The Economy in Perspective

Behind the curve...Those who put their money where their mouths are speculate that next April, the federal funds rate will be nearly 50 basis points lower than today's 6.5% rate. Moreover, with one-year Treasury bills trading at 5.75% and 10-year Treasury bonds at 5.35%, investors clearly are expecting short-term interest rates to continue declining and to stay in a lower range for much of 2001.

Before last May, financial market participants expected the federal funds rate to increase beyond 6.5%; they have been lowering their estimates steadily since then. Between May and September, rates seesawed in response to mixed economic news. Since September, however, analysts have interpreted incoming information as pointing in only one direction, that is, toward a slower-paced economy in 2001 than in the prior two years.

At its November 15 meeting, the Federal Open Market Committee elected not to alter either its target federal funds rate or its statement that the balance of risks was weighted toward "conditions that may generate heightened inflation pressures for the foreseeable future." Hearing this news, some observers might have thought that the Fed was in danger of falling behind the curve, if it had not already done so. And if this was their opinion then, it must have intensified in the past weeks as government statistical agencies reported October's sharp decline in durable goods, revised the third-quarter real GDP rate downward, and corroborated a slowdown in the rate of new hires in 2000 compared with the last several years of this long economic expansion.

Not surprisingly, then, many financial market participants consider the outcome of the FOMC's December 19 meeting a foregone conclusion: In their view, the balance-of-risks statement will surely give equal weight to heightened inflation pressures and waning economic growth. To them, an outright reduction in the federal funds rate target would be a welcome and not entirely unexpected bonus. What could be more obvious, they would say, than the need for all interest rates to decline markedly in the presence of evidence that economic growth is weakening and inflation poses no threat? Taken at face value, this is a reasonable question that can be answered simply. If inflationary pressures indeed are not threatening to escalate, and economic activity is slowing down, then the entire structure of market-driven interest rates should be falling of its own accord. If the central bank pegs its funds rates higher than what would be consistent with money demand under these conditions, monetary policy will be geared toward reducing the trend rate of inflation; and in the short run, this policy might temporarily amplify forces already slowing the economy's growth. Setting the funds rate somewhat lower would remove these forces, at the expense of a further trend reduction in inflation.

Now let's explore this question at a deeper level, examining the premise. Suppose that prior monetary policy had been permitting an upward drift in the inflation trend. For example, M2 growth accelerated from the 1%–2% range in 1993–95 into the 7%–8% range in 1998–99. Moreover, most inflation measures indicate acceleration since mid-1999. Indeed, the rebound of the Federal Reserve Bank of Cleveland's median CPI since then has been strong enough to eliminate what progress had been made toward price stability since 1992. It is no secret that the FOMC's decision to raise the funds rate from 4.75% to 6.5% in a series of steps between June 1999 and May 2000 was prompted by concerns about accumulating inflationary pressures.

It is also well known that real GDP growth fluctuates greatly from quarter to quarter and even year to year. During the present expansion, for example, real growth has averaged about 4%, but the quarterly standard deviation has been two percentage points. Moreover, forecasters incorrectly have been calling for a downshift in economic growth for the last four years. Policymakers have learned not to underestimate the economy's ability to shake off a few slow quarters and continue to follow a pattern of strong growth.

The FOMC increased the federal funds rate 300 basis points in 1994 to head off an inflation upsurge, and economic growth slowed in 1995. That slowdown proved to be temporary, of course, as did the full amount of the funds rate hike. Whatever action, if any, the FOMC takes at its December meeting will incorporate a full appreciation of the leads and lags associated with the processes determining economic growth and inflation. Those who might appear to be behind the curve may actually be ahead of the game.



Constant maturity.
SOURCES: Board of Governors of the Federal Reserve System; and Chicago Board of Trade.

The Federal Open Market Committee (FOMC) left the intended federal funds rate at 6.5% on November 15, the fourth consecutive meeting that has resulted in no change. Most market participants had expected this decision; they focused instead on the portion of the press release in which the FOMC noted that despite a recent slowdown in some economic indicators, the balance of risks had not changed, that is, they were weighted toward "conditions that may generate heightened inflation pressure for the foreseeable future."

