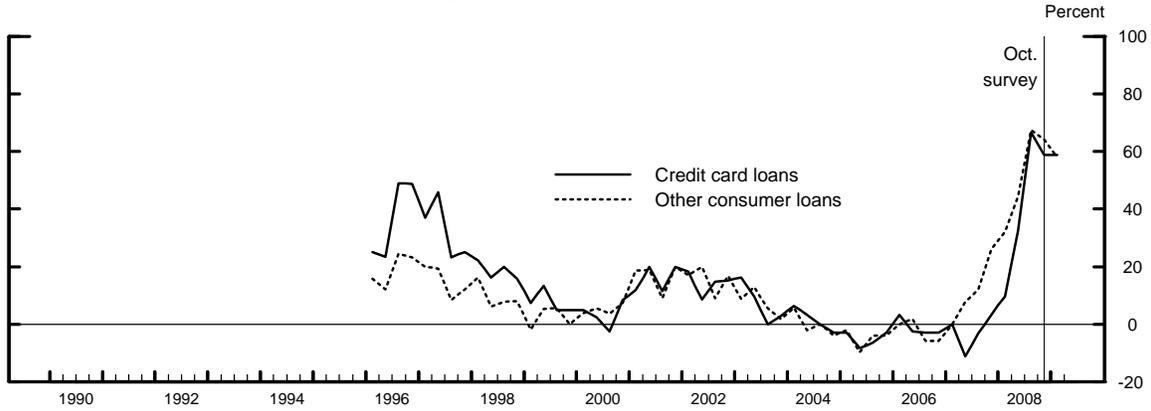
Net Percentage of Domestic Respondents Reporting Stronger Demand for Residential Mortgage Loans



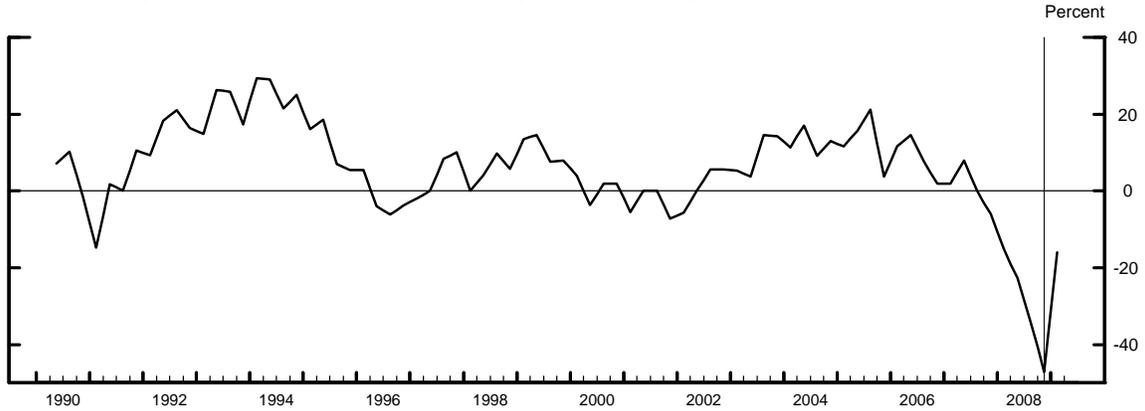
Note: For data starting in 2007:Q2, changes in demand for prime, nontraditional, and subprime mortgage loans are reported separately.

## Measures of Supply and Demand for Consumer Loans

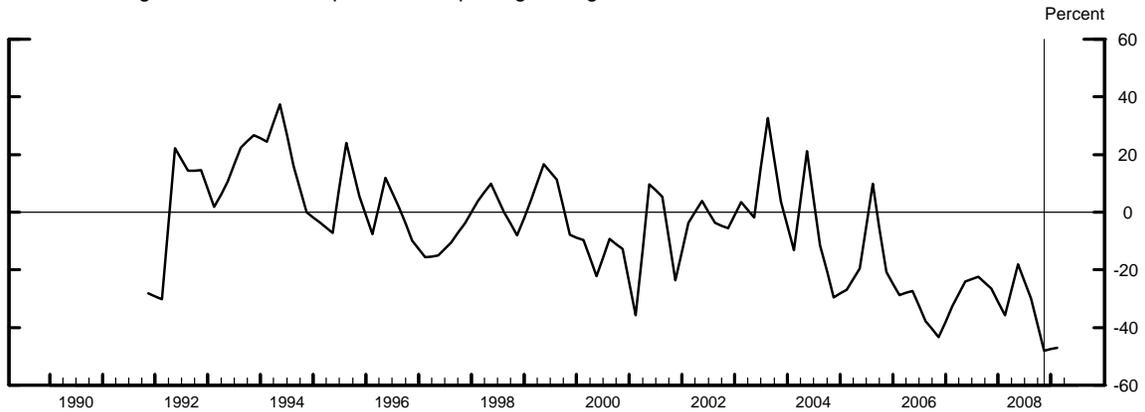
Net Percentage of Domestic Respondents Tightening Standards for Consumer Loans



Net Percentage of Domestic Respondents Reporting Increased Willingness to Make Consumer Installment Loans



Net Percentage of Domestic Respondents Reporting Stronger Demand for Consumer Loans



slightly lower than in the October survey—reportedly experienced weaker demand for nontraditional mortgage loans over the same period. Only four banks reported making subprime mortgage loans over the past three months.

On net, about 60 percent of domestic respondents, down from 75 percent in the October survey, noted that they had tightened their lending standards for approving applications for revolving home equity lines of credit (HELOCs) over the past three months. Twenty percent of domestic banks, on net, reported weaker demand for HELOCs over the past three months, slightly less than the fraction that had reported weaker demand in the October survey.

**Questions on consumer lending.** Large fractions of domestic banks again reported a tightening of standards and terms on both credit card and other consumer loans over the past three months. Nearly 60 percent of respondents indicated that they had tightened lending standards on credit card and other consumer loans, about the same fractions as in the October survey. Close to 55 percent of respondents also reported having reduced the extent to which credit card accounts were granted to customers who did not meet their bank's credit-scoring thresholds, and a similar fraction reported pulling back from granting other kinds of consumer loans to such customers. Roughly 45 percent of the respondents also reported having raised minimum required credit scores on credit card accounts and other consumer loans over the past three months, a proportion that is slightly lower than in the October survey. About 45 percent of banks reported having lowered credit limits to either new or existing credit card customers, down from the 60 percent that had reported doing so in the October survey.

On net, about 15 percent of domestic banks indicated that they had become either somewhat or much less willing to make consumer installment loans over the past three months, a decrease from roughly 45 percent in the October survey. About 45 percent of respondents, on net, indicated that they had experienced weaker demand for consumer loans of all types over the past three months, similar to the fraction in the October survey.

#### **Special Questions on Existing Credit Lines**

The January survey included a special question that queried banks on how they had changed the sizes of credit lines for existing customers for a number of account types over the past three months. On net, domestic banks reported that they had reduced the size of existing credit lines for all major types of business and household accounts. Regarding existing accounts for businesses, roughly 60 percent, on balance, reported a decrease in the limits on CRE accounts, about 50 percent indicated a decrease in the limits on credit lines extended to financial firms, about 30 percent indicated a decrease in credit limits on business credit card accounts, and roughly 25 percent noted a decrease in the size of C&I credit lines. On net, a large fraction of foreign banks also decreased limits on CRE lines of credit, credit lines extended to financial firms, and C&I credit lines. Regarding existing accounts for households, on net about 40 percent

of domestic banks reported having reduced the sizes of existing home equity lines of credit and approximately 35 percent having trimmed existing consumer credit card account limits.

**Special Questions on the Use of Interest Rate Floors**

The January survey also included a special question regarding the use of interest rate floors in floating-rate loan agreements during 2008. Eighty percent of domestic banks reported an increase in their use of interest rate floors in such agreements with businesses last year. About 45 percent of domestic banks reported an increase in the use of such rate floors on loans to households over the same period. No domestic bank reported a reduction in the use of interest rate floors on loans to businesses or households last year. Large fractions of domestic banks, however, reported that less than 5 percent of their outstanding loans—to both households and businesses—currently had interest rate floors that were binding, while only a small number of respondents indicated that a majority of their outstanding loans to households or businesses had binding rate floors.

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## **International Developments**

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## International Developments

### U.S. International Transactions

#### Trade in Goods and Services

The U.S. international trade deficit narrowed sharply to \$40.4 billion in November from \$56.7 billion in October as a steep decline in imports outweighed a sizable fall in exports. November's trade deficit is the smallest recorded since the end of 2003.

#### Trade in Goods and Services

	2007	Annual rate			Monthly rate		
		2008			2008		
		Q2	Q3	Q4 <sup>e</sup>	Sept.	Oct.	Nov.
Percent change							
<i>Nominal BOP</i>							
Exports	14.5	22.9	11.9	-33.6	-6.4	-2.3	-5.8
Imports	9.7	18.2	6.2	-39.4	-5.7	-1.6	-12.0
<i>Real NIPA</i>							
Exports	8.9	12.3	3.0	n.a.	...	...	...
Imports	1.1	-7.3	-3.5	n.a.	...	...	...
Billions of dollars							
<i>Nominal BOP</i>							
Net exports	-700.3	-720.3	-706.1	-582.8	-56.6	-56.7	-40.4
Goods, net	-819.4	-865.3	-858.8	-728.9	-69.5	-69.0	-52.4
Services, net	119.1	145.0	152.7	146.1	13.0	12.4	12.0

<sup>e</sup> Estimate as BOP data are two months at an annual rate.

n.a. Not available. ... Not applicable.

BOP Balance of payments.

NIPA National income and product accounts.

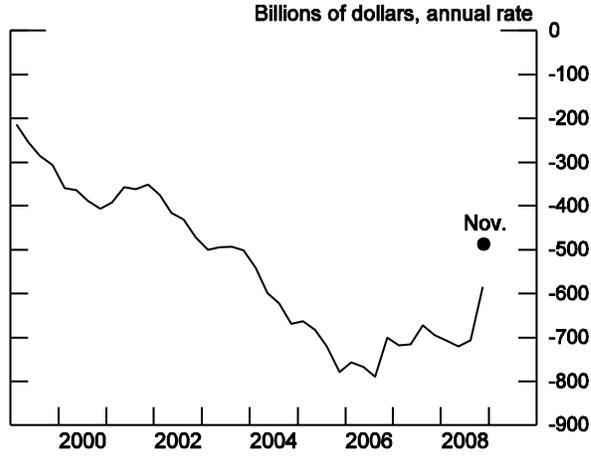
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis;  
Census Bureau.

The value of exports of goods and services fell 5.8 percent in November. Much of this fall was due to a decline in exports of fuels, chemicals, and other industrial supplies, which in part reflects lower prices for these goods. All other major categories of exports moved down as well.

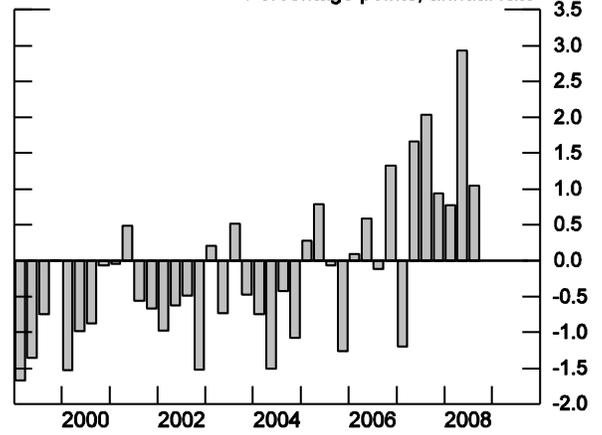
The average value of exports in October and November decreased 33.6 percent at an annual rate relative to the third quarter, largely as a result of a fall in exports of industrial supplies and capital goods. The fall in exports of industrial supplies reflected both lower prices, especially for fuels and chemicals, as well as a decline in volume of exports. The decline in exports of capital goods importantly reflected lower aircraft exports from Boeing stemming from a strike that lasted through October as well as production difficulties in November. All other major categories of exports also moved down.

## U.S. International Trade in Goods and Services (Quarterly)

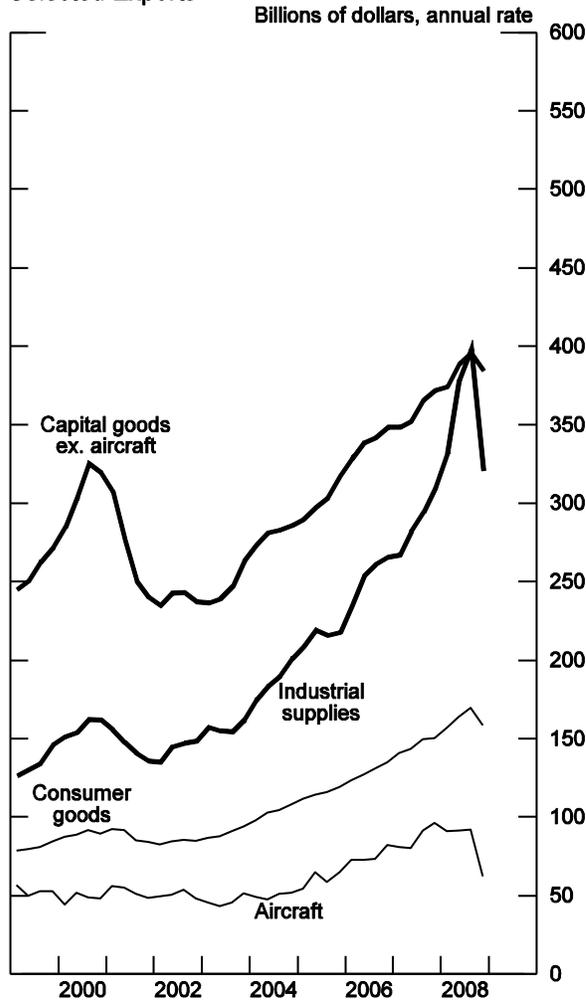
**Trade Balance**



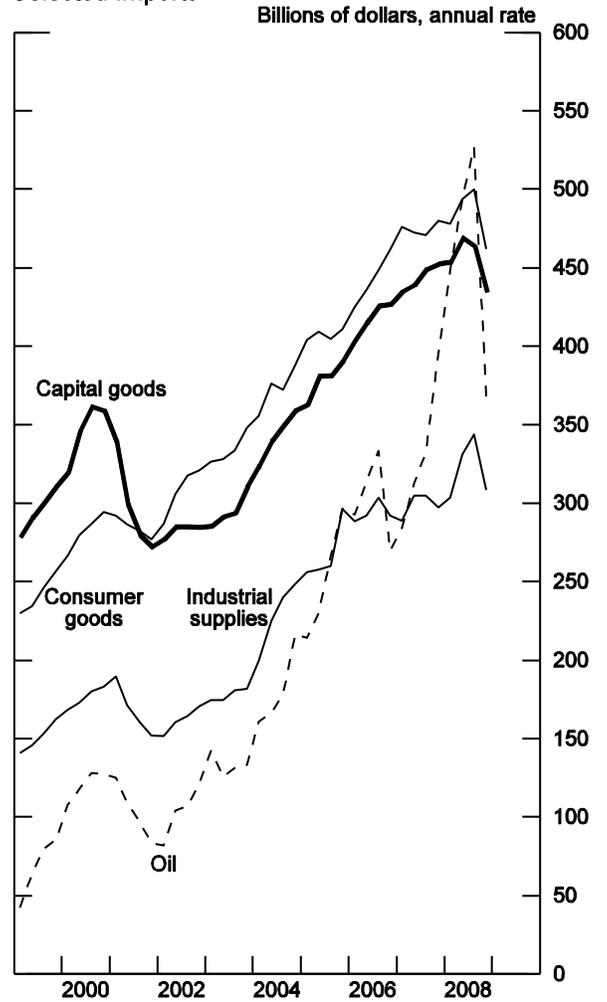
**Contribution of Net Exports to Growth of Real Gross Domestic Product**



**Selected Exports**



**Selected Imports**



Source: U.S. Dept. of Commerce, Bureau of Economic Analysis; Census Bureau.

