## Prefatory Note

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## Part 2

## CURRENT ECONOMIC AND FINANCIAL CONDITIONS

## Recent Developments

Prepared for the Federal Open Market Committee by the staff of the Board of Governors of the Federal Reserve System

## Recent Developments

## Domestic Nonfinancial Developments

## Domestic Nonfinancial Developments

Economic activity so far this quarter appears to have expanded at a relatively subdued pace. Payroll employment continued to rise moderately in July and August, and consumer and business spending held up well through July. However, the contraction in home building is exerting considerable restraint on overall activity, and reductions in motor vehicle assemblies are cutting into growth as well. Energy prices posted another sharp increase in July, but they appear to have leveled out in August and are on track for a sizable drop this fall. Core consumer price inflation eased a bit in July but still has generally been running higher than it did in 2005.

## Labor Market Developments

The demand for labor continued to expand in August. Private nonfarm payrolls rose 111,000 , an amount similar to the average increase over the previous four months and down from the pace of the first quarter. Employment gains in the service-producing sector were widespread in August; an advance in the health-care component of nonbusiness services was especially notable. The construction industry also added jobs, with the increase concentrated in trades related to nonresidential building. In contrast, retail trade employment decreased further and is now down by about 100,000 workers over the past year. Manufacturing employment also fell again in August, due partly to further losses in the motor vehicles and parts industries. A small decline in the average workweek pulled down aggregate hours of production or nonsupervisory workers, which fell 0.2 percent in August to a level that was just 0.1 percent (not at an annual rate) above the second-quarter average.

The unemployment rate edged back down to 4.7 percent in August, but remained in the narrow band that has prevailed since the beginning of the year; the labor force participation rate held steady at 66.2 percent. The number of persons working part time for economic reasons-another indicator of labor market slack-has also been about unchanged in recent months. And, while the proportion of individuals who quit work to search for a new job has edged down this year, it remains cyclically elevated, suggesting that workers have stayed fairly optimistic about alternative employment prospects.

Similarly, other indicators do not point to any significant change in labor market conditions in recent months. The four-week moving average of initial claims for unemployment insurance (UI) was 315,000 in the week ending September 2, up from its trough earlier in the year but still low. Meanwhile, the level of insured unemployment has risen only a little from the low levels of the spring, and the exhaustion rate, which measures the fraction of UI recipients who did not find a job before their benefits ran out,

Changes in Employment
(Thousands of employees; seasonally adjusted)

| Measure and sector | 2005 | 2005 | 2006 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Q4 | Q1 | Q2 | June | July | Aug. |
|  | Average monthly change |  |  |  | Monthly change |  |  |
| Nonfarm payroll employment <br> (establishment survey) 165 179 176 115 134 121 128 |  |  |  |  |  |  |  |
| Private | 152 | 171 | 169 | 98 | 107 | 106 | 111 |
| Natural resources and mining | 4 | 4 | 6 | 5 | 5 | 5 | 4 |
| Manufacturing | -6 | 12 | 1 | 11 | 25 | -23 | -11 |
| Construction | 25 | 30 | 26 | 1 | -2 | 5 | 17 |
| Wholesale trade | 7 | 7 | 13 | 8 | 6 | -1 | 6 |
| Retail trade | 13 | 11 | 2 | -28 | -5 | 4 | -14 |
| Transportation and utilities | 6 | 6 | 4 | 9 | -1 | 9 | -8 |
| Information | -1 | -2 | 2 | -3 | , | -10 | 7 |
| Financial activities | 12 | 17 | 20 | 11 | 0 | 9 | 10 |
| Professional and business services | 41 | 41 | 26 | 40 | 43 | 48 | 26 |
| Temporary help services | 14 | 18 | -8 | -1 | -11 | 3 | 3 |
| Nonbusiness services ${ }^{1}$ | 51 | 44 | 69 | 44 | 34 | 61 | 73 |
| Total government | 14 | 8 | 7 | 17 | 27 | 15 | 17 |
| Total employment (household survey) | 221 | 115 | 287 | 241 | 387 | -34 | 250 |
| Memo: |  |  |  |  |  |  |  |
| Aggregate hours of private production workers (percent change) ${ }^{2}$ | 2.3 | 2.1 | 3.0 | 2.6 | . 4 | . 1 | -. 2 |
| Average workweek (hours) ${ }^{3}$ | 33.8 | 33.8 | 33.8 | 33.9 | 33.9 | 33.9 | 33.8 |
| Manufacturing (hours) | 40.6 | 40.9 | 41.0 | 41.2 | 41.3 | 41.4 | 41.3 |

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.


## Selected Unemployment and Labor Force Participation Rates

(Percent; seasonally adjusted)

| Rate and group | 2005 | $\frac{2005}{\text { Q4 }}$ | 2006 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Q1 | Q2 | June | July | Aug. |
| Civilian unemployment rate |  |  |  |  |  |  |  |
| Total | 5.1 | 5.0 | 4.7 | 4.7 | 4.6 | 4.8 | 4.7 |
| Teenagers | 16.6 | 16.1 | 15.5 | 14.7 | 15.4 | 15.5 | 16.2 |
| 20-24 years old | 8.8 | 8.5 | 8.1 | 8.1 | 7.9 | 8.5 | 8.2 |
| Men, 25 years and older | 3.8 | 3.7 | 3.6 | 3.6 | 3.5 | 3.6 | 3.5 |
| Women, 25 years and older | 4.2 | 4.2 | 3.9 | 3.8 | 3.7 | 3.8 | 3.7 |
| Labor force participation rate |  |  |  |  |  |  |  |
| Total | 66.0 | 66.1 | 66.0 | 66.1 | 66.2 | 66.2 | 66.2 |
| Teenagers | 43.7 | 43.4 | 43.7 | 43.8 | 44.5 | 44.0 | 43.5 |
| 20-24 years old | 74.6 | 74.8 | 74.0 | 74.2 | 74.1 | 74.5 | 75.5 |
| Men, 25 years and older | 75.4 | 75.3 | 75.5 | 75.5 | 75.4 | 75.3 | 75.3 |
| Women, 25 years and older | 59.4 | 59.6 | 59.4 | 59.5 | 59.7 | 59.9 | 59.8 |

## Labor Force Participation Rate and Unemployment Rate





## Labor Market Indicators



Labor Market Tightness



Note. Percent planning an increase in employment minus percent planning a reduction.

Exhaustion Rate


Job Openings


Source. Job Openings and Labor Turnover Survey.

Expected Labor Market Conditions


Note. The proportion of households expecting labor market conditions to improve, minus the proportion expecting conditions to worsen, plus 100.
has moved sideways in recent months after some sharp fluctuations earlier in the year. Moreover, private surveys of hiring plans still suggest that demand for labor is rising at a modest pace, although the Job Openings and Labor Turnover Survey suggests that the rate of job openings has edged down in recent months. Readings on households’ expectations for the labor market continued to diverge in August: Although respondents to the Conference Board survey remained relatively upbeat, the measure from the Michigan survey deteriorated further.

The staff estimates that productivity in the nonfarm business sector increased at an annual rate of 1.4 percent in the second quarter after rising 4.3 percent in the first quarter. Over the four quarters ending in the second quarter of 2006, productivity rose an estimated 2.5 percent, a step-up from the 1.6 percent pace in the preceding four quarters. As reported by the Bureau of Labor Statistics, output per hour in the nonfinancial corporate sector increased at an annual rate of 2.2 percent in the second quarter and rose 4.8 percent over the past year.

## Output per Hour

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

| Sector | $\begin{gathered} \text { 2004:Q2 } \\ \text { to } \\ \text { 2005:Q2 } \end{gathered}$ | $\begin{gathered} \text { 2005:Q2 } \\ \text { to } \\ 2006: Q 2 \end{gathered}$ | 2005 |  | 2006 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Q3 | Q4 | Q1 | Q2 ${ }^{1}$ |
| Nonfarm business |  |  |  |  |  |  |
| All persons | 1.6 | 2.5 | 4.4 | -. 1 | 4.3 | 1.4 |
| All employees ${ }^{2}$ | 1.9 | 2.2 | 3.2 | -. 7 | 5.2 | 1.3 |
| Nonfinancial corporations ${ }^{3}$ | 4.3 | 4.8 | 3.0 | 3.2 | 11.1 | 2.2 |

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.

## Industrial Production

Activity in the industrial sector exhibited considerable vigor through July but likely declined a bit in August. In July, total industrial production (IP) was held down by a sharp drop in the output of motor vehicles and parts, while production elsewhere posted another sizable gain. In August, declines in the hours of manufacturing production workers—which are a key input for the initial estimate of IP—and in energy output

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

| Component | Proportion 2005 (percent) | $2005{ }^{1}$ | 2006 |  | 2006 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Q1 | Q2 | May | June | July |
|  |  |  | Annual rate |  | Monthly rate |  |  |
| Total | 100.0 | 3.0 | 5.1 | 6.2 | . 0 | . 8 | . 4 |
| Previous | 100.0 | 3.0 | 5.1 | 6.6 | . 1 | . 8 | ... |
| Manufacturing | 80.8 | 4.2 | 5.3 | 5.1 | -. 1 | . 8 | . 1 |
| Ex. motor veh. and parts | 73.7 | 4.4 | 5.9 | 5.5 | . 0 | . 6 | . 7 |
| Ex. high-tech industries | 68.9 | 2.9 | 5.2 | 4.3 | -. 2 | . 5 | . 6 |
| Mining | 9.8 | -6.8 | 26.3 | 10.2 | . 3 | 1.1 | . 8 |
| Utilities | 9.5 | 2.9 | -14.3 | 11.5 | 1.3 | . 9 | 2.0 |
| Selected industries |  |  |  |  |  |  |  |
| High technology | 4.8 | 25.7 | 15.2 | 21.8 | 2.2 | 2.0 | 1.2 |
| Computers | . 8 | 12.0 | 10.6 | 15.9 | 1.6 | 1.4 | 1.2 |
| Communications equipment | 1.2 | 25.4 | 30.5 | 39.5 | 1.3 | 1.7 | 1.4 |
| Semiconductors ${ }^{2}$ | 2.8 | 29.9 | 10.0 | 15.8 | 2.9 | 2.4 | 1.1 |
| Motor vehicles and parts | 7.1 | 2.3 | -. 2 | 1.9 | -1.3 | 3.0 | -5.4 |
| Market groups excluding energy and selected industries |  |  |  |  |  |  |  |
| Consumer goods | 21.0 | 2.3 | . 9 | 2.5 | -. 6 | . 2 | . 5 |
| Durables | 4.1 | 2.6 | -2.5 | -. 3 | -. 3 | -. 2 | . 4 |
| Nondurables | 16.9 | 2.2 | 1.7 | 3.3 | -. 6 | . 3 | . 6 |
| Business equipment | 8.0 | 9.6 | 8.4 | 12.7 | -. 4 | . 8 | 1.6 |
| Defense and space equipment | 2.0 | 9.2 | 6.7 | 6.4 | . 1 | 1.2 | . 7 |
| Construction supplies | 4.4 | 6.5 | 3.1 | -1.2 | -. 6 | . 1 | . 5 |
| Business supplies | 7.8 | 2.7 | 3.7 | 4.1 | -. 2 | . 7 | . 4 |
| Materials | 24.4 | . 6 | 9.7 | 4.7 | . 1 | . 5 | . 5 |
| Durables | 13.7 | 3.6 | 9.0 | 6.7 | . 0 | . 6 | . 7 |
| Nondurables | 10.7 | -3.1 | 10.6 | 2.2 | . 2 | . 3 | . 1 |

1. From fourth quarter of preceding year to fourth quarter of year shown.
2. Includes related electronic components.
... Not applicable.

Capacity Utilization
(Percent of capacity)

| Sector | $\begin{gathered} 1972- \\ 2005 \\ \text { average } \end{gathered}$ | $\begin{aligned} & 1994- \\ & 2005 \\ & \text { high } \\ & \hline \end{aligned}$ | $\begin{gathered} 2001- \\ 02 \\ \text { low } \end{gathered}$ | $\frac{2005}{\mathrm{Q} 4}$ | 2006 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Q1 | Q2 | June | July |
| Total industry | 81.0 | 85.0 | 73.9 | 80.5 | 81.1 | 81.9 | 82.3 | 82.4 |
| Manufacturing | 79.8 | 84.5 | 72.0 | 79.8 | 80.3 | 80.8 | 81.1 | 81.0 |
| Ex. motor veh. and parts | 79.9 | 84.3 | 71.8 | 79.8 | 80.5 | 81.0 | 81.2 | 81.5 |
| Mining | 87.3 | 89.0 | 85.6 | 82.7 | 87.9 | 90.4 | 91.2 | 92.1 |
| Utilities | 86.7 | 93.7 | 83.7 | 86.9 | 83.5 | 85.7 | 86.5 | 88.2 |
| Stage-of-process groups |  |  |  |  |  |  |  |  |
| Crude | 86.4 | 89.4 | 83.2 | 81.3 | 85.8 | 88.2 | 88.9 | 89.4 |
| Primary and semifinished | 82.1 | 88.1 | 74.6 | 82.6 | 82.3 | 82.8 | 83.3 | 83.7 |
| Finished | 77.9 | 80.5 | 70.8 | 78.3 | 78.9 | 79.6 | 79.8 | 79.5 |

## Indicators of Industrial Activity



Utilities Output


IP: Business Equipment and Construction Supplies


Energy IP


New Orders: ISM, FRB New York, and FRB Philadelphia Surveys


Capacity Utilization by Stage of Processing


## Indicators of High-Tech Manufacturing Activity

Communications Equipment and Computer IP


Capital Expenditures by Telecommunications Service Providers


Note. FRB seasonals. Does not include capital expenditures of cable television companies.
Source. SEC filings.

Rate of Change in Semiconductor Industrial Production

U.S. Personal Computer and Server Sales


CIO Magazine IT Hardware Future Spending Diffusion Index


Bookings and Billings for Semiconductor Equipment

essentially offset the boost to IP from a partial rebound in motor vehicle assemblies. ${ }^{1}$ Looking ahead, the new orders diffusion index from the Institute for Supply Management and similar indexes from the various regional surveys suggest modest gains in coming months.

In the high-technology sector, the IP index for computers continued to rise at a tepid pace through mid-summer. ${ }^{2}$ Meanwhile, the output of communications equipment, which increased markedly during the first half of the year, appears poised for some moderation. Capital spending by telecommunication service providers dropped back in the second quarter, and their guidance for the year as a whole suggests that spending is unlikely to increase during the remainder of this year. However, CIO Magazine's diffusion index of plans for future spending on information technology hardware as a whole was still quite positive in June (the latest available observation), albeit a bit less so than earlier in the year.

Semiconductor production has been sluggish since the end of 2005, mainly because of weak demand for microprocessor units (MPUs). This softness reflects both a loss of market share at Intel and a shift in demand toward lower-end MPUs. ${ }^{3}$ Recently, however, Intel has rolled out its latest generation of MPUs, named Core 2 Duo. These chips are significantly faster and more energy efficient relative to their predecessor, the Core Duo, and to the leading edge MPUs from AMD. ${ }^{4}$

[^0]Sales of Light Vehicles
(Millions of units at an annual rate; FRB seasonals)

| Category | 2005 | $\begin{gathered} 2005 \\ \hline \text { Q4 } \end{gathered}$ | 2006 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Q1 | Q2 | June | July | Aug. |
| Total | 16.9 | 15.9 | 16.9 | 16.3 | 16.1 | 17.1 | 16.0 |
| Autos | 7.7 | 7.5 | 7.8 | 7.8 | 7.7 | 8.2 | 7.7 |
| Light trucks | 9.2 | 8.3 | 9.1 | 8.5 | 8.4 | 8.9 | 8.3 |
| North American ${ }^{1}$ | 13.5 | 12.6 | 13.4 | 12.6 | 12.5 | 13.2 | 12.4 |
| Autos | 5.5 | 5.4 | 5.7 | 5.4 | 5.3 | 5.6 | 5.3 |
| Light trucks | 8.0 | 7.2 | 7.7 | 7.1 | 7.2 | 7.6 | 7.1 |
| Foreign-produced | 3.4 | 3.3 | 3.4 | 3.7 | 3.7 | 4.0 | 3.6 |
| Autos | 2.2 | 2.1 | 2.1 | 2.4 | 2.4 | 2.7 | 2.4 |
| Light trucks | 1.2 | 1.2 | 1.3 | 1.3 | 1.2 | 1.3 | 1.2 |
| Memo: <br> Big Three domestic market share (percent) ${ }^{2}$ | 56.8 | 53.4 | 55.8 | 53.9 | 55.5 | 52.1 | 52.7 |

[^1]

Michigan Survey Index of Car-Buying Attitudes


New Light Vehicle Fuel Economy


Average Value of Incentives on Light Vehicles


Among market groups excluding energy, motor vehicles and parts, and high-technology products, output gains have been sizable in recent months. Equipment categories such as commercial aircraft, construction and mining equipment, and search, detection, and navigation equipment appear to be benefiting from robust demand at home and abroad. In addition, the production of defense and space equipment was $61 / 2$ percent above its year-ago level in July.

Among construction supplies, the output of items that figure more prominently in nonresidential construction-such as architectural and structural metals, construction steel, and electrical equipment-has remained relatively strong. In contrast, the production of items that tend to be more important in residential construction, such as wood products, has decreased in recent months.

## Light Motor Vehicles

Demand for light vehicles fell back in August after having been boosted in July by a new round of incentives early that month. Sales over the two months averaged $161 / 2$ million units, a little higher than in the second quarter but below the average pace of 17 million units seen in 2004 and 2005. More recently, the automakers reported robust sales over the Labor Day weekend; they also indicated that sales have moved back into the range of $161 / 2$ million to 17 million units.

In part because of the higher gasoline prices this year, the composition of vehicles sold has continued to shift away from full-size pickups and sport-utility vehicles toward more fuel-efficient models, and the average fuel economy of light vehicles sold has continued to move up. The higher gasoline prices have also contributed to some slippage in the index of car-buying attitudes from the Michigan survey. In addition, respondents to recent surveys have cited higher interest rates and the prospect of bad times ahead as reasons for their pessimism.

The shift in consumer buying patterns has left inventories of light trucks uncomfortably high. Days' supply of light trucks has crept up for several years and has been in a range of between 85 days and 90 days in recent months. General Motors (GM) and Ford reportedly plan to address their inventory problems mainly through production cuts; in the past, these firms often used other practices to reduce high inventories-for example, sales incentives and cut-rate sales to daily rental companies-that tended to boost market share at the expense of profitability. Indeed, light vehicle assemblies are likely to total just 10.7 million units at an annual rate in the third quarter-almost a million units below

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

| Item | 2005 | 2006 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | H1 | Q3 | Q4 | July | Aug. | Sept. | Oct. |
| U.S. production ${ }^{1}$ | 11.5 | 11.2 | 10.7 | 10.5 | 10.2 | 10.6 | 11.3 | 10.4 |
| Autos | 4.3 | 4.4 | 4.4 | 4.2 | 4.1 | 4.3 | 4.7 | 4.4 |
| Light trucks | 7.2 | 6.7 | 6.4 | 6.4 | 6.2 | 6.3 | 6.6 | 6.1 |
| Days' supply ${ }^{2}$ | 69 | 72 | n.a. | n.a. | 70 | 73 | n.a. | n.a. |
| Autos | 52 | 53 | n.a. | n.a. | 50 | 53 | n.a. | n.a. |
| Light trucks | 81 | 87 | n.a. | n.a. | 85 | 88 | n.a. | n.a. |
| Inventories ${ }^{3}$ | 3.04 | 3.06 | n.a. | n.a. | 2.99 | 2.96 | n.a. | n.a. |
| Autos | . 93 | . 95 | n.a. | n.a. | . 90 | . 92 | n.a. | n.a. |
| Light trucks | 2.11 | 2.10 | n.a. | n.a. | 2.09 | 2.04 | n.a. | n.a. |
| Memo: U.S. production, total motor vehicles ${ }^{4}$ | 12.0 | 11.6 | 11.2 | 10.9 | 10.8 | 11.1 | 11.7 | 10.7 |

Note. FRB seasonals. Components may not sum to totals because of rounding.