Subsequent data releases and revisions (most notably durable goods and GDP on November 28 and 29) have led participants in the federal funds futures market to increase substantially the probability they assign to future interest rate cuts. The implied yield curve for fed funds futures, often used to gauge policy's expected path, has been sloping downward for some months. The curve has steepened noticeably of late, shifting down abruptly the day after the GDP release. As of November 30, the April contract was trading 33 bp below the current intended fed funds rate.

The continued inversion of shortterm interest rates corroborates that the market expects interest rates to fall in the coming months. As of November 24, the 6.36% yield on 3-month T-bills was 27 bp above the yield on 1-year T-bills. To the extent



a. Growth rates are percentage rates calculated on a fourth-quarter over fourth-quarter basis. The 2000 growth rates for M2, M3, currency, and the monetary base are calculated on an estimated November over 1999:IVQ basis. The 2000 growth rate for the sweep-adjusted base is calculated on a September over 1999:IVQ basis.

b. The sweep-adjusted base contains an estimate of required reserves saved when balances are shifted from reservable to nonreservable accounts. NOTE: Data are seasonally adjusted. Last plots for M2, M3, currency, and the monetary base are estimated for November 2000. Last plot for the sweepadjusted base is September 2000. Dotted lines for M2 and M3 are FOMC-determined provisional ranges. All other dotted lines represent growth rates and are for reference only. SOURCE: Board of Governors of the Federal Reserve System.

that shorter-term interest rates reflect current conditions, while longerterm interest rates mirror expected future conditions, this measure also points to an anticipated rate decline.

Long-term interest rates on the whole have dropped back from highs experienced early in the year and are currently at levels comparable to those prevailing just before the Russian default in 1998. As of November 24, the 10-year Treasury rate was 5.56% and the 30-year rate was 5.71%.

Growth in the narrow monetary aggregates was extremely rapid in 1999 in response to Y2K-related liquidity concerns. Currency and the monetary base retraced most of those gains early this year. These series have been sluggish ever since. Estimated year-to-date currency growth for November is 3.9%. Year-to-date sweep-adjusted base growth of 2.0% for September (the most recent sweeps data available) is also depressed.

M2 growth showed signs of slowing during October and November. Estimated year-to-date M2 growth for November was 5.7%, down 0.3 percentage point from one month earlier. Similarly, November M3 growth was slower than the previous month (8.7% versus. 9.1%).



NOTE: A vintage comprises the data available as of the fifteenth day of the second month of a given quarter. SOURCE: Federal Reserve Bank of Philadelphia, *Real-Time Data Set for Macroeconomists*.

Data are revised for a variety of reasons. Perhaps the most familiar sources of revisions are the three releases of the National Income and Product Accounts each quarter. Refinements to seasonal adjustment factors and implicit price deflators are other sources of data revisions. Recently, the Federal Reserve Bank of Philadelphia constructed a realtime data set that gives the data as they were reported at the time, for each quarter since 1967. For instance, there are around 120 vintages of data for the year 1970— one for each quarter since then.

Revisions to the data can color our perceptions of historical episodes. To give an example, from the vantage point of November 1976, the 1974–75 recession seemed quite severe. At its depth (1975:IQ), the growth rate of real output was around –5.6%. By 1980, this growth rate had been revised upward more than 0.8 percentage point, and by 1990 there was a further upward revision of 1.0 percentage point. More recent revisions left the growth rate at -2.4%. So, all told, the growth rate for 1975:IQ has been revised upward 3.2 percentage points.

Of course, this analysis tells us about only one quarter. To get an overall sense of the magnitude of data revisions, compute the maximum difference in growth rates across all vintages for each date. In other words, subtract the minimum



NOTE: A vintage comprises the data available as of the fifteenth day of the second month of a given quarter. SOURCE: Federal Reserve Bank of Philadelphia, *Real-Time Data Set for Macroeconomists*.

growth rate across all vintages from the maximum growth rate. By this measure, data revisions have been substantial, with maximum differences commonly exceeding 2.0 percentage points. We cannot take much comfort in this measure's recent fall either, since it covers relatively few vintages with little opportunity for data revisions.

Although revisions to consumption growth have been smaller than revisions to output, they have still been substantial. On several occasions, the maximum difference in growth rates across vintages has exceeded 2.0 percentage points.

