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### III. Why Did the Region Revive?

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The Midwest's economic revival has been attributed at various times to transitory reasons, such as the timing and depth of national recessions; fundamental reasons, such as private industry's restructuring; external reasons, such as reversals of federal domestic spending patterns and foreign exchange rates; and internal reasons, such as midwestern public sector and financial thrift and shrewd business management.

With ten to 15 years of hindsight, it now appears that, although business cycle timing and external factors have been very important, profound changes in the fundamentals of how midwestern businesses and governments compete and conduct their affairs have taken place. If these changes can be sustained and augmented, they will offer some reason for optimism in assessing the region's future.

#### Timing and Depth

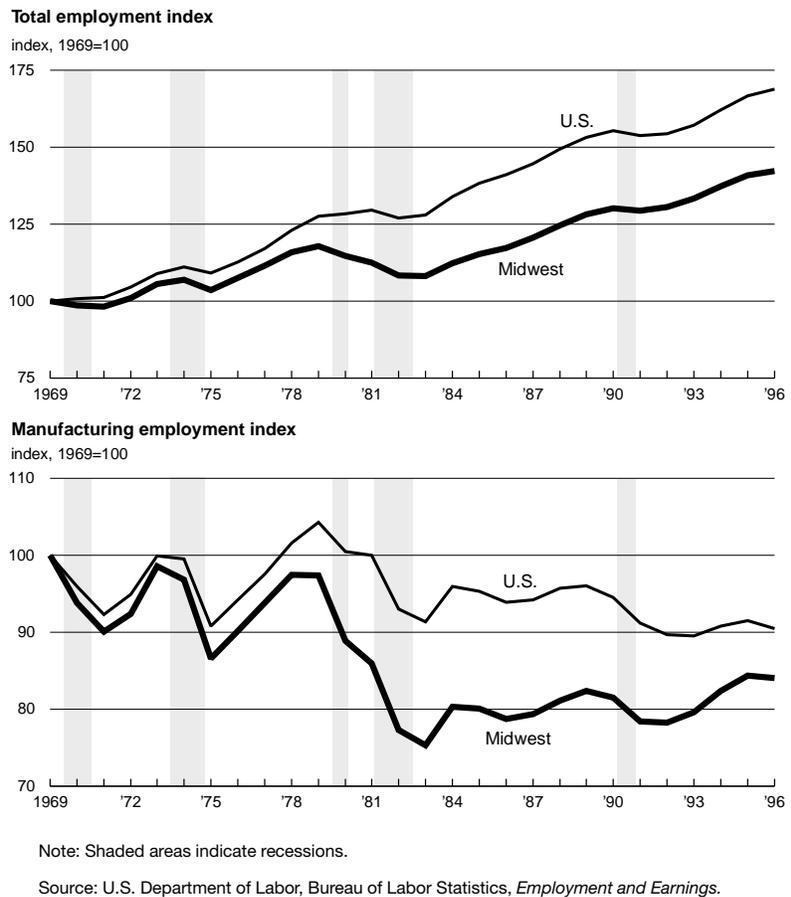
The Midwest had been losing its dominance as the nation's center of manufacturing throughout the second half of this century. From 1860 to 1947, the Midwest region (defined, in this case, as Illinois, Indiana, Michigan, Ohio, and Wisconsin) experienced a climbing share of national manufacturing—from 12.7% to 30%. By 1987, this had fallen to 22.1%.<sup>7</sup> Much of the recent loss reflects a natural process of population deconcentration within the continental U.S. To some extent, it was inevitable and desirable that the Southeast develop manufacturing industries as its work force was released from agriculture, as air conditioning and highway transportation opened up previously isolated areas and transitory Midwest advantages of natural resources and transportation were depleted and made obsolete. So too, timing of population settlement from East to West, along with infrastructure improvements such as large-scale water diversions, opened up the West to industrial development.<sup>8</sup>

Throughout this dispersion, manufacturing losses from the Midwest were relentless, but they tended to bunch up during national recessions.<sup>9</sup> Recessionary periods were telltale because Midwest manufacturing was concentrated in capital goods and consumer durables—industries that were most vulnerable to recessionary falloffs in demand. At the same time, having developed earlier, the region's technology and physical stock of capital tended to be of earlier vintage and reduced efficiency in comparison to other regions in the U.S. and abroad. Consequently, when demand suddenly slackened, it became more cost effective for firms to continue remaining production at newer (lower-cost) plants elsewhere. The net effect was that the Midwest experienced sharp and painful retrenchments during recessionary periods such as 1969–70 and 1974–75 (figure 15).

The 1979–83 period was more severe than any the region had encountered in the modern era. As the nation passed through two recessions in quick succession, the Midwest lost over one-fifth of its manufacturing work force at the same time that the rural agricultural economy experienced its worst times since the Great Depression.

After a languid recovery in 1983, the Midwest enjoyed a stronger recovery in 1984 as auto demand bounced back with some vigor. During the auto sector recovery, many midwesterners held out hope that the earlier period of devastation was merely a transitory shock. However, events that followed in 1985 and 1986 suggested that the

**Figure 15** Payroll Employment



bulk of shuttered factories would remain so. The dollar value of overall export sales from the region remained flat despite depreciation of the value of the dollar against currencies of trading partners.<sup>10</sup> Domestic markets for capital goods—other than computer-related purchases from coastal regions—continued to disappoint.

Beginning in 1987, the Midwest finally began to show signs of promise as its capital goods sectors began to recover late in the expansion and exports began to grow. The agricultural sector's recovery also contributed, as farm equipment purchases and exports began to show some life and farm sector balance sheets began to strengthen.

