The Economy in Perspective

Whither government? ... Welfare as we know it is ending. The same can be said for agriculture, national defense, health care, and (though few public officials will openly admit it) Social Security. After many decades of vigorous expansion, big government has become politically discredited. What next?

Voters call on government to participate in economic life in various ways. Private-market transactions cannot always provide the right amount of what economists call public goods, like national defense or a space program. These goods and services benefit all, and excluding people from them is difficult. But we also ask government to provide such nonpublic goods as school lunches, grants to artists, highway and airport construction, and loans to small businesses. We use the tax system to channel benefits to particular groups without spending money directly. For example, home mortgage deductions benefit homeowners who itemize on their tax returns, but do nothing to help renters or homeowners who do not itemize.

Americans also use government to transfer resources among people through tax and spending programs. The largest component of Social Security, for instance, transfers resources from younger, working people to older, retired individuals. Insurance programs form another class of government activities. Most employers and employees are obliged to purchase workers' compensation and unemployment insurance, and most banks are forced to carry deposit insurance. The government provides insurance only when it thinks that private companies will not (or cannot) insure the risk at a reasonable price.

During the past several decades, we have increasingly asked the government to use transfer, insurance, credit, and direct-spending programs to alter private-market outcomes. Current public disaffection with government appears to stem primarily from a belief that too many goods and services are being provided, that the beneficiaries of some transfer programs are receiving more than they deserve, and that the distorting effects of these myriad government programs on the private economy have become too large. Voters now seem more willing to allow private firms to supply many of the goods and services traditionally provided by government agencies. At a minimum, this competition motivates government to operate more efficiently. At the extreme, it calls into question all government participation.

Other developments have also forced serious consideration of private-market alternatives. Many people do not recognize how changes in capital markets and risk management are extending the scope of private enterprise. The U.S. space program illustrates the confluence of these forces. In its early years, the space program was a purely governmental affair, with government committing the funds and bearing the risks—both of which were substantial. Later, after the R&D costs were paid, commercial ventures became more practical. Now that global capital and insurance markets have developed, enabling private companies to send satellites and other cargo into space and to hedge against the risk of launch and equipment failure, the government's role has diminished.

Highways provide yet another example. The traditional method of funding a new state highway requires voters to approve the sale of long-term bonds to be repaid through either general tax revenues or toll charges. But private companies are perfectly capable of raising highway construction funds in capital markets. Motorists using the highway can be billed automatically after a scanner records their presence. Furthermore, with private funding, voters need not worry about the state using tax dollars to build unnecessary roads. California and Virginia have already granted permission to private firms to build and operate segments of state highways.

These developments point to the wide range of options available to the American public as it reconsiders how government should fit into the nation's economic life. It will be interesting to see whether the public wants to circumscribe the size of government or to reduce the role that government plays. There is a big difference. The government can stop doing many things and allow private markets to become more active. But it can also instruct the private sector to do what it wants done. The government can order businesses to pay a minimum wage, tell broadcast companies to provide children's programming, or force companies to purchase insurance from private carriers. The government can—and does—influence resource allocation without spending taxpayer funds or employing people.


Chairman Greenspan reported that the economy performed well in the first half of 1996. After rising only 0.5% in 1995:IQ, real GDP increased at a 2.2% annual rate in 1996:IQ, and partial data for 1996:IIQ indicate significantly stronger growth since then. About 1.4 million workers were added to nonfarm payrolls in the first six months of 1996, and June’s unemployment rate fell to 5.3%, a six-year low.

At the same time, the core inflation rate, measured by the Consumer Price Index (CPI) less food and energy prices, increased at a 2.8% annual rate over the first half of 1996, about 0.6 percentage point lower than the same period a year earlier. The coexistence of moderate inflation and a low unemployment rate contradicts the traditional supposition that low unemployment rates and/or high capacity utilization rates necessarily lead to higher inflation.