**U.S. Exports and Imports of Goods and Services**  
(Billions of dollars; annual rate, balance of payments basis)

	Levels				Change <sup>1</sup>			
	2008		2008		2008		2008	
	Q3	Q4 <sup>e</sup>	Oct.	Nov.	Q3	Q4 <sup>e</sup>	Oct.	Nov.
<b>Exports of goods and services</b>	<b>1956.2</b>	<b>1766.0</b>	<b>1818.5</b>	<b>1713.6</b>	<b>54.2</b>	<b>-190.2</b>	<b>-42.6</b>	<b>-104.8</b>
Goods exports	1386.1	1212.1	1257.6	1166.6	36.9	-174.0	-36.2	-90.9
Gold	17.7	13.8	14.3	13.3	-1.3	-3.9	-5.4	-1.0
Other goods	1368.4	1198.3	1243.3	1153.3	38.2	-170.1	-30.8	-89.9
Capital goods	487.8	447.1	455.8	438.4	7.2	-40.7	-1.7	-17.5
Aircraft & parts	91.7	62.2	61.4	63.1	.4	-29.5	-8.7	1.7
Computers & accessories	46.5	40.0	41.6	38.4	-.7	-6.5	-.6	-3.1
Semiconductors	53.4	47.8	49.6	46.0	2.1	-5.6	-3.8	-3.6
Other capital goods	296.2	297.0	303.3	290.8	5.4	.8	11.4	-12.5
Automotive	131.9	114.6	121.2	108.1	7.7	-17.2	-2.8	-13.0
Ind. supplies (ex. ag., gold)	398.4	320.9	343.2	298.5	19.4	-77.5	-11.1	-44.7
Consumer goods	169.5	158.5	159.8	157.1	5.5	-11.0	-1.9	-2.7
Agricultural	129.9	107.2	112.7	101.8	.0	-22.6	-10.6	-10.9
All other goods	51.0	50.0	50.5	49.4	-1.7	-1.0	-14.6	-1.1
Services exports	570.1	553.9	560.9	547.0	17.3	-16.1	-6.4	-13.9
<b>Imports of goods and services</b>	<b>2662.4</b>	<b>2348.8</b>	<b>2498.7</b>	<b>2198.9</b>	<b>40.0</b>	<b>-313.5</b>	<b>-41.1</b>	<b>-299.8</b>
Goods imports	2245.0	1941.0	2086.1	1795.9	30.4	-303.9	-42.1	-290.2
Oil	525.7	365.3	446.8	283.7	31.3	-160.5	8.0	-163.1
Gold	12.7	7.5	8.4	6.7	.1	-5.2	-9.2	-1.7
Other goods	1706.5	1568.2	1630.9	1505.5	-1.0	-138.3	-40.9	-125.4
Capital goods	464.0	434.6	447.9	421.3	-5.3	-29.4	-17.0	-26.6
Aircraft & parts	34.2	31.2	31.5	30.9	-3.9	-3.0	-3.2	-.6
Computers & accessories	103.3	90.7	95.6	85.9	-6.1	-12.5	-3.4	-9.7
Semiconductors	26.1	24.2	25.7	22.8	-.8	-1.8	-.4	-3.0
Other capital goods	300.5	288.4	295.0	281.7	5.4	-12.1	-10.0	-13.3
Automotive	232.8	204.1	211.2	197.0	-17.1	-28.7	-10.4	-14.1
Ind. supplies (ex. oil, gold)	343.7	308.1	324.7	291.6	12.7	-35.6	-13.0	-33.2
Consumer goods	499.4	461.5	484.2	438.7	6.0	-38.0	1.7	-45.4
Foods, feeds, beverages	91.7	89.7	92.2	87.1	1.7	-2.1	1.1	-5.2
All other goods	74.8	70.3	70.8	69.8	1.1	-4.6	-3.3	-.9
Services imports	417.4	407.8	412.6	403.0	9.6	-9.6	1.0	-9.6
<b>Memo:</b>								
Oil quantity (mb/d)	12.28	12.66	13.36	11.95	-.19	.39	2.15	-1.41
Oil import price (\$/bbl)	116.91	78.27	91.54	65.00	8.26	-38.54	-15.58	-26.54

1. Change from previous quarter or month.

e Estimate based on average of two months.

Source: U.S. Dept. of Commerce, Bureau of Economic Analysis; Census Bureau.

The value of imports of goods and services declined 12 percent in November. More than half of this decline was accounted for by a decline in imports of oil, mostly reflecting a dramatic decrease in prices but also declining volumes. Imports of all other major categories recorded sizable decreases. Imports of capital goods fell on account of lower imports of computers and machinery. Imports of consumer goods were pulled down by a significant fall in imports of pharmaceuticals and household goods.

The average value of imports in October and November decreased about 40 percent at an annual rate relative to the third quarter. The decrease reflected a large decline in the value of oil imports, because of substantially lower prices. Imports of capital goods, automotive products, other industrial supplies, consumer goods, and services also decreased.

### **Prices of Internationally Traded Goods**

**Non-oil imports.** Following November's 2 percent decline, which was the largest one-month decline over the 14-year history of the index, prices of core imports fell 1.3 percent in December. Almost all of the December drop was due to a 5.7 percent fall in the prices for non-fuel industrial supplies, reflecting lower prices for metals and chemicals. Compared with November, prices in other categories either declined at a slower pace or moved up. After falling almost 0.5 percent in November, prices for automotive products and capital goods excluding computers and semiconductors fell only 0.2 percent in December. After falling sharply in November, prices for imported foods and consumer goods rose in December.

The average level of core import prices in the fourth quarter was an annual rate of 11½ percent below the third quarter average, as prices in all major sub-categories posted declines. The main contributors to the overall price decline were foods and non-fuel industrial supplies, whose prices fell at annual rates of 18 percent and 33 percent, respectively. In contrast, the average price of imported finished goods declined at a pace of only ¾ percent.

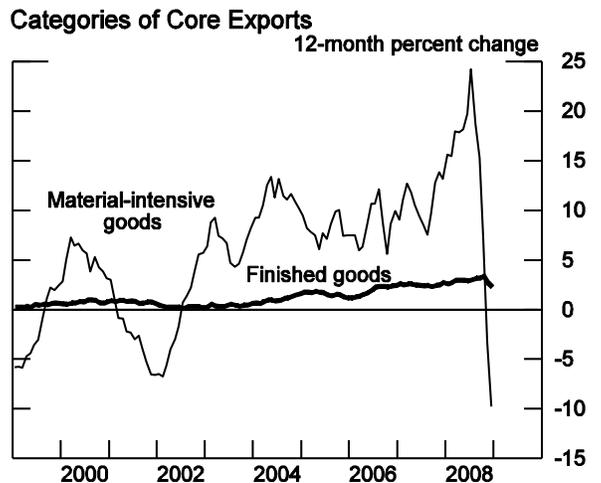
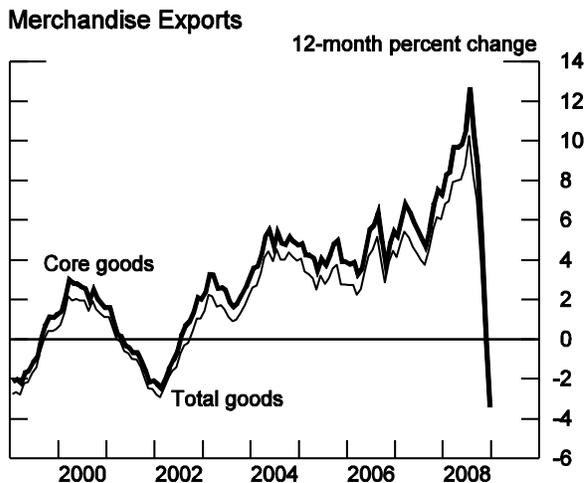
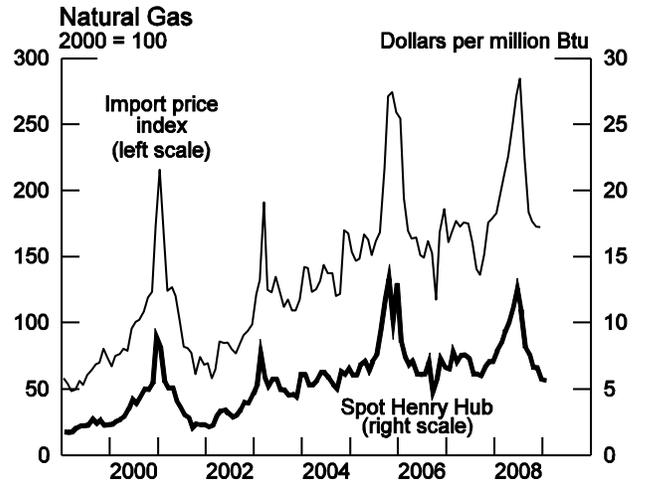
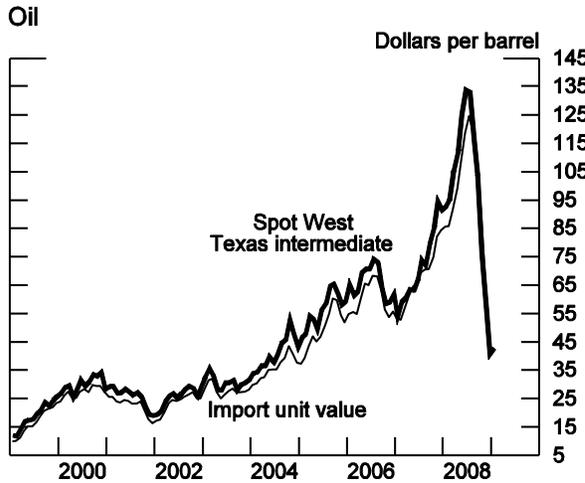
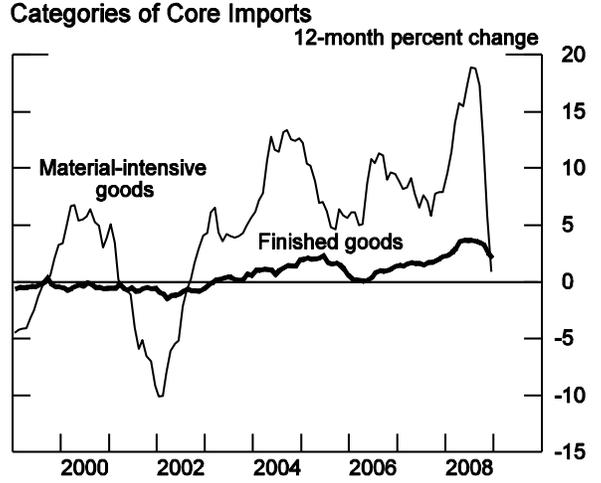
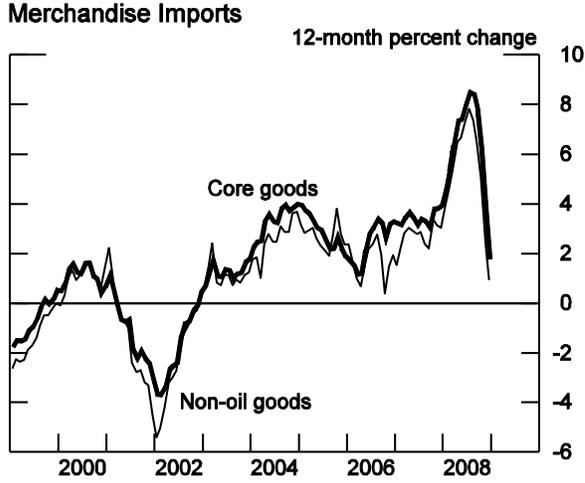
**Oil.** The Bureau of Labor Statistics price index of imported oil fell nearly 30 percent in November and declined an additional 21 percent in December. The index has fallen for five consecutive months and declined more than 47 percent for the year as a whole. The spot price of West Texas intermediate (WTI) crude oil also fell in both November and December, dropping 46 percent from its October level of \$77 per barrel to an average of \$41 in December. Since that time oil prices have been quite volatile amid concerns about

demand and supply uncertainties stemming from conflict in the Middle East, natural gas disruptions in Europe, and OPEC production cuts. The spot price of WTI closed on January 21 at \$42.25 per barrel.

**Exports.** Following a 4 percent decline in November, prices of exported core goods fell 2.8 percent in December. The slower pace of decline was most notable in the prices of nonagricultural industrial supplies, which fell 8.4 percent in November, but declined only 6 percent in December. After a 7.3 percent drop in November, prices of exported agricultural products fell an additional 6.5 percent in December. Prices of finished goods fell 0.1 percent in December after falling 0.4 percent in the previous month.

The average level of core export prices in the fourth quarter was 25 percent at an annual rate below the third quarter average, as prices for material-intensive goods fell sharply. Prices for agricultural products and non-agricultural supplies fell at annual rates of 54 percent and 45 percent, respectively. The average price for exported finished goods was up at an annual rate of 1 percent from the third quarter average, despite declining prices in November and December.

### Prices of U.S. Imports and Exports



Source: Bureau of Labor Statistics; Wall Street Journal; Commodity Research Bureau.

**Prices of U.S. Imports and Exports**  
(Percentage change from previous period)

	Annual rate			Monthly rate		
	2008			2008		
	Q2	Q3	Q4	Oct.	Nov.	Dec.
	----- BLS prices -----					
<b>Merchandise imports</b>	36.6	4.1	-46.8	-5.9	-7.0	-4.2
Oil	152.1	5.8	-92.4	-22.0	-28.5	-21.4
Non-oil	12.9	3.3	-11.7	-.8	-1.8	-1.1
Core goods <sup>1</sup>	13.3	6.1	-11.6	-1.0	-2.0	-1.3
Finished goods	5.3	2.3	-.8	.1	-.4	-.1
Cap. goods ex. comp. & semi.	8.7	4.4	-.4	.1	-.4	-.2
Automotive products	2.3	1.2	-1.3	.1	-.5	-.2
Consumer goods	4.9	1.4	-.6	.1	-.4	.1
Material-intensive goods	31.4	13.8	-29.6	-3.0	-5.3	-4.0
Foods, feeds, beverages	19.1	11.1	-17.6	-1.4	-4.7	2.3
Industrial supplies ex. fuels	35.0	14.5	-32.7	-3.3	-5.4	-5.7
Computers	-3.9	-8.2	-8.8	-.4	-1.3	-.9
Semiconductors	-4.9	-6.5	-2.2	-.6	-.3	.1
Natural gas	149.9	-25.1	-68.0	-3.8	-2.4	-.1
<b>Merchandise exports</b>	10.2	3.8	-22.0	-2.1	-3.4	-2.3
Core goods <sup>2</sup>	12.5	5.2	-25.3	-2.4	-4.0	-2.8
Finished goods	3.2	2.8	1.1	.4	-.4	-.1
Cap. goods ex. comp. & semi.	4.0	3.3	1.4	.4	-.3	.0
Automotive products	1.8	1.2	1.4	.4	-.1	-.2
Consumer goods	2.1	3.0	.4	.5	-.9	-.3
Material-intensive goods	23.2	7.7	-46.6	-5.3	-8.1	-6.0
Agricultural products	14.4	5.8	-53.7	-8.3	-7.3	-6.5
Industrial supplies ex. ag.	26.8	8.5	-45.0	-4.5	-8.4	-6.0
Computers	-9.1	-8.8	-9.1	-1.1	-.3	-1.1
Semiconductors	-.8	-6.5	-14.5	-3.0	-.2	-.6
	----- NIPA prices -----					
<b>Chain price index</b>						
Imports of goods & services	28.8	9.2	n.a.	...	...	...
Non-oil merchandise	11.2	2.9	n.a.	...	...	...
Core goods <sup>1</sup>	10.6	4.6	n.a.	...	...	...
Exports of goods & services	10.8	6.7	n.a.	...	...	...
Total merchandise	12.3	5.6	n.a.	...	...	...
Core goods <sup>2</sup>	13.9	6.6	n.a.	...	...	...

1. Excludes computers, semiconductors, and natural gas.

2. Excludes computers and semiconductors.

n.a. Not available. ... Not applicable.

BLS Bureau of Labor Statistics.

NIPA National income and product accounts.

Source: U.S. Dept. of Commerce, Bureau of Economic Analysis; Bureau of Labor Statistics.

**U.S. International Financial Transactions**

Since the December Greenbook, we have received U.S. balance of payments data for the third quarter of 2008, Treasury data on U.S. international financial transactions for November, and balances in custody accounts at the Federal Reserve Bank of New York (FRBNY) through mid January. As has been the case for several quarters, the composition of U.S. flows continues to show a “flight to safety” and a general deleveraging. In addition, the most recent Treasury data show a net outflow from foreign official sources as several countries drew down their dollar reserves in exchange market operations aimed at supporting their currencies.

After recording large net inflows through September, official foreigners reduced their holdings in the United States in both October and November (line 1 of the “Summary of U.S. International Transactions” table and the chart “Foreign Official Financial Inflows through November 2008”).

. Custody data from FRBNY point to a return to small inflows in December. As has been the case for several quarters, foreign official investors have continued to shift their holdings out of agencies into Treasury securities.

Large drawings on the reciprocal currency swap facilities (included in line 2) generated significant official outflows in September and October, as Federal Reserve deposit claims at the partner central banks increased. In November, the outstanding drawings declined a bit, which generated a small inflow.

As the partner central banks in the swap arrangements lent these dollar funds in their domestic markets, there appears to have been some easing in funding pressures in Europe as evidenced by a reduction in loans by European-owned banks in the United States to their foreign parents. All told, the net banking position with foreigners (line 3) posted an unprecedentedly large net inflow of \$181 billion in October, followed by a smaller net inflow of \$43 billion in November.

The ongoing financial crisis has been associated with a contraction in gross cross-border positions, consistent with the general process of deleveraging seen elsewhere in the financial system. Foreign private investors *sold*, on net, \$27 billion of U.S. securities in November (line 4). Net sales of U.S. securities are rare (see the top-left panel of the chart “Private Security Flows through November 2008”). Further, the composition of these

positions has become even more heavily weighted toward Treasury securities. Private foreigners, on net, purchased \$10 billion in Treasury securities in November (line 4a), while continuing to sell agency bonds (line 4b) and corporate bonds (line 4c). Foreign net purchases of equity were minimal in November (line 4d), following significant net sales in October.

U.S. residents are also paring back their positions in foreign securities. After many years of quarterly net purchases, U.S. residents, on net, sold \$84 billion in foreign long-term securities in the third quarter of 2008 (line 5). The pace of net sales then increased to \$34 billion in October and \$33 billion in November.

Turning to the latest balance of payments release, flows of both U.S. direct investments abroad (line 6) and foreign direct investment into the United States (line 7) declined significantly in the third quarter as corporations reduced their intercompany debt positions. U.S. residents decreased their holdings of foreign short-term securities and deposits abroad (available only quarterly and included in line 10), which generated an inflow as these investments returned home. Increased borrowing by U.S. non-bank residents directly from foreign banks also contributed to the inflow recorded in line 10. The statistical discrepancy in the third quarter declined to a still sizable positive \$40 billion, indicating some combination of over reporting of the current account deficit or under reporting of net financial inflows.