Through the 1970s, real export growth varied considerably. More recent vintages suggest volatility in export growth that is greater than that implied by more contemporary data. Revisions were much larger for growth rates of exports than for either consumption or output.

One would think that measures of money would not be subject to very large revisions. Given the definition of, say, M2, we need only add up the relevant quantities—deposits, currency, and so on. So it is not surprising that the bulk of the data revisions related to M2 are in the very definition of this monetary aggregate (made in 1980). For the 1974–75 recession, the revised data indicate more contractionary M2 growth than was apparent when contemporary data were used. At other points in the 1970s, the "new" data show that M2 growth was generally more expansionary.



a. Foreign GDP growth is the trade-weighted average growth rate for the top 15 U.S. trading partners in 1992–97: Canada, Japan, Mexico, Germany, U.K., China, Taiwan, Korea, France, Singapore, Italy, Hong Kong, Malaysia, the Netherlands, and Brazil. Forecasts and estimates are calculated using data from *Blue Chip Economic Indicators*, November 10, 2000; and *The Economist*, November 4–10, 2000.

SOURCES: U.S. Department of Commerce, Bureau of the Census and Bureau of Economic Analysis; Board of Governors of the Federal Reserve System; Organisation for Economic Co-operation and Development, *Economic Outlook*; International Monetary Fund, *International Financial Statistics*; DRI/McGraw-Hill; *Blue Chip Economic Indicators*; and *The Economist*.

In September, the U.S. trade balance on goods and services deteriorated \$4.5 billion to a deficit of \$34.3 billion, reflecting a \$3.8 billion increase in imports and a \$0.6 billion decrease in exports. Most of the change may be attributed to a \$3.5 billion deterioration in the goods balance. Imports of goods increased \$2.9 billion to \$107.5 billion, while exports decreased \$0.7 billion to \$67.3 billion. In September, the negative goods balance was most significant with Mexico (\$0.7 billion), Canada (\$0.4 billion), and China (\$0.1 billion). Service exports were virtually unchanged from August, while

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service imports increased \$1.0 billion because broadcast rights payments for the Summer Olympics boosted royalty and license-fee payments to foreigners \$0.7 billion. Transportation, travel, and other private service payments increased about \$0.1 billion each.

Although the U.S. trade deficit is likely to increase further this year, it is expected to narrow in 2001. Since 1997, it has largely reflected a divergence of U.S. and foreign economic growth. Forecasters expect foreign growth to exceed U.S. growth next year, closing the GDP growth gap of the past four years.

The dollar's exchange value and volatility also influence international trade: The exchange rate affects the price competitiveness of goods and services in global markets, while volatility increases the risks associated with international trade and investment. Although the dollar has appreciated 7% on a real basis since January, its volatility has abated recently; if this continues, there will be more stability and fewer uncertainties associated with international commerce. However, if the dollar should continue to appreciate and U.S. growth were to accelerate in relation to our trading partners, the U.S. trade deficit might continue to rise.





a. All yields are from constant-maturity series.

b. Average for the week ending on this date.c. Quote for semiannually fixed rate versus the U.S. dollar's 3-month London interbank offered rate (LIBOR).

SOURCES: Board of Governors of the Federal Reserve System, "Selected Interest Rates," Federal Reserve Statistical Releases, H.15; and Bloomberg Financial Information Services.

The yield curve remains inverted, having shifted down over the past month. The 3-year, 3-month spread has widened from -52 to -65 basis points (bp), and the 10-year, 3-month from -62 to -70 bp. During this inversion episode, long rates have fallen and short rates have risen. This behavior is more typical than the flattening seen in 1997–98, which was driven primarily by long-rate decreases that reflected an international flight to quality and dollars. Consequently, the current inversion may be more

reliable than the previous one as an indicator of an economic downturn.

One possible problem with this story is that longer-term Treasury yields are falling because of supply concerns related to the U.S. budget surplus. Other long-term rates have also decreased but not as much as Treasuries. Ten-year Treasuries dropped a full 121 bp from January to now; the conventional mortgage rate fell only 61 bp. This suggests that at least part of the fall in long-dated Treasuries can be explained by supply concerns. Of course, the risk of a slowdown would also be expected to increase the spread between mortgages and Treasury yields, since there is often a flight to quality that drives down the riskless Treasury yields.