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Looking ahead, the report finds "good reasons to believe that economic growth will moderate some, although the timing and extent of the downturn are uncertain." The projections of the Federal Reserve Governors and Reserve Bank Presidents "reflect the view that sustainable economic growth is likely in store." Their forecasts for real GDP growth center around 2.5% for 1996 and 2.0% for 1997. Unemployment rates are expected to remain around 5.50% to 5.75% through 1997.

The forecasts for inflation, measured by the four-quarter change in the CPI, are for 3% to 3.25% in 1996 and 2.75% to 3% in 1997. These forecasts are consistent with 1991–95 inflation rates.

While there is little evidence of an imminent inflation spike, the report cites "mounting pressures in the labor market" that must be closely monitored. It emphasizes that the Federal Reserve has become "especially vigilant to incipient inflationary pressures that could ultimately threaten the health of the expansion." In pursuit of low inflation, "the Federal Reserve remains committed to preventing a sustained pickup in inflation and ultimately achieving and preserving price stability."

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Monetary Policy (cont.)

The report includes the Federal Open Market Committee’s (FOMC) provisional ranges for debt and the monetary aggregates in 1997: 1% to 5% for M2 and 2% to 6% for M3, along with 3% to 7% for debt in the domestic nonfinancial sectors. The same ranges were set for 1996. In the first half of that year, M2 and M3 growth rates were at the upper end of their ranges, while the growth rate for debt was near its midpoint.

The FOMC’s forecasts of inflation and real GDP growth suggest that it would not be surprising to see M2 and M3 growth rates at the upper ends of their ranges throughout 1996 and 1997.

Chairman Greenspan once again emphasized “the critical importance to our nation’s economic welfare of continuing to reduce our federal budget deficit.” He noted that further efforts at deficit reduction will inevitably require Congress to address the increase in entitlement spending that will result from shifts in the age composition of the nation’s adult population. He stated that “lower budget deficits are the surest and most direct way to increase national saving,” which in turn will lower real interest rates, increase investment, and strengthen Americans’ ability “to compete even more effectively in world markets.”
The yield curve has flattened slightly in the past month, with short rates rising and long rates unchanged. The rate on 3-month Treasury bills moved up seven basis points to 5.3%, but 30-year bonds showed no change. The closely watched 3-year, 3-month spread stands at 114 basis points, well above the historical average of 80, and the popular 10-year, 3-month spread stands at 155, also above its mean of 120. As a rough indicator of future economic growth, the relatively steep yield curve is consistent with above-average activity over the next four quarters.

Although the yield curve has steepened since 1995, it may still look flat in relation to the extreme values reached earlier this decade, as the chart comparing 30-year Treasury yields and the federal funds rate (literally the long and the short of it) shows. It's worth noting that in contrast to much of the decade, when the federal funds rate was positively associated with the long rate, in 1996 the rates have diverged.

Tracking the yield curve is fundamentally a three-dimensional problem, because the curve both twists and shifts up and down over time. A 3-D perspective indicates that the big rise in 1994 was not a parallel shift. It also shows how the high but inverted curve of 1981 first steepened in 1982 and then dropped downward. On the other hand, it allows us to see how inversions occurred as a result of short rates rising, not long rates falling.
Inflation and Prices

**June Price Statistics**

<table>
<thead>
<tr>
<th></th>
<th>Annualized percent change, last:</th>
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<tbody>
<tr>
<td></td>
<td>1 mo.</td>
</tr>
<tr>
<td><strong>Consumer Prices</strong></td>
<td></td>
</tr>
<tr>
<td>All items</td>
<td>0.8</td>
</tr>
<tr>
<td>Less food and energy</td>
<td>2.2</td>
</tr>
<tr>
<td>Median**</td>
<td>2.1</td>
</tr>
<tr>
<td><strong>Producer Prices</strong></td>
<td></td>
</tr>
<tr>
<td>Finished goods</td>
<td>1.2</td>
</tr>
<tr>
<td>Less food and energy</td>
<td>2.9</td>
</tr>
<tr>
<td>Commodity futures prices</td>
<td>-32.2</td>
</tr>
</tbody>
</table>

Sources:
a. Calculated by the Federal Reserve Bank of Cleveland.
b. As measured by the KKR-CRB composite futures index, all commodities. Data reprinted with permission of the Commodity Research Bureau, a Knight-Ridder Business Information Service.
c. Upper and lower bounds for CPI inflation path as implied by the central tendency growth ranges issued by the FOMC and nonvoting Reserve Bank presidents.
d. Consensus forecast of the Blue Chip panel of economists.