The general view was that the shake-out of the early 1980s was so severe that it destroyed a large portion of the most inefficient and antiquated physical capital stock. Accordingly, the renewed strength of the region was initially interpreted as an inevitable bounce-back in production and productivity, albeit from a much lower base-line level. This lack of understanding and optimism with regard to the Midwest recovery was understandable in light of the wrenching declines of 1979–83.<sup>11</sup> Even as other regions such as the Southwest and New England began to experience economic setbacks, few believed that these setbacks would continue for very long. Although the high-tech industry, the darling of the decade, was toppling in New England and defense-related industries there and elsewhere were faltering, many believed that a bounce-back in high technology was only a matter of time, and that the Midwest was at a disadvantage because the fastest growing sectors were almost nonexistent in the region.<sup>12</sup> So too, it took some time before the extent of overbuilding in real estate

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in other regions could be fathomed. The coastal regions and parts of the Southwest struggled through the over-building and savings and loan debacles to a significantly greater extent than the conservative and still “shell-shocked” Midwest. Through the distorted lens of these somewhat transitory events, fundamental changes underlying a sustained turnaround of the Midwest were difficult to distinguish.

Today, it is evident that the signs of strength in the Midwest economy of the mid- to late 1980s were more than the anticipated snap-back from the restructuring of the early 1980s. Much of the cyclical adjustment had taken place by 1985, and the transitory shocks in other regions have long since dissipated. And yet, the pace of economic growth in the Midwest remains strong and capacity utilization remains high during the latter 1990s. The Midwest economy has been changing from within during the past ten to 15 years, while favorable external conditions and trends have aided and abetted these changes.

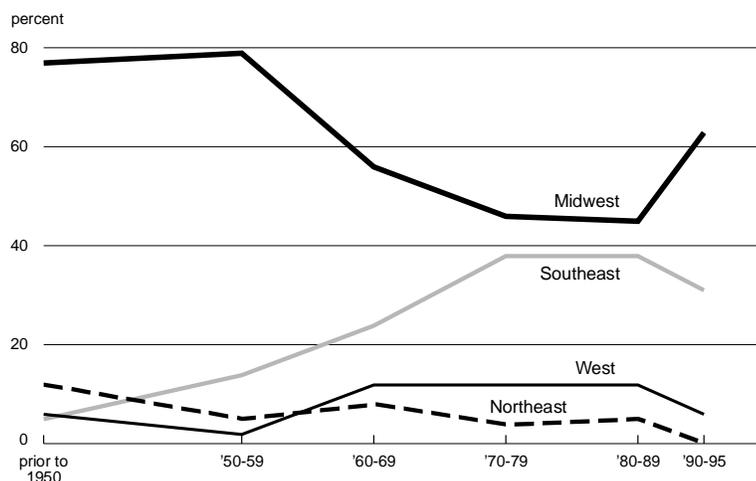
### External Conditions

Early interpretations of Midwest revival were also clouded by the important and marked turnaround in those external conditions to which the region’s economy responds. These include technological and organizational changes in the automotive industry, which have favored its reconcentration in the midsection of the nation; the geographic pattern of federal defense spending and its subsequent decline; declining real energy prices, important both as an input to the region’s industries and as a determinant of demand for its products; and the declining dollar since the mid-1980s, which has improved the competitiveness of the region’s companies.

### Emerging Geography of the Auto Industry

U.S. auto assembly plants have tended to reconcentrate in the Midwest over the 1980s and 1990s (table 1). Auto supplier plants had tended to disperse over the previous three decades, but this trend appears to be reversing during the 1990s (figure 16). At the same time, the more technologically advanced and innovative automotive parts and services providers continue to locate in the Midwest.

**Figure 16** Auto Supplier Plants by Region and Start-Up Date



Note: See table 1 for definition of regions.

Source: James Rubenstein, “The Evolving Geography of Production—Is Manufacturing Activity Moving Out of the Midwest? Evidence from the Auto Industry,” *Assessing the Midwest Economy Working Paper Series*, No. SP-3, Federal Reserve Bank of Chicago, 1996.

This reconcentration has resulted from broad changes in the industry's product mix that have changed the economics of plant location in favor of the midsection of the country.<sup>13</sup> The costs of distributing the final product to the customer have always been important in deciding the location of auto assembly plants. Henry Ford opened far-flung branch assembly plants to produce identical Model T cars closer to the population centers outside the Midwest; it was cheaper to ship parts to branch assembly plants than to ship finished automobiles all across the country from a centrally located assembly plant. Soon, both General Motors and Chrysler emulated that strategy. However, by the 1960s the proliferation of car and truck models began to change the conditions that made that location strategy an optimal one. The number of different car and truck models sold in the U.S. increased eightfold, from 30 in 1955 to 241 in 1995, while sales only doubled from about 8 million units to about 16 million in 1995. With reduced output per individual model, its entire output would best be produced at one plant only, and the geographic argument for an interior location became compelling; that way the company could minimize the cost of distributing its products to a national market. As a result, during the past 16 years auto producers have opened assembly plants in the interior, especially along the I-65/I-75 corridor, and closed coastal plants.

### **Federal Spending Patterns**

Federal spending hikes on national defense boosted the economies of regions with defense bases and military equipment production facilities. The nation experienced a 50% increase in the defense budget from the 1970s to 1986. This shift benefited New England and the Pacific Coast, along with selected regions in the intermountain areas in the West and South. More recently, the defense build-down has reversed this economic impulse. States such as Maine and Connecticut, and regions such as southeastern Pennsylvania, are coping with shipyard closures. Los Angeles, St. Louis, Ft. Worth, and Long Island are adjusting to aircraft plant closures and cutbacks. Other areas are experiencing defense base closings and attendant job losses which may continue throughout this decade.