**Summary of U.S. International Transactions**  
(Billions of dollars; not seasonally adjusted except as noted)

	2006	2007	2007	2008				
			Q4	Q1	Q2	Q3	Oct.	Nov.
<b>Official financial flows</b>	<b>490.3</b>	<b>387.0</b>	<b>121.5</b>	<b>178.3</b>	<b>101.2</b>	<b>-113.2</b>	<b>-262.5</b>	<b>12.5</b>
1. Change in foreign official assets in the U.S. (increase, +)	487.9	411.1	145.5	173.6	145.5	113.2	-17.1	-11.3
a. G-10 countries + ECB	26.1	36.8	11.8	-1.6	0.3	8.9	-0.4	-14.4
b. OPEC	45.2	33.0	16.1	16.7	16.0	16.6	1.6	-1.2
c. All other countries	416.6	341.4	117.6	158.5	129.2	87.6	-18.4	4.3
2. Change in U.S. official assets (decrease, +) <sup>1</sup>	2.4	-24.1	-24.0	4.7	-44.3	-226.4	-245.4	23.8
<b>Private financial flows</b>	<b>348.8</b>	<b>387.4</b>	<b>91.9</b>	<b>12.1</b>	<b>21.7</b>	<b>248.4</b>	<b>...</b>	<b>...</b>
<b>Banks</b>								
3. Change in net foreign positions of banking offices in the U.S. <sup>2</sup>	111.5	-81.7	-48.6	-168.5	-92.1	-53.9	180.6	43.1
<b>Securities<sup>3</sup></b>								
4. Foreign net purchases (+) of U.S. securities	634.2	746.4	188.3	41.8	76.7	2.5	35.0	-26.5
a. Treasury securities	-58.2	152.5	64.1	58.9	60.0	88.9	102.0	9.9
b. Agency bonds	25.8	19.4	16.4	-18.0	-32.8	-54.6	-41.7	-20.7
c. Corporate and municipal bonds	517.8	383.5	49.4	-11.9	50.2	-34.4	-18.4	-17.3
d. Corporate stocks <sup>4</sup>	148.9	191.1	58.4	12.8	-0.7	2.6	-7.0	1.6
5. U.S. net acquisitions (-) of foreign securities	-362.4	-292.1	-9.6	-44.4	-38.6	84.3	34.2	33.1
a. Bonds	-224.5	-172.9	-18.5	-16.9	-16.7	70.1	14.4	12.8
b. Stock purchases	-119.1	-107.9	11.5	-26.6	-19.9	14.2	20.6	20.3
c. Stock swaps <sup>4</sup>	-18.8	-11.3	-2.6	-0.8	-2.0	0.0	-0.8	0.0
<b>Other flows<sup>5</sup></b>								
6. U.S. direct investment (-) abroad	-241.2	-333.3	-110.9	-89.1	-84.0	-56.9	...	...
7. Foreign direct investment in the U.S.	242.0	237.5	55.7	80.4	105.3	66.1	...	...
8. Net derivatives (inflow, +)	29.7	6.5	-13.5	-8.0	-2.4	-4.1	...	...
9. Foreign acquisitions of U.S. currency	2.2	-10.7	-3.5	-0.9	0.2	5.8	...	...
10. Other (inflow, +) <sup>6</sup>	-67.3	114.7	34.0	200.7	56.5	204.5	...	...
<b>U.S. current account balance<sup>7</sup></b>	<b>-788.1</b>	<b>-731.2</b>	<b>-167.2</b>	<b>-175.6</b>	<b>-180.9</b>	<b>-174.1</b>	<b>...</b>	<b>...</b>
<b>Capital account balance<sup>8</sup></b>	<b>-3.9</b>	<b>-1.8</b>	<b>-0.6</b>	<b>-0.6</b>	<b>-0.6</b>	<b>-0.6</b>	<b>...</b>	<b>...</b>
<b>Statistical discrepancy<sup>7</sup></b>	<b>-47.1</b>	<b>-41.3</b>	<b>-45.6</b>	<b>-14.1</b>	<b>58.7</b>	<b>39.5</b>	<b>...</b>	<b>...</b>

Note: Data in lines 1 through 5 differ in timing and coverage from the balance of payments data published by the Department of Commerce. Details may not sum to totals because of rounding.

1. Includes changes in U.S. official reserve assets and in outstanding reciprocal currency swaps with certain foreign central banks.

2. Changes in dollar-denominated positions of all depository institutions and bank holding companies plus certain transactions between broker-dealers and unaffiliated foreigners (particularly borrowing and lending under repurchase agreements). Includes changes in custody liabilities other than U.S. Treasury bills.

3. Includes commissions on securities transactions and therefore does not match exactly the data on U.S. international transactions published by the Department of Commerce.

4. Includes (4d) or represents (5c) stocks acquired through nonmarket means such as mergers and reincorporations.

5. Quarterly data; seasonally adjusted.

6. Transactions by nonbanking concerns and other banking and official transactions not shown elsewhere plus amounts resulting from adjustments made by the Department of Commerce and revisions (in lines 1 through 5 and 8) since publication of the quarterly data in the Survey of Current Business.

7. Seasonally adjusted.

8. Seasonally adjusted; consists of transactions in nonproduced nonfinancial assets and capital transfers.

G-10 Group of Ten (Belgium, Canada, France, Germany, Italy, Japan, the Netherlands, Sweden, Switzerland, United Kingdom, United States).

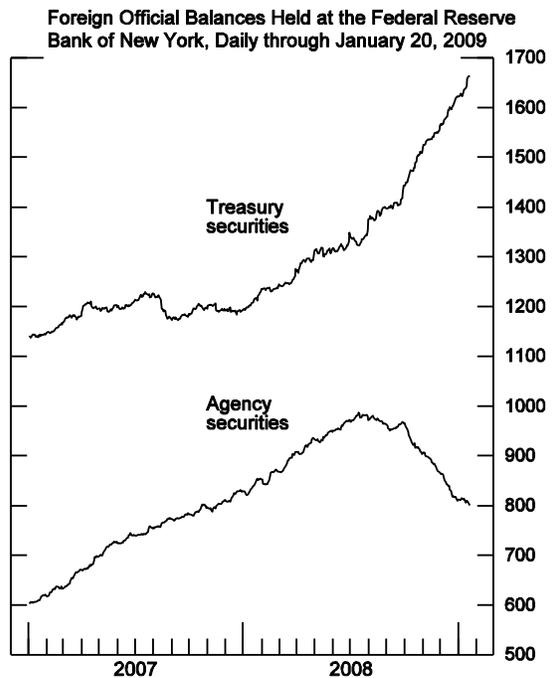
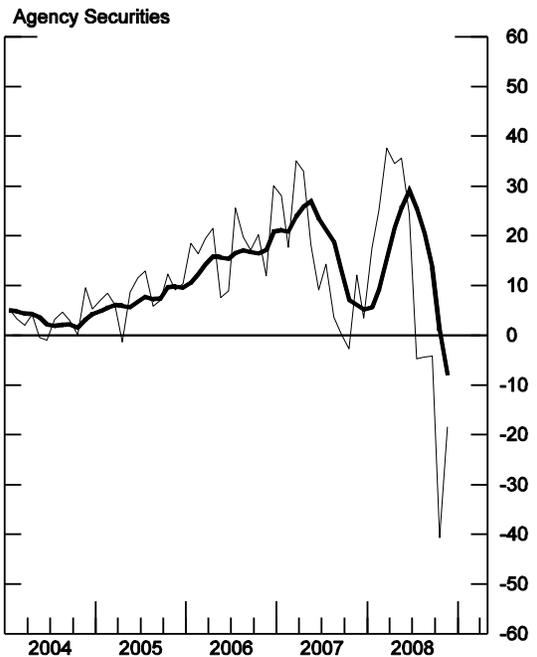
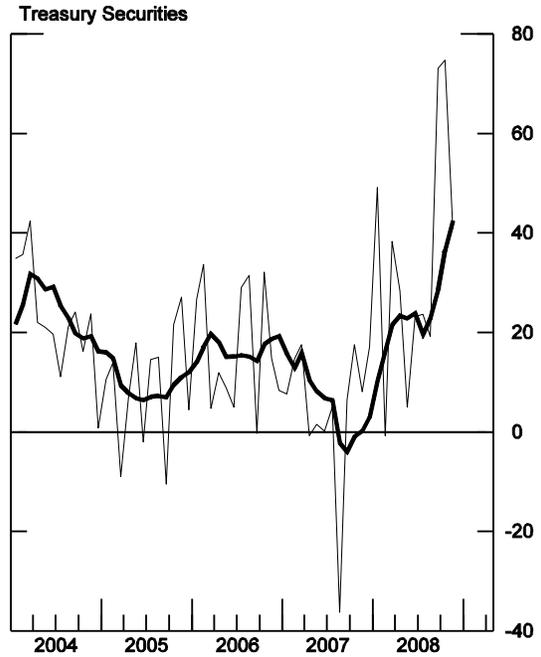
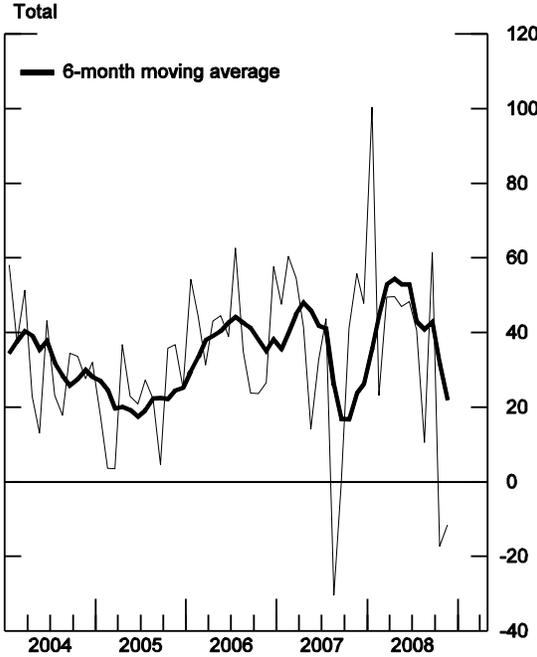
ECB European Central Bank.

OPEC Organization of the Petroleum Exporting Countries.

... Not applicable.

Source: U.S. Department of Commerce, Bureau of Economic Analysis; U.S. Treasury International Capital reports with staff adjustments.

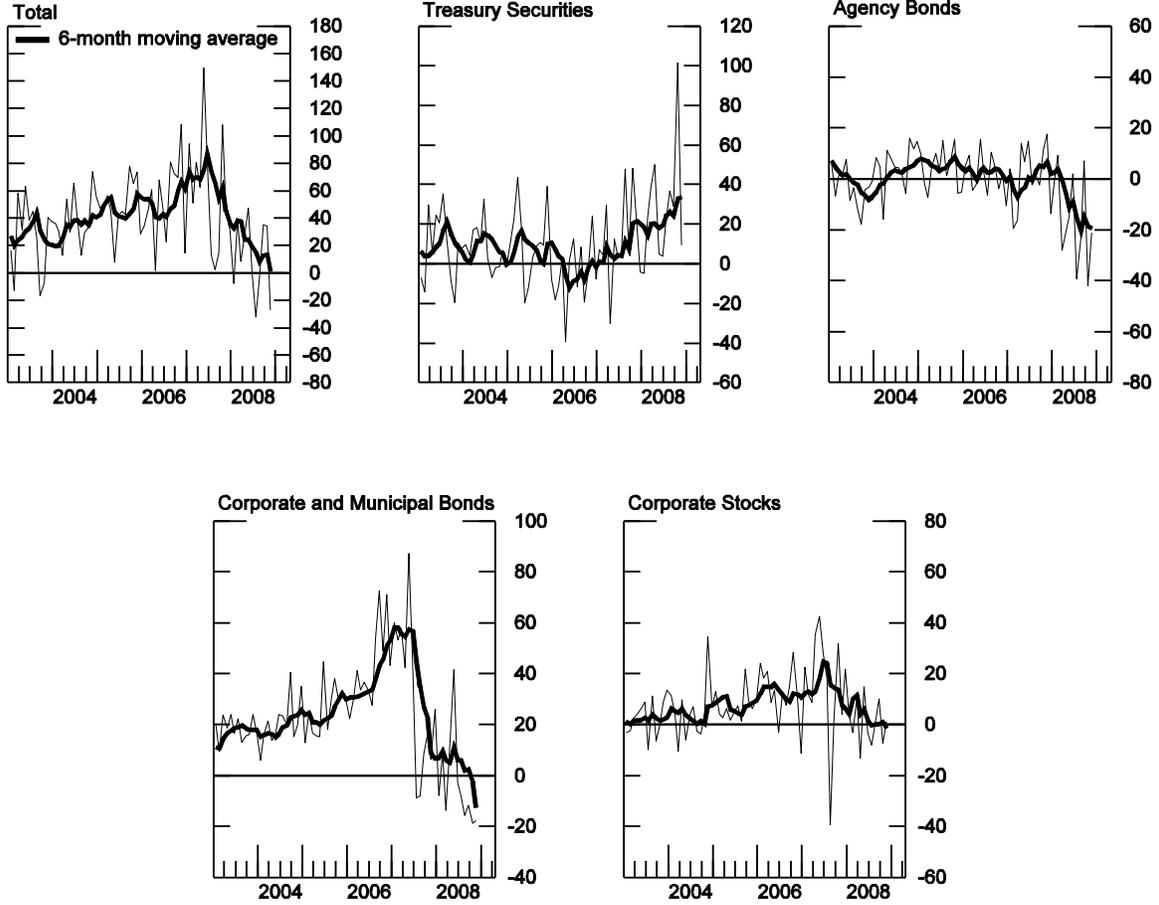
**Foreign Official Financial Inflows (+) through November 2008**  
 (Billions of dollars; monthly rate, not seasonally adjusted)



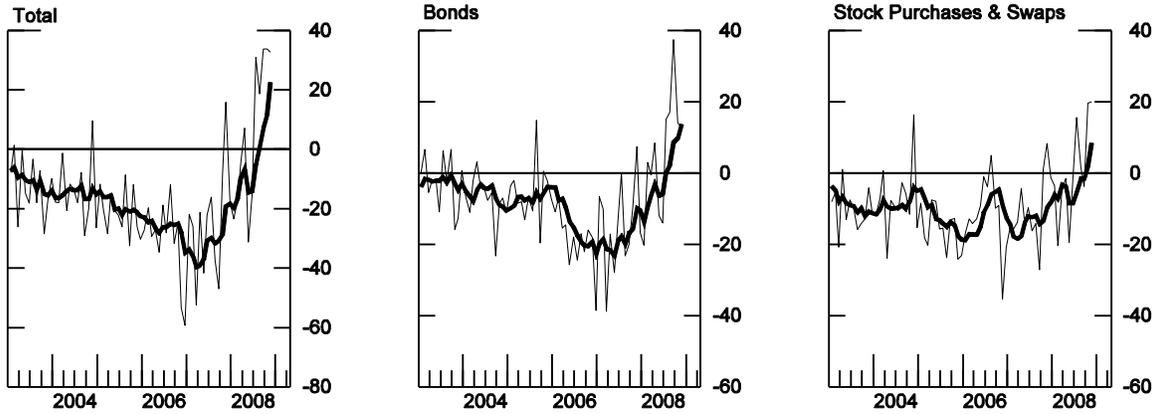
Source: U.S. Treasury International Capital reports with staff adjustments and FRBNY

**Private Securities Flows through November 2008**  
 (Billions of dollars; monthly rate, not seasonally adjusted)

**Foreign Net Purchases (+) of U.S. Securities**



**U.S. Net Acquisitions (-) of Foreign Securities**



Source: For all figures, U.S. Treasury International Capital reports with staff adjustments.

## **Foreign Financial Markets**

Conditions in foreign financial markets have been relatively calm since the time of the December Greenbook, although concerns about bank earnings and the stability of the global banking system appeared to grow late in the period. One-month Libor-OIS spreads in euro and sterling narrowed, though by less than the spread in dollars. The basis spread implied by foreign exchange swaps between the dollar and the euro rose slightly in mid-December, consistent with continued dollar funding pressure for some institutions, but the spread declined significantly ahead of the year-end as firms appeared able to secure funds. Both investment-grade and lower-rated corporate bond spreads continued to rise in Canada but they decreased slightly in the euro area and changed little in the United Kingdom.

Governments in major foreign economies initiated several actions aimed at easing credit market strains. On January 19, U.K. authorities introduced an asset protection scheme to insure certain bank assets for a fee, extended the government's debt guarantee for bank funding from April to the end of 2009 and introduced a scheme to guarantee asset-backed securities issued by banks, authorized a new facility for the purchase of high-quality assets by the Bank of England, and extended the maturity date for borrowing from the Bank of England's discount window to up to one year. At the same time, the government promised to negotiate commitments to lend more funds to the private sector from banks participating in its programs. The French government also authorized a further capital injection of 10.5 billion euro into the country's top 6 banks, similar to its first capital injection last October; in Germany, the Financial Markets Stabilization Fund (SoFFin) extended the guarantee granted to Hypo Real Estate Group by an additional 12 billion euro; and the Irish government nationalized Anglo Irish Bank. Earlier in the period, the Irish government injected 5.5 billion euro in several banks; the United Kingdom relaxed the terms of its bank credit guarantees; the Bank of Japan announced that it would increase its purchase of Japanese government bonds, including longer-term bonds, and would purchase commercial paper outright; and, after more than a year of negotiations, the Canadian government was able to broker an agreement to restructure a substantial portion of asset-backed commercial.

Long-term sovereign bond yields in the advanced foreign economies dropped in the period after the December Greenbook, as inflationary pressures declined and expectations of easier monetary policy mounted. Ten-year nominal sovereign bond yields dropped on net 11 to 20 basis points in the United Kingdom, Japan, and Germany and 40 basis points in Canada. Market volatility continued to be high amid further uncertainty about the

severity and the duration of the ongoing global recession and amid mounting concerns over the stability of the global banking system. The FTSE, the Dow Jones Euro Stoxx, Japan's TOPIX, and the S&P 500 declined 4½ to 11½ percent. Banking sector share prices underperformed the major indexes.

The major currencies index of the dollar has risen about ½ percent on net since the time of the December Greenbook, with the dollar depreciating about 5 percent against the yen but appreciating 7½ percent against sterling and ¾ to 1½ percent against the euro and Canadian dollar. Expectations that euro-area monetary policy would remain relatively tight compared with the U.S. policy contributed to the weakness of the dollar against the euro at the beginning of the period. The dollar subsequently strengthened against the euro, however, as comments by European Central Bank (ECB) officials, together with lower readings on inflation in the euro area, suggested a growing inclination to ease policy. On January 15, the ECB cut its policy rate by 50 basis points, to 2 percent. Weak data in the United Kingdom and Japan also contributed the dollar's recent rebound. Implied volatilities in most currency pairs remained elevated, although well below the multiyear highs reached in October.