**After increasing at a rate slightly above 4% during the first five months of 1996, the Consumer Price Index (CPI) moderated to an annualized rate of less than 1% in June. The core retail price indicators, the CPI excluding food and energy and the median CPI, were up 2.2% and 2.1%, respectively.**

Wholesale price increases, however, accelerated a bit in June. After registering essentially no change during the first five months of the year, the Producer Price Index excluding food and energy goods rose at a 2.9% clip. A similar pattern can be seen in reports from industrial purchasing managers. After posting nine consecutive monthly readings below 50 (which suggest net price declines), the purchasing managers' price index moved back up to the 50 mark. In other words, the proportion of purchasing managers who note rising prices is now about even with those who see them declining.

The stepped-up pace of consumer price increases this year prompted the Federal Open Market Committee (FOMC) to revise its 1996 CPI projections upward, from a central tendency range centered on 2.8% to one centered on 3.1%. The group sees the 1997 growth rate of the CPI slowing to between 2.3% and 3%.

The latest Blue Chip survey indicates that economists expect next year's inflation rates to be similar to this year's. As of July, more than 55% of the Blue Chip economists projected CPI increases in the 2.8% to 3.2% range. Contrary opinions appear to be few and evenly balanced. Only about 22% of the respondents (continued on next page)
Inflation and Prices (cont.)

Investment Price Changes
(Data through 1996:4Q)

<table>
<thead>
<tr>
<th>Component</th>
<th>4 qtrs</th>
<th>12 qtrs</th>
<th>40 qtrs</th>
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</thead>
<tbody>
<tr>
<td>Nonresidential investment</td>
<td>1.2</td>
<td>1.1</td>
<td>1.6</td>
</tr>
<tr>
<td>Structures</td>
<td>2.5</td>
<td>3.1</td>
<td>2.7</td>
</tr>
<tr>
<td>Producers' durable equipment</td>
<td>0.8</td>
<td>0.4</td>
<td>1.1</td>
</tr>
<tr>
<td>Information processing</td>
<td>-3.4</td>
<td>-3.1</td>
<td>-2.5</td>
</tr>
<tr>
<td>Computers</td>
<td>-12.6</td>
<td>-11.5</td>
<td>-11.0</td>
</tr>
<tr>
<td>Industrial equipment</td>
<td>2.9</td>
<td>2.6</td>
<td>3.3</td>
</tr>
<tr>
<td>Transportation equipment</td>
<td>2.3</td>
<td>1.8</td>
<td>2.7</td>
</tr>
</tbody>
</table>

Relative Weights of Major CPI and PCE Components

Durable goods prices: CPI vs. PCE

Relative weights of major CPI and PCE components.

Notes: CPI represents the all-items Consumer Price Index for all urban consumers. All other measures are chain-weighted price deflators for GDP and selected major components. PCE represents the chain-weighted price deflator for the Personal Consumption Expenditures component of GDP.


Expect inflation to top 3.2% next year, virtually identical to the proportion that expect inflation to be less than 2.8%.

With consumer price increases seemingly stuck in the neighborhood of 3%, some have wondered whether the CPI is accurately measuring the economy's underlying inflationary thrust. In his recent testimony before Congress, Federal Reserve Board Chairman Alan Greenspan noted that "increases in more comprehensive, and perhaps more representative, chain-weighted measures of consumer prices ... actually have continued to edge lower." Indeed, the average increase in the GDP chain-weighted price index has been almost 1/2 percentage point less than the CPI over the past three years. A large share of that difference stems from prices of nonresidential investment goods, which have been strongly affected by continued sharp declines in computer prices. This is not a particularly new development. In fact, according to GDP-based price data, computer prices have averaged an 11% annual rate of decline for the past decade.