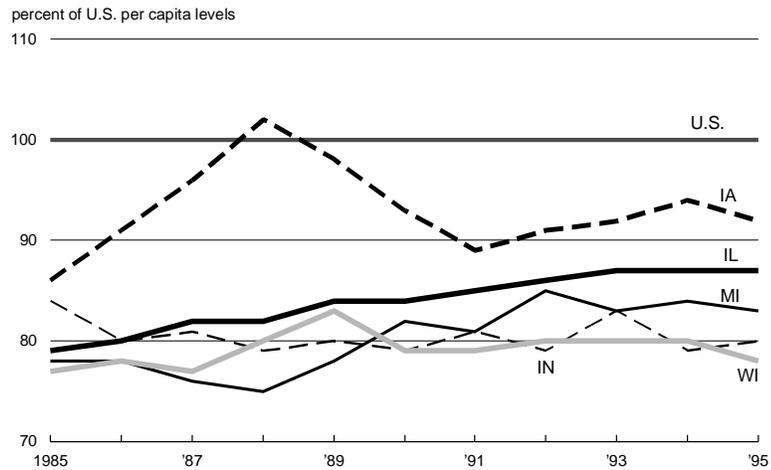
Historically, the Midwest has not fared well relative to other regions in terms of receiving money from Washington. Measured as a percentage of U.S. per capita levels, federal expenditures in the five states in the Seventh Federal Reserve District have been below the national average in every year from 1985 to 1995, with the exception of Iowa in 1988 (figure 17).

Because of the small concentration of defense-related industries, federal procurement spending in the region is particularly weak (figure 18). For example, in fiscal year 1995, Illinois ranked 47th in the nation and Indiana and Wisconsin tied for 46th on per capita military procurement expenditures. In addition, the relatively small presence of military bases tends to make the midwestern states' share of military spending on wages and salaries significantly lower than the U.S. average. However, the pattern of below-average federal spending extends beyond defense-related expenditures. The Midwest percentage of U.S. spending on a per capita basis for grants, federal salaries and wages, direct payments, and total spending generally ranks below the national average (table 4).

Ironically, this shortfall pattern of federal expenditure has played to the region's advantage during the past ten years. With the recent trend toward reductions in federal spending on a wide range of programs, regions that were dependent on federal dollars have been particularly affected by program cuts. This is notable in the area of defense spending, where spending reductions and the difficulty of converting defense

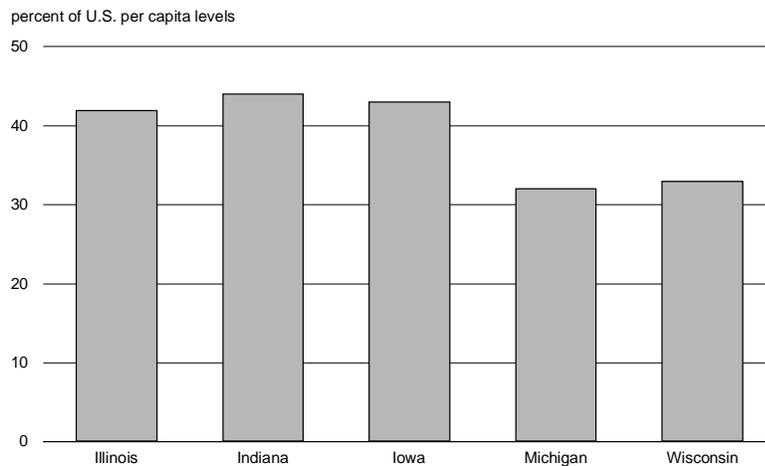
*Federal expenditures in the five states in the Seventh Federal Reserve District have been below the national average in every year from 1985 to 1995, with the exception of Iowa in 1988.*

**Figure 17** Per Capita Federal Expenditures



Source: Kerry Suttin, "Federal Spending in the Northeast and Midwest: Fiscal 1995," Northeast-Midwest Institute, Washington, DC, June 1996.

**Figure 18** Federal Procurement Spending, FY95



Source: See figure 17.

industries to nondefense functions has damaged the economies in California and New England. Figures on U.S. military procurement spending from 1985 to 1996 and projected to 2002 demonstrate the boom in spending enjoyed by states with concentrations of defense-related industries in the 1980s and the rapid decline in expenditure levels in the 1990s (figure 19). Additionally, evidence suggests that even the region's industries that engage in transactions with the federal defense establishment may make the transition to civilian products relatively easy.<sup>14</sup>

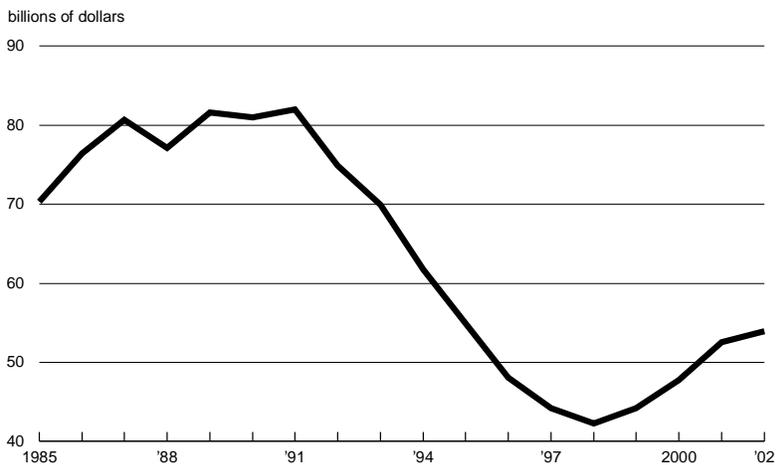
Finally, the region is also less reliant on federal transfers. According to data compiled by the Northeast-Midwest Institute, in fiscal year 1994 federal transfers on average represented 27.7% of total state budgets in the U.S.<sup>15</sup> Using this measure, midwestern states tended to have either average or below-average reliance

**Table 4** Per Capita Federal Spending as a Percent of U.S. Per Capita Levels by Category

	Grants	Salaries/ Wages	Direct Payments	All Functions
Illinois	95	78	97	87
Indiana	72	59	92	80
Iowa	86	56	101	92
Michigan	94	51	100	83
Wisconsin	86	46	92	78

Source: See Figure 17.