1. Production rates for September and the fourth quarter reflect the latest industry schedules.
2. Annual and 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.

Inventories of Light Vehicles


Days' Supply of Light Vehicles

the manufacturers' initial schedules-and are slated to move down to 10.5 million units in the fourth quarter. Only some of the recent and anticipated weakness in motor vehicle production reflects the reductions to capacity initiated by GM and Ford earlier in the year.

## Consumer Spending

After slowing in early spring, consumer spending regained its footing and remained on a solid trajectory through midsummer. In addition to the aforementioned modest step-up in purchases of light motor vehicles from their lackluster pace in the second quarter, real spending on non-auto goods posted steady increases over the four months ending in July. Moreover, consumer spending on services picked up in July, in part because of a weather-induced increase in outlays on energy services.

Real disposable income (DPI) now appears to have increased at a solid pace so far this year despite the sharp increase in energy prices. On the basis of unemployment insurance tax records for the first quarter, the Bureau of Economic Analysis (BEA) now estimates that real DPI rose at an annual rate of $41 / 2$ percent in the first quarter, 3 percentage points above its earlier estimate; second-quarter real DPI growth was revised up $1 / 2$ percentage point to an annual rate of $11 / 2$ percent. ${ }^{5}$ Reflecting the revisions to income, the level of the personal saving rate was raised $3 / 4$ percentage point over the first half of the year, although it remained in negative territory. More recently, the BEA's estimates for July show a 0.3 percent rise (not at an annual rate) in real DPI and a 0.2 percentage point decline in the saving rate to negative 0.9 percent.

Other key influences on consumption have been mixed. On the one hand, consumer spending continues to draw significant support from the lagged effects of earlier increases in household wealth. Indeed, although the ratio of household net worth to income decreased in the second quarter as a result of a deceleration in house prices and a dip in stock values, it remained well above its historical average. On the other hand, borrowing costs have risen this year as short-term interest rates have climbed.

The high-frequency readings on consumer sentiment from the Michigan survey have been erratic of late, perhaps owing to the sharp ups and downs in gasoline prices; the reading for August as a whole was slightly below that recorded in July. The Conference Board measure, which had held up reasonably well through July, also declined in August.

[^2]
## Real Personal Consumption Expenditures

(Percent change from the preceding period)

|  | 2005 |  | 2006 |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  | H1 | H2 | Q1 | Q2 | May | June | July |
|  | Annual rate |  |  |  |  | Monthly rate |  |
| Total real PCE | 3.5 | 2.3 | 4.8 | 2.6 | .3 | .3 | .5 |
| Durable goods | 7.4 | -2.2 | 19.8 | .5 | -.5 | 1.0 | 1.6 |
| Motor vehicles | 2.9 | -15.2 | 18.9 | -.8 | -2.2 | 1.9 | 3.2 |
| Excluding motor vehicles | 11.2 | 8.7 | 20.5 | 1.4 | .7 | .3 | .4 |
| Nondurable goods | 5.1 | 3.7 | 5.9 | 1.7 | .2 | .2 | .4 |
| Energy | .5 | -4.1 | -1.3 | 1.6 | -.4 | -.3 | 3.0 |
| Other | 5.7 | 4.8 | 6.9 | 1.7 | .3 | .3 | .0 |
| Services | 2.0 | 2.6 | 1.6 | 3.5 | .5 | .1 | .4 |
| Energy | -.1 | 2.0 | -29.7 | 15.0 | 6.1 | .5 | 3.1 |
| Other | 2.0 | 2.6 | 3.2 | 3.0 | .3 | .1 | .3 |



Personal Saving Rate


Note. Value for December 2004 excludes the effect on income of the one-time Microsoft dividend in that month.

## Fundamentals of Household Spending

Changes in Real Wages and Salaries, Real Personal Income, and Real DPI


* The value for 2005 is a Q4-to-Q4 percent change and excludes the effect on income of the one-time Microsoft dividend in December 2004.

Change in Real DPI


Note. Values for 2004:Q4 and 2005:Q4 exclude the effect on income of the one-time Microsoft dividend in December 2004.

Federal Funds Rate and 10-Year Treasury Yield


Household Net Worth and Wilshire 5000


Consumer Confidence


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

| Sector | 2005 | 2006 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Q1 | Q2 | May | June | July |
| All units |  |  |  |  |  |  |
| Starts | 2.07 | 2.12 | 1.88 | 1.95 | 1.84 | 1.80 |
| Permits | 2.16 | 2.14 | 1.93 | 1.95 | 1.87 | 1.76 |
| Single-family units |  |  |  |  |  |  |
| Starts | 1.72 | 1.75 | 1.53 | 1.59 | 1.49 | 1.45 |
| Permits | 1.68 | 1.61 | 1.46 | 1.49 | 1.40 | 1.33 |
| Adjusted permits ${ }^{1}$ | 1.71 | 1.64 | 1.49 | 1.51 | 1.45 | 1.35 |
| Permit backlog ${ }^{2}$ | . 170 | . 163 | . 155 | . 160 | . 155 | . 147 |
| New homes |  |  |  |  |  |  |
| Sales | 1.28 | 1.11 | 1.12 | 1.13 | 1.12 | 1.07 |
| Months' supply ${ }^{3}$ | 4.43 | 5.90 | 6.10 | 6.00 | 6.20 | 6.50 |
| Existing homes |  |  |  |  |  |  |
| Sales | 6.18 | 5.96 | 5.86 | 5.86 | 5.80 | 5.51 |
| Months' supply ${ }^{3}$ | 4.40 | 5.20 | 6.30 | 6.20 | 6.70 | 7.20 |
| Multifamily units |  |  |  |  |  |  |
| Starts | . 353 | . 376 | . 343 | . 366 | . 355 | . 343 |
| Permits | . 473 | . 528 | . 466 | . 458 | . 465 | . 438 |
| Permit backlog ${ }^{2}$ | . 059 | . 066 | . 068 | . 066 | . 068 | . 068 |
| Mobile homes |  |  |  |  |  |  |
| Condos and co-ops Existing home sales | . 896 | . 832 | . 828 | . 852 | . 796 | . 818 |

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. The ratio of n.s.a. inventories to n.s.a. sales is seasonally adjusted by the Census Bureau; as a result, the s.a. ratio may not be the same as the ratio of s.a. inventories to s.a. sales. Quarterly and annual figures are averages of monthly figures.

Private Housing Starts and Permits
(Seasonally adjusted annual rate)


[^3]
## Housing

Residential construction activity has continued its downward trajectory in recent months. Single-family starts fell $21 / 2$ percent further in July, to an annual rate of 1.45 million units; the level of starts in July was 17 percent below the peak in the third quarter of 2005. Adjusted permit issuance in this sector has been falling steadily for a year, and July’s $53 / 4$ percent drop reduced the number of permits issued to the lowest level since early 2002. In addition, the backlog of unused permits has fallen considerably after peaking late last year. In contrast, construction in the multifamily sector has not displayed any signs of slowing. Multifamily starts in July were at an annual rate of 343,000 units-well within the range that has prevailed since 1995-and the rate of permitting in this sector has remained steady.

The pace of home sales has also weakened further in recent months. Sales of existing single-family homes fell 5 percent in July and stood 13 percent below their peak in mid2005. Sales of new homes in July were 22 percent lower than their record high, which was reached last summer.

Near-term indicators suggest that housing market activity will slow further in the months ahead. Inventories of unsold new homes have been increasing relative to sales for some time, and the months' supply of new homes for sale is now more than 30 percent higher than the upper bound of the relatively narrow (and historically low) range it occupied from 1997 to 2005. The index of pending home sales dropped 7 percent in July, a sign that sales of existing homes will continue to soften in the next few months. In addition, despite their recent downturn, mortgage rates are up considerably since the beginning of the year. The average rate for thirty-year fixed-rate mortgages rose 37 basis points from January to August, while the average rate for one-year adjustable-rate mortgages has climbed almost 50 basis points, on net, this year.

House-price appreciation has slowed from the elevated rates seen last year. The purchase-only version of the price index for existing homes calculated by the Office of Federal Housing Enterprise Oversight (OFHEO) increased at an annual rate of just 5 percent in the second quarter; from the second quarter of 2005 to the second quarter of

## Indicators of Single-Family Housing

Existing Home Sales


Source. National Association of Realtors.


Prices of Existing Homes


Source. For repeat transactions, OFHEO; for average price, National Association of Realtors; for Case-Shiller, price, National Association of R

New Home Sales


## Mortgage Rates



Note. The September readings are based on data
through September 6, 2006.
Source. Freddie Mac.

Prices of New Homes


Note. Average price values have been adjusted by Board staff to take into account new sampling procedures adopted in 2005.
Source. Census Bureau

2006, this index increased $81 / 4$ percent, the smallest four-quarter increase in almost three years. The Case-Shiller home-price index, which covers sales in only ten large U.S. cities, has also decelerated sharply in recent months, and its level in June was about the same (on a seasonally adjusted basis) as in January. ${ }^{6}$ Moreover, home-price appreciation apparently has continued to slow in the third quarter; the average price of existing homes rose less than 1 percent over the twelve months ending in July after increasing 9 percent in the preceding twelve-month period. However, unlike the OFHEO and Case-Shiller indexes, the series for the average price of existing homes does not control for the characteristics of homes sold, and the abrupt deceleration in this measure may reflect a shift in the composition of sales away from higher-end homes.
Prices for new homes have also decelerated. The constant-quality price index for new homes-which is the most reliable measure of quality-adjusted price appreciation in the new home market-was just $41 / 2$ percent higher in the second quarter than in the same period last year, its smallest four-quarter change since the spring of 2003. Moreover, the NAHB survey reports that home builders have stepped up their use of incentives-such as paying closing costs, buying down mortgage rates, and including optional items at no cost-to bolster sales. If so, appreciation in the market value of new housing may be even lower than implied by changes in the reported purchase price.

## Equipment and Software

Real spending on equipment and software rose at an annual rate of $63 / 4$ percent in the first half of the year, and spending appears to have remained robust into the summer. The underlying fundamentals for business investment continue to be quite favorable: Business output expanded briskly through the second quarter; corporate financial reserves are plentiful; and measures of executive sentiment, such as the capital spending diffusion index compiled by the National Association for Business Economics, are still elevated. In addition, falling relative prices for high-tech equipment are continuing to drive down the cost of capital for these goods.

In the high-tech sector, the data on orders and shipments of communications equipment have moved erratically in recent months. On the whole, however, they seem consistent with a leveling off in spending after a spectacular increase in the first quarter and its partial reversal in the second quarter. As has been the case in recent quarters, investment in this category is being supported by major spending on fiber-optic networks by telecommunications service providers as well as by spending for the replacement of

[^4]
## Fundamentals of Equipment and Software Investment

Real Business Output


## User Cost of Capital



Real Corporate Cash Flow



NABE Capital Spending Diffusion Index


Orders and Shipments of Nondefense Capital Goods
(Percent change; seasonally adjusted current dollars)

| Category | 2006 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Q1 | Q2 | May | June | July |
|  | Annual rate |  | Monthly rate |  |  |
| Shipments | 1.4 | 5.2 | 2.1 | -. 2 | . 7 |
| Excluding aircraft | 10.6 | 5.8 | . 0 | -. 2 | 1.7 |
| Computers and peripherals | -11.7 | -18.7 | -4.1 | -3.9 | 13.6 |
| Communications equipment | 87.7 | 1.0 | -6.1 | 2.8 | -12.0 |
| All other categories | 7.9 | 10.1 | 1.3 | -. 1 | 1.7 |
| Orders | -25.6 | 4.6 | -2.0 | 1.7 | . 4 |
| Excluding aircraft | 16.7 | 3.7 | 1.3 | . 9 | 1.6 |
| Computers and peripherals | -16.3 | -13.2 | -3.0 | -1.7 | 13.7 |
| Communications equipment | 159.3 | -31.7 | 9.7 | 11.2 | -17.5 |
| All other categories | 12.1 | 11.1 | 1.0 | . 2 | 2.4 |
| Memo: <br> Shipments of complete aircraft ${ }^{1}$ | 33.0 | 33.8 | 33.4 | 35.0 | 32.0 |

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


Computers and Peripherals


Non-High-Tech, Nontransportation Equipment


## Medium and Heavy Trucks



Nonresidential Construction and Indicators
(All spending series are seasonally adjusted, annual rate; nominal CPIP deflated by
BEA prices through Q1 and by staff projection thereafter)

Total Structures


Manufacturing and Power \& Communication


Vacancy Rates


Note. The Q3 readings are based on data through September 7. Source. For office and industrial, CoStar Property Professional; for retail, National Council of Real Estate Investment Fiduciaries.

Office, Commercial, and Other


Note. Other includes religious, educational, lodging, amusement and recreation, transportation, and health-care facilities.

Architectural Billings and Nonresidential Construction Employment


Drilling Rigs in Operation


Source. DOE/Baker Hughes.
hurricane-damaged infrastructure. Meanwhile, real computer spending appears poised to accelerate after a tepid performance in the first half of the year. As noted earlier, the IP index for computers remained relatively sluggish in July. ${ }^{7}$ However, shipments of computers as measured by the M3 jumped, and the emergence of products that contain the new dual-core processor chips (discussed earlier) should help to buoy spending in coming months.

In the transportation sector, business purchases of light vehicles apparently picked up in August after a weak July, and sales of medium and heavy trucks remained brisk through midsummer. Some of the strength in medium and heavy truck demand this year is the result of the Environmental Protection Agency's new regulations on truck engines, which take effect in 2007 and are likely inducing some businesses to accelerate their truck purchases into 2006. In addition, net new orders for medium and heavy trucks, which had fallen appreciably in the spring, bounced back in July. Census data on aircraft shipments in July and information from Boeing on its deliveries suggest that domestic aircraft outlays in the current quarter will remain around their weak second-quarter level.

Real spending on equipment other than high-tech and transportation rose at an annual rate of $61 / 2$ percent over the first half of the year. The sharp increase in nominal shipments in July suggests that spending in the third quarter started out on a strong note. Because orders for this broad category also increased in July and backlogs continued to grow, further increases in shipments are apparently in store.

## Nonresidential Construction

Outlays for the construction of nonresidential buildings continued to pick up in recent months, although activity remains well short of the pace seen before the last recession. Spending on office construction has sped up as vacancy rates in this sector have continued to move down, and expenditures on manufacturing structures have strengthened considerably of late. The "other" category of construction has also registered strong growth, driven mainly by increases in the lodging and health components. The commercial category-which includes retail, wholesale, and some service industries-has risen only a little, on balance, despite retail vacancy rates that remain low by historical standards.

[^5]Nonfarm Inventory Investment
(Billions of dollars; seasonally adjusted annual rate)

| Measure and sector | 2005 | 2006 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Q4 | Q1 | Q2 | May | June | July |
| Real inventory investment (chained 2000 dollars) |  |  |  |  |  |  |
| Total nonfarm business | 38.6 | 36.8 | $56.5{ }^{\text {e }}$ | n.a. | n.a. | n.a. |
| Motor vehicles | 23.4 | 8.5 | $3.2{ }^{\text {e }}$ | n.a. | n.a. | n.a. |
| Nonfarm ex. motor vehicles | 15.2 | 28.3 | $53.3{ }^{\text {e }}$ | n.a. | n.a. | n.a. |
| Manufacturing and trade ex. wholesale and retail motor vehicles and parts | 16.9 | 22.7 | $39.4{ }^{\text {e }}$ | $44.3{ }^{\text {e }}$ | $36.2{ }^{\text {e }}$ | n.a. |
| Manufacturing | . 5 | 7.6 | $12.9{ }^{\text {e }}$ | $3.6{ }^{\text {e }}$ | $10.8{ }^{\text {e }}$ | n.a. |
| Wholesale trade ex. motor vehicles \& parts | 9.9 | 7.9 | $19.0{ }^{\text {e }}$ | $23.7{ }^{\text {e }}$ | $15.3{ }^{\text {e }}$ | n.a. |
| Retail trade ex. motor vehicles \& parts | 6.6 | 7.2 | 7.4 | 17.0 | 10.2 | n.a. |
| Book-value inventory investment (current dollars) |  |  |  |  |  |  |
| Manufacturing and trade ex. wholesale and retail motor vehicles and parts | 56.2 | 53.3 | 109.6 | 116.2 | 111.8 | n.a. |
| Manufacturing | 23.3 | 23.5 | 48.3 | 39.7 | 52.6 | 36.4 |
| Wholesale trade ex. motor vehicles \& parts | 20.7 | 17.9 | 43.2 | 48.6 | 38.9 | 33.4 |
| Retail trade ex. motor vehicles \& parts | 12.2 | 12.0 | 18.0 | 27.9 | 20.3 | n.a. |

e Staff estimates of real inventory investment based on revised book-value data.
n.a. Not available.

Source. For real inventory investment, BEA. 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.

ISM Customer Inventories:
Manufacturing


Note. A number above 50 indicates inventories are "too high."

Forward-looking indicators suggest that outlays for nonresidential construction outside of drilling and mining will rise further over the next few quarters. To be sure, the threemonth moving average of the architectural billings index-a diffusion index that measures whether billings by architectural firms are increasing or decreasing-has fallen considerably since its highs last fall and now shows that the number of firms reporting decreases is about equal to the number of firms reporting increases. ${ }^{8}$ However, employment in the construction of nonresidential buildings has continued to expand in recent months, albeit less rapidly than it did earlier this year. Upbeat anecdotes from the Beige Book and industry analysts also point to a solid pace of construction spending in the months ahead.

Outlays on drilling and mining structures also rose appreciably over the first half of the year. Increases in the number of rigs drilling for natural gas and petroleum through August imply that outlays on drilling and mining structures will continue to rise rapidly in the third quarter.

## Business Inventories

Real nonfarm inventory investment outside of the motor vehicle sector picked up to an annual rate of $\$ 53$ billion in the second quarter, and book-value data for the manufacturing and wholesale trade sectors point to only a modest slowing in the pace of accumulation in July. Nevertheless, there are no signs of any significant overhangs outside of motor vehicles. Data from the staff's flow-of-goods inventory system suggest that-excluding motor vehicles and parts—months' supply moved lower, on balance, in June and July and that inventories are well aligned with demand. Business surveys likewise indicate that firms continue to view the level of their customers' inventories as being within a comfortable range.

[^6]Federal Government Outlays and Receipts
(Unified basis; billions of dollars except as noted)

\left.|  |  |  |  |  |  | 12 months ending |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | :---: | :---: |
| in August |  |  |  |  |  |  |  |  |$\right]$

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

1. Financial transactions consist of deposit insurance, spectrum auctions, and sales of major assets.
2. A shift in payment timing occurs when the first of the month falls on a weekend or holiday, or when the first 3 days of a month are nonworking days. Outlays for defense, Social Security, Medicare, income security, and "other" have been adjusted to account for these shifts. In addition, defense outlays for retiree health care have been converted from an annual to a monthly basis. In August 2006, receipts and outlays were adjusted to reflect a one-time accounting correction by the Treasury that reduced both individual income taxes and Social Security benefits by $\$ 6$ billion.
... Not applicable.
Source. Monthly Treasury Statement.

## Federal Government Sector

The federal budget deficit improved a bit over the past two months. According to the Monthly Treasury Statements, the combined deficit in July and August was $\$ 7$ billion lower than in the same period last year. The deficit over the twelve months ending in August, after routine adjustments for payment-timing shifts and financial transactions, was $\$ 270$ billion, and it was about $\$ 61$ billion smaller than the adjusted deficit in the preceding twelve months.