Even within the consumer goods area, price increases reported by the chain-weighted index have been running below the CPI, partly because the former puts different weights on certain commodities. Among the important differences is that housing is weighted more heavily in the CPI, while medical care receives a smaller weight. Still, the impact of computer prices is clear here also. Using the chain-weighted approach, consumer durable goods prices have increased at a rate of about 1/2 to 1 percentage point less than CPI durable goods prices since 1992.
When inflation accelerates, so does the pace at which labor costs increase. The converse, however, is not true; that is, rising labor costs do not lead to inflation. Wage-push theories of inflation ignore the crucial role of money: Without excessive money growth, high wages cannot translate into a sustained, general rise in output prices.

Recent increases in labor compensation may encourage erroneous wage-based views of inflation. Average hourly earnings rose 3.4% in June from their year-ago level, and have generally outpaced gains in the Consumer Price Index (CPI) since mid-1995. Similarly, the wages and salaries component of the employment cost index increased 3.2% in 1996:1Q. These narrow labor-price measures, however, do not include benefit costs, which have moderated during the current business expansion. Combining both, the total employment cost index has matched the economy's 3% underlying inflation rate since 1993.

The most comprehensive measure of the price of labor—total compensation per hour—advanced 3.6% on a year-over-year basis in 1996:1Q, following gains of 3.8% and 3.6% in the final two quarters of 1995. However the effect of changes in total labor compensation on output also depends on changes in labor productivity. In 1996:1Q, gains in labor productivity helped hold unit labor costs to a moderate 2.5%. Increases in unit labor costs have generally lagged the underlying pace of inflation since 1991.
Economic Activity

Real GDP and Components, 1996:IIQ

(Advance estimate, s.a.a.r.)

<table>
<thead>
<tr>
<th>Component</th>
<th>Change, billions of 1992 $</th>
<th>Percent change, last quarter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real GDP</td>
<td>70.8</td>
<td>2.6</td>
</tr>
<tr>
<td>Consumer spending</td>
<td>42.9</td>
<td>3.7</td>
</tr>
<tr>
<td>Durables</td>
<td>21.1</td>
<td>7.5</td>
</tr>
<tr>
<td>Nondurables</td>
<td>8.0</td>
<td>1.6</td>
</tr>
<tr>
<td>Services</td>
<td>14.4</td>
<td>2.2</td>
</tr>
<tr>
<td>Business fixed investment</td>
<td>1.0</td>
<td>0.5</td>
</tr>
<tr>
<td>Equipment</td>
<td>4.5</td>
<td>3.3</td>
</tr>
<tr>
<td>Structures</td>
<td>−3.1</td>
<td>−6.5</td>
</tr>
<tr>
<td>Residential investment</td>
<td>8.7</td>
<td>15.1</td>
</tr>
<tr>
<td>Government spending</td>
<td>21.6</td>
<td>7.1</td>
</tr>
<tr>
<td>National defense</td>
<td>6.0</td>
<td>7.9</td>
</tr>
<tr>
<td>Net exports</td>
<td>−17.7</td>
<td>—</td>
</tr>
<tr>
<td>Exports</td>
<td>10.3</td>
<td>5.2</td>
</tr>
<tr>
<td>Imports</td>
<td>28.0</td>
<td>12.9</td>
</tr>
<tr>
<td>Change in business inventory</td>
<td>13.3</td>
<td>—</td>
</tr>
</tbody>
</table>

The advance estimate for second-quarter GDP growth is a strong 4.2%, up more than 2 percentage points from the first quarter and almost twice the growth rate anticipated by most analysts when the quarter began. Virtually every major sector of the economy posted a healthy increase last quarter, a sign that the prolonged business expansion remains vigorous. The largest increase was in residential construction, which grew 15.1%. Business activity in this sector appears to have spilled into the current quarter: Housing starts have been fluctuating near the relatively high level of 1.5 million units since early spring.