**Figure 19** Defense Procurement Spending



Note: Numbers for 1997 and beyond are projected.

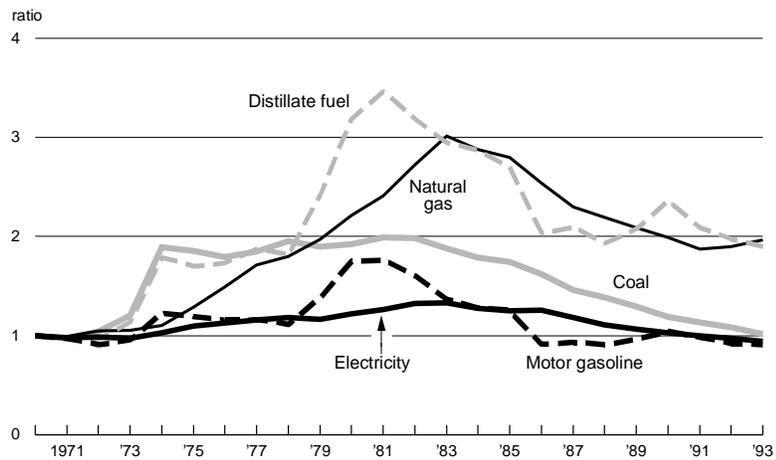
Source: Office of Management and Budget, Historical Tables, Budget of the United States Government, fiscal year 1997.

on federal transfers. Specifically, federal transfers comprised 25.8% of the Illinois budget, 28.4% of the Indiana budget, 25.7% of the Iowa budget, 25.4% of the Michigan budget, and 24.4% of the Wisconsin budget. With the potential for reductions in federal funds as nondefense programs are transferred from the federal government to the state and local sector with limited block grant funding, it is likely that states that have grown accustomed to high subsidy levels will be at a disadvantage.

### Energy

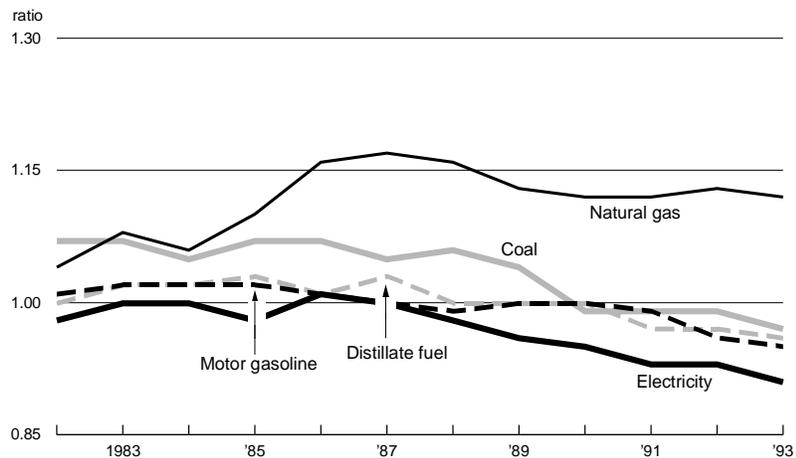
Delivered prices of all major fuels have declined in the Midwest since the early to mid-1980s (figure 20).<sup>16</sup> Despite recent price run-ups, real motor gasoline prices are currently lower than in 1967 and 25% lower than their peak in the latter half of the 1970s. At that time, high petroleum-based fuel prices were a drag on Midwest industry, which tends to be more concentrated in fuel-intensive sectors, especially manufacturing. High gasoline prices also worked more heavily against the sales of domestic auto makers, which tended to specialize in less-energy-efficient vehicles.

**Figure 20** Real Fuel Prices Relative to 1970 Fuel Price, Midwest



Source: Athanasios Bournakis, "Energy and Environmental Issues for the Midwest Economy," *Assessing the Midwest Economy Working Paper Series*, No. SP-5, Federal Reserve Bank of Chicago, 1996.

**Figure 21** Ratio of Midwest to U.S. Fuel Prices



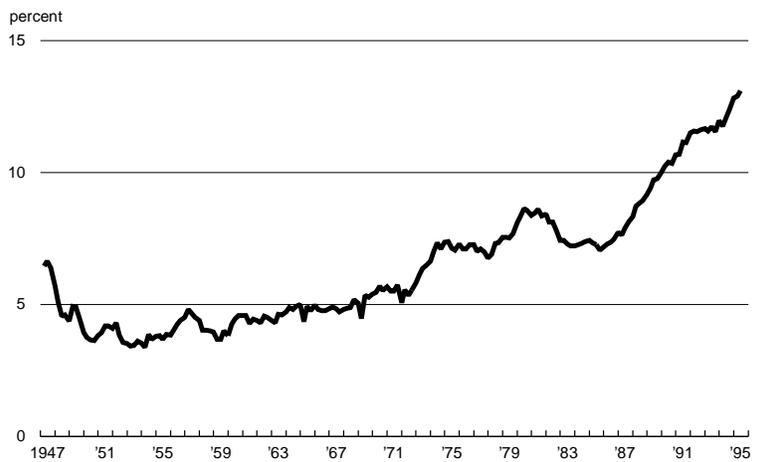
Source: See figure 20.

Midwestern energy prices have also been edging down in relation to national energy prices (figure 21). An added benefit to these relative price declines arises from those fuels on which the region is somewhat more dependent, such as coal and natural gas. However, environmental regulation has led to the substitution of western coal for the region's indigenous high-sulfur coal, which has diminished regional mining production.