The wider spread between interestrate swaps and 10-year Treasuries is particularly apparent this year. Looking at the shorter end of the yield curve, however, spreads between risky and riskless securities do not seem to have increased noticeably. In fact, since midyear, the spread between 3-month

Interest Rates (cont.)

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-2 <u>I I I I I I I</u> 1988 1990 1992 1994 1996 1998 2000

a. The estimated expected inflation rate and the estimated real rate are calculated using the Pennacchi model of inflation estimation and the median forecast for the GDP implicit price deflator from the Survey of Professional Forecasters. Monthly data.

SOURCES: Board of Governors of the Federal Reserve System, "Selected Interest Rates," *Federal Reserve Statistical Releases*, H.15; Federal Reserve Bank of Philadelphia, *Survey of Professional Forecasters*; and Bloomberg Financial Information Services.

commercial paper and 3-month T-bills has dropped 59 bp, from 84 to 25. As usual, then, the long-bond market presents ambiguous evidence of a possible slowdown.

The yield curve can also be used to predict future inflation because higher prices eat away the real value of the bond and investors consequently demand a higher interest rate as compensation. One measure of inflationary expectations, the spread between nominal 10-year Treasury bonds and inflation-indexed bonds (TIIS), shows a gradual decrease of nearly 0.5 percentage point since the beginning of the year. (Low spreads in late 1998 probably reflect the flight to liquidity associated with the Long Term Capital Management debacle rather than low inflation.) Because of differences in tax status and liquidity, this number should, as always, be treated with caution.

A shorter-term measure of expected inflation can be derived by constructing a statistical relation between surveys of inflation and market interest rates. In contrast to evidence from the long-term bond market, this measure has increased in 2000. Of course, the increase may

be consistent with longer-term expectations (aside from the usual problems of measurement error and the like), if people believe that in the longer run the Federal Reserve will move to rein in rising inflation.

On the flip side of inflation expectations are estimates of real interest rates. These appear to have fallen since spring, whether measured directly by Treasury inflationindexed securities or estimated from the statistical model.

Inflation and Prices

October Price Statistics							
	Per	1999					
	1 mo. ^a	3 mo. ^a	12 mo.	5 yr. ^a	avg.		
Consumer prices							
All items	2.1	2.6	3.5	2.5	2.7		
Less food							
and energy	2.0	2.4	2.5	2.3	1.9		
Median ^b	3.7	3.2	3.1	2.8	2.3		
Producer prices							
Finished goods	4.4	4.1	3.6	1.7	2.9		
Less food and energy	-0.8	1.4	1.0	1.0	0.8		



12-month percent change





a. Annualized.

b. Calculated by the Federal Reserve Bank of Cleveland.

c. Upper and lower bounds for inflation path as implied by the central tendency growth ranges issued by the FOMC and nonvoting Reserve Bank presidents. d. Mean expected change in consumer prices as measured by the University of Michigan's *Survey of Consumers*.

SOURCES: U.S. Department of Labor, Bureau of Labor Statistics; Federal Reserve Bank of Cleveland; and University of Michigan.

After rising sharply in September (at a 6.4% annual rate), the Consumer Price Index (CPI) rose much more moderately in October (at an annual rate of 2.1%). Much of this deceleration can be attributed to a smaller energy price increase—only 0.2% in October, after an increase of 3.8% the previous month. Nevertheless, the 12-month percent change of 3.5% in the CPI as of October 2000 is still almost 1 percentage point higher than it was at the same time last year. This price acceleration is apparent in the core indexes—the median CPI and the CPI excluding food and energy—as well, suggesting that price increases in 2000 have not been confined to energy items.

Inflation expectations have remained relatively firm throughout 2000. For most of the past five years, the gap between expectations and the 12-month percent change in the CPI has been about 1 percentage point, but as the CPI has risen in 2000, the gap narrowed considerably, almost disappearing in some months. This may reflect households' optimistic view that recent increases in the CPI are likely to be transitory and so need not affect their inflation projections into next year.

Indeed, the U.S. Energy Department's *Short-Term Energy Outlook* for November seems to support this sentiment: "Sooner or later (probably before the end of the winter) we expect crude oil prices to fall (perhaps by \$4 to \$5 per barrel from current levels) under the weight of excess supply."