Federal outlays, adjusted for payment-timing shifts and financial transactions, increased $71 / 2$ percent in July and August relative to those a year ago. Net interest outlays increased 31 percent from the level last July and August because of greater debt and higher interest rates, including larger inflation adjustments on Treasury inflation-protected securities. Non-interest outlays were $5 ½$ percent above the year-ago level in July and August, mainly because of higher spending for Medicare and Medicaid.

Adjusted receipts in July and August were $71 / 2$ percent above the year-ago level. Individual income and payroll tax receipts, which accounted for most of the receipts in July and August, were 5 percent greater than those of a year ago. Corporate tax payments from the small number of firms that make payments in July and August were 38 percent above the year-ago level.

Over the past two years, the deficit has declined as tax receipts have grown faster than outlays; the increase in taxes has also outstripped nominal income growth. On the individual tax side, the increase in liabilities relative to income (as measured in the NIPAs) may reflect real bracket creep, capital gains realizations (which are excluded from NIPA income), and a shift in the distribution of income toward high-income households, which are in the top tax brackets and are more likely to be subject to the alternative minimum tax. ${ }^{9}$ Corporate tax payments have been robust, in large part because of hefty gains in profits. The increase in corporate tax liabilities beyond that which can be explained by profit growth may reflect a temporary and probably small boost from repatriated foreign earnings last year and possibly a shift in the distribution of corporate earnings from firms with untaxed losses to firms with taxable earnings.

[^7]
## State and Local Indicators

Real Expenditures on Consumption and Investment Percent change, annual rate


Real Construction
Billions of chained (2000) dollars


## State Revenues



Net Change in Employment
Thousands of jobs, monthly average


Net Saving


## Local Revenues



In August, the Congressional Budget Office (CBO) released its update of The Budget and Economic Outlook, which presented a more favorable outlook for the federal deficit than the CBO had anticipated in March. This improvement was primarily due to greater-thanexpected individual and corporate tax receipts this year and to the CBO's assumption that a sizable portion of the upward revision will persist in coming years. Taxable incomes, particularly corporate profits, were somewhat higher than the CBO had expected earlier, but receipts, especially from individual income taxes, increased surprisingly faster than income. ${ }^{10}$ The CBO now projects the fiscal year 2006 deficit at $\$ 260$ billion, or 2 percent of nominal GDP, down from $21 / 2$ percent of GDP in fiscal 2005. The CBO projects that the deficit will remain near 2 percent of GDP over the next several years if current policies are unchanged and real GDP increases about 3 percent per year.

Before leaving for its August recess, the Congress passed a pension reform bill that tightens the funding requirements for employer-sponsored defined-benefit plans and is intended to improve the financial situation of the Pension Benefit Guaranty Corporation. The legislation also included a number of other savings-related provisions, and it is estimated to increase the deficit by $\$ 6$ billion over the next five years. Since returning from its recess, the Congress has continued work on the annual appropriations bills necessary to fund discretionary federal spending in the fiscal year that begins October 1. So far, the House has passed eleven of the twelve appropriations bills, but the Senate has passed only two and none has been enacted. A continuing resolution will be needed to fund agencies covered by appropriations bills that have not been enacted by the beginning of the new fiscal year.

## State and Local Government Sector

Real state and local government spending appears to have moderated after having been pushed up by very large increases in construction expenditures in the first half of the year. In July, we estimate that real construction spending fell to a level that was a bit more than $1 / 2$ percentage point below its second-quarter level after the first-half surge that spanned all major categories except education. Meanwhile, employment increased 14,000, on average, in July and August, about the same pace as in the first half of the year and consistent with the modest rate of hiring that has prevailed since 2004.

[^8]
## Price Measures

(Percent change)

| Measures | 12-month change |  | 3-month change |  | 1-month change |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { July } \\ 2005 \end{gathered}$ | $\begin{gathered} \text { July } \\ 2006 \end{gathered}$ | Annual rate |  | Monthly rate |  |
|  |  |  | Apr. $2006$ | $\begin{gathered} \text { July } \\ 2006 \end{gathered}$ | $\begin{aligned} & \text { June } \\ & 2006 \end{aligned}$ | $\begin{gathered} \text { July } \\ 2006 \end{gathered}$ |
| CPI |  |  |  |  |  |  |
| Total | 3.2 | 4.1 | 4.1 | 4.5 | . 2 | . 4 |
| Food | 2.1 | 2.2 | . 6 | 2.5 | . 3 | . 2 |
| Energy | 14.2 | 20.5 | 16.9 | 19.1 | -. 9 | 2.9 |
| Ex. food and energy | 2.1 | 2.7 | 3.2 | 3.2 | . 3 | . 2 |
| Core goods | . 5 | . 5 | . 9 | . 0 | . 1 | -. 1 |
| Core services | 2.8 | 3.5 | 4.1 | 4.7 | . 4 | . 4 |
| Chained CPI (n.s.a.) ${ }^{1}$ | 2.6 | 3.5 | ... | ... | ... | ... |
| Ex. food and energy ${ }^{1}$ | 1.8 | 2.5 | ... | ... | ... | ... |
| PCE prices |  |  |  |  |  |  |
| Total | 2.6 | 3.4 | 3.6 | 3.4 | . 1 | . 3 |
| Food | 2.0 | 2.3 | 1.1 | 2.8 | . 3 | . 2 |
| Energy | 14.4 | 21.7 | 21.7 | 20.8 | -. 9 | 3.2 |
| Ex. food and energy | 2.0 | 2.4 | 2.8 | 2.2 | . 2 | . 1 |
| Core goods | -. 2 | . 0 | . 6 | -1.0 | -. 1 | -. 2 |
| Core services | 2.9 | 3.4 | 3.8 | 3.6 | . 3 | . 3 |
| Core market-based | 1.7 | 2.0 | 2.5 | 2.1 | . 2 | . 1 |
| Core non-market-based | 3.4 | 4.1 | 4.4 | 2.8 | . 3 | . 3 |
| PPI |  |  |  |  |  |  |
| Total finished goods | 4.7 | 4.2 | . 5 | 3.3 | . 5 | . 1 |
| Food | 1.4 | 1.1 | -7.4 | 2.9 | 1.4 | -. 3 |
| Energy | 15.4 | 16.3 | 3.3 | 10.0 | . 7 | 1.3 |
| Ex. food and energy | 2.8 | 1.3 | 2.6 | . 8 | . 2 | -. 3 |
| Core consumer goods | 3.0 | 1.3 | 2.7 | . 5 | . 2 | -. 3 |
| Capital equipment | 2.6 | 1.4 | 2.5 | 1.4 | . 3 | -. 2 |
| Intermediate materials | 6.8 | 8.9 | 1.7 | 9.7 | . 7 | . 5 |
| Ex. food and energy | 4.6 | 7.9 | 3.8 | 11.1 | . 8 | . 7 |
| Crude materials | 7.9 | 6.6 | -33.1 | 14.2 | -1.7 | 3.1 |
| Ex. food and energy | -2.7 | 34.4 | 39.6 | 43.3 | 1.7 | 1.3 |

1. Higher-frequency figures are not applicable for data that are not seasonally adjusted.
... Not applicable.

The incoming information on the fiscal position of the states continues to be very favorable. The Rockefeller Institute reports that state tax collections increased 10 percent on a year-over-year basis in the second quarter, a result of ongoing strength in individual and corporate income taxes. ${ }^{11}$ As has been the case at the federal level, increases in state income taxes have outpaced income gains over the past several quarters, perhaps reflecting factors like shifts in the distribution of income and hefty capital gains (which are excluded from NIPA income).

In addition, according to the preliminary State Budget and Tax Actions 2006 report from the National Conference of State Legislatures, year-end balances for fiscal year 2006, which ended in June for most states, equaled approximately 10 percent of general fund spending, a figure close to the highs of the late 1990s and 2000 and well above the 5 percent generally considered to constitute a sound fiscal position. Nonetheless, many states face significant long-run structural imbalances in their budgets as a consequence of the underfunding of pension plans and retiree health benefits and the escalating cost of Medicaid.

## Prices

Overall prices for personal consumption expenditures rose 0.3 percent in July; energy prices posted another sharp increase, but core prices increased only 0.1 percent. The relatively tame reading on core PCE inflation helped to bring the three-month change in that series down from its elevated levels of the preceding few months. Nonetheless, the twelve-month change in core PCE prices remained at 2.4 percent in July, 0.4 percentage point above the increase over the comparable period twelve months earlier. Meanwhile, overall PCE prices rose 3.4 percent during the most recent twelve-month period, 0.8 percentage point faster than over the preceding year.

The moderation in core inflation in July—and indeed the deceleration in the three-month change measure-was largely a result of a sharp fall in the volatile apparel category. Elsewhere, core PCE prices have continued to be boosted by significant increases in shelter costs, which have risen close to $1 / 2$ percent in each of the past five months, while increases for a wide variety of other items have remained on the high side.

The July surge in the PCE price index for energy boosted the twelve-month change to almost 22 percent. However, gasoline prices have dropped back significantly from their

[^9]
## Consumer Prices

(12-month change except as noted)





PCE Energy


## Energy Prices and Inventories

## (Data from Energy Information Administration except as noted)

Total Gasoline Margin


* Regular grade seasonally adjusted by FRB staff, less average spot crude price: 60\% WTI, 40\% Maya heavy crude.


Note Shaded region is average historical range as
Note. Shaded regio Monthly data through range as
calculated by Doe. Mo
${ }^{*}$ Inventories of RBOB gasoline augmented to reflect
fuel ethanol to be blended; estimated by FRB staff.
Natural Gas Prices


Note. National average spot price.
Source. Bloomberg.

## Gasoline Price Decomposition



Ethanol Prices


Source. Chicago Board of Trade.

Natural Gas Inventories


## Broad Measures of Inflation

(Percent change, Q2 to Q2)

| Measure | 2003 | 2004 | 2005 | 2006 |
| :--- | :--- | :--- | :--- | :--- |
| Product prices |  |  |  |  |
| $\quad$ GDP price index | 2.1 | 2.9 | 2.8 | 3.3 |
| $\quad$ Less food and energy | 1.9 | 2.6 | 2.9 | 3.1 |
| Nonfarm business chain price index | 1.2 | 2.3 | 3.0 | 3.3 |
| Expenditure prices |  |  |  |  |
| Gross domestic purchases price index | 2.1 | 3.1 | 3.2 | 3.6 |
| $\quad$ Less food and energy | 1.8 | 2.6 | 2.8 | 2.9 |
| PCE price index | 1.8 | 2.8 | 2.6 | 3.3 |
| $\quad$ Less food and energy | 1.4 | 2.1 | 2.0 | 2.3 |
| PCE price index, market-based components | 1.7 | 2.4 | 2.4 | 3.2 |
| Less food and energy | 1.2 | 1.5 | 1.7 | 1.9 |
| CPI | 2.2 | 2.8 | 3.0 | 4.0 |
| Less food and energy | 1.5 | 1.8 | 2.1 | 2.5 |
| Chained CPI | 1.9 | 2.7 | 2.6 | 3.4 |
| Less food and energy | 1.2 | 1.7 | 2.0 | 2.2 |
| Median CPI | 2.3 | 2.3 | 2.3 | 3.0 |
| Trimmed mean CPI | 1.9 | 2.1 | 2.2 | 2.7 |
| Trimmed mean PCE | 1.7 | 2.3 | 2.2 | 2.6 |

## Surveys of Inflation Expectations

(Percent)


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. Quarterly CPI projections compiled by the Federal Reserve Bank of Philadelphia.
... Not applicable.
n.a. Not available.
early-August peak. Survey data suggest that the PCE price index for gasoline was little changed in August, and a very sharp decline appears to be in train for this month. Three factors have exerted downward pressure on gasoline prices. First, concerns about supplies of crude oil from the Middle East have lessened, thereby pushing down prices for crude oil. Second, suppliers built up inventories of gasoline earlier in the year as a buffer against possible hurricane-related disruptions, and the mild start to this year's hurricane season appears to have rendered these precautionary stocks less valuable. Third, the run-up in gasoline prices earlier in the summer held down consumption in August.

Natural gas prices have also fallen in recent weeks after spiking earlier this summer. Despite the bump in demand associated with July's hot weather, inventories of natural gas remain near the top of their historical range for the season.

The PCE price index for food rose 0.2 percent in July and was up $2 \frac{1}{4}$ percent in the twelve months ending in July. Current USDA estimates point to ample supplies of crops and livestock this year, which have helped hold down price increases for food items. One exception is wheat prices, which have moved up because of the poor harvest this year. However, the small share of wheat in the cost of finished food items should limit the consequent upward pressure on consumer prices.

Last month's NIPA release contained no significant revisions to the BEA's figures for the GDP price index, which rose $31 / 4$ percent over the year ending in the second quarter, $1 / 2$ percentage point faster than its year-ago pace. Excluding food and energy, GDP prices accelerated about $1 / 4$ percentage point over the same period.

Survey-based measures of inflation expectations turned back up in August, most likely as a result of the run-up in gasoline prices in the first half of the month. According to the Michigan Survey Research Center, the median of expected inflation over the next twelve months rose from $31 / 4$ percent in June and July to $33 / 4$ percent in August, with a larger rise in the first half of the month and a move back down in the second half. The median of expected inflation over the next five to ten years moved up to $31 / 4$ percent. In contrast, expected inflation over the next ten years as reported by the Survey of Professional Forecasters remained at the $21 / 2$ percent rate that has prevailed for this series since the late 1990s. By comparison, as of September 12, inflation compensation implied by the rate spreads between the nominal and inflation-protected Treasury securities was down $1 / 4$ percentage point from the level at the time of the last Greenbook, to about 2.3 percent

## Measures of Expected Inflation





* For 1991 forward, the median projection for CPI inflation over the next 10 years from the Survey of Professional Forecasters; for 1981 to 1991, a related survey conducted by Richard Hoey; and for the period preceding 1981, a model-based estimate constructed by Board staff.
${ }_{* *}$ Derived from one of the reduced-form Phillips curves used by Board staff.


Note. Based on a comparison of an estimated TIPS yield curve to an estimated nominal off-the-run Treasury yield curve, with an adjustment for the indexation-lag effect since March 2004.
for five-year maturities; at horizons further ahead, inflation compensation was little changed.

## Expected Inflation

We have included a new exhibit showing three types of measures of expected inflation. First, in the top pair of panels, we show the median responses to two familiar questions from the Michigan Survey Research Center, one about inflation twelve months ahead and one about inflation five to ten years ahead. The questions are asked of approximately 500 households per month and do not refer to any particular price index. (Specifically, the questions ask, "By about what percent [per year] do you expect prices to go up/down, on the average, during the next twelve months [five to ten years]?")

Second, in the middle pair of panels, we show two series that are important inputs into our inflation models: The FRB/US long-run expectations measure for CPI inflation and a distributed lag of core CPI inflation. The FRB/US variable is constructed by splicing together three different series: for 1991 forward, the median projection for CPI inflation over the next ten years from the Survey of Professional Forecasters conducted by the Federal Reserve Bank of Philadelphia; for 1981 through 1991, a related survey conducted by Richard Hoey of Drexel Burnham Lambert; and for years preceding 1981, a modelbased estimate constructed by Board staff. The distributed-lag measure is derived from one of the staff's reduced-form Phillips curve models of core CPI inflation; multiplying the lagged inflation terms by the estimated coefficients on those terms (which are constrained to sum to 1) generates the measure shown. This distributed lag, although not a direct measure of expected inflation, is highly correlated with actual inflation and likely includes an important expectations component.

Finally, in the bottom pair of panels, we show two series for inflation compensation derived from a comparison of yields on nominal Treasury securities to yields from Treasury inflation-protected securities (TIPS). These series, one for the next five years and one for five to ten years ahead, provide a market-derived measure of expected inflation, albeit one that also includes premiums for liquidity and for inflation risk. Beginning with March 2004, the series on inflation compensation over the next five years is adjusted for the indexation-lag effect.

## Commodity Price Indexes

Journal of Commerce


Commodity Research Bureau


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 |  | $12 / 27 / 05$ <br> to | $8 / 1 / 06^{2}$ <br> to <br> $9 / 12 / 06$ | 52 -week <br> change to <br> $9 / 12 / 06$ |
| :--- | :---: | :---: | :---: | :---: |
| JOC industrials | $2005^{1}$ | $8 / 1 / 06^{2}$ | 9.3 | 9.2 |
| -.8 | 5.2 |  |  |  |
| JOC metals | 5.8 | 21.8 | .7 | 32.0 |
| CRB spot industrials | 10.1 | 14.4 | -.8 | 22.2 |
| CRB spot foodstuffs | -6.1 | 8.7 | 2.8 | 8.1 |
| CRB futures | 20.6 | 14.8 | -5.2 | 17.5 |

1. From the last week of the preceding year to the last week of the year indicated.
2. August 1, 2006, is the Tuesday preceding publication of the August Greenbook.

At earlier stages of processing, the producer price index (PPI) for core intermediate materials rose 0.7 percent in July, bringing the twelve-month change to about 8 percent, $31 / 4$ percentage points higher than in the preceding year. Although pass-through of rising energy prices undoubtedly accounted for a large part of the increase, higher domestic rates of capacity utilization and robust global demand for these materials likely played important roles as well.

The PPI for core crude materials climbed nearly 35 percent during the year ending in July. Since early August, the Journal of Commerce (JOC) metals index has risen 3/4 percent as recent upturns in spot prices for several metals, most notably nickel, lead, and steel scrap, reversed the declines they had posted in the first half of last month. However, more broadly, both the JOC industrial index, which includes a substantial energy component, and the Commodity Research Bureau spot industrials index, which excludes energy items, have fallen $3 / 4$ percent since early August.

## Labor Costs

The Bureau of Labor Statistics has made some substantial upward revisions to the data for compensation per hour in the nonfarm business sector, which is now estimated to have increased at an annual rate of $133 / 4$ percent in the first quarter of 2006-the previously published estimate was about 7 percent-and $61 / 2$ percent in the second quarter. As a result, hourly compensation is now reported to have risen $73 / 4$ percent over the year ending in the second quarter, and the rise in unit labor costs is 5 percent over the same interval. Both of these figures mark a significant step-up from the pace of a year earlier.

The upward revision to first-quarter compensation reflects the benchmarking of private wages and salaries to the newly available first-quarter tax records on unemployment insurance. By industry, the largest upward revisions were in manufacturing (mostly in durables), construction, and professional and technical services; taken together, these industries accounted for about half of the total revision. We suspect that part of the jump in wages and salaries was caused by a surge in stock option exercises. Estimates show a noticeable step-up in stock option exercises in the first quarter, especially in high-tech manufacturing and software services. Such a rise would be consistent with the substantial upward revision to wages and salaries in the manufacturing and professional services sectors. ${ }^{12}$ (The upward revision to wages and salaries in the construction sector

[^10]
## Hourly Compensation and Unit Labor Costs

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

| Category | $\begin{gathered} \text { 2004:Q2 } \\ \text { to } \\ 2005: Q 2 \end{gathered}$ | $\begin{gathered} \text { 2005:Q2 } \\ \text { to } \\ 2006: Q^{\mathrm{e}} \end{gathered}$ | 2005 |  | 2006 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Q3 | Q4 | Q1 | Q2 ${ }^{\text {e }}$ |
| Compensation per hour Nonfarm business | 4.0 | 7.7 | 7.8 | 2.9 | 13.7 | 6.6 |
| Unit labor costs Nonfarm business | 2.3 | 5.1 | 3.3 | 3.0 | 9.0 | 5.1 |

e Staff estimates.




Markup, Nonfarm Business

was probably not related to stock options because options are not used as commonly at such firms.) In any event, an indication of the persistence of the first-quarter bulge will become available at the end of November, when the wage and salary data for the second quarter of 2006 are benchmarked.

The two other major gauges of labor costs—which exclude stock options-do not show a comparable acceleration. Over the twelve months ending in August, average hourly earnings rose about 4 percent, a pickup of less than $11 / 2$ percentage points from the pace in the preceding year. The employment cost index rose about 3 percent in the four quarters ending in the second quarter, a bit below the increase in the preceding year.