### Exports

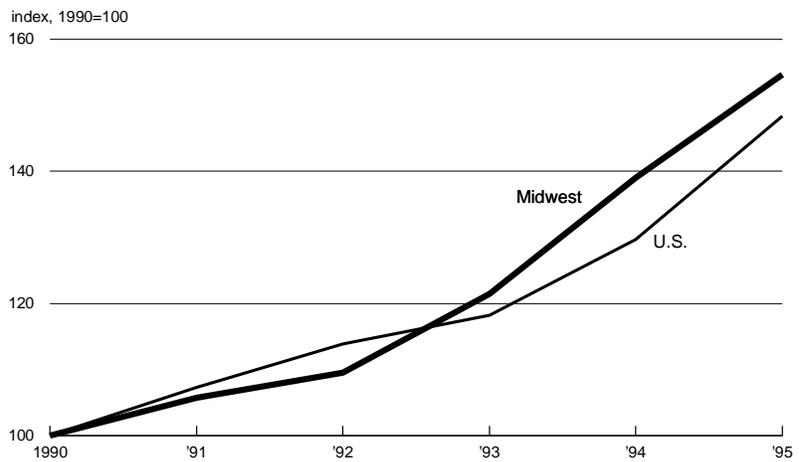
Exports have become a much larger share of the U.S. economy and now account for 13% of gross domestic product compared with 8% in 1987 and 5% in 1971 (figure 22). From 1992 to 1995, exports from the Midwest grew even more dramatically than exports from the U.S. as a whole (figure 23). Manufacturing growth in the Midwest has been led by capital goods industries—both electrical and

**Figure 22** Export Share of U.S. Economy



Source: U.S. Department of Commerce.

**Figure 23** Total Exports



Source: Massachusetts Institute for Social and Economic Research.

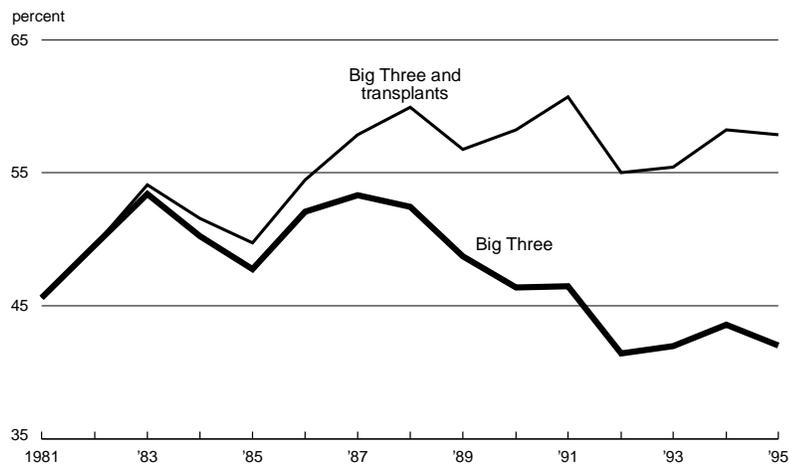
nonelectrical machinery and equipment. Much of the world's recent trade growth has occurred as developing economies have entered trade agreements.<sup>17</sup> In many instances, developing countries primarily import capital goods and high-technology equipment to establish new industries or to make their existing industries competitive in world markets. The Midwest's concentrations in such industries as telecommunications, farm machinery, construction machinery and equipment, machine tools, and a host of specialized capital goods have facilitated rapid expansion of exports during the past ten years. The outlook for expanding trade opportunities differs little in the years ahead; the lion's share of trade expansion is expected to derive, not from trade with developed nations, but from emerging markets in Asia and South America.<sup>18</sup>

Currency swings since the dollar's peak in early 1985 are said to have boosted midwestern exports and to have helped shield domestic markets from displacement by foreign imports. Indeed, the Midwest's share of Big Three (Ford, Chrysler, and General Motors) auto production has increased since 1991. And thanks to Japanese auto makers that have located in the Midwest and to a reconcentration of domestic

*Recent research suggests that the dollar has appreciated rather than depreciated in relation to currencies of nations to which the Midwest exports.*

auto makers, the region's share of domestic car production has climbed since 1981 (figure 24).<sup>19</sup> However, if favorable currency swings have been important to the growth that the Midwest continues to experience, one would have to believe that there is a very long lag effect. The drop-off in the dollar value was completed by 1987. Since then, aggregate trade-weighted dollar indexes suggest that the currency-influenced terms of trade have remained mostly flat over the past nine years even as exports have continued to climb. Moreover, recent research suggests that the dollar has appreciated rather than depreciated in relation to currencies of nations to which the Midwest exports.<sup>20</sup>

**Figure 24** Midwest's Share of U.S. Car Production



Note: Midwest is defined as Illinois, Indiana, Michigan, Ohio, and Wisconsin.

Source: Ward's Incorporated, *Ward's Automotive Yearbook*, 1982–96.

### Changing How We Do Business (Internal Adjustments)

All of the aforementioned external factors have unquestionably influenced the region's revival and some continue to favor the region, but they do not fully explain the changing fortunes of the Midwest's mainstay manufacturing industries. For example, even during the decades prior to energy, federal spending, and exchange rate shocks, the Midwest's share of manufacturing had steadily eroded.

In recent years, midwestern industry has adopted new technologies and modes of business operation and its relative cost position has improved. The public sector has facilitated regional competitiveness by prudent taxation and spending policies, by focusing spending on value-producing services and public infrastructure, and, more recently, by reaching for innovative delivery of public services. So too, the region's "institutional capital" has proved enduring and responsive in the face of economic crisis. The 1980s and 1990s have seen a flurry of economic development efforts and strategies led by public-private partnerships and supported by foundations.

