

# Economic Commentary

ISSN 0428-1276

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## Economic Recovery and the Fourth District

by Robert H. Schnorbus and Sandra Pianalto

The pattern and composition of the national economic recovery are among the most important elements shaping local economic recoveries. The national economy shifted into recovery in the first quarter of 1983, with real gross national product (GNP) growing at a 2.6 percent annual rate. At the same time, total nonagricultural employment in the Fourth District has steadily risen, and Fourth District unemployment rates, while still substantially higher than national unemployment rates, have dropped.<sup>1</sup> Although these short-run developments are encouraging, the recovery in the Fourth District is restricted to just a few industries, primarily automobiles, housing, and retail trade. The concentration of the District's resources in heavy manufacturing, such as automobiles, steel, and machine tools, partly explains the cyclical vulnerability of the local economies and why employment gains have been spotty in the early stages of recovery.

While the Fourth District's recovery is tied to the national recovery, underlying structural and competitive problems limit the District's economic performance as the recovery develops. That is, employment growth over the recovery is influenced by long-term (i.e., structural and competitive) changes in the District's economies, as well as by short-term cyclical fluctuations. As the national economy

has become increasingly concentrated in nondurable goods and services, the growth potential of the Fourth District has become increasingly limited because of its large share of durable-goods-producing industries. While sharing in this national shift, the Fourth District is further hampered by the deteriorating competitive positions of its industries. Few Fourth District industries, especially steel and automobiles, have been able to maintain their share of the national market.

This *Economic Commentary* examines the character of economic recovery, both in the nation and in the Fourth District. The article analyzes the performance of past employment expansions in the District's major standard metropolitan statistical areas—Cleveland, Pittsburgh, and Cincinnati—and discusses the outlook for the current recovery in the Fourth District.

### The Character of Economic Recovery

Economic recovery is generally signaled by a shift into positive rates of change in real GNP. GNP represents the total value-added in goods and services produced in a given period. Although

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*The views stated herein are those of the authors and not necessarily those of the Federal Reserve Bank of Cleveland or of the Board of Governors of the Federal Reserve System.*

1. The Federal Reserve Fourth District includes all of Ohio, western Pennsylvania, northern and eastern Kentucky, and the northern panhandle of West Virginia.

each recovery has unique features, each shares common elements. Based on an average of four economic recoveries between 1958 and 1980, the typical pattern of growth in real GNP from the trough quarter has several identifying characteristics. In the first phase of recovery, expansion is sharp, with GNP growth swinging from a slight decline in the trough quarter to about a 7 percent annual rate in the first quarter after the trough. The initial surge typically is followed by three quarters where rates of growth taper, averaging more than 6 percent. The second phase begins about five quarters after the trough and extends to the reference peak (about fourteen quarters after the trough), with rates of growth subsiding to between 3 percent and 4 percent per quarter.

In the typical recovery the contributions of GNP sectors are predictable in each phase. Major sectors that contribute to high growth rates in the first phase of the recovery are consumer-durable-goods spending, housing expenditures, and inventory investment. Sector contributions to real GNP growth rates are out of proportion to their relative size. Changes in inventory investment account for about 0.1 percent of GNP, for example, but can contribute about 30 percent or more of the growth in real GNP in the first quarter after the trough. Durable goods and housing contribute about 50 percent of the growth in real GNP in the first phase of the recovery, even though their share as components of GNP is about 13 percent. In the second, slower-growth phase of recovery, business fixed investment becomes a driving force, contributing three times its share to real GNP growth.

Employment patterns can also be related to the recovery phases. In the first phase, cessation of inventory liquidations often has little immediate impact on employment levels in manufacturing industries. Even for industries that must replenish inventory stocks for efficient production scheduling, the initial tendency often is to adjust hours rather than employment. Beyond the first quarter after the trough,

continued inventory accumulation and stronger consumer durable-goods spending contribute to further employment expansion in the automobile, appliance, and housing industries. Employment in automobile supplier industries, such as steel, glass, and rubber, also begins to expand. As growth in these sectors slows, employment growth in machine tools and other capital-goods industries (which derived their demand from the initial thrust in the consumer industries) begins to accelerate.