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## Domestic Financial Developments

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## Selected Financial Market Quotations

(One-day quotes in percent except as noted)

| Instrument |  | 2004 | 2005 | 2006 |  | Change to Sept. 12 from selected dates (percentage points) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | June 28 | Dec. 30 | Aug. 7 | Sept. 12 | $\begin{array}{r} 2004 \\ \text { June } 28 \end{array}$ | $\begin{array}{r} 2005 \\ \text { Dec. } 30 \end{array}$ | $\begin{array}{r} 2006 \\ \text { Aug. } 7 \end{array}$ |
| Short-term |  |  |  |  |  |  |  |  |
| FOMC intended federal funds rate |  | 1.00 | 4.25 | 5.25 | 5.25 | 4.25 | 1.00 | . 00 |
| Treasury bills ${ }^{1}$ |  |  |  |  |  |  |  |  |
| 3-month |  | 1.36 | 3.99 | 4.99 | 4.78 | 3.42 | . 79 | -. 21 |
| 6-month |  | 1.74 | 4.22 | 5.00 | 4.92 | 3.18 | . 70 | -. 08 |
| Commercial paper (A1/P1 rates) ${ }^{2}$ |  |  |  |  |  |  |  |  |
| 1-month |  | 1.28 | 4.23 | 5.29 | 5.26 | 3.98 | 1.03 | -. 03 |
| 3-month |  | 1.45 | 4.37 | 5.32 | 5.26 | 3.81 | . 89 | -. 06 |
| Large negotiable CDs ${ }^{1}$ |  |  |  |  |  |  |  |  |
| 3-month |  | 1.53 | 4.49 | 5.40 | 5.35 | 3.82 | . 86 | -. 05 |
| 6-month |  | 1.82 | 4.65 | 5.46 | 5.39 | 3.57 | . 74 | -. 07 |
| Eurodollar deposits ${ }^{3}$ |  |  |  |  |  |  |  |  |
| 1-month |  | 1.29 | 4.36 | 5.36 | 5.33 | 4.04 | . 97 | -. 03 |
| 3-month |  | 1.51 | 4.52 | 5.43 | 5.39 | 3.88 | . 87 | -. 04 |
| Bank prime rate |  | 4.00 | 7.25 | 8.25 | 8.25 | 4.25 | 1.00 | . 00 |
| Intermediate- and long-term |  |  |  |  |  |  |  |  |
| 2-year |  | 2.88 | 4.43 | 4.97 | 4.83 | 1.95 | . 40 | -. 14 |
| 5-year |  | 3.97 | 4.35 | 4.83 | 4.69 | . 72 | . 34 | -. 14 |
| 10-year |  | 4.90 | 4.47 | 4.97 | 4.86 | -. 04 | . 39 | -. 11 |
| U.S. Treasury indexed notes |  |  |  |  |  |  |  |  |
| 5-year |  | 1.56 | 2.03 | 2.23 | 2.39 | . 83 | . 36 | . 16 |
| 10-year |  | 2.25 | 2.10 | 2.32 | 2.39 | . 14 | . 29 | . 07 |
| Municipal general obligations (B) | Buyer) ${ }^{5}$ | 5.01 | 4.38 | 4.49 | 4.34 | -. 67 | -. 04 | -. 15 |
| Private instruments |  |  |  |  |  |  |  |  |
| 10-year swap |  | 5.21 | 4.92 | 5.47 | 5.34 | . 13 | . 42 | -. 13 |
| 10-year FNMA ${ }^{6}$ |  | 5.38 | 4.84 | 5.31 | 5.13 | -. 25 | . 29 | -. 18 |
| 10 -year $\mathrm{AA}^{7}$ |  | 5.60 | 5.27 | 5.92 | 5.75 | . 15 | . 48 | -. 17 |
| 10 -year $\mathrm{BBB}^{7}$ |  | 6.25 | 5.82 | 6.45 | 6.32 | . 07 | . 50 | -. 13 |
| 10 -year high yield ${ }^{7}$ |  | 8.41 | 8.30 | 8.62 | 8.53 | . 12 | . 23 | -. 09 |
| Home mortgages (FHLMC survey rate) ${ }^{8}$ |  |  |  |  |  |  |  |  |
| 30-year fixed |  | 6.21 | 6.21 | 6.55 | 6.47 | . 26 | . 26 | -. 08 |
| 1-year adjustable |  | 4.19 | 5.16 | 5.69 | 5.63 | 1.44 | . 47 | -. 06 |
| Stock exchange index | Record high |  | 2005 | 2006 |  | Change to Sept. 12 <br> from selected dates (percent) |  |  |
|  | Level | Date | Dec. 30 | Aug. 7 | Sept. 12 | Record high | $\begin{array}{r} 2005 \\ \text { Dec. } 30 \end{array}$ | $\begin{array}{r} 2006 \\ \text { Aug. } 7 \end{array}$ |
| Dow Jones Industrial | 11,723 | 1-14-00 | 10,718 | 11,219 | 11,498 | -1.92 | 7.28 | 2.48 |
| S\&P 500 Composite | 1,527 | 3-24-00 | 1,248 | 1,276 | 1,313 | -14.03 | 5.19 | 2.93 |
| Nasdaq | 5,049 | 3-10-00 | 2,205 | 2,073 | 2,216 | -56.11 | . 48 | 6.92 |
| Russell 2000 | 782 | 5-5-06 | 673 | 696 | 724 | -7.34 | 7.61 | 4.08 |
| Wilshire 5000 | 14,752 | 3-24-00 | 12,518 | 12,767 | 13,143 | -1.91 | 5.00 | 2.94 |

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. Most recent Thursday quote.
6. Constant-maturity yields estimated from Fannie Mae domestic noncallable coupon securities.
7. Derived from smoothed corporate yield curves estimated using Merrill Lynch bond data.
8. Home-mortgage rates for September 12, 2006, are for the week ending September 7, 2006.

## NOTES:

June 28,2004 , is the day before the most recent policy tightening began.
August 7, 2006, is the day before the most recent FOMC announcement.

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## Policy Expectations and Treasury Yields

Futures Contract Rates


Note. 5-minute intervals.

Expected Federal Funds Rate


Note. Estimates from federal funds and Eurodollar futures, with an allowance for term premia and other adjustments.

Nominal Treasury Yields


Note. Estimates from smoothed Treasury yield curve based on off-the-run securities.

Implied Distribution of Federal Funds Rate about 6 Months Ahead


Note. Based on the distribution of the three-month Eurodollar rate 5 months ahead (adjusted for a term premium) as implied by options on Eurodollar futures contracts.

Inflation Compensation


Note. Estimates based on smoothed nominal and inflationindexed Treasury yield curves and adjusted for the indexation-lag effect.

## Domestic Financial Developments

## Overview

The expected path of the federal funds rate shifted down over the intermeeting period, as softer-than-expected inflation data, lower oil prices, and FOMC communications reinforced expectations that the period of policy tightening may have come to an end. Nominal Treasury yields fell and inflation compensation based on Treasury inflationprotected securities (TIPS) declined notably at short and medium horizons. Equity prices rose moderately in response to the easing of inflation concerns and lower oil prices. Risk spreads on corporate bonds were little changed at low levels, as investors continued to be sanguine about the near-term outlook for corporate credit quality. Household credit quality on the whole also has remained favorable. Loan performance at commercial banks remained robust, and bank profits were strong in the second quarter.

## Policy Expectations and Interest Rates

The FOMC's decision at its August meeting to keep the target federal funds rate unchanged prompted a modest decline in short-term rates, as only small odds had been placed on a 25 basis point increase in the target. Inflation data over the intermeeting period generally came in a little below market expectations, making investors more confident that the Committee will leave the target federal funds rate unchanged at the September FOMC meeting. This sentiment was reinforced by the release of the minutes from the August meeting, which indicated that the Committee saw economic growth as moderating and inflation pressures as likely to diminish. The expected path for policy beyond the upcoming meeting also shifted down. Investors now expect no change in policy through the end of the year and about 50 basis points of policy easing by late 2007. Policy uncertainty, as inferred from implied volatilities on options on Eurodollar futures contracts, was little changed over the intermeeting period and remained near the low end of its historical range. The implied distribution of the federal funds rate about six months ahead is now skewed a little toward lower target rates.

Nominal Treasury yields declined about 10 to 15 basis points, on net, over the intermeeting period. In contrast to their nominal counterparts, TIPS yields (adjusted for the carry effect) rose about 20 and 10 basis points at the five- and ten-year maturities respectively. Inflation compensation over the next five years dropped notably, largely reflecting falling oil prices and weaker-than-expected July PPI and CPI data. At horizons further ahead, inflation compensation was little changed. Evidently, the decline in oil prices and the benign inflation data increased investor confidence in the prospects for lower inflation and continued economic growth.

## Corporate Yields, Risk Spreads, and Stock Prices



Trend-Earnings-Price Ratio for S\&P 500 and


19851988199119941997200020032006

* Estimated yield on synthetic Treasury perpetuity minus

Philadelphia Fed 10-year expected inflation.

+ Denotes the latest observation using daily interest rates and stock prices and latest earnings data from I/B/E/S

Implied Volatility on S\&P 500 (VIX)
Corporate Bond Yields



Corporate Bond Spreads


Commercial Paper Quality Spread


## Stock Prices and Corporate Interest Rates

Broad stock price indexes rose about 3 percent, on net, over the intermeeting period, boosted by softer-than-expected inflation data and lower oil prices. Stock price gains were widespread outside the energy sector. With stock prices rising, the twelve-month forward trend-earnings-price ratio for S\&P 500 firms edged down, but its spread over a long-run real Treasury yield, a measure of the equity risk premium, remained about unchanged. Implied volatility on the S\&P 500 index fell and is not far above its historical low.

Over the intermeeting period, yields on both investment- and speculative-grade corporate bonds generally fell in line with those on comparable-maturity Treasury securities, and their spreads were about unchanged at relatively low levels. Risk spreads on commercial paper, measured by the difference between yields on thirty-day A2/P2 paper and A1/P1 paper, also remained low.

## Corporate Earnings and Credit Quality

Earnings news was sparse over the intermeeting period. The second-quarter earnings reporting season, which came to a close in early August, showed that earnings per share for S\&P 500 firms had increased 15 percent from a year earlier, a pace similar to that in the previous several quarters. Through mid-August, revisions to an index of analysts' forecasts of year-ahead earnings for S\&P 500 firms were mildly positive on balance, reflecting continued strong expected profits in the energy sector. Excluding energy firms, the year-ahead revisions index was about zero. Since then, companies have provided little new guidance and analysts continue to forecast profit growth of about 10 percent through 2007.

Overall, the credit quality of nonfinancial firms continued to be solid. Balance sheet liquidity declined a bit more in the second quarter, but remained high by longer-run standards, and corporate leverage was low. Bond rating downgrades outpaced upgrades in July and August; however, excluding the downgrades of bonds issued by Ford, net downgrades were modest. In addition, the realized six-month trailing bond default rate was near zero again in August, and the delinquency rate on C\&I loans edged down further in the second quarter. The near-term outlook for credit quality is also quite favorable. The July forecast of the aggregate year-ahead default rate based on the KMV model was only a bit above its lowest level since the early 1990s.

## Corporate Earnings and Credit Quality



## Business Finance

Gross Issuance of Securities by U.S. Corporations
(Billions of dollars; monthly rates, not seasonally adjusted)

|  |  |  |  | 2005 |  | 2006 |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  |  |  |  |  |  |  |  |  |
| Type of security |  |  |  |  |  |  |  |  |

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.
4. Adjusted for FIN 46 effects.

## Selected Components of Net Debt Financing



## Components of Net Equity Issuance



## Commercial Real Estate

## Commercial Mortgage Debt



Commercial Mortgage Rates


Delinquency Rates on Commercial Mortgages


Gross Issuance of CMBS


Investment-Grade CMBS Spreads


Rent and Vacancy Rate Dollars per sq. ft.


## Business Finance

Gross bond issuance by nonfinancial firms stepped up in August after having slowed sharply in July. Meanwhile, commercial paper outstandings decreased a bit, while C\&I loans at commercial banks continued to expand at a torrid pace. On balance, net debt financing has declined moderately from its elevated pace in the first half of the year but remains robust, supported in part by needs to finance strong merger and acquisition activities.

Both seasoned equity offerings and IPOs continued to be very weak in August. Nevertheless, a backlog of IPO filings and the recent decline in equity price volatility point to a near-term pickup in issuance. Indicators suggest that private equity investments by buyout firms continued to be robust in recent months.

Even so, gross equity issuance continued to be dwarfed by equity retirements, which have been boosted by strong profits and ample cash on corporate balance sheets. In July and August, the pace of retirements from cash-financed mergers and acquisitions, helped by a high level of leveraged buyout deals, matched the robust pace in the first half of the year. Meanwhile, announcements signaled relatively strong share repurchases. Overall, net equity issuance appears to have remained deeply negative.

## Commercial Real Estate

Commercial mortgage borrowing is estimated to have remained strong in the second quarter, leaving the amount of debt outstanding 15 percent above its year-ago level. However, borrowing is likely to moderate in the third quarter, given the rise in mortgage rates and the lower issuance of commercial-mortgage-backed securities (CMBS) to date. Over the intermeeting period, spreads of yields on investment-grade CMBS over those on comparable-maturity Treasury securities held steady at low levels. Delinquency rates on commercial mortgages remained low by historical standards through the second quarter, and a further decline in vacancy rates and additional firming in rents through early September indicate continued improvement in market fundamentals.

## Household Finance

Interest rates on new home mortgages decreased over the intermeeting period but remained close to their highest levels over the past few years. Four-quarter growth of home mortgage debt is estimated to have slowed in the second quarter but remained above 12 percent. Growth of consumer credit over the year ending in July remained modest.

## Household Liabilities

## Mortgage Rates



Financial Obligations Ratio
Percent of disposable income


Mortgage Delinquency Rates


Mortgage and Consumer Debt


Consumer Credit Delinquency Rates


Household Bankruptcies


III-9

## Household Assets




Net Flows into Long-Term Mutual Funds
(Billions of dollars, monthly rate)

| Fund type | $\underline{2004}$ | 2005 |  | 2006 |  |  |  |  | $\frac{\text { Assets }}{\text { July }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | H1 | H2 | Q1 | Q2 | June | July | Aug. ${ }^{\text {e }}$ |  |
| Total long-term funds | 17.5 | 18.3 | 13.7 | 38.9 | 6.2 | -9.4 | 3.7 | 13.0 | 7,235 |
| Equity funds | 14.8 | 12.3 | 10.2 | 31.1 | 7.0 | -8.6 | 0.6 | 3.9 | 5,237 |
| Domestic | 9.3 | 4.1 | 1.0 | 10.7 | -2.4 | -9.4 | -4.3 | -4.5 | 4,139 |
| International | 5.6 | 8.2 | 9.2 | 20.4 | 9.4 | 0.8 | 4.8 | 8.4 | 1,098 |
| Hybrid funds | 3.6 | 3.4 | 0.9 | 0.4 | -0.1 | -0.5 | -0.1 | 0.8 | 592 |
| Bond funds | -0.9 | 2.5 | 2.6 | 7.4 | -0.7 | -0.4 | 3.2 | 8.3 | 1,406 |
| High-yield | -0.8 | -1.6 | -1.0 | -0.4 | -1.4 | -1.8 | 0.6 | 0.9 | 145 |
| Other taxable | 1.0 | 3.7 | 3.2 | 5.8 | 0.7 | 1.1 | 2.3 | 5.6 | 914 |
| Municipals | -1.1 | 0.4 | 0.4 | 2.1 | 0.1 | 0.3 | 0.3 | 1.7 | 348 |

Note. Excludes reinvested dividends.
e Staff estimates based on confidential weekly data.
Source. Investment Company Institute.

III-10
Treasury Financing
(Billions of dollars)

| Item | 2005 |  |  | 2006 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Q2 | Q3 | Q4 | Q1 | Q2 | July | Aug. |
| Total surplus, deficit (-) | 45.2 | -69.0 | -119.3 | -183.7 | 96.5 | -33.2 | -65.5 |
| Means of financing deficit |  |  |  |  |  |  |  |
| Net borrowing | -42.8 | 72.8 | 112.2 | 156.1 | -74.8 | 22.2 | 63.8 |
| Nonmarketable | 35.9 | 20.6 | 21.2 | -2.3 | 17.6 | -2.1 | 0.4 |
| Marketable | -78.7 | 52.1 | 91.0 | 158.5 | -92.4 | 24.3 | 63.4 |
| Bills | -135.8 | -9.3 | 48.8 | 78.1 | -125.5 | 16.0 | 29.6 |
| Coupons | 57.1 | 61.4 | 42.3 | 80.4 | 33.1 | 8.3 | 33.8 |
| Decrease in cash balance | -10.7 | -2.5 | -0.9 | 28.4 | -37.6 | 8.1 | 21.3 |
| Other ${ }^{1}$ | 8.3 | -1.2 | 8.0 | -0.9 | 15.9 | 2.9 | -19.5 |
| Memo: |  |  |  |  |  |  |  |
| Cash balance, end of period | 33.2 | 35.7 | 36.6 | 8.2 | 45.8 | 37.7 | 16.4 |

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

1. Direct loan financing, accrued items, checks issued less checks paid, and other transactions.

## GSE Market Developments




Note. GSE yields based on senior unsecured debt. Spreads measured relative to the 10-year Treasury yield.

Overall, household debt expanded more rapidly than disposable income, and the financial obligations ratio reached another new high in the second quarter. ${ }^{1}$ Nonetheless, the evidence to date suggests that households generally are not having trouble meeting their obligations. While delinquency rates have generally remained low, the latest data show small increases for consumer loans at commercial banks in the second quarter and for subprime mortgages in July. The pace of personal bankruptcy filings continued to be subdued over the intermeeting period.

In the second quarter, house prices posted their smallest quarterly increase in several years, and stock prices declined; as a result, the ratio of household net worth to disposable personal income ticked down. On net, mutual fund investors continued to withdraw money from domestic equity funds in August, while international equity funds and bond funds continued to register net inflows.

## Treasury and Agency Finance

Over the intermeeting period, the Treasury auctioned two-, three-, five-, and ten-year coupon securities and reopened the thirty-year Treasury bond. Demand at these auctions was generally somewhat weak, with bid-to-cover ratios and indirect bidding ratios slightly below their historical averages. Recent indicators of foreign demand for Treasury securities were mixed. Treasury data released in August suggest that foreign participation at Treasury auctions remained tepid during July, but Treasury securities held in custody at the Federal Reserve Bank of New York edged a bit higher over the intermeeting period.

On August 24, Fannie Mae announced that the Justice Department had ended a two-year investigation into the company's accounting irregularities, and Freddie Mac made a similar announcement this month. Over the intermeeting period, both Fannie Mae's and Freddie Mac's stock prices were up about 10 percent, and agency debt spreads fell some, on net.

## State and Local Government Finance

Gross issuance of long-term municipal bonds remained robust in July and August. New capital issuance, led by the education sector, continued to be strong, and advance refundings rose a bit in August when interest rates fell. Issuance of short-term municipal

[^11]
## State and Local Government Finance

Gross Offerings of Municipal Securities
(Billions of dollars; monthly rate, not seasonally adjusted)

| Type of security | 2002 | 2003 | 2004 | 2005 |  | 2006 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | H1 | H2 | Q1 | Q2 | July | Aug. |
| Total | 36.3 | 37.9 | 34.7 | 38.1 | 38.6 | 26.0 | 39.8 | 30.9 | 38.4 |
| Long-term ${ }^{1}$ | 30.3 | 32.0 | 29.8 | 35.0 | 33.3 | 24.1 | 36.1 | 27.2 | 30.9 |
| Refundings ${ }^{2}$ | 10.1 | 10.0 | 10.8 | 17.1 | 13.8 | 9.1 | 10.1 | 4.6 | 10.3 |
| New capital | 20.2 | 22.1 | 19.0 | 17.9 | 19.4 | 15.0 | 26.0 | 22.5 | 20.6 |
| Short-term | 6.0 | 5.8 | 4.9 | 3.1 | 5.3 | 1.9 | 3.7 | 3.8 | 7.5 |
| Memo: Long-term taxable | 1.7 | 3.5 | 2.0 | 2.0 | 2.2 | 1.2 | 4.4 | 3.8 | 1.2 |

1. Includes issues for public and private purposes.
2. All issues that include any refunding bonds.

## Ratings Changes



Source. S\&P's Credit Week Municipal and Ratings Direct.