The Consumer Price Index (CPI) is composed of more than 200 items, reflecting the array of goods and services in an "average" consumer's 10

Change in Selected CPI Components					
Components	Annualized 36-month percent change				
Tobacco and smoking products	16.6				
Medical care	3.8				
Personal care	2.9				
Housing	2.9				
CPI, all items	2.5				
Food and beverages	2.2				
Transportation	2.2				
Education and communication	1.2				
Recreation	1.2				
Apparel	-0.7				







market basket. Of course, no one is likely to buy products in exactly the proportions favored by that model consumer. So individuals, and by extension groups, will experience cost-of-living increases that differ from the published averages.

The top two panels on this page show, for several broad categories of the CPI, price changes over the past 36 months as well as the weight of each category in the CPI. Clearly, anyone who has committed a larger proportion of his income to tobacco and smoking products over the past several years than the "representative" consumer has spent will have felt the rise in retail prices more keenly than the CPI over the same period would indicate.

These market-basket differences are important in constructing price indexes that reflect the experience of a particular group accurately. For instance, data from the most recent *Consumer Expenditure Survey* (1998) show that people in the lowestincome quintile spend a bigger share of their income on tobacco items (1.3%) and medical care (7.3%) than those in the highest-income quintile (0.4% and 4.0%, respectively). And older Americans, not surprisingly, spend more on medical care (11.9%) than their middle-aged counterparts (4.0%). In some periods, such differences don't seem to have caused much divergence between different groups' cost-of-living changes. Over the last three years, however, both older and lower-income Americans have spent proportionately more on items with above-average price increases and less on items with below-average price increases, so their cost of living has risen faster than that of the average consumer. 11



a. Chain-weighted data in billions of 1996 dollars.

b. Components of real GDP need not add to totals because current dollar values are deflated at the most detailed level for which all required data are available. c. Retail sales in chain-weighted 1996 dollars.

NOTE: All data are seasonally adjusted and annualized.

SOURCES: U.S. Department of Commerce, Bureau of Economic Analysis and Bureau of the Census; and Blue Chip Economic Indicators, November 10, 2000.

Gross domestic product (GDP) grew at a 2.4% annual rate in 2000:IIIQ. This preliminary estimate, released late in November, is 0.3 percentage point below the advance estimate of a month earlier. Much stronger import growth and slower investment spending estimates contributed to the downward revision. A sharp upward revision to construction spending offset some of these declines, while consumer spending growth was unchanged. Overall, GDP growth posted its lowest rate since 1996:IIIQ. Blue Chip forecasters expect it to rebound slightly to a rate approximately equal to the 30-year average.

Retail sales of computers and automobiles clearly are part of the slowing economy. Despite very strong GDP growth in late 1999 and early 2000, retail computer and software sales growth has been decelerating since 1999:IIQ. After adjusting for price changes, the most recent quarter's 19.6% growth rate is the lowest reported since 1993, when computer and software sales were first tracked. Much of this

growth may be explained by quality adjustments rather than increased unit sales. Growth in motor vehicle sales also has decreased dramatically over the last year. Both computer and automotive manufacturers' inventories seem to have risen as sales slowed, although detailed inventory numbers are only available in current dollars. Thus, much of the steady decline in computer and software inventories after 1995 may reflect steadily declining prices rather than fewer units on the shelf. However, it is unlikely that (continued on next page)



a. Chain-weighted data in billions of 1996 dollars.

b. Non-seasonally-adjusted current dollars.

SOURCES: U.S. Department of Commerce, Bureau of Economic Analysis and Bureau of the Census.

this year's rise in inventories resulted from sudden increases in computer and motor vehicle prices.

More than just retail sales have been involved in the slowing economy. Corporate profits grew much more slowly in the third quarter than earlier in the year. Because companies continue to raise dividends at a steady rate, undistributed corporate profits bore the brunt of slower profit growth.

The winter holidays emphasize the seasonal nature of the U.S. economy. Certain products and industries depend on this time of year for a significant portion of annual sales. For example, in the month of December, the candy and nut, toy, and jewelry industries do more than 20% of their year's business, with liquor stores not far behind.