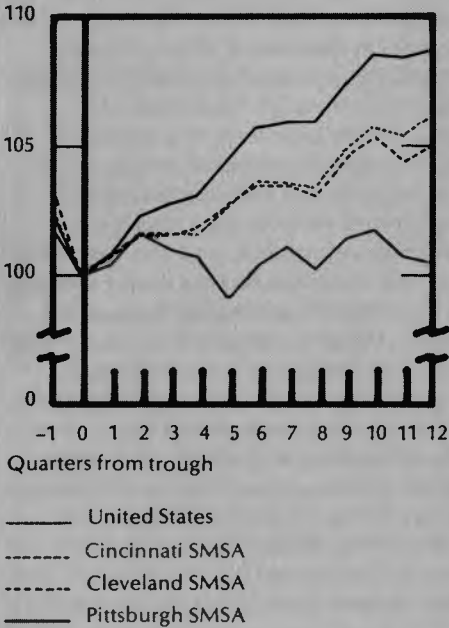
### **The Typical Local Recovery**

The typical recovery in the Fourth District closely follows the pattern of the national recovery, although rates of employment growth are usually less robust (see chart 1). The pattern of total nonagricultural employment expansion trends upward locally and nationally, with employment acceleration roughly corresponding to real GNP growth over the recovery. For example, the first surge in employment reflects the pickup in housing and consumer-durables spending and the inventory swing in the first phase of recovery. After a brief plateau around the third quarter after trough, investment spending begins to dominate the recovery and starts a second surge, which lasts through the sixth quarter after the trough (early in the second phase of the GNP cycle). Following a slowdown in investment between the fifth and seventh quarters, a final injection of investment leads to another peak in employment at the tenth quarter beyond the trough. The pace of employment expansion appears to slow somewhat in the second half of the recovery, probably because the economy is approaching full employment.

Despite these similarities, the Fourth District's employment patterns differ from the national pattern in two important ways. First, the impact of the national recovery varies with the industrial structures of the District's local economies. Employment in Pittsburgh, for example, being heavily concentrated in the steel industry, follows the national employment expansion over the first few

## Chart 1 Typical Employment Recoveries<sup>a</sup>

Index = 100 at trough quarter



a. The index levels represent the average of four economic recoveries between 1958 and 1980.

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

quarters after the trough; by the second phase of recovery, Pittsburgh's employment expansion falters. In contrast, both Cleveland and Cincinnati continue to experience expansion throughout the recovery, in large part because of their heavy specialization in capital-goods industries. In fact, being specialized in the sector contributing the impetus for the second phase of recovery probably explains why Cleveland and Cincinnati do not experience the slowing typical of the second half of the national recovery. For the most part, employment in the Fourth District (relative to the nation) expands primarily in the latter phases of the economic recovery through growth in capital spending.

Second, and more significant, the Fourth District's economies have steadily fallen behind the national economy during recoveries. These patterns of slower employment growth are produced by

the structural and competitive changes described previously. As a result, recovery in the District is dampened by the manufacturing industries—the most cyclically sensitive industries. Perhaps the most notable example is Pittsburgh's economy, which is dominated by the steel industry. While retaining the distinct phases of the national employment expansion, the path of Pittsburgh's recovery has been virtually flat.<sup>2</sup> Most of the District's industries—service-related as well as manufacturing—have experienced slower growth trends than their national counterparts over the post-World War II era.<sup>3</sup> These industries underperform the same industries elsewhere in the nation or abroad, because of such factors as above-average wages, older capital stock, and lower productivity. Over an extended period, the process is cumulative: each local recovery never quite attains the growth rate of the national recovery and often fails to regain the employment lost in the previous recession (see chart 2). The District's share of total employment has been steadily declining, as shown by the widening gap between the U.S. and local economies, especially since 1979.

## Fourth District Outlook

The 1983 recovery in the Fourth District has so far proceeded at roughly the same pace as the national expansion of employment. Preliminary data for