Municipal Bond Yield Ratio


| Aggregate and components | M2 Monetary Aggregate <br> (Based on seasonally adjusted data) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percent change (annual rate) ${ }^{1}$ |  |  |  |  |  | Level (billions of dollars), Aug. (p) |
|  | 2004 | 2005 | 2006 |  |  |  |  |
|  |  |  | Q1 | Q2 | July | Aug. <br> (p) |  |
| M2 | 5.3 | 4.0 | 6.3 | 3.2 | 4.0 | 3.9 | 6,874 |
| Components ${ }^{2}$ |  |  |  |  |  |  |  |
| Currency | 5.5 | 3.5 | 7.2 | 4.1 | -1.0 | 1.5 | 741 |
| Liquid deposits ${ }^{3}$ | 10.0 | 2.0 | 3.7 | -1.8 | -3.5 | -3.9 | 4,234 |
| Small time deposits | -. 3 | 18.9 | 15.6 | 17.0 | 25.0 | 25.9 | 1,108 |
| Retail money market funds | -11.4 | -. 3 | 8.1 | 13.5 | 21.3 | 17.8 | 785 |
| Memo: <br> Institutional money market funds Monetary base |  |  |  |  |  |  |  |
|  | -5.6 | 5.1 | 9.1 | 11.5 | 11.0 | 26.3 | 1,239 |
|  | 5.6 | 3.5 | 6.0 | 4.4 | -2.8 | . 6 | 804 |

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.

## Commercial Bank Credit

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

| Type of credit | 2004 | 2005 | $\begin{gathered} \text { Q1 } \\ 2006 \end{gathered}$ | $\begin{gathered} \text { Q2 } \\ 2006 \end{gathered}$ | $\begin{array}{r} \text { July } \\ 2006 \end{array}$ | Aug. $2006^{\mathrm{e}}$ | Level, ${ }^{1}$ <br> Aug. 2006 ${ }^{\text {e }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total ${ }^{2}$ | 8.9 | 10.5 | 10.8 | 12.9 | 12.0 | 5.3 | 7,782 |
| Loans ${ }^{3}$ |  |  |  |  |  |  |  |
| Total | 9.7 | 11.6 | 11.2 | 11.9 | 11.1 | 8.8 | 5,777 |
| To businesses |  |  |  |  |  |  |  |
| Commercial and industrial | 1.2 | 13.2 | 14.7 | 17.4 | 17.7 | 29.4 | 1,146 |
| Commercial real estate | 11.7 | 17.1 | 16.1 | 14.6 | 14.6 | 9.5 | 1,389 |
| To households |  |  |  |  |  |  |  |
| Residential real estate | 15.7 | 12.0 | 6.3 | 8.8 | 14.5 | -6.9 | 1,726 |
| Revolving home equity | 43.8 | 13.3 | 2.8 | -2.7 | 17.8 | -10.4 | 447 |
| Consumer | 8.8 | 3.1 | 3.1 | 10.2 | 3.2 | 8.8 | 728 |
| Originated ${ }^{4}$ | 6.0 | . 5 | 8.3 | 5.6 | 3.3 | 6.7 | 1,102 |
| Other ${ }^{5}$ | 7.4 | 8.4 | 16.4 | 8.1 | -4.1 | 13.3 | 787 |
| Securities |  |  |  |  |  |  |  |
| Adjusted ${ }^{2}$ | 6.6 | 7.6 | 9.6 | 15.6 | 14.5 | -4.7 | 2,005 |
| Reported | 5.2 | 5.3 | 7.4 | 18.3 | 7.8 | 2.5 | 2,153 |
| Treasury and agency | 4.9 | . 0 | 8.4 | 8.0 | 10.9 | 7.1 | 1,218 |
| Other ${ }^{6}$ | 5.7 | 13.3 | 6.1 | 32.2 | 3.7 | -3.5 | 935 |

Note. Yearly annual rates are Q4 to Q4; quarterly and monthly annual rates use corresponding average levels. Data are adjusted to remove estimated effects of consolidation related to FIN 46 and for breaks caused by reclassifications.

1. Billions of dollars. Pro rata averages of weekly (Wednesday) levels.
2. Adjusted to remove effects of mark-to-market accounting rules (FIN 39 and FAS 115).
3. Excludes interbank loans.
4. Includes an estimate of outstanding loans securitized by commercial banks.
5. Includes security loans and loans to farmers, state and local governments, and all others not elsewhere classified. Also includes lease financing receivables.
6. Includes private mortgage-backed securities, securities of corporations, state and local governments, foreign governments, and any trading account assets that are not Treasury or agency securities, including revaluation gains on derivative contracts.
e Estimated.


* Spread over banks' estimated cost of funds.
** Adjusted for changes in nonprice loan characteristics.
Source. Survey of Terms of Business Lending.

Bank Profitability


Source. Call Report.

## III-15

bonds rose in July and August but was below last year's pace, consistent with improved state and local budgets.

The credit quality of municipal bonds continued to be solid. During July and August, the number of bonds with rating upgrades again far outpaced the number with downgrades. Also consistent with strong municipal credit quality, the ratio of municipal bond yields to Treasuries remained low.

## Money and Bank Credit

M2 grew at a 4 percent annual rate in August, similar to the average pace over the preceding several months, with growth restrained mainly by the lagged effects of higher interest rates on the opportunity cost of holding liquid assets. Currency holdings increased at a tepid pace, in part restrained by weak foreign demand. Other components of M2, such as small time deposits and retail money funds, whose yields tend to track market rates, continued to grow rapidly.

Commercial bank credit decelerated in August, as residential real estate loans and banks’ holdings of securities contracted. Lending to businesses continued to be robust, as commercial real estate loans increased at nearly a 10 percent annual rate and C\&I loans accelerated to an annual rate of almost 30 percent. The surge in C\&I loans reflected in part a large investment-grade syndicated loan used to finance a merger; but, even without this deal, C\&I loans grew at an annual rate of almost 20 percent in August.

Loan price data from the Survey of Terms of Business Lending conducted in August indicate that the average spread of C\&I loan rates over banks’ cost of funds—adjusted for changes in nonprice loan characteristics-remained low. Spreads on syndicated loan tranches at commercial banks through August were also low.

Call Report data indicate that the profitability of the commercial banking sector stayed strong in the second quarter. Although net interest margins remained under pressure, profitability was boosted by a sizable reduction in noninterest expenses, consistent with further gains in operating efficiency. Provisioning for loan losses also remained low, reflecting continued expected high quality on consumer and business loans.

Last Page of Financial Developments

## International Developments

## International Developments

## U.S. International Transactions

## Trade in Goods and Services

The U.S. international trade deficit widened to $\$ 68$ billion in July from $\$ 64.8$ billion in June (revised). The widening of the deficit resulted from a sizable increase in imports, as well as a decline in exports.

## Trade in Goods and Services

|  | 2005 | Annual rate |  |  | Monthly rate |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 2005 | 2006 |  | 2006 |  |  |
|  |  | Q4 | Q1 | Q2 | May | June | July |
|  | Percent change |  |  |  |  |  |  |
| Nominal BOP |  |  |  |  |  |  |  |
| Exports | 11.1 | 13.5 | 17.0 | 14.0 | 2.2 | 2.3 | -1.1 |
| Imports | 12.0 | 19.9 | 7.5 | 11.0 | 2.4 | 1.1 | 1.0 |
| Real NIPA |  |  |  |  |  |  |  |
| Exports | 7.2 | 9.6 | 14.0 | 5.1 | ... | $\ldots$ | $\ldots$ |
| Imports | 5.4 | 13.2 | 9.1 | . 6 | ... | ... | ... |
|  |  |  |  | illions of | dollars |  |  |
| Nominal BOP |  |  |  |  |  |  |  |
| Net exports | -716.7 | -779.1 | -764.6 | -775.3 | -65.4 | -64.8 | -68.0 |
| Goods, net | -782.7 | -850.0 | -831.9 | -842.4 | -71.0 | -70.0 | -73.4 |
| Services, net | 66.0 | 70.9 | 67.3 | 67.1 | 5.6 | 5.2 | 5.4 |

Source. U.S. Department of Commerce, Bureaus of Economic Analysis and Census. n.a. Not available. ... Not applicable.

In July, the value of exports of goods and services fell 1.1 percent after rising more than 2 percent in each of the previous two months. Exports of aircraft, computers, other capital goods, and industrial supplies all registered significant declines in July. Each of those categories had risen significantly in June, with the exception of aircraft. Exports of telecommunications equipment reversed its June decline, while exports of semiconductors fell for the second consecutive month in July. Exports of automotive products were strong for the second straight month. Services exports were flat, after falling slightly in June.

The value of exports in the second quarter increased 14 percent (a.r.). Exports of industrial supplies and capital goods (excluding aircraft) posted the largest gains. In contrast, exports of automotive products and aircraft fell. On a NIPA basis, real exports are now estimated to have increased 6.3 percent in the second quarter, compared to 5.1 percent in the BEA's preliminary release.

## U.S. International Trade in Goods and Services

(Quarterly)


## U.S. Exports and Imports of Goods and Services

(Billions of dollars, a.r., BOP basis)

|  | Levels |  |  |  | Change ${ }^{1}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2006 |  | 2006 |  | 2006 |  | 2006 |  |
|  | Q1 | Q2 | June | July | Q1 | Q2 | June | July |
| Exports of G\&S | 1377.7 | 1423.5 | 1455.0 | 1439.6 | 53.1 | 45.8 | 32.1 | -15.4 |
| Goods exports | 978.0 | 1011.4 | 1043.4 | 1027.9 | 46.4 | 33.3 | 34.8 | -15.6 |
| Gold | 7.6 | 8.8 | 10.2 | 7.7 | 1.8 | 1.2 | . 9 | -2.6 |
| Other goods | 970.5 | 1002.5 | 1033.2 | 1020.2 | 44.6 | 32.1 | 33.9 | -13.0 |
| Capital goods | 400.6 | 409.3 | 419.8 | 404.2 | 16.3 | 8.7 | 10.9 | -15.6 |
| Aircraft \& parts | 74.9 | 71.5 | 73.0 | 66.3 | 8.8 | -3.4 | -1.1 | -6.7 |
| Computers \& accessories | 47.0 | 47.8 | 51.3 | 46.0 | 1.2 | . 8 | 4.8 | -5.3 |
| Semiconductors | 50.9 | 54.8 | 54.1 | 53.8 | . 4 | 4.0 | -1.1 | -. 3 |
| Other capital goods | 227.8 | 235.2 | 241.3 | 238.0 | 5.9 | 7.4 | 8.3 | -3.2 |
| Automotive | 105.5 | 104.7 | 107.6 | 115.6 | 1.0 | -. 8 | 5.0 | 8.0 |
| Ind. supplies (ex. ag., gold) | 234.8 | 253.3 | 260.3 | 256.8 | 16.5 | 18.6 | 7.6 | -3.5 |
| Consumer goods | 124.9 | 126.0 | 129.6 | 131.6 | 4.8 | 1.2 | 2.3 | 2.0 |
| Agricultural | 69.5 | 73.1 | 76.8 | 76.2 | 3.7 | 3.6 | 2.8 | -. 5 |
| All other goods | 35.2 | 36.1 | 39.3 | 35.8 | 2.3 | . 9 | 13.5 | -3.5 |
| Services exports | 399.7 | 412.1 | 411.5 | 411.7 | 6.6 | 12.5 | -2.7 | . 2 |
| Imports of G\&S | 2142.3 | 2198.8 | 2232.8 | 2256.1 | 38.5 | 56.5 | 25.0 | 23.4 |
| Goods imports | 1809.9 | 1853.8 | 1883.6 | 1909.1 | 28.3 | 43.8 | 22.7 | 25.5 |
| Oil | 288.5 | 317.2 | 326.0 | 341.7 | -4.1 | 28.7 | -13.3 | 15.7 |
| Gold | 5.7 | 6.2 | 6.1 | 6.9 | . 3 | . 4 | -. 9 | . 8 |
| Other goods | 1515.7 | 1530.4 | 1551.5 | 1560.5 | 32.1 | 14.8 | 36.8 | 9.0 |
| Capital goods | 404.4 | 415.6 | 415.9 | 425.5 | 14.5 | 11.1 | -. 5 | 9.6 |
| Aircraft \& parts | 28.4 | 27.7 | 30.5 | 25.9 | 3.1 | -. 8 | 4.5 | -4.6 |
| Computers \& accessories | 99.5 | 101.4 | 98.8 | 103.9 | 5.4 | 1.9 | -2.3 | 5.1 |
| Semiconductors | 27.1 | 27.0 | 25.7 | 28.0 | 4 | -. 1 | -1.2 | 2.4 |
| Other capital goods | 249.4 | 259.5 | 261.0 | 267.7 | 5.7 | 10.1 | -1.6 | 6.7 |
| Automotive | 258.3 | 258.2 | 266.5 | 252.3 | 7.9 | -. 1 | 15.6 | -14.2 |
| Ind. supplies (ex. oil, gold) | 290.7 | 291.4 | 292.7 | 302.4 | -5.7 | . 6 | 6.1 | 9.6 |
| Consumer goods | 424.5 | 430.6 | 440.6 | 442.8 | 9.4 | 6.2 | 13.8 | 2.1 |
| Foods, feeds, bev. | 74.1 | 73.2 | 72.3 | 75.2 | 3.5 | -. 9 | -. 5 | 2.8 |
| All other goods | 63.6 | 61.5 | 63.3 | 62.3 | 2.5 | -2.2 | 2.4 | -1.0 |
| Services imports | 332.4 | 345.0 | 349.2 | 347.0 | 10.2 | 12.7 | 2.3 | -2.2 |
| Memo: |  |  |  |  |  |  |  |  |
| Oil quantity (mb/d) | 14.32 | 13.63 | 13.72 | 13.73 | -. 12 | -. 69 | -. 46 | . 01 |
| Oil import price (\$/bbl) | 55.10 | 63.67 | 65.04 | 68.13 | -. 51 | 8.57 | -. 45 | 3.09 |

[^12]The value of imported goods and services increased 1 percent in July, after rising at roughly the same rate in June. The increase in imports reflected a sharp rise in the value of imported oil, reflecting higher prices, as well as noticeable increases in imports of nonoil industrial supplies and capital goods. The increase in capital goods came after several months of little growth. Auto imports declined sharply in July, reversing almost all of their large June gain. Imports of services fell slightly in July after increasing a similar amount in June.

The value of imports in the second quarter rose 11 percent (a.r.), reflecting a jump in oil imports, as well as increases in imports of capital goods and services. Imports of consumer goods also rose noticeably, whereas imports of automotive products and nonoil industrial supplies were little changed. On a NIPA basis, real imports are now estimated to have increased 1.5 percent in the second quarter, compared to 0.6 percent in the BEA's preliminary release.

With the July trade data release, services exports and imports were revised for the January to June period. The revisions to the data for the second quarter were sizable, with the revisions to imports being somewhat larger than the revisions to exports. Compared with the previously published data, the value of services exports was revised up $\$ 1.5$ billion at an annual rate in the second quarter, and the value of services imports was revised up $\$ 5$ billion.

## Prices of Internationally Traded Goods

Non-oil imports. In July, import prices of both non-oil goods and core goods fell 0.1 percent. After increasing 3.2 percent in May and another 2.4 percent in June, prices for non-fuel industrial supplies fell 0.8 percent in July, primarily reflecting lower prices for unfinished metals and building materials. A 0.1 percent decline in prices for imported consumer goods also contributed to the decline. Other categories of core goods experienced price increases. Food prices rose 0.1 percent. Prices for imported capital goods (excluding computers and semiconductors) and automotive products were also higher, each increasing 0.2 percent. Prices for imported computers fell 0.6 percent, whereas prices for semiconductors rose 0.9 percent.

Oil. The BLS price index of imported oil rose 4.7 percent in July. The spot price of West Texas Intermediate (WTI) crude oil averaged around $\$ 74.50$ per barrel in July and $\$ 73$ per barrel in August. In early August, the spot price of WTI surged to $\$ 77$ per barrel following the disruption of supplies from Alaska's Prudhoe Bay. Since then, oil prices

## Prices of U.S. Imports and Exports




Merchandise Exports


Categories of Core Imports



Categories of Core Exports


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

|  | Annual rate |  |  | Monthly rate |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2005 | 2006 |  | 2006 |  |  |
|  | Q4 | Q1 | Q2 | May | June | July |
|  | ---------------------- BLS prices ---------------------- |  |  |  |  |  |
| Merchandise imports | 2.5 | . 1 | 12.7 | 1.8 | . 0 | . 9 |
| Oil | -11.3 | 6.8 | 78.4 | 6.4 | -1.4 | 4.7 |
| Non-oil | 6.3 | -1.2 | 1.0 | . 7 | . 4 | -. 1 |
| Core goods ${ }^{1}$ | 2.7 | 2.2 | 3.9 | . 8 | . 6 | -. 1 |
| Finished goods | . 0 | . 6 | . 7 | . 2 | . 2 | . 1 |
| Cap. goods ex. comp. \& semi. | . 0 | 1.7 | 2.4 | . 2 | . 5 | . 2 |
| Automotive products | . 6 | -. 8 | 1.0 | . 1 | . 2 | . 2 |
| Consumer goods | -. 3 | . 8 | -. 4 | . 2 | . 1 | -. 1 |
| Material-intensive goods | 9.6 | 9.6 | 15.0 | 2.8 | 1.8 | -. 6 |
| Foods, feeds, beverages | 7.5 | 5.5 | -. 7 | 1.6 | -. 1 | . 1 |
| Industrial supplies ex. fuels | 8.0 | 11.8 | 20.8 | 3.2 | 2.4 | -. 8 |
| Computers | -7.7 | -6.9 | -7.6 | -. 8 | -. 3 | -. 6 |
| Semiconductors | -3.4 | 2.4 | -. 3 | -. 4 | . 4 | . 9 |
| Natural gas | 367.1 | -65.2 | -63.8 | . 1 | -8.2 | -1.9 |
| Merchandise exports | 3.4 | 2.9 | 6.4 | . 6 | . 7 | . 4 |
| Core goods ${ }^{2}$ | 4.7 | 3.6 | 7.7 | . 7 | . 9 | . 4 |
| Finished goods | 1.7 | 2.6 | 3.0 | . 3 | . 2 | . 3 |
| Cap. goods ex. comp. \& semi. | 2.6 | 4.0 | 3.2 | . 2 | . 2 | . 2 |
| Automotive products | 1.4 | 1.0 | 2.1 | . 2 | . 1 | . 3 |
| Consumer goods | 1.2 | 1.4 | 3.2 | . 6 | . 4 | . 4 |
| Material-intensive goods | 8.3 | 5.2 | 15.0 | 1.5 | 1.9 | . 8 |
| Agricultural products | -4.4 | -1.4 | 2.0 | . 6 | 2.5 | 1.9 |
| Industrial supples ex. ag. | 13.0 | 7.2 | 19.2 | 1.9 | 1.7 | . 6 |
| Computers | -8.3 | 1.2 | -3.7 | . 3 | -. 8 | -1.2 |
| Semiconductors | -6.4 | -7.9 | -6.1 | -. 6 | -. 6 | -1.2 |
| Chain price index | --------------------- NIPA prices ---------------------- |  |  |  |  |  |
| Imports of goods \& services | 4.3 | -. 7 | 9.6 | ... | $\ldots$ | $\ldots$ |
| Non-oil merchandise | 6.3 | -1.8 | . 7 | ... | ... | ... |
| Core goods ${ }^{1}$ | 2.5 | 1.6 | 3.8 | ... | ... | ... |
| Exports of goods \& services | 2.8 | 2.3 | 6.1 | ... | ... | $\ldots$ |
| Total merchandise | 2.3 | 2.8 | 6.0 | ... | ... | ... |
| Core goods ${ }^{2}$ | 4.0 | 3.7 | 6.8 | ... | ... | ... |

1. Excludes computers, semiconductors, and natural gas.
2. Excludes computers and semiconductors.
n.a. Not available. ... Not applicable.
have fallen sharply. Market participants appear to have taken a more benign view of supply, reflecting the cease-fire between Israel and Hezbollah, a partial resumption of production from the Prudhoe Bay oil field, forecasts predicting fewer hurricanes this season, and a perception that punishment of Iran for its nuclear program is not imminent. The spot price of WTI closed at $\$ 63.77$ per barrel on September 12, its lowest level since March.