In aggregate, the dollar has also increased ½ percent against the currencies of our other important trading partners since the time of the December Greenbook. The dollar has depreciated ¾ percent against the Brazilian *real* and has appreciated ¾ and ½ percent versus the Mexican peso and the Chinese renminbi. There continued to be reports of foreign exchange intervention by a number of emerging market countries in support of their domestic currencies. Russia allowed 15 small devaluations in the last two months, bringing the currency's overall devaluation against the dollar to about 18 percent since mid-December. More than \$100 billion of reserves were used in the last five months to defend the ruble. Of note, on December 30, Saudi Arabia, Kuwait, Qatar, and the United Arab Emirates signed a long-negotiated pact to form a currency union in 2010.

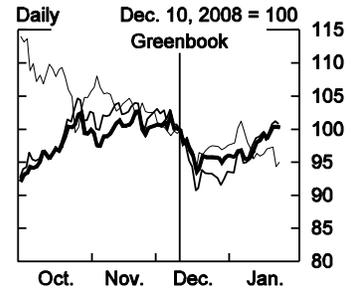
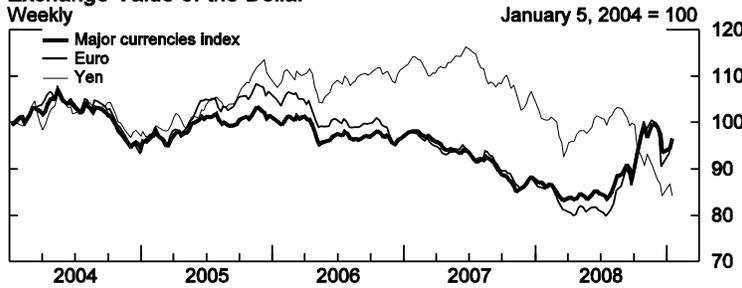
Equity prices in Latin America and emerging Asia have been less volatile than in earlier periods. Equity indexes were mixed in most Asian and Latin American countries, and dropped 19 and 3½ percent in Hong Kong and China, respectively. Equity markets in many emerging market economies were likely supported by further steps by governments to help stabilize funding markets and to increase spending. Sovereign yield spreads in Latin America and emerging Asia declined significantly since mid-December but remain quite elevated.

### Exchange Value of the Dollar and Stock Market Indexes

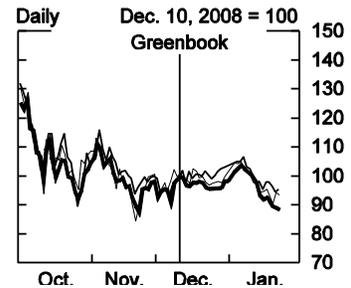
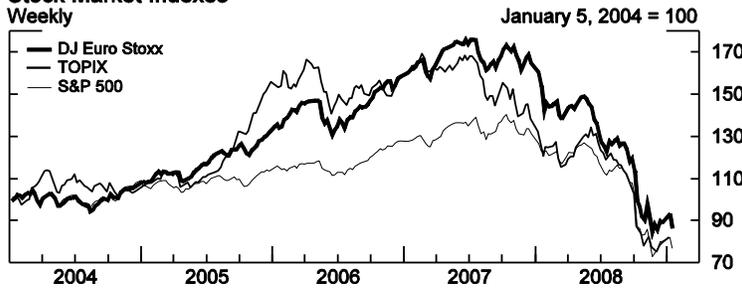
	Latest	Percent change since December Greenbook
<i>Exchange rates*</i>		
Euro (\$/euro)	1.2923	0.8
Yen (¥/\$)	88.4	-4.9
Sterling (\$/£)	1.3778	7.6
Canadian dollar (C\$/\\$)	1.2728	1.4
<i>Nominal dollar indexes*</i>		
Broad index	110.6	0.5
Major currencies index	82.9	0.4
OITP index	140.2	0.6
<i>Stock market indexes</i>		
DJ Euro Stoxx	200.6	-11.4
TOPIX	795.9	-4.6
FTSE 100	4066.5	-6.9
S&P 500	831.4	-6.4

\* Positive percent change denotes appreciation of U.S. dollar.

**Exchange Value of the Dollar**



**Stock Market Indexes**

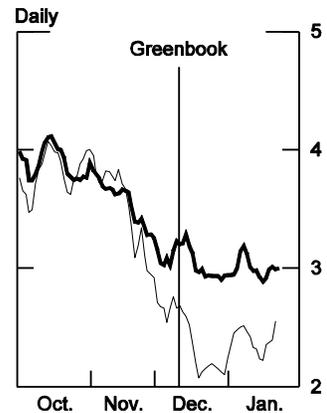
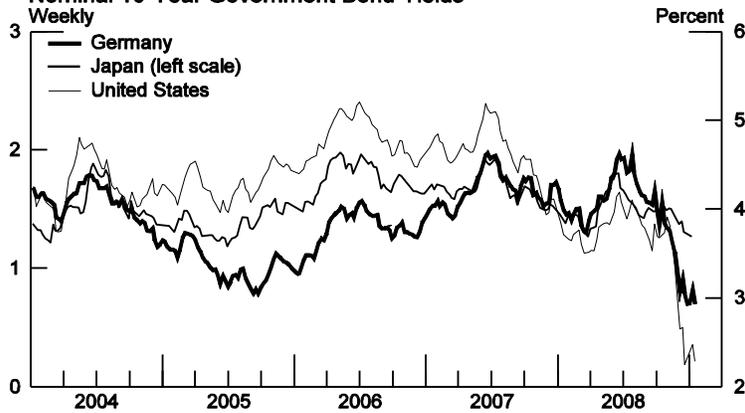


**Industrial Countries: Nominal and Real Interest Rates**

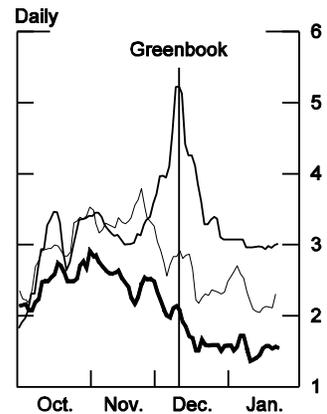
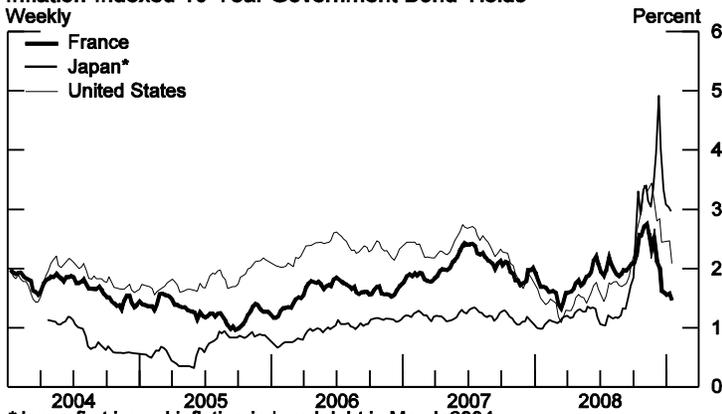
	Percent					
	3-month Libor		10-year nominal		10-year indexed	
	Latest	Change since Dec. Greenbook	Latest	Change since Dec. Greenbook	Latest	Change since Dec. Greenbook
Germany	2.25	-1.12	3.01	-0.20	1.35	-0.51
Japan	0.70	-0.25	1.23	-0.18	3.01	-2.22
United Kingdom	2.20	-1.05	3.46	-0.11	1.42	-1.08
Canada	1.52	-0.98	2.68	-0.40	...	...
United States	1.16	-1.00	2.56	-0.11	2.32	-0.53

... Not applicable.  
 Libor London interbank offered rate.

**Nominal 10-Year Government Bond Yields**  
 Weekly



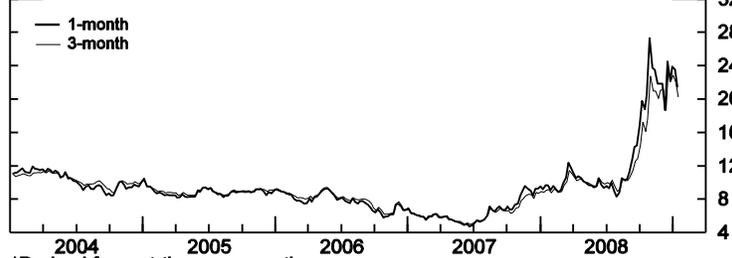
**Inflation-Indexed 10-Year Government Bond Yields**  
 Weekly



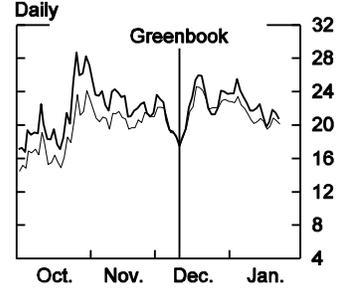
\*Japan first issued inflation-indexed debt in March 2004.

**Measures of Market Volatility**

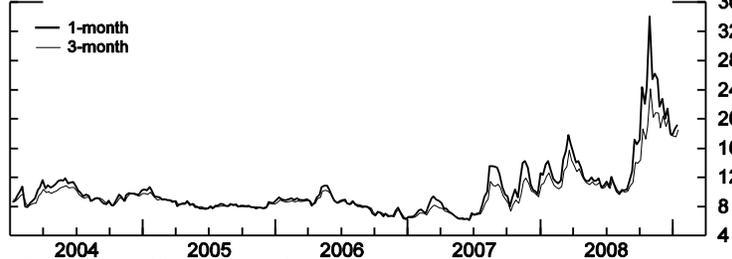
**Dollar-Euro Options-Implied Volatility\***  
Weekly



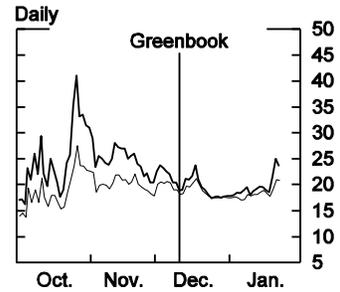
\*Derived from at-the-money options.



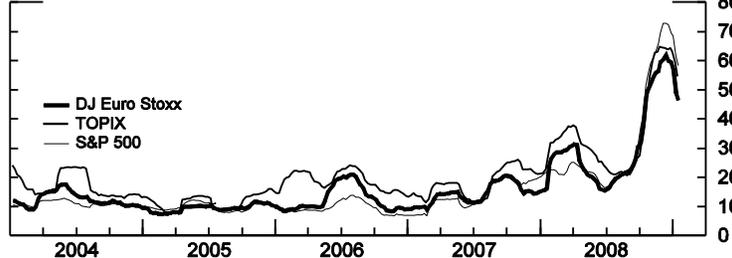
**Yen-Dollar Options-Implied Volatility\***  
Weekly



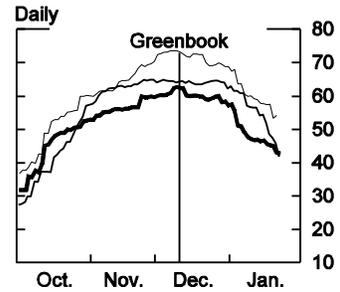
\*Derived from at-the-money options.



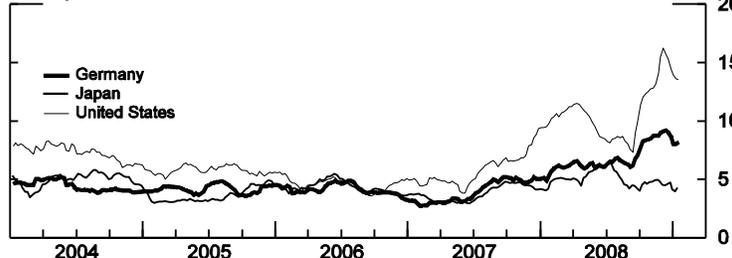
**Realized Stock Market Volatility\***  
Weekly



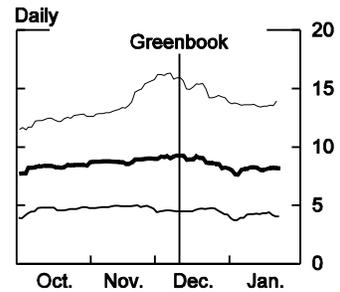
\*Annualized standard deviation of 60-day window of daily returns.



**Realized 10-Year Bond Volatility\***  
Weekly



\*Annualized standard deviation of 60-day window of daily returns.

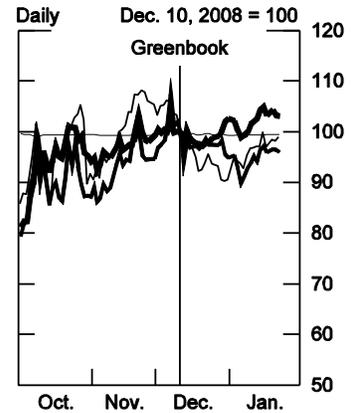
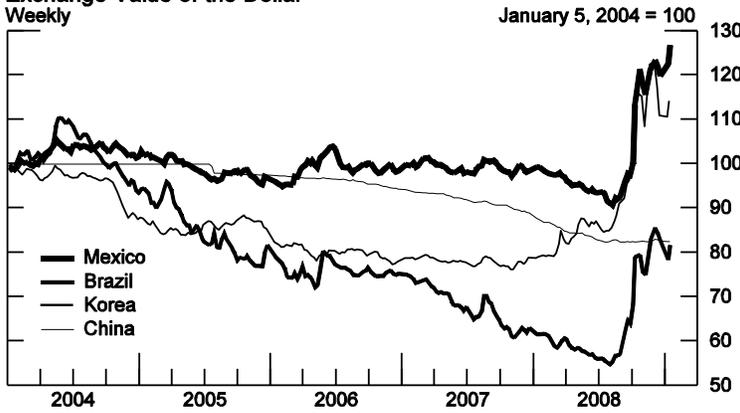


**Emerging Markets: Exchange Rates and Stock Market Indexes**

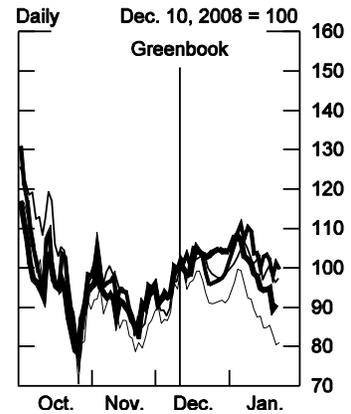
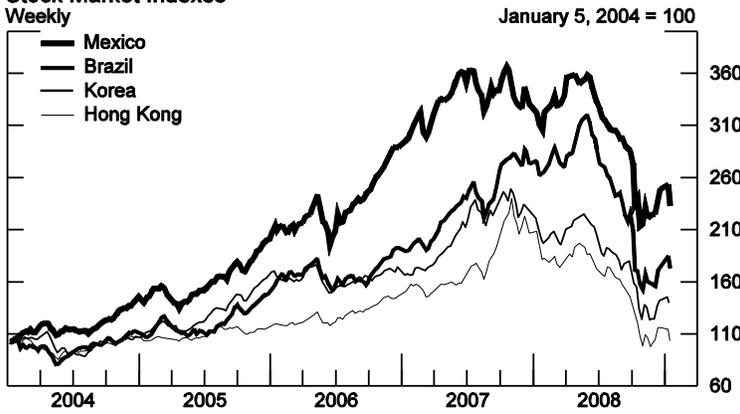
	<u>Exchange value of the dollar</u>		<u>Stock market index</u>	
	Latest	Percent change since Dec. Greenbook*	Latest	Percent change since Dec. Greenbook
Mexico	13.9091	3.3	19497	-9.1
Brazil	2.3419	-3.7	37940	-0.1
Venezuela	2.14	0.0	35306	1.7
China	6.8370	-0.4	2005	-3.6
Hong Kong	7.7590	0.1	12658	-18.7
Korea	1380.0	-0.9	1116	-2.6
Taiwan	33.59	0.4	4591	-1.5
Thailand	34.82	-1.6	438	3.4

\* Positive percent change denotes appreciation of U.S. dollar.