Other areas of spending strength last quarter included consumer durables, business equipment, and the government sector. Of the domestic spending categories, only commercial construction showed a decline from the first quarter.

When the second quarter began, economists expected a first-half growth rate of slightly less than 2%.

Then, following the strong monthly data that came out between April and June, they revised their first-half growth projections upward by more than one-third (to 3%). From mid-year, however, the prevailing view among analysts has the economy’s growth rate moderating back to about average—or perhaps slightly below—by early 1997. Economic growth in the second half of 1996 is expected to be slightly under 2 1/4%, falling to just below 2% in 1997.

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Perhaps the biggest change in economic growth during the past six months has been a sharp revival in industrial activity. After showing only a small net increase in 1995 (about 1%), industrial output expanded an annualized 5% during the first half of 1996. Reports from industrial purchasing managers suggest that manufacturing strength is likely to continue over the near term. While 55% of purchasing managers (up from only 45% in January) reported output rising in June, more than 60% indicated higher orders. This is the largest proportion noting orders growth in almost two years.

In the capital goods area, where business activity in the past several years has been phenomenal, growth indicators have shown some recent signs of leveling off. Nondefense capital goods orders have been fluctuating around $45 billion per month for about eight months now, and the backlog of capital goods has been slowing its rate of increase since January. Still, the plateau in business investment is occurring at a historically high level, perhaps a sign that these industries have finally neared their capacity.

The outlook for the industrial sector is reasonably bright. Nearly 70% of economists surveyed in July anticipate growth in 1996 industrial output to be in the 2% to 3% range, while about 25% expect 3% to 4% growth. For 1997, about 45% of those surveyed foresee industrial growth in the 2% to 3% range, versus around 40% who expect 3% to 4%.
The U.S. is experiencing a capital spending boom, led by investment in information processing equipment, primarily computers. Business fixed investment has risen from 9% of GDP in 1991 to 11% thus far this year. The expansion is particularly welcome after the torpid pace of capital accumulation in the 1980s.

Although vital to a sustained economic expansion, investment in capital is not its sole contributor. Economists often identify three broad sources of economic growth: expansion of the capital stock (investment), increases in the available workforce (labor hours), and improvements in total factor productivity. Changes in this last component capture the effects on economic growth of such intangibles as advances in education and technology, which enhance the ability of capital and labor to produce goods and services.

Between 1951 and 1993, the U.S. economy grew at a 3% average annual rate, and each of these three factors contributed equally to the advance. The overall pace of U.S. economic growth, however, has decelerated because of the slower rate of capital accumulation and more hesitant advances in total factor productivity. A flattening of the capital-to-labor ratio is also evident after 1970. Overall growth in labor hours has held fairly steady, despite the erratic behavior of many of its underlying components.
Labor markets continued to grow at a good pace in July, as nonfarm payroll employment increased by 193,000. This latest figure brings jobs growth for 1996 to an average of 230,000 per month, which is much higher than the 1995 rate.

Employment growth within the goods-producing sector was virtually flat in July. Construction firms added 25,000 workers, but manufacturing trimmed payrolls for the second month in a row (–20,000). Unusually small job additions in health and business services, as well as net declines in several other component industries, led to a particularly weak posting for the narrow services category last month (28,000). Even so, this industry, which includes establishments like hotels, hospitals, and engineering firms, has accounted for nearly half of all new jobs created so far this year.

Retail trade employment continued to expand strongly in July, rising by 89,000. Meanwhile, government payrolls posted an above-average rise because of education-related hiring for the new school year.