Exports. In July, prices of U.S. exports of total goods and core goods both increased 0.4 percent. Prices for nonagricultural industrial supplies increased 0.6 percent in July, as higher prices for chemicals, plastics, and fuels offset lower prices for metals.
Agricultural export prices rose 1.9 percent. Within finished goods, the most notable price increase was a 0.4 percent rise for consumer goods. Prices for automotive products and capital goods (excluding computers and semiconductors) increased 0.3 and 0.2 percent, respectively. In contrast, prices of exported computers and semiconductors each fell 1.2 percent.

## U.S. International Financial Transactions

Foreign official flows into the United States (line 1 of the Summary of U.S. International Transactions table) increased in July for the third consecutive month, and remain well above their monthly pace in 2005.

Official inflows from OPEC in July amounted to nearly $\$ 5$ billion (line 1b), about the same as their heightened purchases in June. The pace of OPEC's recorded purchases in July is substantially higher than their pace in 2005 ( $\$ 0.6$ billion per month). Official inflows from other oil exporters including Norway and Russia have been volatile this year, most likely reflecting active portfolio management of their increased oil revenues. G-10 countries and the ECB (line 1a) in July registered a small increase (\$1 billion) in their holdings in the United States, the first instance of an increase in 2006. Net foreign official outflows to these countries totaled a bit above $\$ 26$ billion for the first seven months of 2006.

Net private foreign purchases of U.S. securities (line 4), which have been quite strong in the last two quarters, decelerated considerably in July; the weakness in July was widespread across debt securities. For Treasury securities (line 4a), July shows net sales of a bit less than $\$ 7$ billion; for the first seven months of 2006, private foreigners have increased their holdings of Treasury securities by less than $\$ 1$ billion. Private foreign purchases of agency bonds in July decelerated to a virtual standstill (line 4b); this weakness came after very strong year-to-date purchases of a bit under $\$ 68$ billion, about the same as for the whole of 2005. Foreign purchases of U.S. corporate bonds (line 4c) decelerated considerably in July to about $\$ 9$ billion, coinciding with relatively low bond issuance. Conversely, net purchases of corporate stocks (line 4d) for July totaled almost $\$ 9$ billion, in contrast to net sales in June; year-to-date, equity inflows are running a little above their pace in 2005.
U.S. private acquisitions of foreign securities (line 5) accelerated in July, reaching a bit over $\$ 23$ billion, well above the pace of 2005 . Flows into foreign bonds (line 5a) accentuated in July, reaching a bit over $\$ 19$ billion, the second-largest U.S. private purchase of foreign bonds on record. However, purchases of stocks (line 5b) in July amounted to only $\$ 4$ billion, following essentially no purchases in June. This recent weakness is associated with large net sales of Japanese equities by U.S. investors.

Inflows recorded by the banking sector (line 3) reached a bit over $\$ 21$ billion in July, a sharp reversal of outflows in June of $\$ 65$ billion. This volatility is not unusual, however, as the magnitude and direction of banking flows often vary significantly from month to month.

## Summary of U.S. International Transactions

(Billions of dollars, not seasonally adjusted except as noted)

|  | 2004 | 2005 | 2005 |  | 2006 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Q3 | Q4 | Q1 | Q2 | Jun | Jul |
| Official financial flows | 388.2 | 214.6 | 39.4 | 79.1 | 76.2 | 73.7 | 25.6 | 38.6 |
| 1. Change in foreign official assets in the U.S. (increase, +) | 385.4 | 200.5 | 34.6 | 74.3 | 75.7 | 74.2 | 27.0 | 38.2 |
| a. G-10 countries + ECB | 161.7 | -20.7 | -4.0 | -4.1 | -8.1 | -19.2 | -7.0 | 1.0 |
| b. OPEC | 12.1 | 7.5 | -3.7 | 10.6 | 12.0 | 13.7 | 5.2 | 4.6 |
| c. All other countries | 211.6 | 213.8 | 42.3 | 67.9 | 71.8 | 79.8 | 28.9 | 32.6 |
| 2. Change in U.S. official reserve assets (decrease, +) | 2.8 | 14.1 | 4.8 | 4.8 | . 5 | -. 6 | -1.4 | . 3 |
| Private financial flows | 194.3 | 570.8 | 216.8 | 163.6 | 81.5 | n.a. | ... | ... |
| Banks <br> 3. Change in net foreign positions of banking offices in the U.S. ${ }^{1}$ | -3.8 | 18.3 | 22.6 | 56.6 | -2.7 | 43.4 | -65.0 | 21.1 |
| Securities ${ }^{2}$ <br> 4. Foreign net purchases of U.S. securities (+) | 489.5 | 610.5 | 175.1 | 184.9 | 176.0 | 126.8 | 52.3 | 10.2 |
| a. Treasury securities | 104.2 | 179.1 | 35.7 | 60.4 | -3.8 | 11.3 | 20.5 | -6.6 |
| b. Agency bonds | 67.9 | 67.5 | 34.6 | 17.0 | 40.4 | 27.8 | 7.6 | -. 6 |
| c. Corporate and municipal bonds | 255.0 | 274.2 | 73.6 | 83.2 | 84.3 | 87.2 | 29.4 | 8.6 |
| d. Corporate stocks ${ }^{3}$ | 62.4 | 89.7 | 31.2 | 24.4 | 55.0 | . 5 | -5.2 | 8.8 |
| 5. U.S. net acquisitions (-) of foreign securities | -146.2 | -197.2 | -47.5 | -48.8 | -53.3 | -49.5 | -11.3 | -23.3 |
| a. Bonds | -60.9 | -53.1 | -12.3 | -5.5 | -11.9 | -34.0 | -11.0 | -19.4 |
| b. Stock purchases | -97.6 | -140.1 | -35.1 | -43.3 | -37.4 | -15.5 | -. 3 | -4.0 |
| c. Stock swaps ${ }^{3}$ | 12.2 | -4.0 | . 0 | . 0 | -4.0 | . 0 | . 0 | . 0 |
| Other flows (quarterly data, s.a.) |  |  |  |  |  |  |  |  |
| 6. U.S. direct investment (-) abroad | -244.1 | -9.1 | 30.3 | 25.8 | -61.8 | n.a. | $\ldots$ | ... |
| 7. Foreign direct investment in the U.S. | 133.2 | 109.8 | 44.5 | 26.5 | 33.3 | n.a. | ... | ... |
| 8. Foreign acquisitions of U.S. currency | 14.8 | 19.4 | 4.7 | 9.2 | 1.9 | n.a. | ... | $\ldots$ |
| 9. Other (inflow, + ${ }^{4}$ | -49.1 | 19.1 | -12.9 | -90.6 | -11.8 | n.a. | ... | ... |
| U.S. current account balance (s.a.) | -665.3 | -791.5 | -183.4 | -223.1 | -208.7 | n.a. | ... | ... |
| Capital account balance (s.a.) ${ }^{5}$ | -2.3 | -4.4 | -. 6 | -. 5 | -1.8 | n.a. | ... | ... |
| Statistical discrepancy (s.a.) | 85.1 | 10.4 | -72.2 | -19.1 | 52.8 | n.a. | ... | ... |

[^13]
## Foreign Financial Markets

Over the intermeeting period, the major currencies index of the dollar's exchange value rose $11 / 4$ percent on net. The dollar appreciated $11 / 4$ percent on balance against the euro, $13 / 4$ percent versus sterling, and $21 / 4$ percent against the yen, but was little changed against the Canadian dollar. On a trade-weighted basis, the dollar was little changed against the currencies of our other important trading partners.

Market participants revised down their expectations of policy interest rates for the next 12 to 24 months in the United States, Japan, and Canada over the period. The downward revision was particularly evident in Japan; lower-than-expected data releases on Japanese consumer prices, GDP, machinery orders, and industrial production drove this shift in market expectations. Sharp drops in energy prices also appeared to influence inflation expectations and hence expectations for monetary policy in a number of these countries. In contrast, the expected path of short-term interest rates in the euro area rose, as several European Central Bank officials highlighted the Bank's "strong vigilance" over inflationary pressures. Most market analysts now predict that the ECB will increase its policy interest rates again in early October. There were no monetary policy actions by the ECB, the Bank of England, the Bank of Japan, or the Bank of Canada during the intermeeting period.

Ten-year nominal sovereign yields declined 10 to 25 basis points in major industrial countries over the period; the United Kingdom and the euro area countries recorded the smallest declines, while Canada recorded the largest drop. Long-term inflation breakeven rates, measured as the difference between nominal and inflation-indexed ten-year sovereign yields, declined across industrial countries, with the exception of the United Kingdom, where they were little changed.

Stock prices reacted positively to the declines in crude oil prices and in expected future policy interest rates: major headline equity indexes rose over the period in Europe, Asia, and the United States, but not in Canada, a net oil exporter. Trading conditions were quite orderly over the period, and measures of stock market and foreign exchange market volatility remained low. The spot price of West Texas Intermediate crude fell 17 percent on net from its near-record high of early August, and the price of gold fell 9 percent, to less than $\$ 600$ per ounce. Late in the period, the prices of many other metals, both precious and industrial also experienced large drops. On balance, however, owing to
increases in late August and September, the prices of many industrial metals changed only slightly over the intermeeting period.

Financial assets in emerging markets generally did not register sharp price movements over the period. The dollar appreciated 1 percent versus the Mexican peso on net but depreciated about $1 / 2$ percent against the Brazilian real, and exchange rate movements against the currencies of emerging Asia were also modest. Headline equity indexes rose in most Asian countries and in Mexico, where protests over the outcome of the presidential election appeared to have little impact on financial markets. Equity prices declined in Brazil and Thailand, however. Dollar-denominated sovereign bond spreads generally remained at levels that are near all-time lows. The dollar depreciated 0.3 percent on net against the Chinese renminbi over the period, and the daily variability of the heavily-managed dollar-renminbi exchange rate rose slightly; some analysts interpreted these developments as possible preludes to further renminbi appreciation against the dollar. The People's Bank of China increased its benchmark bank lending rate 27 basis points on August 18, a move the Bank stated was designed to slow the rapid expansion in credit and investment. Korea's central bank also raised it main policy interest rate, on August 10, by 25 basis points.
the period for the accounts of the System or the Treasury.

## Exchange Value of the Dollar and Stock Market Indexes



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


Stock Market Indexes



## Industrial Countries: Nominal and Real Interest Rates





Inflation-Indexed 10-Year Government Bond Yields


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

## Measures of Market Volatility







Realized 10-Year Bond Volatility* Weekly



## Emerging Markets: Exchange Rates and Stock Market Indexes

|  | Exchange value vs. dollar |  | Stock market index |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Latest | Percent change since August FOMC* | Latest | Percent change since August FOMC |
| Mexico | 11.0180 | 1.0 | 21103 | 3.4 |
| Brazil | 2.1705 | -0.7 | 36147 | -4.1 |
| China | 7.9490 | -0.3 | 1689 | 6.9 |
| Hong Kong | 7.7806 | 0.1 | 17210 | 0.9 |
| Korea | 958.7 | -0.5 | 1333 | 1.7 |
| Taiwan | 32.88 | 0.2 | 6665 | 2.5 |
| Singapore | 1.5763 | 0.2 | 655 | 3.5 |
| Thailand | 37.36 | -0.5 | 698 | -1.9 |
| India | 46.18 | -0.6 | 11894 | 8.0 |

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





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

|  |  |  | Percent |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Short-term interest rates* |  | Dollar-denominated bond spreads** |  |
|  | Latest | Change since August FOMC | Latest | Change since August FOMC |
| Mexico | 6.94 | 0.04 | 1.09 | -0.07 |
| Brazil | 14.05 | -0.56 | 2.24 | 0.16 |
| Argentina | 9.94 | -0.25 | 3.19 | -0.01 |
| China | ... | ... | 0.67 | 0.01 |
| Korea | 4.53 | 0.23 | ... | ... |
| Taiwan | 1.81 | 0.02 | ... | ... |
| Singapore | 3.50 | 0.00 | ... | ... |
| Hong Kong | 4.11 | 0.29 | ... | ... |

*One month interest rate except 1-week rate for Korea. No reliable short-term interest rate exists for China.
**EMBI+ or EMBI Global Spreads over similar-maturity U.S. Treasuries.
... Korea, Taiwan, Singapore, and Hong Kong have no outstanding dollar-denominated sovereign bonds.



EMBI Global Spreads



## Developments in Advanced Foreign Economies

Second-quarter GDP decelerated in the advanced foreign economies, to $2 \frac{1}{2}$ percent from $31 / 4$ percent in the first quarter. Negative contributions from net exports were among the primary reasons for slower growth in Japan and Canada, while strong domestic demand spurred growth to pick up in the United Kingdom and especially in the euro area.

Incoming data suggest that overall third-quarter GDP growth will step down slightly from the second quarter rate. However, this masks different near-term paths at the country level. The latest indicators for household spending and consumer confidence have fallen in the United Kingdom and those for business investment have fallen in the euro area. In Japan and Canada, data have also been relatively weak, but still suggest some rebound from the very slow second-quarter expansion.

Consumer price inflation continues to edge down from its recent highs. In the euro area, the United Kingdom, and Canada, the latest headline inflation readings have all receded to $2 \frac{1}{2}$ percent or lower, after touching or topping that rate in the second quarter. Core inflation in these countries remains below 2 percent. In Japan, a rebasing of the CPI weights in August led to downward revisions to recent inflation readings; although still slightly positive, the revised inflation figures show less price growth than the previous index had shown.

## Advanced Foreign Economies

Average Real GDP*


CPI Inflation


Official or Targeted Interest Rates


## IV-19

## Japanese Real GDP

(Percent change from previous period, except as noted, s.a.a.r.)

| Component | $2004{ }^{1}$ | $2005^{1}$ | 2005 |  | 2006 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Q3 | Q4 | Q1 | Q2 |
| GDP | . 5 | 4.0 | 1.8 | 4.0 | 3.3 | 1.0 |
| Total domestic demand | . 3 | 3.2 | 1.8 | 1.6 | 3.4 | 1.7 |
| Consumption | . 6 | 3.3 | 1.8 | 2.7 | . 8 | 2.0 |
| Private investment | 1.3 | 5.6 | 7.2 | 2.2 | 11.7 | 10.4 |
| Public investment | -9.5 | -1.9 | 1.9 | -11.3 | -2.4 | -22.8 |
| Government consumption | 1.4 | 1.6 | . 7 | . 7 | . 2 | -. 9 |
| Inventories ${ }^{2}$ | -. 1 | 0 | -. 8 | . 1 | . 7 | -. 1 |
| Exports | 10.2 | 10.5 | 13.1 | 15.9 | 9.2 | 3.7 |
| Imports | 9.7 | 4.7 | 14.2 | -2.2 | 9.9 | 8.4 |
| Net exports ${ }^{2}$ | . 3 | . 9 | . 2 | 2.4 | . 2 | -. 4 |

1. Q4/Q4.
2. Percentage point contribution to GDP growth.

Although GDP growth in Japan slowed to 1.0 percent (a.r.) in the second quarter, private consumption and nonresidential investment rose at annual rates of 2.0 percent and 15.4 percent, respectively. In contrast, residential investment fell 10.4 percent and government spending fell 0.9 percent. The external sector also made a negative contribution to growth. The GDP deflator continued to decline, falling 0.7 percent from a year ago, but the deflator for total domestic demand increased 0.1 percent, marking its first increase since 1998.

Private domestic demand got off to a shaky start in the third quarter. Real household spending and retail sales both fell 1.7 percent in July, while industrial production fell 0.9 percent. Machinery orders, a volatile but leading indicator of investment, plunged in July. Government spending appears likely to continue to decline or grow slowly, as public works orders rose only 0.4 percent in July. In contrast, net exports showed signs of a rebound as the real merchandise trade balance expanded further and the labor market continued its steady improvement. The unemployment rate fell one tenth to 4.1 percent in July, and the job offers-to-applicants ratio (the number of officially posted job openings relative to the number of officially registered job seekers) rose further to 1.09. Despite the rise in job offers, nominal wages fell in July and were down 0.1 percent from a year earlier.

## Japan



Real Trade




Economic Indicators
(Percent change from previous period except as noted, s.a.)

| Cercent change from previous period except as noted, s.a.) |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Indicator | 2005 | 2006 |  | 2006 |  |  |  |
|  | Q4 | Q1 | Q2 | May | June | July | Aug. |
| Housing starts | -2.0 | 1.7 | 2.5 | -3.1 | -0.9 | -5.7 | n.a. |
| Machinery orders $^{1}$ | 2.8 | -0.4 | 8.9 | -2.1 | 8.5 | -16.7 | n.a. |
| Machinery shipments $^{1}$ | 4.0 | -0.2 | 3.6 | -1.9 | 1.1 | 1.3 | n.a. |
| New car registrations $^{\text {Business sentiment }}{ }^{2}$ | -4.6 | 2.8 | -3.9 | -2.6 | 1.9 | -6.8 | 4.2 |
| Wholesale prices $^{3}$ | 5.0 | 5.0 | 6.0 | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ |

1. Private sector, excluding ships and electric power.
2. Tankan survey, diffusion index. Level.
3. Percent change from year earlier, n.s.a.
n.a. Not available. ... Not applicable.

## IV-21

The weights used in forming the consumer price index were updated in August, leading to a greater than expected downward revision to inflation: twelve-month headline inflation for July was revised down from 0.8 percent using the old weights to only 0.3 percent. Using the new weights, core consumer prices for the country as a whole, which exclude only fresh foods, were only 0.2 percent higher in July than a year earlier, while consumer prices excluding both fresh food and energy were 0.3 percent lower. Interest rates fell after the rebasing as market participants scaled back expectations of the pace at which the Bank of Japan will raise its policy rate; however, Bank of Japan officials claimed that the revisions would have little impact on their decisions.

Real GDP in the euro area rose 3.6 percent (a.r.) in the second quarter, and the firstquarter rate of growth was revised up from 2.5 percent to 3.2 percent. The pace of the economic expansion in the first half was the fastest since the first half of 2000. The components data showed that the economic recovery broadened to domestic demand. Although private consumption remained relatively sluggish, investment surged 8.8 percent. Overall, final domestic demand contributed 2.7 percentage points to growth in the second quarter, and inventory accumulation added another 0.6 percentage point. Both imports and exports decelerated substantially in the second quarter, making a small positive contribution to growth on net. At the country level, French GDP grew 4.7 percent despite a sizeable negative contribution from net exports, and a rebound in construction activity led German GDP to accelerate to 3.6 percent.