The trend in holiday shopping depends on the industry. During the latest expansion, as Americans have grown wealthier, the holidays have become less a time for giving essentials than a season for luxury purchases. December's share of clothing sales has shrunk because people tend to purchase such necessities when they need them instead of waiting for a special occasion. December sales of jewelry, on the other hand, have increased dramatically over the last eight years. Despite the growth of luxuries in holiday shopping, the aggregate importance of the holidays and the last quarter of the year clearly had been trending down over the last 20 years until 1999. It remains to be seen whether that year's phenomenal fourth quarter was an anomaly or the beginning of a change in trend. Labor Markets Change, thousands of workers 350 AVERAGE MONTHLY NONFARM EMPLOYMENT GROWTH



Labor Market Conditions							
	Average monthly change (thousands of employees)						
	1997	1998	1999	YTD ^a	Nov. 2000		
Payroll employment	280	251	229	169	94		
Goods-producing	48	22	4	9	-4		
Mining	1	-3	-3	1	1		
Construction	21	37	25	17	-6		
Manufacturing	25	-12	-18	-9	1		
Durable goods	27	-2	-6	-2	15		
Nondurable goods	-2	-11	-12	-7	-14		
Service-producing	232	229	225	160	98		
TPU ^b	16	20	16	14	16		
Retail trade	24	30	36	27	46		
FIRE ^c	21	22	10	3	11		
Services	141	120	124	95	65		
Government	17	28	28	12	-54		
Average for period (percent)							
Civilian unemployment	4.9	4.5	4.2	4.0	4.0		



b. Transportation and public utilities.

c. Finance, insurance, and real estate.

d. Vertical line indicates break in data series due to survey redesign.

NOTE: All data are seasonally adjusted. SOURCE: U.S. Department of Labor, Bureau of Labor Statistics.

Weak hiring in the government sector constrained growth in total nonfarm employment to only 94,000 last month. Private nonfarm employment, however, showed an increase of 148,000 jobs in November compared to an average increase of 92,000 workers over the previous six months. Other measures showed a slight weakening in the labor market: The unemployment rate rose 0.1% (to 4.0%) while the employment-topopulation ratio fell 0.1% (to 64.3%). On the other hand, average hourly earnings posted a strong increase of

6 cents last month, almost 4% higher than this time last year.

When we break down employment growth by industrial sector, we find that gains were concentrated primarily in durable-goods manufacturing and a few service-producing industries. Following two months of employment losses totaling 110,000 workers, durable goods employers made a net addition of 16,000 jobs to their payrolls over the last two months. This small rebound, however, is expected to be temporary because a few notable plant closures, especially

in auto manufacturing, occurred soon after the November survey period.

In the service-producing sector, moderate employment gains occurred in finance, insurance, and real estate, retail trade, and a few services industries, such as health services. Weakness in the government sector, which showed a net loss of 54,000 workers last month, resulted from falling employment in education and lower-than-usual seasonal hiring of postal workers. The latter may reflect the difficulty of finding temporary help in a tight labor market rather than lower demand.

(continued on next page)



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

Much has been made of the current U.S. economic expansion and its propitious mixture of steadily falling unemployment and accelerating productivity growth. How does the recent productivity and employment performance in America compare to that of other large developed nations?

The U.S. Bureau of Labor Statistics provides harmonized measures of productivity in the manufacturing sector and of unemployment rates for the entire labor force that make international comparisons possible. It does so by applying a consistent, or harmonized, methodology to each country's aggregate data.

Using this approach, it appears that recent manufacturing productivity growth has been stronger in the U.S., but other countries, such as Germany, France, and Japan, have experienced robust growth as well. However, unlike the U.S., Germany and France have only recently enjoyed falling unemployment, while Japan's jobless rate has been rising steadily. Canada and the U.K., on the other hand, have lagged the recent productivity growth rates of these other large nations but have experienced a steadily declining unemployment rate. One explanation is that the U.S., Canada, and the U.K.

have relatively fewer labor market impediments—such as generous unemployment benefits, which deter employers from hiring and the unemployed from taking lower-paying jobs—than do Germany and France. Freer labor markets may also encourage companies to hire workers who may initially have relatively lower productivity; however, with more job experience these workers may become more productive, in time raising the nation's overall productivity growth rate.