The civilian unemployment rate edged up to 5.4% in July after falling to a six-year low in June. The proportion of newly unemployed workers has remained unchanged since the beginning of the year, while long-term joblessness (the share of persons unemployed for 27 weeks or longer) has risen noticeably. Indeed, half of all jobless workers now face an unemployment spell of 8.6 weeks or more, which is somewhat high by historical standards.

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Labor Markets (cont.)

What types of new jobs are emerging in the dynamic U.S. economy? In the lively debate on this question, some cite evidence that the openings are mostly in lower-paying industries. In their view, the country is losing higher-paying jobs in durable manufacturing and gaining low-wage service sector jobs.

A less dismal picture is painted when employment is considered by occupation. Recently, higher-paying occupations have generally been associated with the greatest employment growth. This is because the two fastest-growing occupations of the last seven years are professional specialists and managers, both of which have above-average weekly earnings. These data indicate that the American job-creating machine may not need a tune-up as badly as many claim.

Further investigation tells a richer story. When occupations within a single industry are ordered by weekly earnings in 1993 and classified into three roughly equal groups, then most of the jobs growth over the 1989–95 period occurred in the highest-earning and the lowest-earning groups. The middle group actually lost employees on net. This is consistent with the idea that changes in the occupation and industry mix contributed to the increased inequality of weekly earnings experienced during this time. However, the trend for 1994 and 1995 was different: Most of the jobs growth was in the highest-earning occupations within an industry.
Regional Conditions

In nonrecessionary times, nearly a tenth of all initial unemployment insurance claims result from mass layoffs. A mass layoff, in which a single plant lays off at least 50 workers for more than 30 days, puts considerable pressure on a community’s social services. Because the last quarter of 1995 was characterized by an expanding economy throughout most of the country, it offers an opportunity to study the features of mass layoffs during a nonrecessionary period.

States bordering the Great Lakes have relatively high rates of mass layoffs, perhaps reflecting the greater prevalence of these events in the transportation equipment and durable goods manufacturing sectors, both heavily represented in this region. On average, transportation equipment plants are three times the size of all manufacturing plants, and manufacturing plants average three times the size of nonmanufacturing establishments.

A mass layoff is not necessarily a surprise. Indeed, in 1995:IVQ nearly half of all job losses resulted primarily from the seasonal nature of the work. This factor is clearly shown in the pattern of initial unemployment compensation claims. However, it may be even more important than these data suggest, since mass layoffs may be more seasonal than other separations, or some of the seasonality of individual layoffs may be cancelled out when many layoffs are aggregated.

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The 1990 recession has been described as "white collar" because of the number of managers and professionals who were laid off. A look at how this recession hit different regions points up just how the white-collar occupations were affected.

Nationwide, managers and professionals had a lower unemployment rate than any other major occupational group during the entire period, including the worst of the recession. (Historically, operators often experience jobless rates that are quadruple those of managers and professionals.) However, starting in 1990, the jobless rate of managers and professionals increased relative to total U.S. unemployment. One possible reason is the regional mix of the recession. In recent years, the unemployment rates in New York and California have included more managers and professionals than did the rates for the industrial Midwest. The 1990 recession affected New York (which had an unemployment rate of 6.6% in 1991) and California (6.7%) more than it did Ohio (5.8%), giving the coastal states greater weight among the regional components of unemployment. Indeed, in Ohio the ratio of unemployed managers to all jobless workers fell during the recession.

However, the industrial Midwest still shows some of the nation's occupational trend toward more managers and professionals. This may well be reflected in future recessions, when managers and engineers make up more of the region's unemployed.
The consolidation of the banking industry that began in the mid-1980s has been driven primarily by changes in the regulations on banks' geographic expansion.

At the beginning of the century, most states required banks to be unit banks, that is, to have only one office. In time, states began to allow interstate branching, but continued to prohibit interstate branching and the acquisition of local banks by out-of-state banks. In the 1950s, banks attempted to avoid this prohibition by developing bank holding companies (BHCs) with banks located in various states. However, in 1956 the Douglas Amendment to the Bank Holding Company Act stopped this initiative. It prohibited a BHC from acquiring a bank outside the company's home state without authorization from the target bank's state.