**Exchange Value of the Dollar**  
Weekly



**Stock Market Indexes**  
Weekly

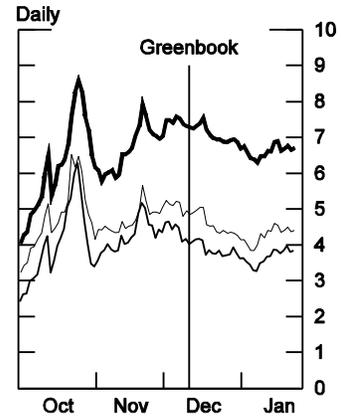
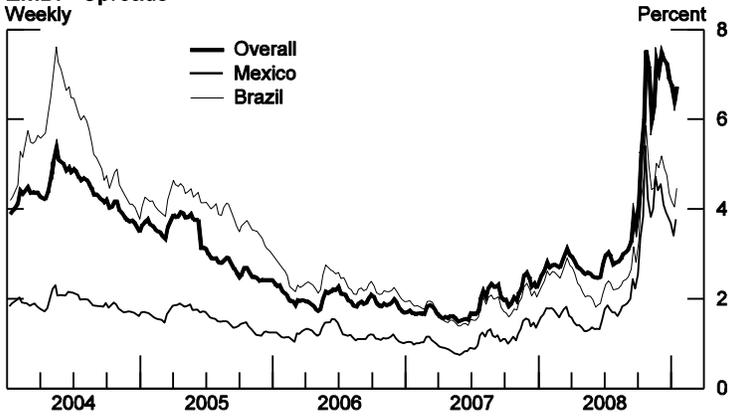


**Emerging Markets: Short-Term Interest Rates and Dollar-Denominated Bond Spreads**

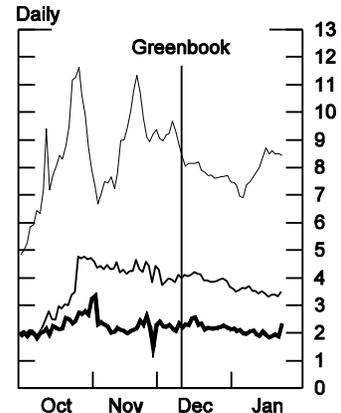
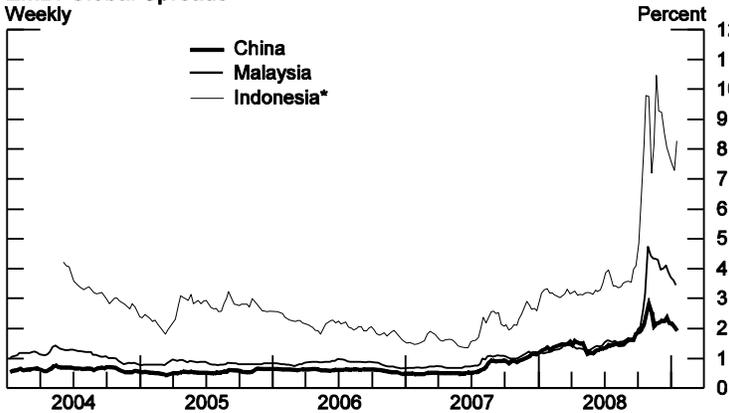
	Short-term interest rates*		Dollar-denominated bond spreads**		Percent
	Latest	Change since Dec. Greenbook	Latest	Change since Dec. Greenbook	
Mexico	7.43	-0.64	3.84	-0.33	
Brazil	12.55	-1.46	4.42	-0.55	
Argentina	15.19	-0.94	15.37	-2.85	
China	...	...	2.37	-0.02	
Korea	3.25	-2.10	...	...	
Taiwan	1.29	-0.91	...	...	
Singapore	0.31	-0.38	...	...	
Hong Kong	0.34	-0.80	...	...	

\*One-month interest rate except 1-week rate for Korea. (No reliable short-term interest rate exists for China.)  
 \*\*EMBI+ Spreads or EMBI Global Spreads over similar-maturity U.S. Treasury securities.  
 ... Not applicable. Korea, Taiwan, and Hong Kong have no outstanding dollar-denominated sovereign bonds.

**EMBI+ Spreads**  
Weekly



**EMBI Global Spreads**  
Weekly



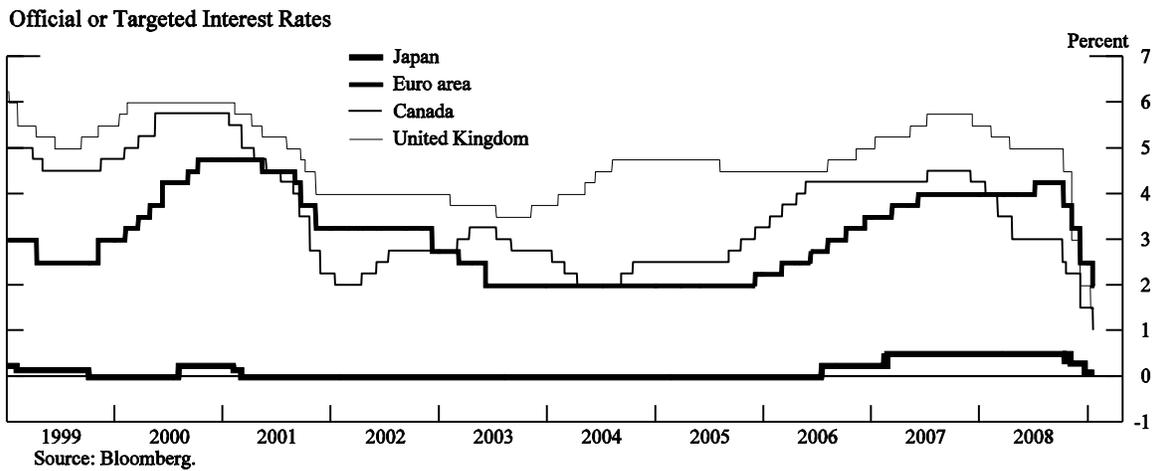
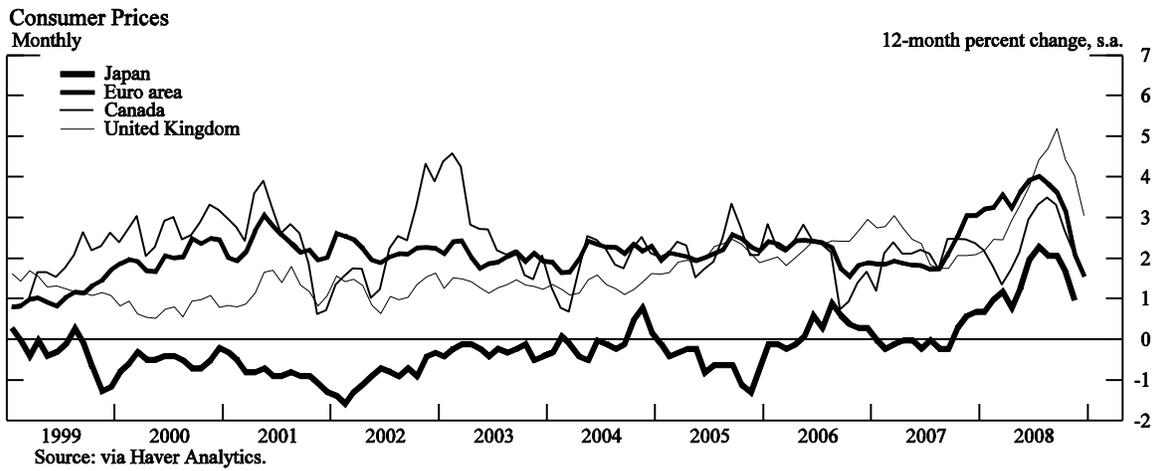
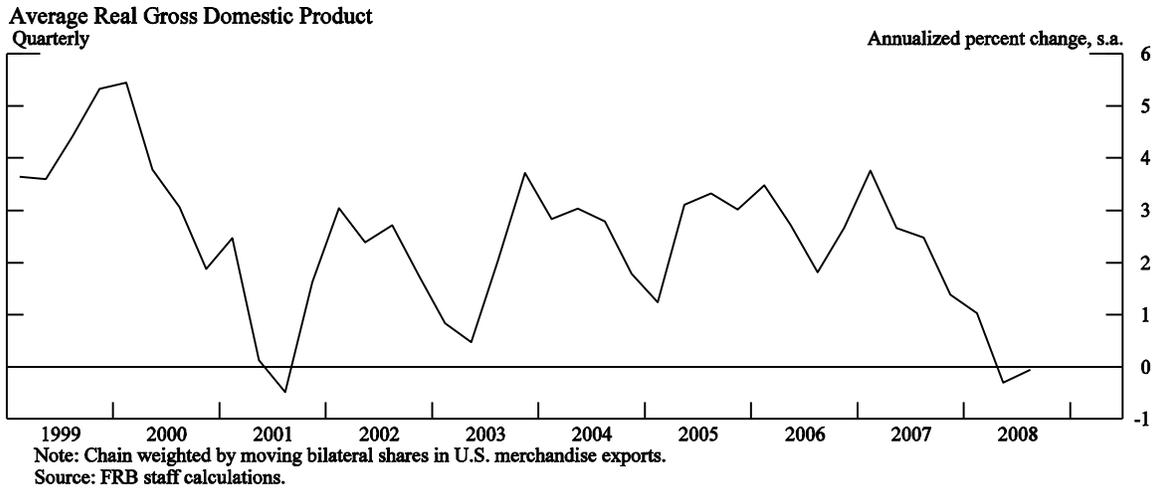
\*Begins May 2004.

**Developments in Advanced Foreign Economies**

Recent indicators of economic activity suggest that output contracted sharply in the fourth quarter in the advanced foreign economies. The pace of job losses rose, and measures of spending on durables and investment goods showed declines everywhere. Trade and industrial production plunged in Japan, and deteriorated further in Europe. According to forward-looking indicators, households and businesses are downbeat, amid deteriorating labor markets, tight credit conditions, and recent large falls in asset prices. In the euro area and the United Kingdom, confidence indicators are at or near their weakest levels since the recession in the early 1980s, and Purchasing Managers Indexes (PMIs) are at survey lows. In Japan, consumer confidence is at an all-time low, and the manufacturing PMI survey points to a sharp fall in output and new orders.

Consumer price inflation has continued to decline in the advanced economies, pushed down by lower oil prices. Excluding food and energy prices, the movement in consumer prices has been more contained. Over the intermeeting period, all major central banks lowered their policy rates. The Bank of Japan intends to conduct additional outright purchases of government bonds and acquire commercial paper. The U.K. government announced that it would set up a fund to allow the Bank of England (BOE) to purchase high quality private-sector assets for financial stability and monetary policy purposes.

### Advanced Foreign Economies



Recent **Japanese** indicators point to a large fall in fourth-quarter activity, after GDP contractions in the previous two quarters. Industrial production declined a record 8.5 percent in November, a figure significantly larger than the previous record monthly decline of 5.4 percent set in 1954. Real exports collapsed in December, contributing to a record decline of 24.4 percent on a 12-month basis.

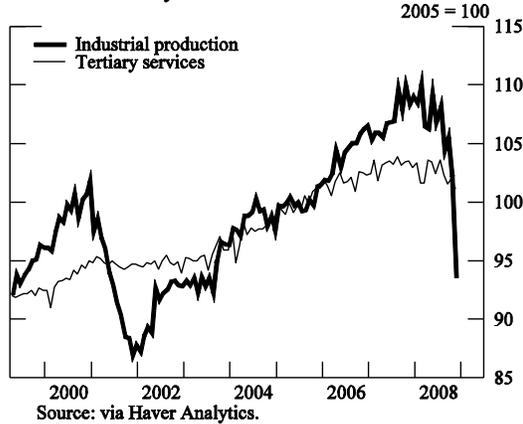
On the household side, housing starts have fallen sharply, down 16 percent over the three months ending in November. Nominal retail sales fell a little more than 1 percent over the same period, while consumer confidence remained near its historical trough. Although the unemployment rate remained relatively low, a more reliable indicator of Japanese labor market conditions, the job openings-to-applicants ratio (the number of officially posted job openings relative to the number of officially registered job seekers), dropped to its weakest level since early 2004.

Japanese 12-month consumer price inflation was 1.0 percent in November, down sharply from the 2.3 percent peak reached in July, reflecting a decline in energy prices. Excluding food and energy prices, consumer prices were unchanged from the previous year.

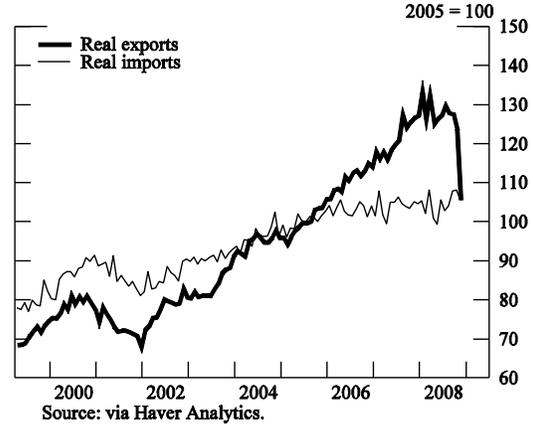
The Bank of Japan lowered its policy rate 20 basis points to 0.1 percent in December. Although the rate remains above zero, the Bank of Japan is taking many measures reminiscent of the earlier quantitative easing period, including the purchase of commercial paper and government bonds.

## Japan

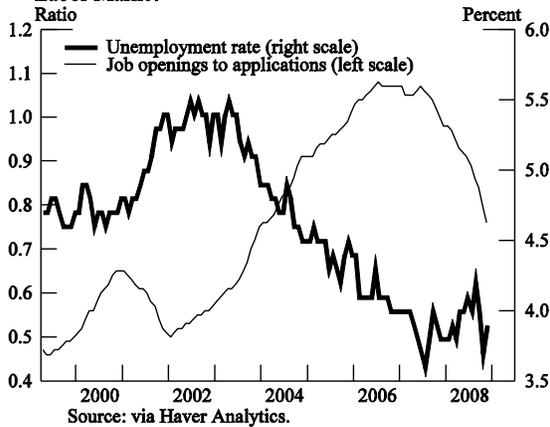
Economic Activity



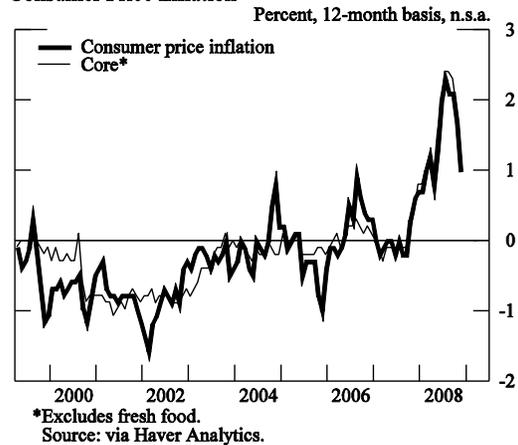
Real Trade



Labor Market



Consumer Price Inflation



## Economic Indicators

(Percent change from previous period except as noted; seasonally adjusted)

Indicator	2008			2008			
	Q2	Q3	Q4	Sept.	Oct.	Nov.	Dec.
Housing starts	-2.1	1.4	n.a.	-0.4	-8.9	-7.0	n.a.
Machinery orders <sup>1</sup>	0.6	-10.4	n.a.	5.5	-4.4	-16.2	n.a.
Household expenditures	-3.3	-0.1	n.a.	1.7	-1.4	3.1	n.a.
New car registrations	-1.8	-3.9	-14.5	1.6	-2.8	-14.3	0.0
Business sentiment <sup>2</sup>	-7.0	-14.0	-24.0	...	...	...	...
Wholesale prices <sup>3</sup>	4.9	7.1	3.0	6.8	5.0	2.8	1.1

1. Private sector excluding ships and electric power.

2. Tankan survey, diffusion index. Level.

3. Percent change from year earlier; not seasonally adjusted.

n.a. Not available. ... Not applicable.

Source: via Haver Analytics.

In the **euro area**, indicators for the fourth quarter generally point to significant weakness. Industrial production and the value of international trade fell further in October and November, and although the volume of retail sales increased 0.6 percent in November, its trend remains solidly negative. The unemployment rate increased to 7.8 percent in November, the highest rate in two years. Euro-area PMIs, consumer and industrial confidence indicators, and the German Ifo business climate index all fell further in December.

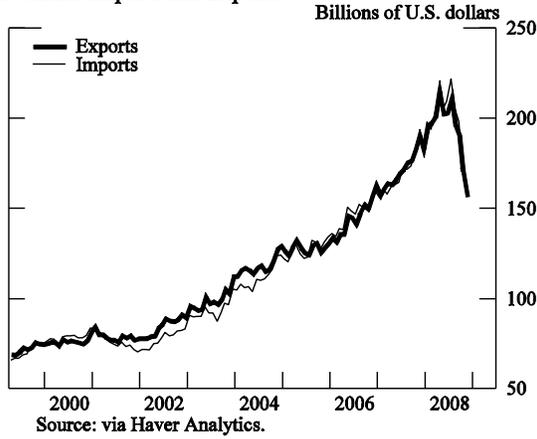
Twelve-month consumer price inflation in the euro area moderated to 1.6 percent in December. Excluding energy and unprocessed food, it edged down to 2.1 percent. Twelve-month energy price inflation in December was -3.7 percent, down from the peak of 17 percent in July.

In the last few months, several governments—including those of Germany, France, Italy, and Spain—announced fiscal stimulus packages. The measures adopted so far include only modest corporate tax credits for new investment or increases in expenditures on public infrastructure. On January 14, German authorities unveiled a second fiscal stimulus package worth up to 50 billion euro (2 percent of GDP). The package, which stretches over the next two years, includes infrastructure investment, aid to the auto sector, modest tax cuts, and new credit guarantees for struggling businesses.

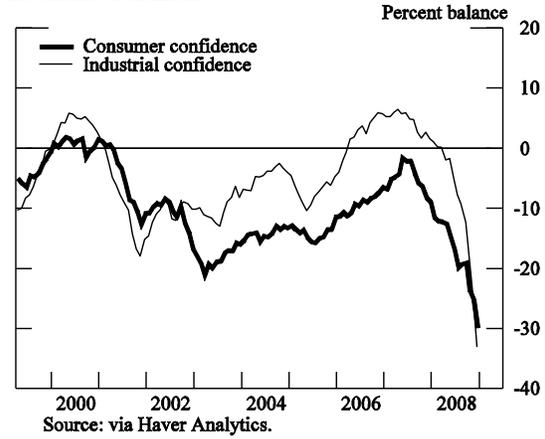
At its January 15 meeting, the European Central Bank (ECB) cut its policy rate 50 basis points to 2 percent. In recent statements, members of the ECB Governing Council have hinted that, given the step-down in inflation, further monetary policy easing is likely.