### Technology and Organization

There is substantial evidence that the region has changed the way it does business—its organization, mode of operation, and technology. The implementation of best manufacturing practices has helped revitalize Midwest manufacturing.<sup>21</sup> For example, the arrival and application of so-called lean manufacturing technologies

is contributing to the revival of Midwest manufacturing. Lean manufacturing gained widespread attention in the early 1980s. It combines aspects of both craft and mass production, ranging from teamwork on the shop floor, emphasis on low inventories, and flexible production equipment, to close relationships with suppliers. The most familiar model is the U.S. auto industry, which has implemented lean manufacturing techniques in its plants and management approach. Successful auto assembly operations have been transplanted to the U.S. environment by companies such as Toyota, Honda, and Mitsubishi. In some cases, existing assembly plants, such as GM's NUMMI venture with Toyota in California, have been transformed through organization and technology alone. But to what extent is that experience characteristic of manufacturing in general?

Two large-scale studies help shed some light on this issue.<sup>22</sup> Both Statistics Canada (in 1988) and the U.S. Census Bureau (1988 and 1993) administered surveys to measure the extent and type of advanced manufacturing technologies used in their respective country's manufacturing plants. Both surveys found that the application of advanced manufacturing technologies was widespread across plants and industries, typically with multiple technologies applied per establishment (table 5). These results indicate that advanced manufacturing techniques are reshaping manufacturing on a broad scale. In the Midwest, the region most heavily concentrated in manufacturing, these technological advances in manufacturing have tended to boost the economy.

**Table 5** Application of Some Advanced Technologies

	FMC/FMS	CAD/CAE	Interco. Network
	(-----% of plants using-----)		
<b>Plant Employment</b>			
20-99	7.6	49.5	12.0
100-499	21.4	76.4	28.4
500+	40.4	87.2	47.1
<b>Age of Plant</b>			
Less than 5 Years	13.4	63.5	15.0
5-15	13.3	62.0	18.0
16-30	13.4	64.4	20.5
Greater than 30	15.2	63.1	22.0
<b>Major Industrial Groups</b>			
Fabricated Metal Products	9.5	46.5	16.7
Industrial Machinery and Equipment	11.8	64.1	15.4
Electronic and Other			
Electric Equipment	17.0	64.2	21.9
Transportation Equipment	15.5	53.9	23.4
Instruments and Related Products	14.2	65.5	15.3

Note: The table reports information on three of the 17 advanced manufacturing technologies surveyed. They are defined as follows:

*Flexible manufacturing cells and systems (FMC/FMS):* two or more machines with automated material handling capabilities controlled by computers or programmable controllers, capable of single/multiple path acceptance of raw material and single/multiple path delivery of finished product.

*Computer-aided design and engineering (CAD/CAE):* use of computers for drawing and designing parts or products and for analysis and testing of designed parts or products.

*Intercompany computer network (Interco. Network):* use of network technology to link subcontractors, suppliers, and/or customers with the plant.

Source: U.S. Department Of Commerce, Bureau of the Census, *Current Industrial Reports: Manufacturing Technology: Prevalence and Plans for Use*, 1994, tables 4D and 4E.

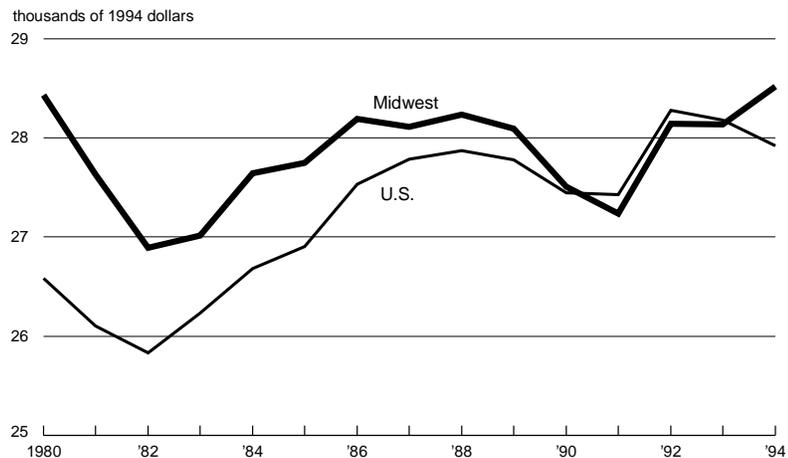
At the same time, the region's industries lie outside those sectors (mostly defense) that require both a change in product mix and a transformation in technology. In order to reverse the tide of decline for regions specializing in declining industries such as defense-oriented manufacturing, it is not only how business is conducted that must change, but the entire product mix. For several regions that compete with the Midwest, the barriers of both changing "how" and "what" have been, to date, too high to bring about the resurgent experience of the Midwest.

### Costs of Business Operation

One common understanding of interregional growth is that of "neoclassical economics," which suggests that firm location is significantly driven by the search for lower costs of operation. Labor costs commonly comprise the largest share of operating costs for business enterprises. This implies that capital investment flows toward regions with low wage costs, and that job openings grow in tandem with capital investment. In many instances, labor does not migrate, as might be expected, toward high-wage areas because job openings are absent due to rigid wages and, perhaps, institutional features such as unionization.<sup>23</sup> As a result, economies with low wage costs can experience economic growth of capital and labor.

Evidence from the past ten to 15 years is consistent with this mechanism and partly explains the Midwest turnaround.<sup>24</sup> The Midwest has long been reputed as a high-wage locale, especially for manufacturing. But workers in the Midwest have apparently eased their wage demands relative to the rest of the nation. Real per worker earnings converged sharply with the nation from 1980–82, and continued converging throughout the 1980s (figure 25).<sup>25</sup> Such figures are merely suggestive of labor costs; however, changes in the level of hourly wages of workers in the manufacturing sector point in the same direction.<sup>26</sup> Adjusting for differences in the composition of industry between the region and the nation, manufacturing wages have eased from a 17% premium to the nation in the early 1980s to a 13% premium in the 1990s (table 6).