The most recent business surveys suggest that euro-area GDP growth may have peaked in the second quarter and point to a gradual slowdown in the second half of the year. The European Commission (EC) indicator of euro-area industrial confidence and the German IFO both fell in August. The declines in both indices are attributable to a marked deterioration of the expectations component for production in the months ahead, while the assessment of current conditions remained nearly unchanged. Incoming data for Germany nonetheless suggest that the industrial sector continues to be an important force for economic growth heading into the third quarter. In July, German industrial production grew a brisk 1.2 percent, led by a 3.4 percent jump in construction activity, and German manufacturing orders rose 1.8 percent, pushed up by a surge in large foreign bookings. In contrast, in France, industrial output excluding construction unexpectedly fell 1.3 percent in July, with production slipping across all sectors and sharp falls in auto and intermediate goods.

| Euro-Area Real GDP <br> (Percent change from previous period, except as noted, s.a.a.r.) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Component | $2004{ }^{1}$ | $2005^{1}$ | 2005 |  | 2006 |  |
|  |  |  | Q3 | Q4 | Q1 | Q2 |
| GDP | 1.5 | 1.8 | 2.4 | 1.4 | 3.2 | 3.6 |
| Total domestic demand | 1.8 | 2.0 | 2.1 | 2.6 | 1.4 | 3.3 |
| Consumption | 1.7 | 1.1 | 2.7 | . 3 | 2.8 | 1.1 |
| Investment | 1.7 | 3.3 | 4.8 | 1.5 | 3.6 | 8.8 |
| Government consumption | . 7 | 1.7 | 2.8 | . 9 | 3.1 | 1.4 |
| Inventories ${ }^{2}$ | . 3 | . 3 | -1.1 | 1.7 | -1.6 | . 6 |
| Exports | 6.2 | 5.0 | 10.8 | 3.6 | 16.6 | 5.4 |
| Imports | 7.3 | 5.6 | 10.2 | 6.6 | 12.0 | 4.7 |
| Net exports ${ }^{2}$ | -. 3 | -. 2 | . 3 | -1.1 | 1.8 | . 3 |
| Memo: <br> GDP of selected countries |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| France | 2.0 | 1.0 | 2.7 | . 9 | 2.0 | 4.7 |
| Germany | . 2 | 1.7 | 2.1 | 1.1 | 2.7 | 3.6 |
| Italy | . 5 | . 5 | 1.2 | -. 1 | 2.7 | 2.2 |
| 1. Q4/Q4. |  |  |  |  |  |  |
| 2. Percentage point contribution to GDP growth. |  |  |  |  |  |  |

In August, the EC measure of euro-area consumer confidence remained near its five-year peak, consistent with a pick-up in household spending in the current quarter. In July, retail sales in the euro area rose 0.6 percent from the previous month, despite a 1.2 percent drop recorded in Germany.

In July, the unemployment rate in the euro area remained unchanged at 7.8 percent after declining slightly in each of the previous two months. Labor market conditions have gradually improved over the past year, partly because of improving private-sector job creation and partly because of jobs created by government-sponsored programs.

According to the preliminary estimate, the twelve-month change in euro-area consumer prices declined to 2.3 percent in August from 2.5 percent the previous month. Core inflation edged up to 1.6 percent in July. The ECB left its policy rate unchanged at its August 31 meeting, but it signaled that a 25 -basis-point hike is very likely at its next meeting in October.

## Euro Area



Economic Indicators
(Percent change from previous period except as noted, s.a.)

| (Percent change from previous period except as noted, s.a.) |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Indicator | 2005 | 2006 |  | 2006 |  |  |  |
|  | Q4 | Q1 | Q2 | May | June | July | Aug. |
| Industrial production $^{1}$ | 0.6 | 1.1 | 1.0 | 1.7 | 0.0 | n.a. | n.a. |
| Retail sales volume $^{2}$ | 0.4 | 0.2 | 0.5 | -0.1 | 0.3 | 0.6 | n.a. |
| Unemployment rate $^{3}$ | 8.4 | 8.2 | 7.9 | 7.9 | 7.8 | 7.8 | n.a. |
| $\mathrm{CPI}^{4}$ | 1.9 | 13.6 | 19.6 | 2.5 | 2.4 | 2.5 | 2.3 |
| Producer prices $^{4}$ | 4.4 | 5.2 | 5.8 | 6.0 | 5.8 | 5.9 | n.a. |
| $\mathrm{M}^{4}$ |  |  |  |  |  |  |  |

Real GDP in the United Kingdom rose 3.1 percent (a.r.) in the second quarter, revised down slightly from the preliminary estimate released last month. Consumption growth, which had been relatively subdued over most of the past year as households increased their saving rate, rose to 4 percent and helped bring the increase in final domestic demand up to 3.9 percent in the second quarter. Net exports and a slower accumulation of inventories both made negative contributions to GDP growth.

Data in the third quarter, especially for households, are somewhat softer than in the second quarter but on balance still suggest that activity will continue to be relatively strong. Retail sales contracted 0.2 percent in July after rising 2 percent in the second quarter. However, surveys suggest that sales continued at a reasonably strong pace in both July and August. Households are increasingly concerned about the general economic situation, leading consumer confidence to edge down further in August to its lowest point in three years. The service sector PMI inched down to 56.7 in August, still indicating expansion but continuing a downward slide that started in May. House prices, as collected by Nationwide, a leading British lender, rose more than 6.5 percent in the twelve months ending in August and have been trending up since the beginning of the year.

UK Real GDP
(Percent change from previous period, except as noted, s.a.a.r.)

| Component | $2004{ }^{1}$ | $2005^{1}$ | 2005 |  | 2006 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Q3 | Q4 | Q1 | Q2 |
| GDP | 2.6 | 1.8 | 1.6 | 2.7 | 3.0 | 3.1 |
| Total domestic demand | 3.1 | 1.2 | 3.8 | 1.5 | 4.1 | 3.5 |
| Consumption | 3.2 | 1.4 | 1.2 | 3.1 | 1.4 | 4.0 |
| Investment | 3.5 | 5.4 | 13.7 | 4.8 | 5.5 | 3.5 |
| Government consumption | 1.9 | 2.4 | 2.8 | . 7 | . 6 | 3.9 |
| Inventories ${ }^{2}$ | -. 0 | -1.0 | . 8 | -1.6 | 2.3 | -. 9 |
| Exports | 5.8 | 8.9 | 1.8 | 13.1 | 22.8 | 18.9 |
| Imports | 7.2 | 6.1 | 9.6 | 7.7 | 25.0 | 18.6 |
| Net exports ${ }^{2}$ | -. 6 | . 5 | -2.3 | 1.1 | -1.2 | -. 5 |

1. Q4/Q4.
2. Percentage point contribution to GDP growth.

Industrial production rose 0.1 percent in July, after being unchanged in the second quarter. The manufacturing PMI ticked down further in August, though it still indicates expansion in that sector. Business confidence held steady on average in July and August at its relatively-high second-quarter level. Second-quarter surveys of business investment plans in both the manufacturing and services sectors are quite strong. The trade balance improved slightly in July.

The Labor Force Survey and claimant count measures of the unemployment rate held steady in their latest readings, at 5.5 percent in June and at 3 percent in August, respectively. While the Labor Force Survey measure of the unemployment rate has drifted upwards since mid-2005, the growth rate of employment has been relatively solid and the participation rate also has risen noticeably. This increase in the labor force reflects in part older workers who have maintained their attachment to the labor market and possibly increased inward migration from the rest of the European Union as well. In August, the twelve-month rate of consumer price inflation rose to 2.5 percent, up slightly from its rate in July, and well above the 1.9 percent posted in January. The rate of inflation excluding energy was 1.5 percent, up from 1.2 percent in July.

## United Kingdom



Economic Indicators
(Percent change from previous period except as noted, s.a.)

| Cercent change from previous period except as noted, s.a.) |  |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | :---: |
|  | 2005 |  | 2006 |  | 2006 |  |  |  |
| Producer prices $^{1}$ | Q4 | Q1 | Q2 | May | June | July | Aug. |  |
| Average earnings $^{1}$ | 13.5 | 14.5 | 13.3 | 13.6 | 11.1 | 10.2 | 7.6 |  |
| Business confidence | 3.6 | 4.2 | 4.3 | 4.3 | 5.0 | 3.9 | n.a. |  |
| Consumer confidence $_{\text {Trade balance }}{ }^{2}$ | -2.0 | 8.0 | 12.0 | 10.0 | 14.0 | 14.0 | 11.0 |  |
| Current account $^{2}$ | -4.2 | -3.8 | -4.7 | -5.7 | -5.2 | -5.5 | -5.8 |  |

1. Percent change from year earlier.
2. Level in billions of US Dollars.
n.a. Not available. ... Not applicable.

In Canada, real GDP grew 2 percent (a.r.) in the second quarter, slowing sharply from the 3.6 percent rate of expansion in the first quarter. Consumer spending and business investment both advanced, although at somewhat slower rates than in the first quarter. Nonresidential investment growth was in line with its average over the past three years: investment in machinery and equipment continued to boom, which led to strong import growth (since most business machinery and equipment is imported). With exports declining for a second consecutive quarter, net exports were a drag on growth. Inventory accumulation more than reversed its decline of the first quarter and contributed 1.8 percentage points to growth.

## Canadian Real GDP

(Percent change from previous period, except as noted, s.a.a.r.)

| Component | $2004{ }^{1}$ | $2005^{1}$ | 2005 |  | 2006 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Q3 | Q4 | Q1 | Q2 |
| GDP | 3.7 | 2.8 | 3.2 | 2.6 | 3.6 | 2.0 |
| Total domestic demand | 5.6 | 3.7 | 4.4 | 4.6 | 4.2 | 5.8 |
| Consumption | 3.8 | 3.8 | 2.6 | 3.6 | 5.1 | 4.2 |
| Investment | 7.0 | 7.2 | 9.6 | 7.9 | 9.4 | 2.7 |
| Government consumption | 3.2 | 3.0 | 3.0 | 4.4 | 2.6 | 4.7 |
| Inventories ${ }^{2}$ | 1.3 | -. 6 | . 2 | -. 0 | -1.3 | 1.8 |
| Exports | 2.7 | 4.5 | 8.5 | 6.4 | -3.8 | -1.2 |
| Imports | 8.1 | 6.9 | 11.2 | 12.7 | -1.9 | 9.4 |
| Net exports ${ }^{2}$ | -2.0 | -. 9 | -1.0 | -2.4 | -. 8 | -4.3 |

1. Q4/Q4.
2. Percentage point contribution to GDP growth.

Early indicators suggest growth will remain somewhat subdued in the third quarter. The average level of housing starts in July and August was a bit below the second-quarter average. The merchandise trade balance edged down for a second consecutive month in July as imports increased at a slightly faster pace than exports. In August, the Ivey Purchasing Managers Index declined for a fifth consecutive month.

Despite a small decline in total employment in July and August, growth in full-time employment remained strong but was more than offset by declines in part-time employment. The year-long strength in full-time job gains suggests continued solid jobmarket prospects. The unemployment rate edged up to 6.5 percent in August, up a bit
from the 32 -year-low of 6.1 percent touched in June, due to new entrants in the labor force.

After spiking in May to 2.8 percent due to higher gasoline prices at the pump, the twelvemonth rate of consumer price inflation has since receded, moving down to 2.3 percent in July. The twelve-month rate of core inflation, which excludes the eight most volatile components, has similarly declined, to 1.5 percent in July after reaching a two-year high of 1.9 percent in May.

## Canada



Economic Indicators
(Percent change from previous period except as noted, s.a.)

| (Percent change from previous period except as noted, s.a.) |  |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | :---: |
| Indicator | 2005 | 2006 |  | 2006 |  |  |  |  |
|  | Q4 | Q1 | Q2 | May | June | July | Aug. |  |
| Industrial production | 0.6 | -0.5 | -0.6 | -0.2 | -0.2 | n.a. | n.a. |  |
| New manufacturing orders | 0.7 | -1.3 | -1.3 | -0.3 | 2.5 | n.a. | n.a. |  |
| Retail sales | 0.6 | 3.0 | 2.0 | -0.6 | 0.2 | n.a. | n.a. |  |
| Employment | 0.6 | 0.4 | 0.8 | 0.6 | -0.0 | -0.0 | -0.1 |  |
| Consumer attitudes $^{1}$ | 118.4 | 121.2 | 122.7 | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ |  |
| Business confidence ${ }^{1}$ | 147.2 | 146.0 | 142.9 | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ |  |
| 1. 1991=100. |  |  |  |  |  |  |  |  |
| n.a. Not available. ... Not applicable. |  |  |  |  |  |  |  |  |

## Economic Situation in Other Countries

Across the emerging market economies, incoming data generally point to robust, though moderating, growth. In Emerging Asia, there are hints that government policies are beginning to temper growth in China. In Latin America, Mexico posted another strong output figure in the second quarter, although Brazilian performance surprised on the downside. Inflation is generally well-contained, but high fuel costs continue to put upward pressure on prices.

In China, after real GDP expanded at a blistering 12 percent (a.r.) pace in the second quarter, the latest data present tentative signs of slowing. Average industrial production for July and August was $21 / 4$ percent above that of the previous quarter and twelve-month growth of fixed investment moderated to 21 percent in August. These monthly data are noisy, however, and retail sales growth has remained elevated. Consumer prices rose 1.3 percent over the 12 months ended August, and growth in the money supply and bank loans held above target levels. Exports and imports both accelerated in August, resulting in a further increase in the trade surplus.

In mid-August, the People's Bank of China raised the benchmark one-year bank lending rate and the one-year bank deposit rate 27 basis points each. For the lending rate, this is the second rise in four months. Although increases were small and much of bank lending is still not market based, some analysts are interpreting the move as signaling that Chinese authorities will more rigorously enforce administrative controls already in place and possibly introduce further measures.

## Chinese Economic Indicators

(Percent change from previous period, s.a., except as noted)

| Indicator | 2004 | 2005 | 2006 |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | :---: |
|  |  |  | Q1 | Q2 | June | July | Aug. |  |
| Real GDP $^{1}$ | 10.1 |  | 13.3 | 11.7 | $\ldots$ | $\ldots$ | $\ldots$ |  |
| Industrial production | 14.4 |  | 5.3 | 4.2 | 2.6 | -1.8 | 2.7 |  |
| Consumer prices $^{2}$ | 2.5 |  | 1.2 | 1.4 | 1.5 | .9 | 1.3 |  |
| Merch. trade balance $^{3}$ | 32.1 |  | 132.7 | 160.4 | 166.7 | 174.2 | 198.4 |  |

[^14]In Hong Kong, GDP was unchanged in the second quarter, after booming in the first quarter. About half of this slowdown came from a contraction in net exports. Indeed, the second-quarter trade deficit was the largest since 1997, with both exports and imports falling. In July, tourist arrivals grew at a robust pace and retail sales continued to expand briskly. Twelve-month inflation was 2.3 percent in July, largely reflecting rising energy prices and housing rents.

## Hong Kong Economic Indicators

(Percent change from previous period, s.a., except as noted)

| Indicator | 2004 | 2005 | 2006 |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | :---: | :---: |
|  |  |  | Q1 | Q2 | May | June | July |  |
| Real GDP $^{1}$ | 7.3 |  | 9.1 | .0 | $\ldots$ | $\ldots$ | $\ldots$ |  |
| Unemployment rate $^{2}$ | 6.9 |  | 5.2 | 5.0 | 4.9 | 5.0 | 4.9 |  |
| Consumer prices $^{3}$ | .4 |  | 1.5 | 2.0 | 2.1 | 2.2 | 2.3 |  |
| Merch. trade balance $^{4}$ | -12.0 |  | -14.2 | -21.7 | -33.8 | -14.6 | -4.2 |  |

1. Annual rate. Annual data are Q4/Q4.
2. Percent. Monthly data are averages of the current and previous two months.
3. Percent change from year-earlier period, except annual data, which are Dec./Dec.
4. Billions of U.S. dollars, annual rate. Imports are c.i.f.
. . . Not applicable.

In Taiwan, after contracting in the first quarter, GDP jumped 4.6 percent in the second quarter, largely on the back of an improving external sector, as evidenced by the sizable trade surplus in that quarter. Although industrial production has fallen for two consecutive months, export orders for electronics continued growing steadily in July. Twelve-month inflation turned negative in August, as food prices declined.

Taiwan Economic Indicators
(Percent change from previous period, s.a., except as noted)

| Indicator | 2004 | 2005 |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Q1 | Q2 | June | July | Aug. |  |
| Real GDP $^{1}$ | 2.6 |  | -1.0 | 4.6 | $\ldots$ | $\ldots$ | $\ldots$ |  |
| Unemployment rate $^{2}$ | 4.4 |  | 4.0 | 3.9 | 3.9 | 3.9 | n.a. |  |
| Industrial production $^{20}$ | 9.8 |  | 2.1 | 1.3 | -5.5 | -.7 | n.a. |  |
| Consumer prices $^{3}$ | 1.6 |  | 1.3 | 1.5 | 1.7 | .8 | -.6 |  |
| Merch. trade balance $^{4}$ | 6.1 |  | 1.0 | 12.7 | 9.3 | 14.6 | 5.3 |  |
| Current account $^{5}$ | 18.5 | 16.1 | 23.7 | 18.8 | $\ldots$ | $\ldots$ | $\ldots$ |  |

1. Annual rate. Annual data are Q4/Q4.
2. Percent.
3. Percent change from year-earlier period, except annual data, which are Dec./Dec.
4. Billions of U.S. dollars, annual rate. Imports are c.i.f.
5. Billions of U.S. dollars, n.s.a., annual rate.
n.a. Not available. . . . Not applicable.

## Greater China




Gross External Debt



Benchmark Interest Rates


Short-Term External Debt


Korean economic indicators suggest continued moderate growth. Industrial production sank almost 4 percent in July, weighed down by strikes in the auto sector and unusually heavy rainfall. However, sentiment data showed signs of stabilizing in July and August after declining since late last year. The current account balance turned negative in July, reflecting weak exports of both goods and services, but indicators for August suggest some improvement in the goods trade balance. Consumer prices jumped 2.9 percent over the 12 months ended August, as poor weather contributed to a spike in food prices. Core CPI rose 2.2 percent over the same period. Last month, the Bank of Korea surprised markets by boosting interest rates 25 basis points to 4.50 percent. The Bank also announced that its inflation target for 2007 through 2009 would be unchanged at 2.5 to 3.5 percent, but the Bank switched the targeted rate from core to headline CPI inflation.

## Korean Economic Indicators

(Percent change from previous period, s.a., except as noted)

| Indicator | 2004 | 2005 | 2006 |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | :---: | :---: | :---: |
|  |  |  | Q 1 | Q 2 | June | July | Aug. |  |
| Real GDP |  |  |  |  |  |  |  |  |
| Industrial production | 2.9 | 5.3 | 4.9 | 3.4 | $\ldots$ | $\ldots$ | $\ldots$ |  |
| Unemployment rate $^{2}$ | 3.0 | 5.9 | 3.1 | -.4 | 1.2 | -3.9 | n.a. |  |
| Consumer prices $^{3}$ | 3.0 | 3.7 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |  |
| Merch. trade balance $^{4}$ | 37.6 | 33.5 | 25.8 | 24.9 | 21.5 | 16.3 | n.a. |  |
| Current account $^{5}$ | 28.2 | 16.6 | -4.5 | 2.8 | 11.3 | -2.5 | n.a. |  |

1. Annual rate. Annual data are Q4/Q4.
2. Percent.
3. Percent change from year-earlier period, except annual data, which are Dec./Dec.
4. Billions of U.S. dollars, annual rate. Imports are c.i.f.
5. Billions of U.S. dollars, n.s.a., annual rate.
n.a. Not available. . . . Not applicable.

Economic activity continued to expand in India. Industrial production jumped over 5 percent in the second quarter, before retracing some of the gains in July, and the trade deficit widened further in July, reflecting surging non-oil imports and weaker exports. Inflation of the closely watched wholesale price index remained near 5 percent over the 12 months ended August. The central government's deficit for the first four months of the fiscal year reached almost 60 percent of its annual target, raising questions about the ability of the government to comply with the goals of its Fiscal Responsibility and Budget Management Act.