**Euro Area**

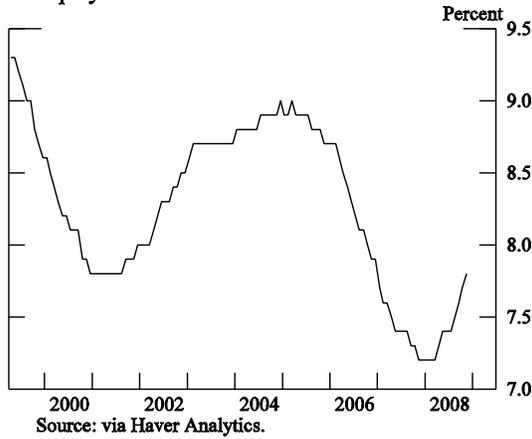
**Nominal Exports and Imports**



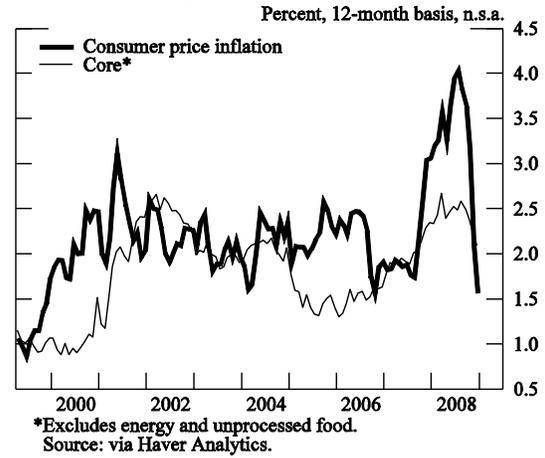
**Economic Sentiment**



**Unemployment Rate**



**Consumer Price Inflation**



**Economic Indicators**  
(Percent change from previous period except as noted; seasonally adjusted)

Indicator	2008			2008			
	Q1	Q2	Q3	Aug.	Sept.	Oct.	Nov.
Industrial production <sup>1</sup>	-0.2	-1.1	-1.5	0.7	-1.8	-1.6	-1.6
Retail sales volume <sup>2</sup>	-0.2	-0.8	0.1	0.1	0.2	-0.9	0.4
New car registrations	-4.4	-1.7	-5.9	-0.9	-0.2	-5.8	-1.2
Employment	0.3	0.2	n.a.	...	...	...	...
Producer prices <sup>3</sup>	5.4	7.1	8.6	8.6	7.9	6.3	3.3
M3 <sup>3</sup>	9.9	9.5	n.a.	n.a.	n.a.	n.a.	n.a.

1. Excludes construction.  
 2. Excludes motor vehicles.  
 3. Eurostat harmonized definition. Percent change from year earlier.  
 n.a. Not available. ... Not applicable.  
 M3 Manufacturers' shipments, inventories, and orders.  
 Source: via Haver Analytics.

In the **United Kingdom**, real GDP growth was revised down to -2.6 percent (a.r.) in the third quarter, reflecting greater drag from investment and net exports than was previously estimated. Incoming data point to substantial weakness in the fourth quarter. The contraction in industrial production steepened to -6.9 percent in November on a 12-month basis, a sharper pace of decline than during the recession in the early 1990s. The volume of goods exported in November stood 9.0 percent below its third-quarter level, while imports of goods were 5.5 percent lower. Unemployment claims rose further in December, and retail sales were flat relative to their third-quarter level in November. December PMI readings, all at or near survey lows, were consistent with a severe contraction in the manufacturing, services, and construction sectors.

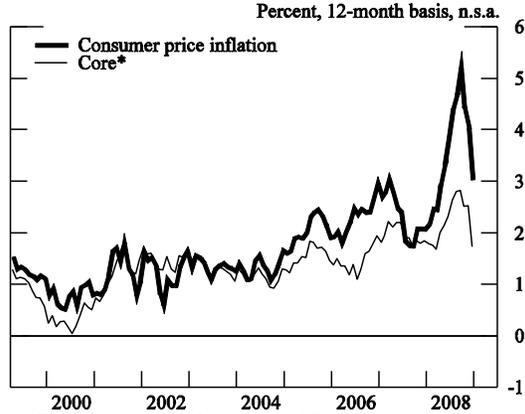
The slump in the housing sector continued unabated. The main house price indicators fell over 2 percentage points in December, bringing cumulative declines relative to the peak of the market in late 2007 to just below 20 percent. The number of loans approved for house purchases fell to 27,000 in November compared with an average of about 110,000 per month over the period from 2001 to 2007.

Inflationary pressure has subsided substantially. The 12-month change in the producer price index tumbled to 4.3 percent in December, down from a peak of 34.1 percent in June. Headline consumer price inflation fell to 3.1 percent in the year to December, pushed down by a 2.5 percentage point reduction in the value-added tax, effective December 1.

On January 8, the BOE lowered its main policy rate 50 basis points to 1.5 percent, the lowest level since the institution was founded in 1694. Four days later, the U.K. government announced an additional £500 million (\$720 million) in subsidies over the next two years to encourage firms to hire and train unemployed workers. On January 19, the Chancellor stated that it would authorize the BOE to purchase high quality private-sector assets in order to promote financial stability and conduct monetary policy. Initial purchases of up to £50 billion will be allowed, funded by the issue of Treasury bills. The government will also offer, for a fee, guarantees to deposit-taking institutions against future losses on their assets.

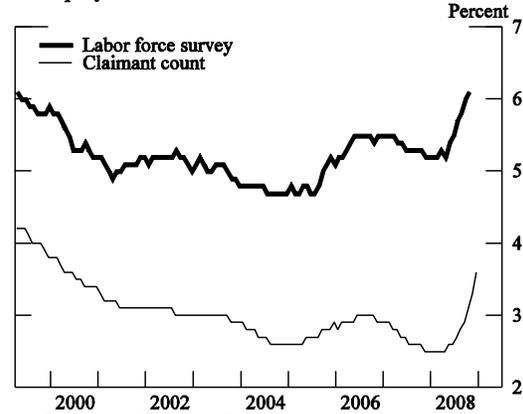
## United Kingdom

Consumer Price Inflation



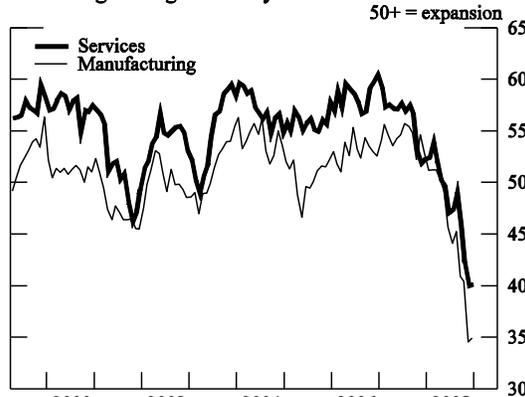
\*Excludes energy and unprocessed food.  
Source: via Haver Analytics.

Unemployment Rates



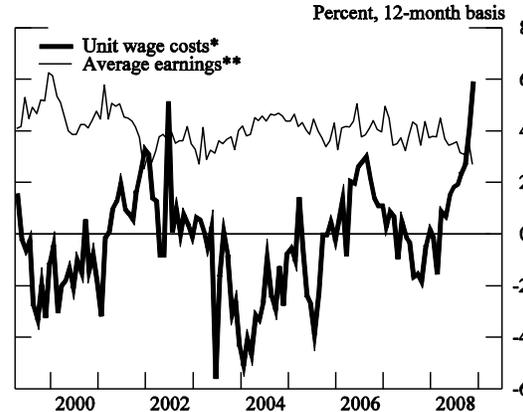
Source: via Haver Analytics.

Purchasing Managers Survey



Source: Reuters.

Labor Costs



\*Manufacturing industries.  
\*\*Whole economy, including bonuses.  
Source: via Haver Analytics.

**Economic Indicators**  
(Percent change from previous period except as noted; seasonally adjusted)

Indicator	2008			2008			
	Q2	Q3	Q4	Sept.	Oct.	Nov.	Dec.
Real GDP	0.0	-2.6	n.a.	...	...	...	...
PMI services <sup>1</sup>	49.1	47.5	40.9	46.0	42.4	40.1	40.2
Industrial production	-0.9	-1.4	n.a.	-0.3	-1.6	-2.3	n.a.
Business confidence <sup>2</sup>	0.7	-12.0	-38.3	-16.0	-31.0	-42.0	-42.0
Consumer confidence <sup>2</sup>	-16.0	-24.2	-27.4	-22.6	-26.6	-26.8	-28.7
Trade balance <sup>3</sup>	-22.3	-22.9	n.a.	-6.4	-6.5	-6.9	n.a.

1. 50+ indicates expansion.  
2. Percent balance.  
3. Level in billions of U.S. dollars.  
n.a. Not available. ... Not applicable.  
GDP Gross Domestic Product.  
PMI Purchasing Managers' Index.  
Source: via Haver Analytics; Reuters.

In **Canada**, fourth-quarter indicators suggest that the economy contracted, following growth of 1.3 percent (a.r.) in the previous quarter. Real GDP by industry fell 0.1 percent in October, and corresponding figures for preceding months were revised down. The Ivey Purchasing Managers Index, which stood at 61 in September, dropped sharply in the fourth quarter, reaching 39.1 in December. Retail sales fell 0.6 percent in November, and wholesale sales contracted 3.0 percent. Real exports were 9.6 percent lower in November than a year earlier, while real imports were down 8.6 percent over the same period. Imports of machinery and equipment, a good indicator of fixed investment, fell 5.8 percent in the year to November.

Following modest employment gains in October, which were largely attributable to government hiring for the national election, the Canadian economy experienced sharp job losses in November and December. The unemployment rate reached 6.6 percent in December, up from 6.1 percent in the third quarter.

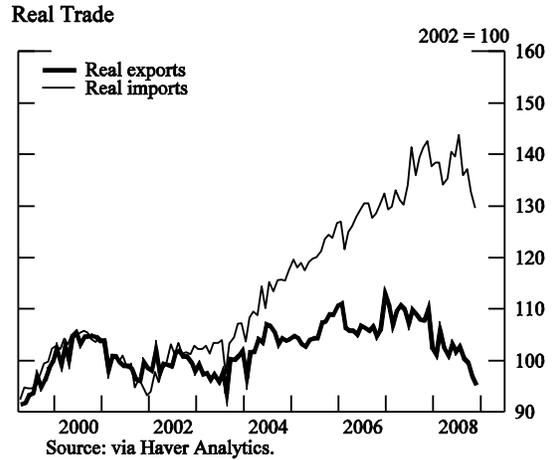
The housing market weakened significantly over the second half of 2008. Housing starts were down 4 percent in December relative to 12 months earlier, and the value of building permits fell 20.5 percent in the year to November. The index of new house prices fell 0.4 percent and 0.3 percent in October and November, respectively; these were the first monthly declines since 1998.

Twelve-month consumer price inflation fell 0.6 percentage point to 2.0 percent in November. The decline was due largely to the fall in gasoline prices. Measures of core inflation rose over that period due to smaller price decreases for purchasing and leasing passenger vehicles than a year earlier. Average hourly wages rose 4.3 percent in the 12 months to December. On January 20, the Bank of Canada lowered its policy rate 50 basis points to 1 percent.

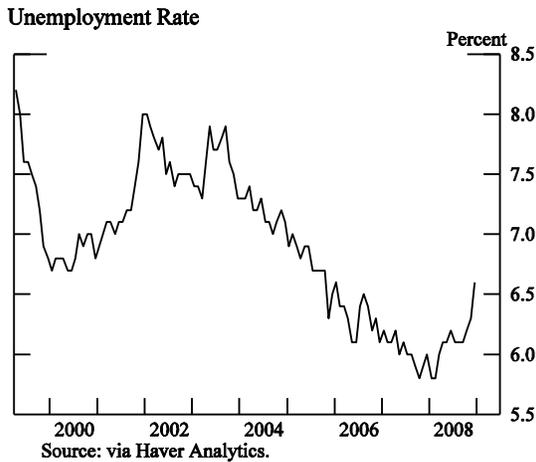
**Canada**



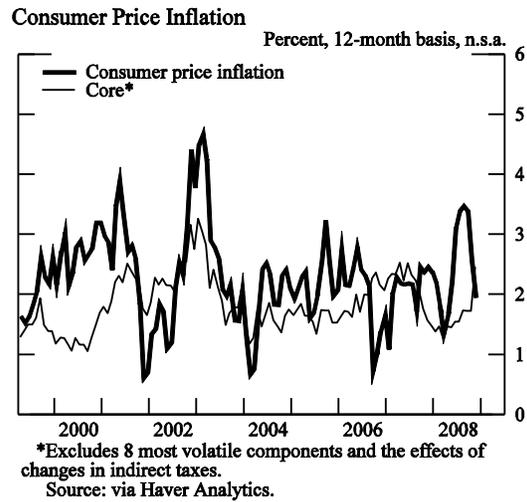
NOTE: Constructed from various Statistics Canada surveys and supplements to the quarterly income and expenditure-based estimates.  
Source: via Haver Analytics.



Source: via Haver Analytics.



Source: via Haver Analytics.



\*Excludes 8 most volatile components and the effects of changes in indirect taxes.  
Source: via Haver Analytics.

**Economic Indicators**  
(Percent change from previous period and seasonally adjusted, except as noted)

Indicator	2008			2008			
	Q2	Q3	Q4	Sept.	Oct.	Nov.	Dec.
Industrial production	-0.8	0.5	n.a.	-0.1	n.a.	n.a.	n.a.
New manufacturing orders	-1.7	-0.5	n.a.	-1.6	0.6	-5.7	n.a.
Retail sales	0.4	-0.1	n.a.	0.7	0.1	n.a.	n.a.
Employment	0.3	-0.1	0.2	0.6	0.1	-0.4	-0.2
Wholesale sales	1.1	0.4	n.a.	0.4	-3.8	-3.0	n.a.
Ivey PMI <sup>1</sup>	63.2	59.3	43.8	61.0	52.2	40.2	39.1

1. Not seasonally adjusted. 50+ indicates expansion.  
n.a. Not available. ... Not applicable.  
Source: via Haver Analytics; Bank for International Settlements.

## **Economic Situation in Other Countries**

Economic activity in the emerging market economies appears to have slowed significantly further in the fourth quarter, with data received thus far strongly suggesting a contraction. Korean GDP declined sharply in the fourth quarter, and Chinese real GDP stagnated according to staff estimates. Industrial production, trade, and confidence indicators registered declines across many other countries in both emerging Asia and Latin America. After some initial improvement, emerging equity markets have generally declined on net since the time of the December Greenbook. In emerging Asia, headline inflation continued to fall, largely reflecting the steep decline in global commodity prices, but inflation remained stubbornly high in Latin American countries, likely owing in part to recent depreciation of their currencies. Consequently, Asian authorities have had greater scope for expansionary policies than their counterparts in Latin America.

In **China**, real GDP growth slowed to  $\frac{1}{4}$  percent in the fourth quarter, as plummeting external demand led to declines in manufacturing. The level of exports has fallen each month since September, and December exports were below year-ago levels. The value of imports has fallen to an even greater degree, reflecting the combination of a decline in processing trade and lower prices of commodities. Consequently, China's trade surplus expanded to record levels in November and December. Industrial production fell in the fourth quarter, and the purchasing managers index remained in the contraction range. Levels of production in the steel, auto, and electricity sectors in November were all below year-earlier levels. One bright spot has been retail sales growth, which remained above 20 percent on a 12-month basis in November. With the slowing of the economy and declines in commodity prices, 12-month headline and producer price inflation dropped sharply in the fourth quarter.

In response to the economic slowdown, Chinese authorities moved aggressively to provide fiscal and monetary stimulus. Since the December Greenbook, the Peoples' Bank of China has reduced the one-year lending rate 27 basis points, bringing the total reduction since September to 216 basis points. Banks' required reserves were also reduced in December. In addition to looser monetary policy and the large fiscal stimulus package announced in December, Chinese authorities are encouraging faster loan growth.

**Chinese Economic Indicators**  
(Percent change from previous period, seasonally adjusted, except as noted)

Indicator	2007	2008	2008				
			Q3	Q4	Oct.	Nov.	Dec.
Real GDP <sup>1</sup>	11.4	6.8	5.4	.3	...	...	...
Industrial production	19.5	1.8	1.9	-5.3	-7.1	.8	-1.5
Consumer prices <sup>2</sup>	6.5	1.2	5.3	2.5	4.0	2.4	1.2
Merch. trade balance <sup>3</sup>	262.7	295.5	298.5	416.1	345.4	453.0	449.8

1. Gross domestic product. Annual rate. Quarterly data estimated by staff from reported 4-quarter growth rates. Annual data are Q4/Q4.

2. Percent change from year-earlier period, except annual data, which are Dec./Dec.

3. Billions of U.S. dollars, annual rate. Imports are valued at cost, insurance, and freight.  
n.a. Not available. ... Not applicable.

Source: CEIC.

In **India**, recent indicators point to a rapid deceleration in economic output in the fourth quarter. Industrial production fell sharply in October and partially rebounded in November. Consumer price inflation remained above 9 percent on a twelve-month basis in November, although wholesale price inflation, which is more closely followed in the case of India, fell more than 4 percentage points from October to December. The current account deficit remained at about 2 percent of GDP in the third quarter.

In response to the slowing economy, the Reserve Bank of India lowered its policy rate, the repurchase agreement rate, 100 basis points and the prime lending rate 75 basis points earlier this month. In addition, the government has eased credit to the export and auto sectors and removed a ceiling on overseas borrowing. Fiscal policy is somewhat constrained by spending that is already \$17 billion above the government's target, and authorities have announced that there will not be any additional measures through March, the end of the fiscal year.

**Indian Economic Indicators**  
(Percent change from previous period, seasonally adjusted, except as noted)

Indicator	2007	2008	2008				
			Q3	Q4	Oct.	Nov.	Dec.
Real GDP <sup>1</sup>	8.8	n.a.	8.3	n.a.	...	...	...
Industrial production	9.9	n.a.	.1	n.a.	-4.2	3.4	n.a.
Consumer prices <sup>2</sup>	5.5	n.a.	9.0	n.a.	9.5	9.5	n.a.
Wholesale prices <sup>2</sup>	3.8	6.5	12.5	8.7	11.1	8.5	6.5
Merch. trade balance <sup>3</sup>	-69.7	n.a.	-138.4	n.a.	-119.7	-118.5	n.a.
Current account <sup>4</sup>	-11.3	n.a.	-50.2	n.a.	...	...	...