Columbus 60 1980 1983 1986 1989 1992 1995 1998 1980 1983 1986 1989 1992 1995 1998 a. 1998 is the most recent year for which national data are available for industry employment and earnings.

b. The Cincinnati, Ohio, primary metropolitan statistical area (PMSA) comprises Brown, Clermont, Hamilton, and Warren counties in Ohio; Dearborn and Ohio counties in Indiana; and Boone, Campbell, Gallatin, Grant, Kenton, and Pendleton counties in Kentucky.

c. The Cleveland–Lorain–Elyria, Ohio, PMSA comprises Ashtabula, Cuyahoga, Geauga, Lake, Lorain, and Medina counties.

d. The Columbus, Ohio, metropolitan statistical area (MSA) comprises Delaware, Fairfield, Franklin, Licking, Madison, and Pickaway counties.

e. The Dayton–Springfield, Ohio, MSA comprises Clark, Greene, Miami, and Montgomery counties.

NOTE: Total employment and earnings are nonfarm figures.

SOURCES: U.S. Department of Commerce, Bureau of Economic Analysis; and Ohio Department of Job and Family Services, Labor Market Information Division, Labor Market Review.

The concentration of U.S. employment has been shifting from the goods-producing sector to the service sector (see *Economic Trends*, September 2000). How is this shift reflected in the Fourth District's labor market, especially in Ohio? Fourth District states, with the exception of West Virginia, are more reliant on manufacturing for employment and earnings than the nation as a whole. For the District, Ohio has the highest share of manufacturing employment (16.7%) and earnings (25.2%).

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The four Ohio cities with the largest workforces show a variety of manufacturing-sector patterns. Cleveland and Dayton depend more on manufacturing than does Ohio overall. Columbus and Cincinnati, however, depend less on manufacturing for employment and earnings than the average for the state. This is to be expected because Columbus, as Ohio's capital and home to one of the nation's largest state universities, has a large share of government employees, while Cincinnati has a high concentration of federal government, health care, and education workers. Throughout the 1980s and 1990s, manufacturing's share of total employment declined steadily in Cincinnati, Cleveland, and Columbus. Dayton posted a slight increase in manufacturing's share of employment in 1995, but this was due only in part to a strong (4%) increase in manufacturing employment. Coupled with manufacturing growth in the area were heavy losses in employment in government and only moderate growth in services.

(continued on next page)



a. Through September 2000.

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NOTE: Total employment and earnings are nonfarm figures. SOURCE: Ohio Department of Job and Family Services, Labor Market Information Division, *Labor Market Review*.

Dayton's experience suggests that the change in manufacturing's share of total employment is not solely dependent on a change in employment. Cleveland demonstrates this concept: Although manufacturing employment increased in both 1988 and 1989, manufacturing's share of total employment decreased in these years. Larger gains in services and retail mitigated the effects of manufacturing's employment gains on its share of total employment.

The level of manufacturing employment dropped precipitously in the early 1980s in most major Ohio cities, then moderated after 1985 (for Cleveland, 1993). More recently, what declines there have been reflect turnover: Manufacturers are not hiring new workers to replace many of those who retire.

Changes that improve productivity, such as the application of new technologies, knowledge, or business practices, can affect the composition of the manufacturing workforce. These changes have not had a uniform effect on the concentration of production workers in manufacturing. In Dayton, production workers' share of manufacturing employment rose steadily in the 1990s, presumably because the application of new business practices streamlined the nonproduction workforce. In Columbus, the share dropped from 67% to 63% between 1992 and 2000, probably because new technologies were adopted in the manufacturing process. In Cleveland and Cincinnati, production workers' share of manufacturing employment in 2000 is similar to their share in 1992.

Manufacturing workers' income has risen steadily since 1992, with an overall increase in each of the four cities for both average weekly hours and real average hourly earnings. Despite this steady increase, manufacturing's share of total earnings has dropped steadily in each city since 1980.





a. Foreign assets are adjusted to exclude net claims on institutions' own foreign offices. b. As of June 30, 2000.

NOTE: Domestic banks exclude commercial banks in which foreign banks have more than 25% ownership but include international banking facilities as well as banks owned by nonbank foreigners. The data exclude Edge Act and agreement corporations, U.S. offices of banks in Puerto Rico, the U.S. Virgin Islands, and other U.S.-affiliated island areas, and foreign banks' offices in U.S.-affiliated island areas. Foreign banks are those owned by institutions located outside the U.S. and its affiliated island areas.