**Figure 25** Real Per Worker Earnings



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

Energy prices have also eased in relation to national prices, including those for such energy products that the region consumes in greater proportion than the nation—coal and natural gas (see figure 21).<sup>27</sup> Why these prices have eased is unknown and may be due to external developments such as the deregulation of the U.S. natural gas market that started in the mid-1980s, or to regional policy decisions such as the choice of state–local tax and regulatory policies.

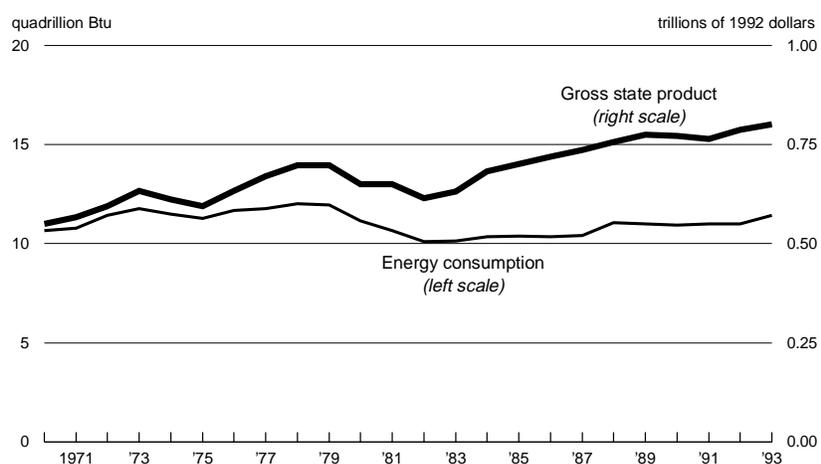
The region has also taken measures toward greater energy conservation and efficiency at the same time industry composition has shifted away from energy-intensive industries. The Midwest today is consuming much less energy relative to gross state product than 20 years ago (figure 26). Due to these developments, some studies suggest dramatically lower responses to potential oil price shocks.<sup>28</sup>

**Table 6** Index of Relative Wages in Manufacturing: Midwest vs. U.S.

	1979	1983	1989	1993	1995
Illinois	1.09	1.10	1.07	1.03	1.02
Indiana	1.16	1.14	1.12	1.12	1.13
Iowa	1.16	1.14	1.03	1.04	1.03
Michigan	1.30	1.32	1.29	1.31	1.32
Wisconsin	1.09	1.11	1.03	1.04	1.03
<b>Midwest</b>	<b>1.17</b>	<b>1.17</b>	<b>1.13</b>	<b>1.13</b>	<b>1.13</b>

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

**Figure 26** Midwest Energy Consumption and Gross State Product



Source: See Figure 20.

*The national recession of 1990–91 had a relatively shallow impact on the region’s economy and fiscal condition.*

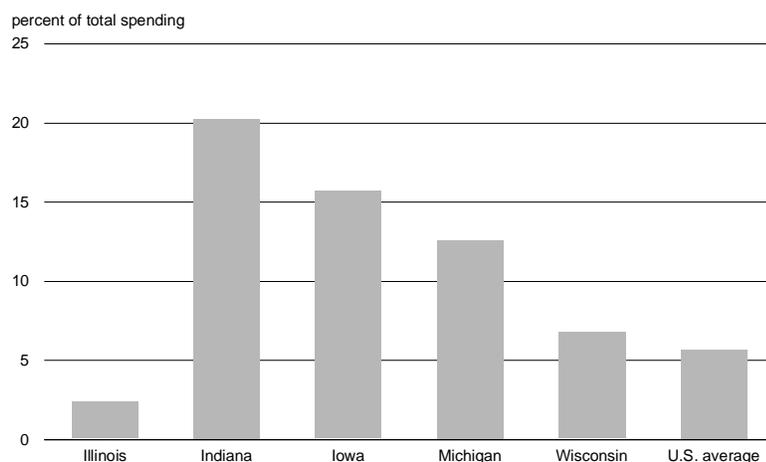
### The Public Sector

Some evidence suggests that the Midwest has assisted its own revival through judicious fiscal policies. During the early 1990s, the region followed a conservative fiscal path of acting to ease the pain of economic downturn, while stopping short of accumulating debt and obligations that might have retarded long-term growth and development. At the same time, public infrastructure projects went forward, while no major mistakes in speculative investment were made. Whether this behavior significantly contributed to the economic revival is debatable since the relationship between public spending/taxation and economic growth has not been conclusively demonstrated. Beneficial effects between state–local government fiscal health and private sector economic growth run in both directions, thereby making it difficult to discern cause from effect.

The Midwest’s current prosperity is evident in its state and local sector, as midwestern state and local governments have, in general, rebuilt their budget balances and improved their fiscal position (figure 27). The recessionary period of the early 1980s reduced the region’s fiscal capacity and induced states to strain their capacity to fund public spending. However, Midwest states began easing strains on their fiscal capacity by the mid-1980s.<sup>29</sup> This may have contributed to private sector recovery and an early return to fiscal health in the private sector. The fiscal experience of District states followed the same break with the past that has characterized the economic performance of the region. Unlike previous recessions, the national recession of 1990–91 had a relatively shallow impact on the region’s economy and fiscal condition. District governments generally managed to weather the recession by making small tax adjustments and expenditure corrections, whereas previous recessions had usually forced dramatic tax increases.<sup>30</sup>