1. Gross domestic product. Annual rate. Annual data are Q4/Q4.

2. Percent change from year-earlier period, except annual data, which are Dec./Dec.

3. Billions of U.S. dollars, annual rate.

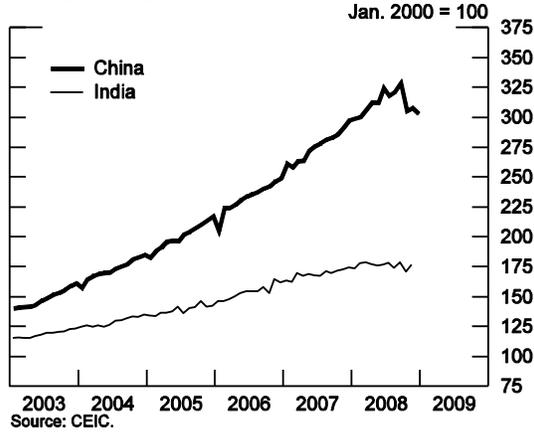
4. Billions of U.S. dollars, not seasonally adjusted, annual rate.

n.a. Not available. ... Not applicable.

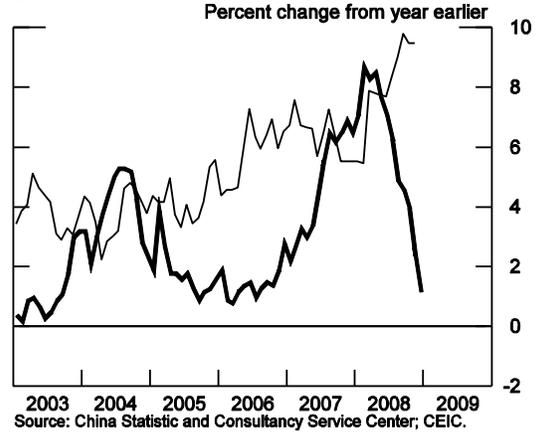
Source: CEIC.

## China and India

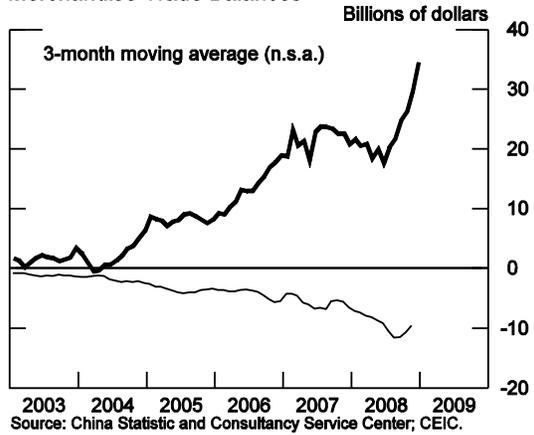
**Industrial Production**



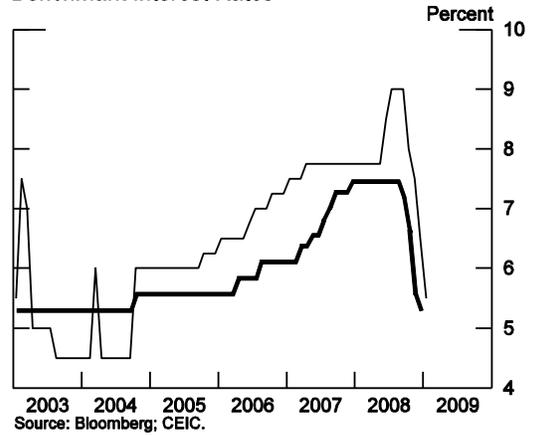
**Consumer Prices**



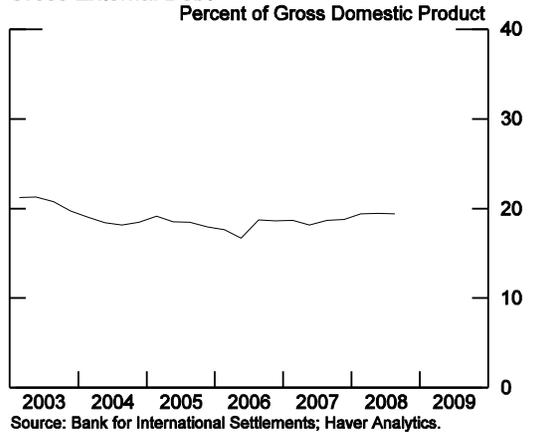
**Merchandise Trade Balances**



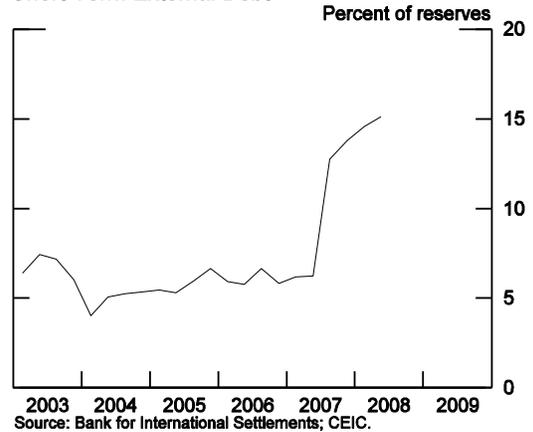
**Benchmark Interest Rates**



**Gross External Debt**



**Short-Term External Debt**



In the **newly industrialized economies (NIEs)**,<sup>1</sup> economic activity contracted sharply in the fourth quarter. In Korea, real GDP contracted at more than a 20 percent annual rate in the fourth quarter. In Singapore, a preliminary estimate of real GDP growth indicates a double-digit decline, reflecting a fall in exports and weak domestic demand. Elsewhere in the region, recent readings on exports, industrial production, and indicators of domestic demand, such as PMI surveys, retail sales, and consumer and business sentiment also point to shrinking output. Unemployment has risen in all of the countries. Despite falling exports, trade balances generally rose or remained in surplus owing to sizable declines in imports, which reflect lower commodity prices and weaker domestic demand. In Taiwan, for example, the level of exports and imports in December were both down about 40 percent from a year earlier.

Inflation declined further across the NIEs as energy and, in some cases, food prices continued to retreat. With inflation rates falling and economic growth slowing rapidly, central banks continued to ease monetary policy. Since the December Greenbook, the central banks of Hong Kong, Taiwan, and South Korea have lowered policy rates by 100 basis points, 125 basis points, and 150 basis points, respectively.

**Economic Indicators for Newly Industrialized Economies: Growth**  
(Percent change from previous period, seasonally adjusted, except as noted)

Indicator	2007	2008	2008				
			Q3	Q4	Oct.	Nov.	Dec.
<i>Real GDP<sup>1</sup></i>							
Hong Kong	7.0	n.a.	-2.0	n.a.	...	...	...
Korea	5.9	-3.6	2.1	-20.8	...	...	...
Singapore	5.5	n.a.	-6.8	n.a.	...	...	...
Taiwan	6.4	n.a.	-10.3	n.a.	...	...	...
<i>Industrial production</i>							
Hong Kong	-1.6	n.a.	-3.8	n.a.	...	...	...
Korea	6.9	n.a.	-2.1	n.a.	-2.3	-10.7	n.a.
Singapore	5.9	-4.1	2.8	-8.3	-11.5	7.5	-10.9
Taiwan	7.8	n.a.	-2.6	n.a.	-8.3	-13.9	n.a.

1. Gross domestic product. Annual rate. Annual data are Q4/Q4.  
n.a. Not available. ... Not applicable.  
Source: CEIC; Reuters.

<sup>1</sup> The NIEs are Hong Kong, South Korea, Singapore, and Taiwan

**Economic Indicators for Newly Industrialized Economies: Merchandise Trade Balance**  
(Billions of U.S. dollars; seasonally adjusted annual rate)

Indicator	2007	2008	2008				
			Q3	Q4	Oct.	Nov.	Dec.
Hong Kong	-23.5	n.a.	-27.6	n.a.	-38.4	3.1	n.a.
Korea	28.2	n.a.	-13.9	n.a.	15.9	-5.6	n.a.
Singapore	36.2	18.4	16.7	12.6	16.7	9.0	12.0
Taiwan	16.8	4.0	-6.5	8.9	16.1	.2	10.4

n.a. Not available. ... Not applicable.  
Source: CEIC.

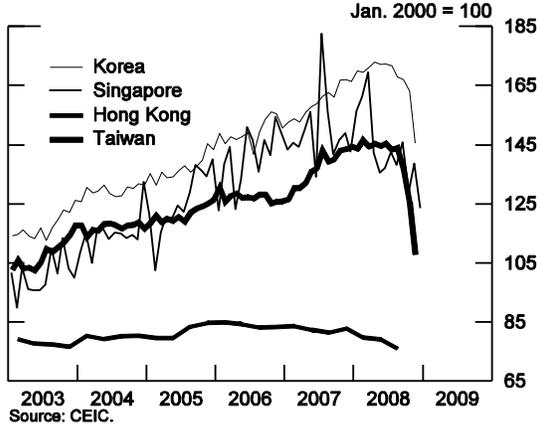
**Economic Indicators for Newly Industrialized Economies: Consumer Price Inflation**  
(Percent change from year earlier except as noted)

Indicator	2007 <sup>1</sup>	2008 <sup>1</sup>	2008				
			Q3	Q4	Oct.	Nov.	Dec.
Hong Kong	3.8	2.1	4.6	2.3	1.8	3.1	2.0
Korea	3.6	4.1	5.5	4.5	4.8	4.5	4.1
Singapore	4.4	4.3	6.6	5.4	6.4	5.5	4.3
Taiwan	3.3	1.2	4.5	1.8	2.4	1.9	1.2

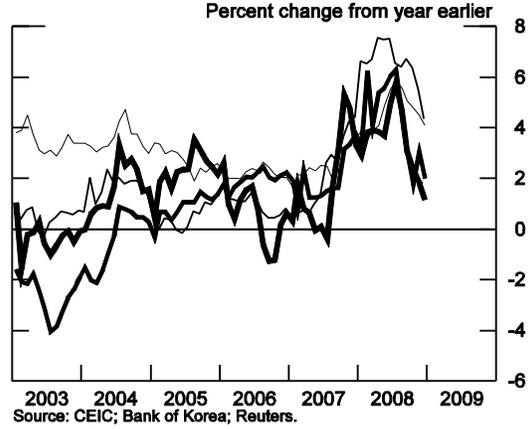
1. Percent change from year-earlier period, except annual data, which are Dec./Dec.  
n.a. Not available. ... Not applicable.  
Source: CEIC.

### Newly Industrialized Economies

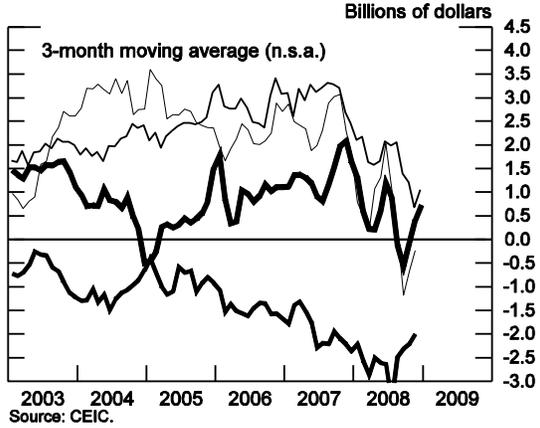
**Industrial Production**



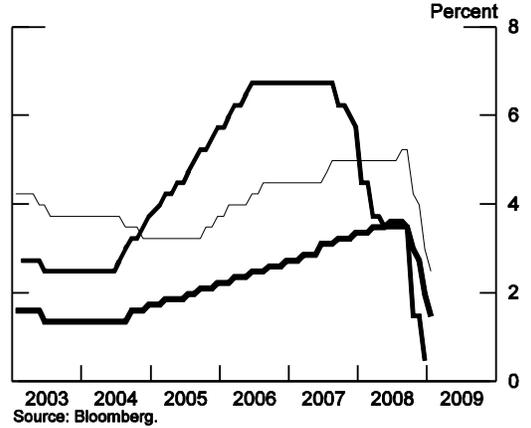
**Consumer Prices**



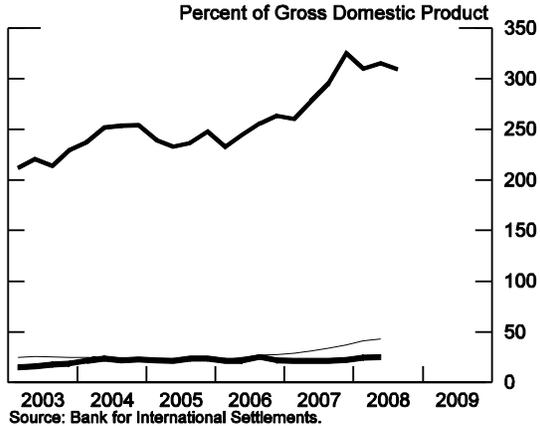
**Merchandise Trade Balances**



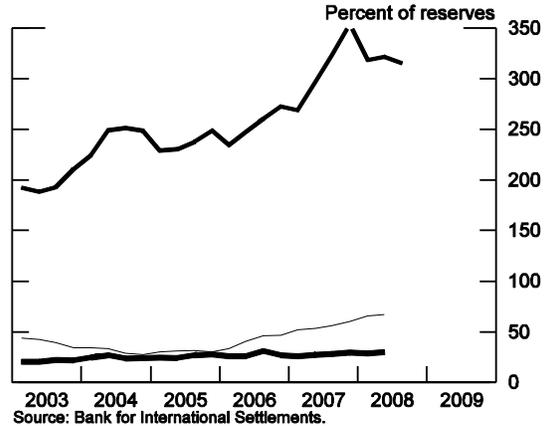
**Benchmark Interest Rates**



**Gross External Debt**



**Short-Term External Debt**



In the **Association of Southeast Asian Nations (ASEAN-4)**,<sup>2</sup> recent data suggest that international trade and domestic activity slowed markedly in the fourth quarter. Business and consumer confidence continued to fall in Thailand, the Philippines, and Indonesia. Industrial production fell except in Indonesia, which experienced a surprising rebound in October. Exports and imports have also generally contracted across the region in recent months, but as in the NIEs, trade balances have not worsened significantly, except in Thailand.

Headline inflation has dropped sharply in recent months, reflecting the fall in commodity prices and slowing economic activity. With this increased room to maneuver, the central banks of Indonesia, the Philippines, and Thailand have lowered interest rates since the time of the December Greenbook. In addition, Indonesia introduced a \$6.5 billion fiscal stimulus package.

**ASEAN-4<sup>1</sup> Economic Indicators: Growth**  
(Percent change from previous period, seasonally adjusted, except as noted)

Indicator	2006	2007	2008				
			Q2	Q3	Sept.	Oct.	Nov.
<i>Real GDP<sup>2</sup></i>							
Indonesia	5.8	6.1	11.4	6.3	...	...	...
Malaysia	5.4	7.4	3.7	1.1	...	...	...
Philippines	5.6	6.5	7.9	3.4	...	...	...
Thailand	4.5	5.8	3.1	2.3	...	...	...
<i>Industrial production<sup>3</sup></i>							
Indonesia <sup>4</sup>	-1.6	5.6	-.7	-.7	-4.3	3.4	n.a.
Malaysia	4.5	2.0	-.9	-1.8	-1.4	-3.4	-.8
Philippines	-8.5	-2.7	1.0	.4	4.7	-1.7	n.a.
Thailand	7.3	8.2	.0	1.5	-2.8	.5	-7.7

1. Association of Southeast Asian Nations.

2. Gross domestic product. Annual rate. Annual data are Q4/Q4.

3. Annual data are annual averages.

4. Staff estimate.

n.a. Not available. ... Not applicable.

Source: CEIC.

<sup>2</sup> The ASEAN-4 are Indonesia, Malaysia, the Philippines, and Thailand.

**ASEAN-4<sup>1</sup> Economic Indicators: Merchandise Trade Balance**  
(Billions of U.S. dollars; seasonally adjusted annualized rate)

Indicator	2006	2007	2008				
			Q2	Q3	Sept.	Oct.	Nov.
Indonesia	39.7	39.6	31.9	31.3	37.1	10.3	37.2
Malaysia	29.5	29.2	56.0	50.5	51.8	28.5	30.0
Philippines	-4.4	-5.0	-5.0	-9.6	-6.4	-6.7	n.a.
Thailand	1.0	11.6	17.2	-6.6	-11.3	-17.5	-15.5

1. Association of Southeast Asian Nations.

n.a. Not available. ... Not applicable.

Source: CEIC; Bank of Thailand; Philippines Economic Indicators Telegram (PEIT); Monetary Authority of Singapore.

**ASEAN-4<sup>1</sup> Economic Indicators: Consumer Price Inflation**  
(Percent change from year earlier except as noted)

Indicator	2007 <sup>2</sup>	2008 <sup>2</sup>	2008				
			Q3	Q4	Oct.	Nov.	Dec.
Indonesia	5.8	11.1	12.0	11.4	11.8	11.5	11.1
Malaysia	2.4	4.4	8.4	5.9	7.6	5.7	4.4
Philippines	3.9	8.0	12.2	9.7	11.2	9.9	8.0
Thailand	3.2	.4	7.2	2.2	3.9	2.2	.4

1. Association of Southeast Asian Nations.

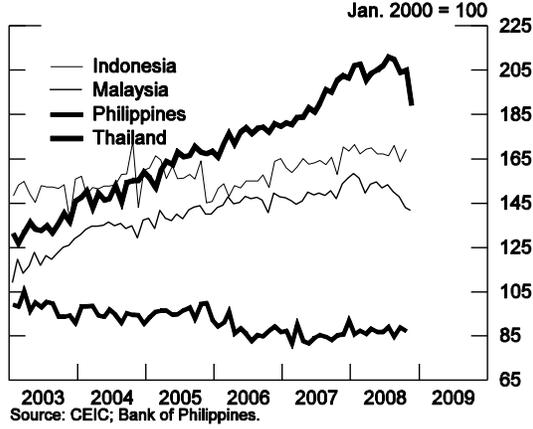
2. Dec./Dec.

n.a. Not available. ... Not applicable.