SOURCE: Board of Governors of the Federal Reserve System, "Structure and Share Data for U.S. Offices of Foreign Banks," Federal Reserve Statistical Releases, October 2000.

The increasing globalization of financial markets has made its impact on the U.S. The numbers leave no doubt that foreign banks are an increasingly important part of the nation's banking system. Total assets held by foreign banks in the U.S. have risen steadily from \$52.4 billion in 1975 to \$1,260.3 billion by mid-2000. This means that the share of assets held by foreign banking organizations more than tripled (from 5.3% to 18.8%) over that period. Foreign banking organizations show similar market-share patterns for both loans and deposits. Their loan holdings increased from \$29.9 billion in 1975 to \$519.7 billion in 2000, which more than doubled their share of total loans (from 5.73% to 13.19%). Given the nature of the lending process and the importance of established bank–customer relationships, it is not surprising that foreign banking organizations' loan share has grown much more slowly than their share of assets. On the other hand, foreign banking organizations' business-loan holdings rose from \$19.9 billion in 1975 to \$289.1 billion in 2000, so that their share jumped from 10.42% to 24.76%. Because they focus on commercial lending, their share of business loans exceeds their share of both total loans and total assets.

Finally, their \$721.2 billion in deposits, representing a 17.09% share, confirms that foreign banking organizations are important competitors in the U.S. banking system.



Bank and Savings Association Structure



NOTE: All data are for FDIC-insured institutions through 2000:IIQ. SOURCES: Federal Deposit Insurance Corporation, *Quarterly Banking Profile* and *Historical Statistics on Banking*.

Passage of the 1994 Reigle–Neal interstate banking legislation spurred consolidation among U.S. depository institutions. The total number of FDIC-insured commercial banks fell from 14,482 at the end of 1984 to 8,494 at mid-2000. The number of insured savings associations in the U.S. dropped from a peak of 3,667 in 1986 to 1,624 at mid-2000.

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Between 1984 and mid-2000, the number of savings association

offices declined sharply (from 23,887 to 14,180). Banking offices, however, increased from 56,335 to 72,166 over the same period. The net result was a slight increase in FDIC-insured depository institution offices (from 80,222 to 86,346). These numbers do not include other channels for delivering banking services, such as automated teller machines, telephone banking, and on-line banking. So the reduction in

the number of insured depository institutions has not lessened consumers' access to bank services.

Finally, the effects of interstate consolidation within the banking industry are apparent from the large number of states reporting that more than 15% of all depository institution branches belong to an out-of-state bank or savings association.



a. The sharp 1996 decline in operating income growth resulted partly from a special insurance assessment on savings and loans deposits. NOTE: All data are for FDIC-insured institutions through 2000:IIQ.

SOURCE: Federal Deposit Insurance Corporation, Quarterly Banking Profile, 2000:IIQ.

Savings associations' earnings held steady in the first six months of 2000, reaching \$5.66 billion by June 30. Return on assets for the quarter stayed strong at 0.99%, just below the historical peak of 1.01% in 1998. Furthermore, return on equity hit 12.02%, its highest level since 1985. But unlike 1985, when return on equity was driven by high degrees of leverage, return on equity in 2000 has been generated by the robust return on assets and a steady net interest margin exceeding 3%. On the other hand, the increase in the share

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of savings associations reporting losses (from 4.1% in 1997 to 7.88% in 2000:IIQ) suggests the need for caution in interpreting the otherwise positive earnings trends.

Savings associations' balance sheets showed improved asset quality, as nonperforming assets fell to 0.54% of total assets, the lowest level in the last seven years. Core capital remained healthy at 7.77% of total assets, only a small decrease from 1999. Despite the higher number of savings associations with substandard examination ratings, problem institutions remained less than 1% of the total. The 12-month asset growth rate through 2000:IIQ was 4.74%, slightly less than the 5.57% growth rate for 1999 and dramatically lower than the 7.75% rate for the first six months of that year. The 11.77% rate of growth in operating income during the first half of 2000 suggests that asset growth did not occur at the expense of profit margins.

Overall, recent industry performance suggests that specialized housing lenders, such as savings associations, continue to thrive although their role in the economy may be less important than in the past.