Indian Economic Indicators
(Percent change from previous period, s.a., except as noted)

| Indicator | 2004 | 2005 | 2006 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Q1 | Q2 | June | July | Aug. |
| Real GDP ${ }^{1}$ | 7.0 | 7.5 | 15.6 | n.a. |  |  |  |
| Industrial production | 8.5 | 7.9 | 2.5 | 5.1 | . 7 | -2.3 | n.a. |
| Consumer prices ${ }^{2}$ | 3.8 | 5.6 | 4.5 | 5.0 | 6.3 | 5.4 | n.a. |
| Wholesale prices ${ }^{2}$ | 6.7 | 4.4 | 4.0 | 4.6 | 5.1 | 4.8 | 4.9 |
| Merch. trade balance ${ }^{3}$ | -21.7 | -39.8 | -38.6 | -43.7 | -43.6 | -46.2 | n.a. |
| Current account ${ }^{4}$ | 1.4 | -11.9 | 7.3 | n.a. | ... | ... | . |

1. 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, n.s.a., annual rate.
n.a. Not available. . . . Not applicable.

## India, Korea, and Singapore





Consumer Prices


Benchmark Interest Rates


Short-Term External Debt


Second-quarter performance varied across the ASEAN region. Real GDP growth fell in Malaysia and Singapore from the torrid first-quarter rates, but rose in Indonesia, the Philippines, and Thailand. Across the region, lower trade balances weighed on secondquarter activity, but a rebound in the agricultural and mining sectors in the Philippines, and a recovery in consumption in Indonesia and Thailand lifted growth. More recently in July, trade balances generally improved from second-quarter levels, but industrial production was down in Malaysia, Singapore, and Thailand.

Twelve-month consumer price inflation in the region has generally moderated, but remains elevated due to higher food prices in some countries as well as higher energy prices. Citing "subdued" inflation and the need to stimulate the domestic economy, Bank Indonesia cut its interest rate 50 basis points to 11.25 percent on September 5 following a 50 basis point reduction in early August.

ASEAN Economic Indicators: Growth
(Percent change from previous period, s.a., except as noted)

| Indicator | 2004 | 2005 | 2006 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Q1 | Q2 | May | June | July |
| Real GDP ${ }^{1}$ |  |  |  |  |  |  |  |
| Indonesia | 7.0 | 5.0 | 3.5 | 7.0 | $\ldots$ | $\ldots$ | $\ldots$ |
| Malaysia | 5.9 | 5.2 | 10.5 | 1.4 | $\ldots$ | $\ldots$ | $\ldots$ |
| Philippines | 5.5 | 5.5 | 4.6 | 6.8 | $\ldots$ | $\ldots$ | $\ldots$ |
| Singapore | 6.6 | 8.5 | 7.6 | 3.0 | $\ldots$ | $\ldots$ | $\ldots$ |
| Thailand | 5.4 | 4.7 | 3.4 | 4.2 | $\ldots$ | $\ldots$ | ... |
| Industrial production ${ }^{2}$ |  |  |  |  |  |  |  |
| Indonesia ${ }^{3}$ | 3.3 | 1.3 | -2.6 | 6.2 | -3.7 | -1.8 | n.a. |
| Malaysia | 11.7 | 4.1 | 3.9 | . 2 | . 6 | 9.0 | -6.2 |
| Philippines | 1.0 | 2.2 | -15.8 | 2.3 | 6.5 | -. 8 | n.a. |
| Singapore | 13.9 | 9.5 | 1.8 | -1.8 | 2.4 | 19.5 | -2.2 |
| Thailand | 11.8 | 9.1 | 2.7 | 1.4 | 5.6 | . 3 | -1.2 |

1. Annual rate. Annual data are Q4/Q4.
2. Annual data are annual averages.
3. Staff estimate.
n.a. Not available. . . . Not applicable.

ASEAN Economic Indicators: Merchandise Trade Balance
(Billions of U.S. dollars, s.a.a.r.)

| Indicator | 2004 | 2005 | 2006 |  |  |  |  |  |
| :--- | ---: | ---: | ---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Q1 | Q2 | May | June | July |  |
| Indonesia | 25.1 |  | 40.0 | 34.3 | 38.4 | 28.2 | 40.4 |  |
| Malaysia | 21.2 |  | 29.4 | 27.4 | 29.2 | 29.2 | 35.0 |  |
| Philippines | -4.4 |  | -.4 | -3.6 | -6.2 | -4.6 | n.a. |  |
| Singapore | 25.1 |  | 40.7 | 30.3 | 21.5 | 34.2 | 25.5 |  |
| Thailand | 1.5 |  | 1.4 | -3.0 | -7.1 | -4.4 | 1.3 |  |

n.a. Not available.

ASEAN Economic Indicators: CPI Inflation
(Percent change from year earlier, except as noted)

| Indicator | $2004^{1}$ | $2005^{1}$ | 2006 |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | :---: |
|  |  |  | Q 1 |  | $\mathrm{Q}^{2}$ | June | July |  |
| Aug. |  |  |  |  |  |  |
| Indonesia | 6.6 | 17.0 | 17.0 | 15.5 | 15.5 | 14.9 | 15.0 |  |
| Malaysia | 2.2 | 3.3 | 3.8 | 4.1 | 3.9 | 4.1 | n.a. |  |
| Philippines | 8.6 | 6.7 | 7.3 | 6.9 | 6.7 | 6.4 | 6.3 |  |
| Singapore | 1.3 | 1.3 | 1.4 | 1.2 | 1.4 | 1.1 | n.a. |  |
| Thailand | 2.9 | 5.8 | 5.7 | 6.0 | 5.9 | 4.4 | 3.8 |  |

1.Dec./Dec.
n.a. Not available

## ASEAN-4



Consumer Prices Percent change from year earlier 20

Benchmark Interest Rates


Short-Term External Debt


In Mexico, recent indicators point to continued strength in economic activity. Real GDP rose 6.1 percent in the second quarter. The higher-than-expected performance was the result of strong automobile exports to the United States, a boom in construction, and solid agricultural production. Industrial production was down in July, but remains at an elevated level. Twelve-month headline inflation was 3.5 percent in August, within the target range of 2 to 4 percent. On the political front, as widely expected, in early September, Mexico's highest electoral court unanimously declared conservative Felipe Calderon the official winner of the July 2 presidential election and formally named him president-elect. Andres Manuel Lopez Obrador, the leftist candidate, has refused to accept Calderon's victory; however, Lopez Obrador's belligerent position is losing support. Calderon is scheduled to take office on December 1.

Mexican Economic Indicators
(Percent change from previous period, s.a., except as noted)

| Indicator | 2004 | 2005 | 2006 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Q1 | Q2 | June | July | Aug. |
| Real GDP ${ }^{1}$ | 4.8 | 2.7 | 6.6 | 6.1 | $\ldots$ | $\ldots$ |  |
| Overall economic activity | 3.8 | 3.3 | 2.0 | 1.0 | . 3 | n.a. | n.a. |
| Industrial production | 3.9 | 1.9 | 1.7 | 1.3 | 1.3 | -. 7 | n.a. |
| Unemployment rate ${ }^{2}$ | 3.9 | 3.6 | 3.4 | 3.4 | 3.4 | 3.5 | n.a. |
| Consumer prices ${ }^{3}$ | 5.2 | 3.3 | 3.7 | 3.1 | 3.2 | 3.1 | 3.5 |
| Merch. Trade balance ${ }^{4}$ | -8.8 | -7.6 | . 4 | -4.8 | -5.8 | -4.2 | n.a. |
| Merchandise imports ${ }^{4}$ | 196.8 | 221.8 | 244.1 | 256.2 | 256.8 | 259.0 | n.a. |
| Merchandise exports ${ }^{4}$ | 188.0 | 214.2 | 244.5 | 251.4 | 251.0 | 254.8 | n.a. |
| Current account ${ }^{5}$ | -6.6 | -4.6 | 2.8 | 4.6 | ... | ... | ... |

1. Annual rate. Annual data are Q4/Q4.
2. Percent; counts as unemployed those working one 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.
5. Billions of U.S. dollars, n.s.a., annual rate.
n.a. Not available. . . . Not applicable.

In Brazil, recent data indicate a softening in economic activity. Real GDP growth dropped to 1.8 percent in the second quarter after spiking in the first quarter. Although private consumption picked up (supported in part by a large increase in the minimum wage in April), investment declined sharply. In addition, exports fell nearly 20 percent (a.r.) while imports held steady. Industrial output recovered less than expected in July. On the bright side, indications are that domestic auto sales and production rebounded somewhat over July-August, with domestic sales supported by the greater availability of consumer credit. Headline consumer prices rose 3.8 percent over the twelve months ended August, the lowest rate since inflation targeting was introduced in 1999.

On August 30, the central bank reduced its target rate another 50 basis points to 14.25 percent. The target rate has fallen 550 basis points since the current easing phase began a year ago. In early September, Moody's raised its credit risk rating on Brazilian foreign currency bonds a notch to Ba 2 , citing advances in debt management. Lula maintains a strong lead over his main challenger, conservative Geraldo Alckmin, ahead of the October 1 presidential election.

Brazilian Economic Indicators
(Percent change from previous period, s.a., except as noted)

| Indicator | 2004 | 2005 | 2006 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Q1 | Q2 | June | July | Aug. |
| Real GDP ${ }^{1}$ | 4.8 | 1.5 | 5.2 | 1.8 |  | $\ldots$ | $\ldots$ |
| Industrial production | 8.3 | 3.1 | 1.1 | . 6 | -1.3 | . 6 | n.a. |
| Unemployment rate ${ }^{2}$ | 11.5 | 9.8 | 9.8 | 10.0 | 10.4 | 10.9 | n.a. |
| Consumer prices ${ }^{3}$ | 7.6 | 5.7 | 5.5 | 4.3 | 4.0 | 4.0 | 3.8 |
| Merch. Trade balance ${ }^{4}$ | 33.6 | 44.8 | 45.1 | 38.8 | 43.0 | 59.6 | 47.2 |
| Current account ${ }^{5}$ | 11.7 | 14.2 | 7.1 | 5.2 | 7.4 | 36.5 | n.a. |

1. Annual rate. Annual data are $\mathrm{Q} 4 / \mathrm{Q} 4$.
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, n.s.a., annual rate.
n.a. Not available. . . . Not applicable.

Indicators for Argentina suggest growth will pick up in the second quarter, from the moderate pace in the first. The second-quarter average of the index of economic activity (a monthly proxy for GDP) is more than 9 percent (a.r.) above its first-quarter level. The unemployment rate also declined in the second quarter. In July, industrial production rose a more moderate 0.3 percent. Twelve-month inflation remained elevated in August, but lower than last year, in part due to the voluntary price agreements the government has secured in several sectors.

Argentine Economic Indicators
(Percent change from previous period, s.a., except as noted)

| Indicator | 2004 | 2005 | 2006 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Q1 | Q2 | June | July | Aug. |
| Real GDP ${ }^{1}$ | 9.0 | 8.9 | 4.7 | n.a. | $\ldots$ |  | $\ldots$ |
| Industrial production | 10.7 | 7.7 | . 7 | 2.6 | 1.1 | . 3 | n.a. |
| Unemployment rate ${ }^{2}$ | 13.6 | 11.6 | 11.4 | 10.4 | ... | ... | ... |
| Consumer prices ${ }^{3}$ | 5.9 | 12.2 | 11.5 | 11.4 | 11.1 | 10.6 | 10.8 |
| Merch. trade balance ${ }^{4}$ | 12.1 | 11.4 | 9.5 | 14.2 | 12.0 | 10.9 | n.a. |
| Current account ${ }^{5}$ | 3.4 | 5.7 | 4.7 | n.a. | ... | ... | ... |

1. Annual rate. Annual data are Q4/Q4.
2. Percent; n.s.a.
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, n.s.a., annual rate.
n.a. Not available. . . . Not applicable.

Venezuelan real GDP soared an estimated 15 percent (a.r.) in the second quarter. Growth was led by the non-oil sectors, particularly construction, and has been fueled by extremely expansionary fiscal and monetary policies. Despite high oil prices, petroleum output rose only about 6 percent (a.r.) over the first half of the year, reflecting problems at the state oil firm and the government's hostile approach to foreign direct investment. Expansionary government policies are also boosting inflation, which is up 15 percent over the 12 months ended August, despite the fixed exchange rate regime. President Chavez is expected to win the December presidential election, but hopes for a contested election have risen since August, when the usually divided opposition surprisingly rallied around one candidate, Manuel Rosales, the governor of an oil-rich state.

Venezuelan Economic Indicators
(Percent change from previous period, s.a., except as noted)

| Indicator | 2004 | 2005 | 2006 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Q1 | Q2 | June | July | Aug. |
| Real GDP ${ }^{1}$ | 12.1 | 10.2 | 10.8 | 15.2 |  |  |  |
| Unemployment rate ${ }^{2}$ | 15.1 | 12.2 | 11.2 | 10.1 | 9.9 | 9.5 | n.a. |
| Consumer prices ${ }^{3}$ | 19.2 | 14.4 | 12.5 | 11.2 | 11.8 | 13.5 | 14.9 |
| Non-oil trade balance ${ }^{4}$ | -10.5 | -16.5 | -27.5 | -26.7 | n.a. | n.a. | n.a. |
| Merch. trade balance ${ }^{4}$ | 21.4 | 31.5 | 39.6 | 41.8 | n.a. | n.a. | n.a. |
| Current account ${ }^{5}$ | 13.8 | 25.4 | 27.2 | 33.1 | ... | .. |  |

1. Annual rate. Annual data are Q4/Q4.
2. Percent.
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, n.s.a., annual rate.
n.a. Not available. . . . Not applicable.

## Latin America





Benchmark Interest Rates


Turkish GDP grew at 7.4 percent in the second quarter, supported by consumer and government spending and increased industrial output, and the current account deficit widened to almost 8 percent of GDP. More recently, industrial production turned negative in July and twelve-month consumer price inflation fell back to 10.3 percent in August, after reaching 11.7 percent in July, indicating that policy rate increases totaling 4.25 percentage points in June and July have had some success. Turkey remains on-track with its IMF program, although EU accession talks may be stalled by slow reforms and concerns over human rights and relations with Cyprus.

Turkey Economic Indicators
(Percent change from previous period, s.a., except as noted)

| Indicator | 2004 | 2005 | 2006 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Q1 | Q2 | June | July | Aug. |
| Real GDP ${ }^{1}$ | 9.0 | 7.4 | 6.5 | 7.4 | .. | $\ldots$ | $\ldots$ |
| Industrial production | 9.8 | 5.4 | -. 6 | 6.8 | 2.1 | -4.4 | n.a. |
| Consumer prices ${ }^{2}$ | 9.4 | 7.7 | 8.1 | 9.6 | 10.1 | 11.7 | 10.3 |
| Merch. trade balance ${ }^{3}$ | -34.4 | -43.3 | -50.0 | -59.6 | -50.7 | -50.3 | n.a. |
| Current account ${ }^{4}$ | -15.6 | -23.2 | -32.1 | -35.5 | -27.6 | -31.6 | n.a. |
| Unemployment rate | 10.3 | 10.3 | 10.2 | 9.7 | ... | ... | ... |

1. Percent change from year-earlier period. Annual data are annual averages.
2. Percent change from year-earlier period, except annual data, which are Dec./Dec.
3. Billions of U.S. dollars, annual rate. Imports are c.i.f.
4. Billions of U.S. dollars, n.s.a., annual rate.
n.a. Not available. . . . Not applicable.

[^0]:    ${ }^{1}$ The decline in energy output reflects, in part, the partial shutdown of British Petroleum's crude oil extraction operations at Prudhoe Bay, Alaska, as well as some refinery downtime needed to conduct maintenance that was postponed during the switchover to ethanol-blended gasoline earlier this year. The repairs to the firm's pipeline on the eastern side of Prudhoe Bay are unlikely to be completed until early next year. However, the company has a proposal before federal regulators to use alternative pipelines to bypass the damaged sections of pipe. If the plan is approved, full production could resume by the end of October.
    ${ }^{2}$ The IP series for computers and peripherals is based primarily upon data on the value of total sales of personal computers and servers as reported by the Gartner Group. These sales rose appreciably in the second quarter but seem to be giving back much of this increase in the current quarter. The data are deflated by platform-specific price indexes from the Bureau of Labor Statistics producer price index program. A trade adjustment is made using merchandise trade data from the Census Bureau and detailed product-level data from its annual Current Industrial Report.
    ${ }^{3}$ Intel's main competitor, Advanced Micro Devices (AMD), does not produce in the United States; therefore, swings in market share between Intel and AMD can have a significant effect on domestic semiconductor production.
    ${ }^{4}$ Like its predecessor, the Core 2 Duo contains two processing units on a single chip. However, the Core 2 Duo uses a new "architecture" that speeds its data throughput and is reported to be 40 percent faster and more energy efficient than the previous generation of Intel MPUs and up to 28 percent faster than the leading-edge chips from AMD.

[^1]:    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 Big Three.
[^2]:    ${ }^{5}$ The revisions to wages and salaries that underlie the higher DPI figures are discussed in greater detail in the section on labor costs.

[^3]:    Note. Adjusted permits equal permit issuance plus total starts outside of permit-issuing areas.

[^4]:    ${ }^{6}$ The cities covered by the Case-Shiller index are Boston, Chicago, Denver, Las Vegas, Los Angeles, Miami, New York, San Diego, San Francisco, and Washington.

[^5]:    ${ }^{7}$ The extrapolator that the BEA uses to estimate business spending on computers now places a 75 percent weight on industrial production and a 25 percent weight on M3 shipments.

[^6]:    ${ }^{8}$ The architectural billings index includes billings for both nonresidential and residential construction projects, but an overwhelming majority of these projects (about 88 percent) are nonresidential. The level of this index is well correlated with nominal expenditure growth in the nonresidential construction sector and-because the index has a lead time of about two quarters-suggests that spending will roughly level off by the end of the year.

[^7]:    ${ }^{9}$ The BEA's recent upward revision to wage and salary income in the first half of 2006 only explains a portion of the robust growth in individual receipts this year; much of the surge in individual income taxes came from final tax payments in April and May on last year's tax liability. In general, the correlation between quarterly variation in NIPA measures of income and of taxes tends to be quite weak because many factors can change effective tax rates on a quarterly basis.

[^8]:    ${ }^{10}$ The CBO completed its projections before the release of the annual revisions to the national income and product accounts; however, based on a preliminary assessment, the CBO indicated that the revisions would not materially affect its budget outlook.

[^9]:    ${ }^{11}$ The Rockefeller Institute's State Revenue Preview contains information on tax collections in thirtyfour states that account for more than 75 percent of total state tax collections.

[^10]:    ${ }^{12}$ The estimates come from the Federal Reserve Bank of New York and are derived from data on the stock option exercises of company insiders at publicly traded firms.

[^11]:    ${ }^{1}$ Consumer credit and home mortgage debt outstanding were revised up, primarily since 2000, based in part on data from the recent quinquennial survey of finance companies. These revisions suggest a steeper upward trajectory for the financial obligations ratio in recent years.

[^12]:    1. Change from previous quarter or month.

    Source. U.S. Department of Commerce, Bureaus of Economic Analysis and Census.

[^13]:    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. 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.
    2. Includes commissions on securities transactions and therefore does not match exactly the data on U.S. international transactions published by the Department of Commerce.
    3. Includes (4d) or represents (5c) stocks acquired through non-market means such as mergers and reincorporations.
    4. 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 since publication of the quarterly data in the Survey of Current Business.
    5. Consists of transactions in nonproduced nonfinancial assets and capital transfers.
    n.a. Not available. ... Not applicable.
[^14]:    1. Annual rate. Quarterly data estimated by staff from reported four-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 c.i.f.
    ... Not applicable.