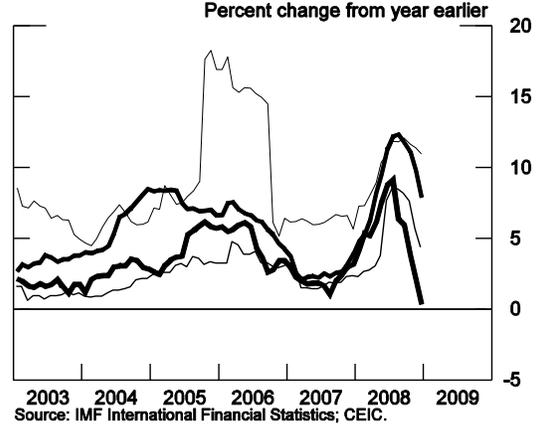
Source: CEIC; IMF International Financial Statistics database.

**ASEAN-4**

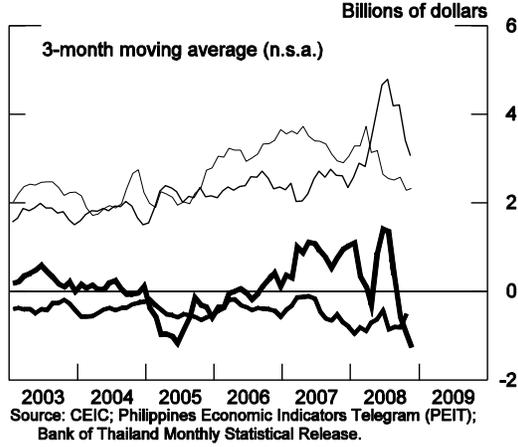
**Industrial Production**



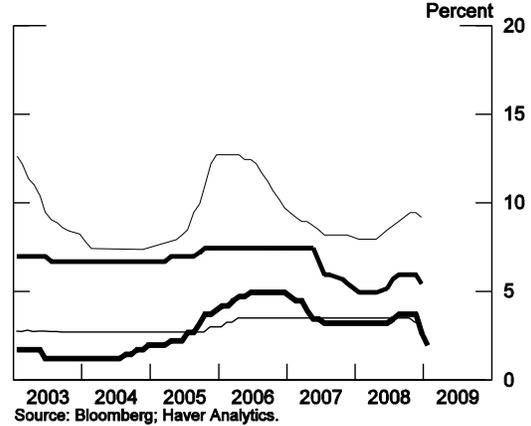
**Consumer Prices**



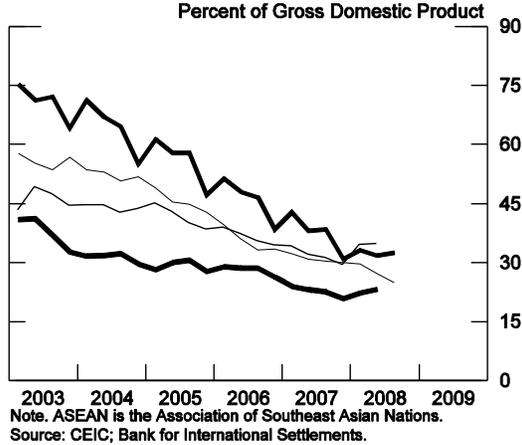
**Merchandise Trade Balances**



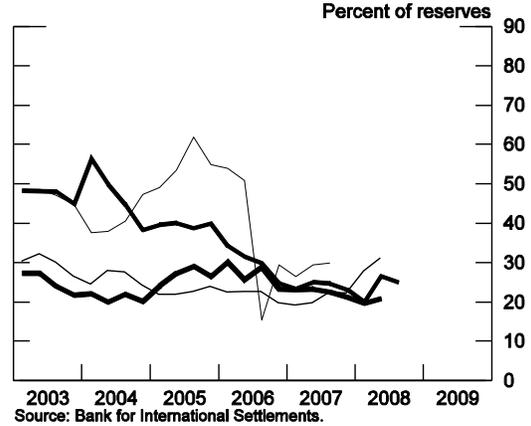
**Benchmark Interest Rates**



**Gross External Debt**



**Short-Term External Debt**



In **Mexico**, economic indicators point to a considerable slowdown of activity in the fourth quarter. Exports contracted sharply, largely reflecting weak U.S. demand, and imports also fell, in part because of the sharp depreciation of the peso. Consumer credit plunged 28 percent between September and the end of the year. In November, the unemployment rate was nearly 1 percentage point above the third-quarter level, contributing to a steep fall in consumer confidence. Industrial production fell 1 percent in November. In response to the flagging economy, in early January, government officials announced additional fiscal stimulus measures targeted toward employment protection, support to small and medium-sized companies, and reductions in energy prices.

Despite weak domestic activity and the fall in global commodity prices, 12-month headline and core inflation remain elevated, likely reflecting the pass-through of previous increases in food and energy prices as well as the sharp depreciation of the peso against the U.S. dollar. The central bank had been reluctant to loosen monetary policy because inflation remains high, but in mid-January, the bank lowered its overnight rate 50 basis points. This was the first change in the rate since August. In other news, the Bank of Mexico's Governor Guillermo Ortiz was appointed the next chairman of the Board of Directors of the Bank for International Settlements. Governor Ortiz will serve as the chairman while completing his term at the Bank of Mexico.

**Mexican Economic Indicators**  
(Percent change from previous period, seasonally adjusted, except as noted)

Indicator	2007	2008	2008				
			Q3	Q4	Oct.	Nov.	Dec.
Real GDP <sup>1</sup>	4.2	n.a.	2.6	n.a.	...	...	...
Overall economic activity	3.1	n.a.	.6	n.a.	.6	n.a.	n.a.
Industrial production	1.8	n.a.	-.8	n.a.	1.5	-1.0	n.a.
Unemployment rate <sup>2</sup>	3.7	4.0	3.9	4.5	3.9	4.7	4.7
Consumer prices <sup>3</sup>	3.8	6.5	5.5	6.2	5.8	6.2	6.5
Merch. trade balance <sup>4</sup>	-10.1	n.a.	-20.0	n.a.	-21.8	-31.7	n.a.
Merchandise imports <sup>4</sup>	281.9	n.a.	328.0	n.a.	304.2	287.1	n.a.
Merchandise exports <sup>4</sup>	271.9	n.a.	308.0	n.a.	282.4	255.4	n.a.
Current account <sup>5</sup>	-10.1	n.a.	-20.0	n.a.	...	...	...

1. Gross domestic product. Annual rate. Annual data are Q4/Q4.

2. Percent; counts as unemployed those working 1 hour a week or less.

3. Percent change from year-earlier period, except annual data, which are Dec./Dec.

4. Billions of U.S. dollars, annual rate.

n.a. Not available. ... Not applicable.

Source: Haver Analytics; Bank of Mexico.

In **Brazil**, data releases since the December Greenbook paint a gloomy picture for the fourth quarter. Industrial output declined for the second consecutive month in November and was down more than 8 percent from its September level. Production of consumer durables was down sharply, led by plummeting output in the auto industry. Falling electricity consumption suggests that production continued to shrink in December. Both exports and imports plunged in the fourth quarter, which resulted in a somewhat smaller trade surplus. As a result of weakening demand, headline inflation declined in December to under 6 percent.

This week, the central bank lowered its target for the overnight interest rate 100 basis points, the first move in the target since September. Longer-maturity Brazilian yields had fallen earlier, as weakening domestic and international environments prompted investors to view interest rate cuts as increasingly likely.

**Brazilian Economic Indicators**  
(Percent change from previous period, seasonally adjusted, except as noted)

Indicator	2007	2008	2008				
			Q3	Q4	Oct.	Nov.	Dec.
Real GDP <sup>1</sup>	6.1	n.a.	7.4	n.a.	...	...	...
Industrial production	6.0	n.a.	2.2	n.a.	-2.8	-5.2	n.a.
Unemployment rate <sup>2</sup>	9.3	7.9	7.7	7.8	7.6	7.8	7.8
Consumer prices <sup>3</sup>	4.5	5.9	6.3	6.2	6.4	6.4	5.9
Merch. trade balance <sup>4</sup>	40.0	24.2	23.0	18.5	10.3	29.1	16.0
Current account <sup>5</sup>	1.7	n.a.	-24.5	n.a.	-18.1	-12.4	n.a.

1. Gross domestic product. Annual rate. Annual data are Q4/Q4.

2. Percent.

3. Percent change from year-earlier period, except annual data, which are Dec./Dec.

Price index is IPCA.

4. Billions of U.S. dollars, annual rate.

5. Billions of U.S. dollars, not seasonally adjusted, annual rate.

n.a. Not available. ... Not applicable.

Source: Haver Analytics; IMF International Financial Statistics database; Instituto Brasileiro de Geografia e Estatística.

In **Argentina**, indicators for the fourth quarter point to a considerable slowdown of economic activity. Exports declined, reflecting shrinking volumes in some sectors and declines in commodity prices. Industrial production contracted in October and November, with automotive production plummeting 24 percent in November from a year earlier. Firms producing base metals cut output by 11 percent and oil refining fell 12 percent. In addition, confidence indicators deteriorated, including a plunge in the

manufacturing PMI. Twelve-month consumer price inflation fell due to weak domestic demand and declines in commodity prices; however, the reliability of the official inflation data remains questionable.

**Argentine Economic Indicators**  
(Percent change from previous period, seasonally adjusted, except as noted)

Indicator	2007	2008	2008				
			Q3	Q4	Oct.	Nov.	Dec.
Real GDP <sup>1</sup>	9.2	n.a.	5.4	n.a.	...	...	...
Industrial production	7.5	n.a.	1.7	n.a.	-2.3	-9	n.a.
Unemployment rate <sup>2</sup>	8.5	n.a.	7.8	n.a.	...	...	...
Consumer prices <sup>3</sup>	8.5	7.2	8.9	7.8	8.4	7.9	7.2
Merch. trade balance <sup>4</sup>	11.1	n.a.	19.7	n.a.	14.9	15.0	n.a.
Current account <sup>5</sup>	7.1	n.a.	14.2	n.a.	...	...	...

1. Gross domestic product. Annual rate. Annual data are Q4/Q4.

2. Percent; not seasonally adjusted.

3. Percent change from year-earlier period, except annual data, which are Dec./Dec.

4. Billions of U.S. dollars, annual rate.

5. Billions of U.S. dollars, not seasonally adjusted, annual rate.

n.a. Not available. ... Not applicable.

Source: Haver Analytics, IMF International Financial Statistics database; Ministerio de economía; U.S. State Department.

In **Venezuela**, inflation ended the year above 30 percent, and there are indications that activity has slowed considerably in recent months. Both vehicle production and domestic sales were down about 12 percent in the 11 months through November relative to the same period a year earlier. In addition, fiscal revenues have fallen sharply, reflecting the fact that over 40 percent of government revenues come from oil sales. In late December, in response to downward pressures on the currency, the government further tightened capital controls. (The bolivar stood at over 5,600 per dollar recently in the black market, over twice the official exchange rate.) In mid-January, Finance Minister Ali Rodriguez Araque ruled out devaluation "for now" and indicated that the government would draw on its foreign savings to sustain domestic spending. In February, a referendum will be held to reconsider whether to allow a president to have unlimited terms; a similar referendum was rejected in December 2007.

**Venezuelan Economic Indicators**  
(Percent change from previous period, seasonally adjusted, except as noted)

Indicator	2007	2008	2008				
			Q3	Q4	Oct.	Nov.	Dec.
Real GDP <sup>1</sup>	8.5	n.a.	2.8	n.a.	...	...	...
Consumer prices <sup>2</sup>	22.5	30.9	33.6	32.3	34.4	31.8	30.9
Non-oil trade balance <sup>3</sup>	-34.6	n.a.	-35.6	n.a.	...	...	...
Merch. trade balance <sup>3</sup>	23.7	n.a.	70.2	n.a.	...	...	...
Current account <sup>4</sup>	20.0	n.a.	72.1	n.a.	...	...	...

1. Gross domestic product. Annual rate. Annual data are Q4/Q4.

2. Percent change from year-earlier period, except annual data, which are Dec./Dec.

3. Billions of U.S. dollars, annual rate.

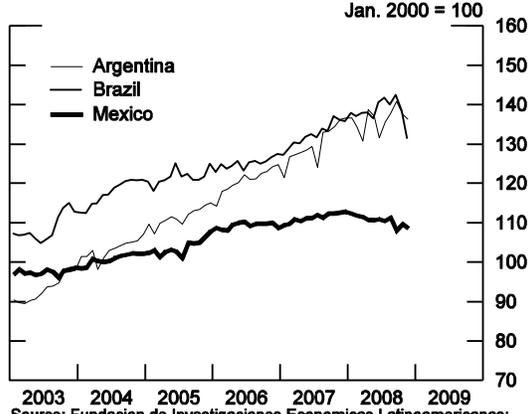
4. Billions of U.S. dollars, not seasonally adjusted, annual rate.

n.a. Not available. ... Not applicable.

Source: IMF International Financial Statistics database; Bank of Venezuela; Reuters and Embassy cables.

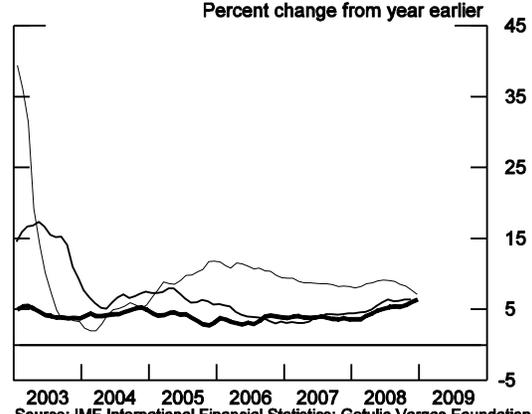
**Latin America**

**Industrial Production**



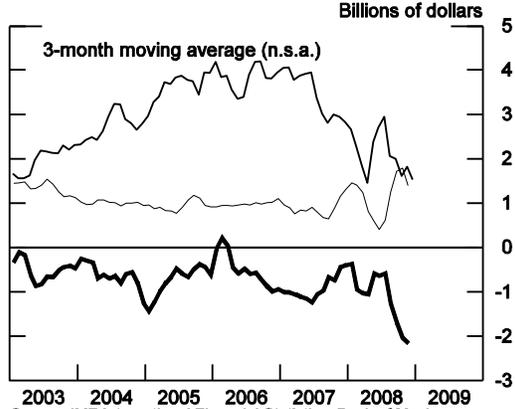
Source: Fundacion de Investigaciones Economicas Latinoamericanas; Haver Analytics.

**Consumer Prices**



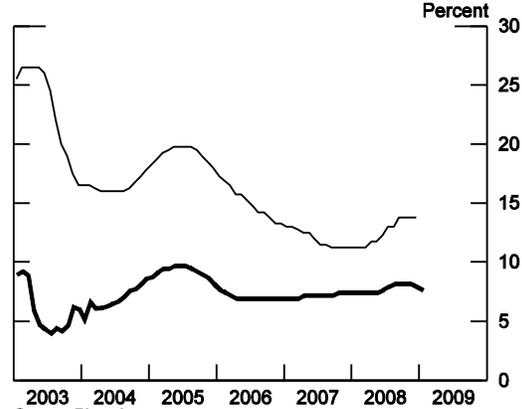
Source: IMF International Financial Statistics; Getulio Vargas Foundation; Haver Analytics; Bank of Mexico.

**Merchandise Trade Balances**



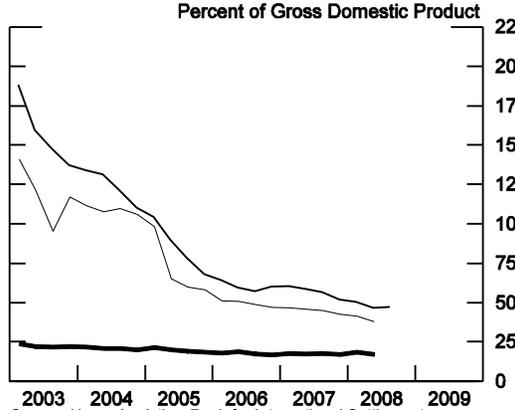
Source: IMF International Financial Statistics, Bank of Mexico.

**Benchmark Interest Rates**



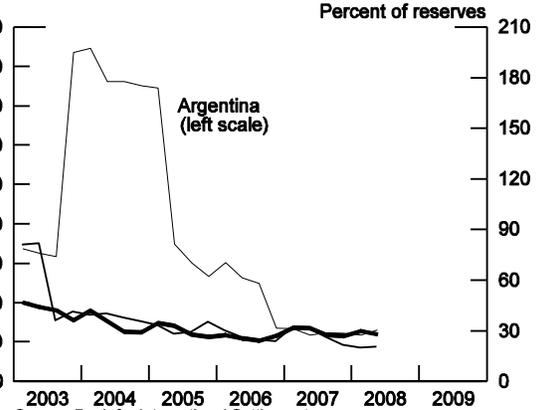
Source: Bloomberg.

**Gross External Debt**



Source: Haver Analytics; Bank for International Settlements.

**Short-Term External Debt**



Source: Bank for International Settlements.

In **Russia**, third-quarter growth fell to 2¼ percent but remained positive as still-strong private consumption more than offset plummeting investment and a continued decline in net exports. The country remains in a financial crisis, with declines in oil and other commodity prices a major adverse contributing factor. Over October and November, manufacturing output plunged, and retail trade was down sharply. The PMI has sunk to well below its trough during the 1998 crisis. Inflation remained high through December, with a 12-month increase in consumer prices of over 13 percent, likely fueled by the pass-through from the devaluation of the ruble.

The central bank's continued stepwise devaluations of the ruble have not alleviated downward pressures on the currency. In part reflecting intervention sales of foreign exchange and the provision of dollars to Russian banks and corporations, international reserves continued to decline and stood at \$396 billion as of January 16, down from a peak of \$600 billion last summer. In early December, the central bank raised its short-term interest rate by 100 basis points to 13 percent.