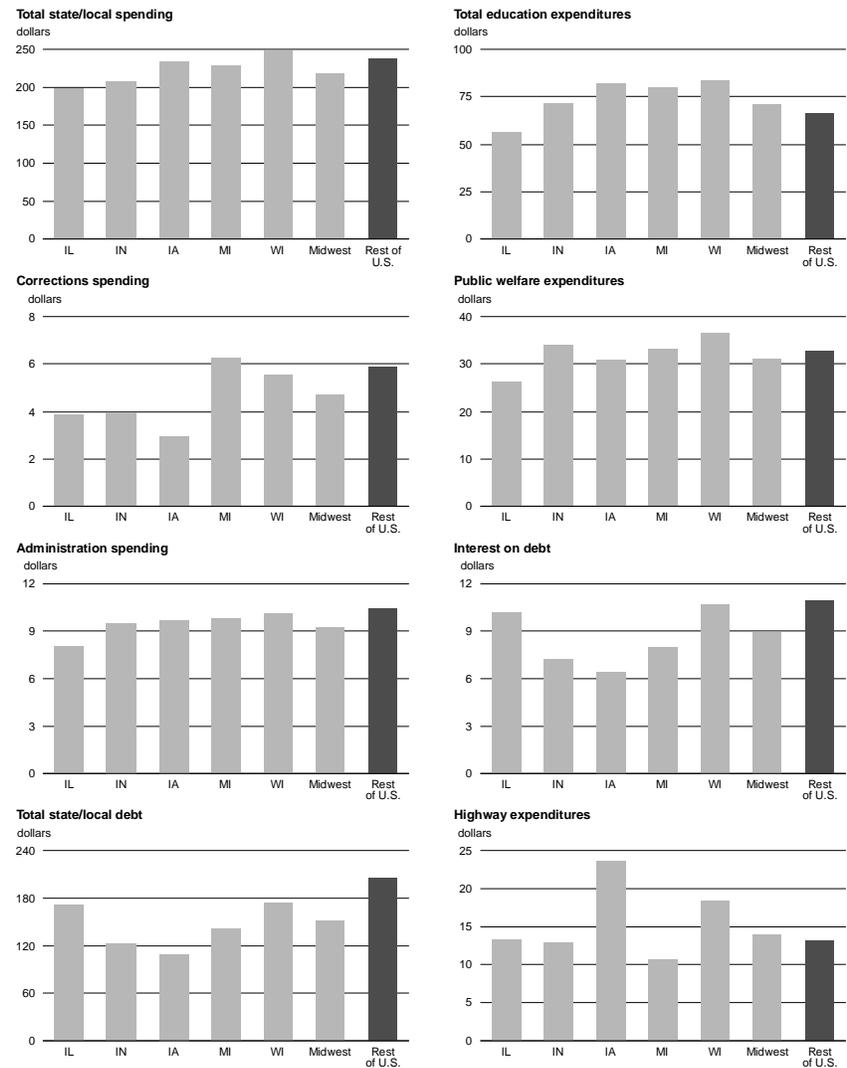
Some of the fiscal health of the District states can be attributed to their relative thrift. Examining a variety of categories for state and local spending, it is clear that District governments spend at levels below the average for the rest of the U.S.—this is true for total spending, as well as several subcategories such as corrections spending, administrative spending, and state and local debt costs (figure 28). Expenditure levels tend to be above the average for the rest of the U.S. in areas such as highways and education, but spending in these areas is often viewed as beneficial to state economies.<sup>31</sup>

**Figure 27** Estimated 1996 Public Sector and Local Fund Balances



Source: National Association of State Budget Officers.

**Figure 28** State and Local Public Sector Spending Per \$1,000 Personal Income, 1993



Source: U.S. Department of Commerce, Bureau of the Census, "State and Local Government Finance Estimates, by State," Internet at [www.census.gov/govs/www/index.html](http://www.census.gov/govs/www/index.html), March 17, 1997.

### ***Institutional Capital***

Nonprofit institutions and organizations that engage in economic growth and development policies and programs are often believed to be influential in regional growth. In her 1995 book *World Class*, for example, Rosabeth Moss Kantor suggests the places that succeed in the new global economy often do so because they have created and subsequently been supported by these same organizations, their so-called institutional capital.<sup>32</sup> These institutions are often found in the not-for-profit sector and include public-private partnerships and councils, nonprofit organizations composed of business leaders, public-private development councils, foundations, trade associations, chambers of commerce, extension-oriented research centers based at local universities, and research institutes.

Similar to many other regions that have enjoyed long periods of development and prosperity, the Midwest has created a rich endowment of organizations that form its institutional capital stock.<sup>33</sup> The activities and geographic scope of these organizations are highly diverse and they contribute to regional growth by improving communication between private and public sector decisionmakers, as well as providing research and information on critical issues affecting local and regional economies.<sup>34</sup>

The existence of strong institutional capital can be important in a variety of regional economic development efforts. In the case of state and local economic development planning, for example, community-based organizations and local business associations can often provide very useful information to public-sector decisionmakers on which efforts and programs work best. In addition, many of the institutions that make up a region's institutional capital can promote solutions that fall outside of narrow political boundaries, solutions that might have been difficult to promote without the existence of multistate regional organizations interested in these issues. For example, several multistate efforts have addressed environmental challenges in the Midwest. One such effort is aimed at understanding and fashioning compliance solutions to the ozone-related ambient air quality standards of the Clean Air Act Amendments.<sup>35</sup> Another arises from the Great Lakes Water Quality Initiative, a basin-wide approach to reducing toxic contamination of the Great Lakes system.<sup>36</sup> Proactive development initiatives at a multistate level have been no less common, including tourism and export promotion and efforts to broaden skill standards and certification.<sup>37</sup>

### Recap

*The overriding conclusion in reviewing the reasons for the Midwest turnaround is the startling confluence of a variety of conditions and trends, each contributing to the region's turnaround. It is not possible to discern the relative contributions of these forces with a great deal of precision. Nonetheless, the distinction between forces beyond the region's control and those within its control is apparent. Both sets of influences have contributed in a major way to economic revival. External forces are readily accepted as influential by most observers, owing to experience and statistical evidence. However, they alone were insufficient to stem the region's decline. That internal changes as well have been influential is apparent from the Midwest's experience. This, coupled with the knowledge that external changes are capricious from decade to decade, should encourage policymakers to press further in their efforts to stay on the high road to growth and success.*