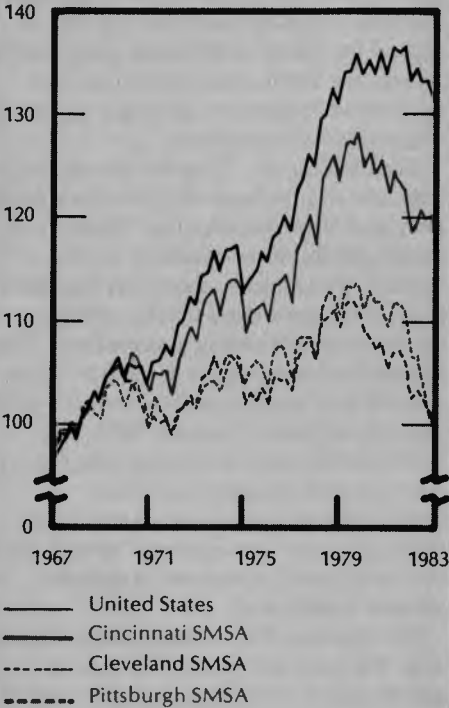
2. The flatness of Pittsburgh's typical recovery is somewhat misleading, because employment expansions varied widely among the four recoveries. Only the 1970 recovery tended to be flat. The 1958 recovery had a pronounced downward trend, which pulled down the average quarterly levels of unemployment. The remaining recoveries more closely resembled the average Cleveland and Cincinnati recoveries, but even these recoveries expanded at a slower rate than those for Cleveland and Cincinnati.

3. Hinderliter and Schnorbus analyzed the structural and competitive effects of manufacturing and nonmanufacturing industries on employment growth in the District (represented by the state of Ohio) for the period between 1949 and 1977. See Roger H. Hinderliter and Robert H. Schnorbus, "Income Growth and Industrial Change in the Fourth District," 1978 Annual Report, Federal Reserve Bank of Cleveland.

## Chart 2 Total Nonagricultural Employment

Quarterly data

Index 1967:IVQ = 100



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

1983:IIQ, however, suggest that the lag in the local recovery relative to the national recovery is now beginning to develop.<sup>4</sup> The District's relationship to the national recovery is unlikely to be much different from the past. The cur-

4. Total nonagricultural employment in the Fourth District generally has been rising since January 1983. Much of the increase has been concentrated in the automobile industry and its suppliers. However, because employment declines were sharp over the final three months of 1982 and the gains mild in early 1983, the 1983:IQ employment average was lower than the 1982:IVQ average in all three District economies. The index levels ranged between 97.2 and 97.5 (1982:IVQ = 100.0). The national employment average followed a similar pattern, dropping to an index of 98.3 in the first quarter after the trough (1982:IVQ). Employment continued to improve in 1983:IIQ, both nationally and locally. Preliminary data indicate an index level of 100.4 for national employment, compared with 98.7 to 99.5 among the District economies.

rent national recovery started more slowly than the typical recovery. Any sluggishness in the national recovery translates into below-average gains for the District and its key industries.

Real GNP grew at a moderate 2.6 percent annual rate in 1983:IQ, the first quarter after the trough, while preliminary estimates show an 8.7 percent increase in 1983:IIQ.<sup>5</sup> Analysts have been revising their economic forecasts upward, but there is still some uncertainty as to whether the fairly typical 6 percent growth rate will materialize in the third and fourth quarters after the trough. The early phase of the current recovery was fueled by housing and durable-goods expenditures. Inventory liquidations may have continued through 1983:IIQ at a slower rate than in 1983:IQ; thus, inventory investment contributed heavily to real GNP growth in the second quarter. The strength of the second phase of the recovery is especially uncertain. Business fixed investment, which is the driving force in the second phase of recovery, may have a slower-than-normal response to the pickup in economic activity because of above-average interest rates.

**Automobiles.** The automotive industry historically has led in recoveries and propelled related industries, such as steel, fabricated metals, glass, and rubber. Thus far in the current recovery, domestic new-car sales have revived slowly from a 1982 recession trough rate of about 5.5 million units (saar) to nearly 6.8 million units (saar) in 1983:IIQ. Real growth in disposable personal income appears to be a driving force behind the increase in auto sales; however, the sustainability of the recovery in the automobile industry will depend partly on how consumers choose to allocate their income between financial and tangible assets and between goods and services.<sup>6</sup>

5. The National Bureau of Economic Research announced that the trough of the current business cycle occurred in November 1982.

6. See Michael F. Bryan, "Issues in the 1983 Auto-Sales Outlook," *Economic Commentary*, Federal Reserve Bank of Cleveland, March 7, 1983.