Restrictions on banks' geographic expansion had pushed their number to a post-Depression high of about 14,500 in 1984, when regulatory barriers on interstate banking began to fall. States started to allow out-of-state BHCs to acquire home-state banks, but maintained the ban on interstate branching; that is, they did not allow the acquired banks to be converted into branches of the out-of-state banks. In parallel with these regulatory changes, the number of banks steadily dropped, mainly because of increased merger activity.

One implication of banking consolidation, particularly in the 1990s, is the greater importance of the largest institutions. Their number has increased significantly, as has

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Banking consolidation has affected the industry's performance because banks of different sizes have different ways of doing business. For instance, larger banks tend to have higher operating costs. They make more loans that turn out to be uncollectible, have higher funding costs, and incur greater non-interest expenses. However, their non-interest income is sufficiently high to overcome these costs. In addition, their easier access to capital markets allows them to operate with lower capital/asset ratios. This explains why they do better in terms of return on equity but not (in the case of the very largest banks) in terms of return on assets. These results seem to accord with recent research that fails to find economies of scale for the very largest banks.

As expected, the 1994 enactment of the Interstate Banking and Branching Efficiency Act began a new wave of bank mergers. However, the effects of this consolidation will differ from those driven by the regulatory changes of the 1980s. The 1994 act's most important change is that it permits BHCs to convert their banks, even if they are located in several states, into a single network of branches. This will most likely have a greater impact on larger banking organizations by giving them an opportunity to reduce their non-interest expenses, an area in which smaller banks have traditionally had more success.
Nominal exchange rates fluctuate substantially and often seem unrelated to short-run movements in such fundamentals as income or trade balances. Nonetheless, certain long-run relationships involving exchange rates may be reliable. In particular, many economists view exchange rates as responding to differences in price levels. However, exchange rates may take more time to respond fully to price-level differences than once was thought. Since 1971, U.S. inflation rates have usually been higher than Germany's or Japan's, and the dollar has weakened against both the mark and the yen.

Calculations of purchasing power parity indicate that relative inflation rates and exchange-rate movements have a combined effect on the U.S. competitive position relative to Germany and Japan. Both strength in the dollar and higher U.S. inflation rates weaken the U.S. position. The German mark has held its ground against the dollar since 1992, despite higher inflation rates in unified Germany. Over the same period, the yen has generally gained against the dollar, with lower Japanese inflation rates. Thus, U.S. parity against Germany has improved relative to our position against Japan.

Since 1995, both the mark and the yen have weakened against the dollar. Although U.S. inflation rates have been higher, the relative strength of the American economy makes the dollar an attractive investment.

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Long- and short-run movements in exchange rates, interest rates, and inflation rates may be connected through the mechanism of monetary policy. Higher rates of money growth tend to produce higher inflation, and the expectation of greater inflation increases long-term interest rates as lenders demand compensation for lost purchasing power. News that a central bank may tighten tends to boost the value of a nation’s currency as people anticipate higher short-term interest rates.

Since unification, Germany has had higher rates of money growth than both Japan and the U.S., yet by 1994 German economic growth had recovered to near the U.S. rate. And while Japanese money growth has been only slightly below that of the U.S., Japan’s long-term interest rates have been much lower. These patterns may be related to unanticipated developments in output. German GDP dropped sharply after unification, but then rebounded. Japanese economic growth finally began to recover in late 1995 from problems caused by bad assets at many of the country’s financial institutions.

Speculation that the Bank of Japan may tighten in response to strong first-quarter growth has supported the yen, while Germany’s ongoing sluggishness has led to talk of loosening and has weakened the mark. Efforts by central banks to stimulate growth by manipulating short-term interest rates are quickly reflected in lower currency values if they are perceived as an acceptance of higher inflation. According to this view, the lower interest rates in Japan might be due to that nation’s willingness to hold the line against inflation despite a few years of less-than-stellar economic growth.