Whether the domestic automobile industry can expect to match the sales and production levels of the late 1970s is uncertain. Even if the 1983 recovery lasts three and one-half years—the average length of past recoveries—the cycle peak in domestic new-car sales could fall short of the more than 9 million units reached in both 1977 and 1978. In recent years, American consumers have decreased their total demand for new domestic cars, buying fewer cars and keeping their cars longer. Future demand for new domestic cars will depend on continued growth in real disposable personal income, moderation in gasoline prices, and reductions in the real purchase price of autos. Imported cars, on the other hand, usurped over 25 percent of new-car sales in this country in 1980, 1981, and 1982. (Voluntary quotas have been helping to hold down the number of Japanese automobile imports to this country.) It may require an unusually long expansion—such as the 1961-69 or 1975-79 recoveries—or a rapid and substantial improvement in the competitive position of U.S. automobile manufacturers to resume previous record volumes of auto sales.

**Steel.** Declining demand, greater use of steel substitutes, and increased imports have all constrained growth in the domestic steel industry. The industry has responded with diversification, liquidation of aged capital stock, cost cutting, and consolidation. The industry's cost position has improved, and the break-even point for capacity utilization has been lowered. Moreover, steel producers have closed marginal, high-cost steel-production facilities in Pittsburgh and Youngstown, once the nation's largest steel-producing centers.

To improve competitiveness and badly needed cash flows, the steel industry needs a long, sustained economic expansion, continued retirement of marginal facilities, and substantial investment in current technology. Despite strengthened manufacturing activity, steel orders remain weak; most markets are depressed and manufacturers are reluctant to rebuild steel inventories. Yet, the domestic market is viable and could

expand at a trend growth rate of at least 2 percent annually.<sup>7</sup> However, employment prospects in the steel industry are discouraging, especially in the Fourth District. To be more competitive the steel industry needs to substitute capital for labor. Additional permanent layoffs are likely, even in the face of economic expansion, as larger producers retire obsolete facilities.

**Capital Goods.** Capital-goods industries are vital to both the District's economy and the nation's. The District is a major producer of machine tools, motors, generators, electrical equipment supplies, heavy-duty trucks, and business equipment (including computers). These industries have begun to revive—with nondefense capital-goods orders trending upward since January 1983. Yet, interest rates and abundant idle capacity have caused caution in capital-improvement programs; at the same time, industry management seems reluctant to slow or postpone programs already under way.

Throughout the current expansion and over the next ten years, the capital-goods sector should be a major source of growth in the District, especially in fast-growth industries such as electronics, computers, and robotics. Whether this expectation is borne out will depend critically on the climate for investment in the national economy. Investment-oriented tax policies and a large backlog of industry needs to modernize and replace energy-inefficient facilities clearly favor the prospects for strong investment recovery. The federal budget, heavy government absorption of savings, and the possibility of high costs of capital are factors that work in the opposite direction. Even with a strong resurgence

7. The average annual compound growth rate of apparent domestic steel consumption between 1951 and 1977 was 2 percent. The American Iron and Steel Institute projects steel consumption to grow at 1.5 percent annually between 1980 and 1990. Other forecasts have placed the low end of the range of potential growth rates to be as much as 1.9 percent. See Office of Technology Assessment, U.S. Congress, "Past and Future Domestic Use of Steel," in *Technology and Steel Industry Competitiveness*, June 1980, pp. 155-82.

of investment in the later stages of the recovery, not all producers or areas will grow equally. The District has some highly cyclical capital-goods industries that will contribute to the recovery's second phase, but their contribution to long-run growth may be less than that of the fast-growth industries. The robotics industry, led by firms such as Cincinnati Milacron, Westinghouse, and Nordson, seems to be the District's best bet for "high-tech" growth. While the District is well-positioned to increase its share of the robotics industry, the growth potential of robotics is still unknown and could encounter strong foreign competition.

### Conclusion

Although economies within the Fourth District have begun to recover, it is doubtful that the District's economies will continue to keep pace with the national recovery. The Fourth District certainly will benefit from the national recovery, however. Continued growth in

consumer durable goods and a strong revival in capital goods are prerequisites to keep the local recovery from stalling, but the District's problems are more than cyclical in nature. It is uncertain how the long-term downward shifts affecting durable-goods producers will be turned around or through what channels longer-term growth in the District's durable-goods industries might occur. Specialization in manufacturing was established early in the District's economic development, and this specialization will continue to be a major element in the District's economic base in the future. While national trends in the steel and auto industries will continue to impede the District's economic growth, the long-term outlook will depend on the willingness and ability of durable-goods producers to invest in the District. By reversing, or even stabilizing, the competitive decline of its industries, the Fourth District will be in a stronger position to participate in future recoveries.

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