VI. Notes


3Surprisingly, net migration into the rural Midwest exceeded population gains derived from natural increase, i.e., births minus deaths. Throughout this century, population gains in rural counties have generally been realized through natural increase concurrently with net out-migration of young adults. By the 1990s, the resulting aging of the population, coupled with in-migration, resulted in a notable reversal; in-migration gains were leading those achieved by natural increase in rural counties of the nation and the Midwest.

4See Johnson, op. cit.


10Languishing total dollar volume of exports is somewhat expected in this instance because rising physical quantities of exports may be insufficient to make up for lower dollar prices per physical unit, i.e., the so-called J-curve effect. Of course, other forces, especially changing economic growth of export destinations, also determine export sales.


14Research completed by Phil Israelевич on defense-related businesses in the metro Chicago economy found that less than 1% of the total output of goods and services in the Chicago economy was related to military procurement expenditures in 1987 (during the height of the military spending boom). Furthermore, electrical machinery, business services, food, and control instruments accounted for 73% of the procurement funds that the metro economy received. These industry groups can serve civilian markets without the difficult transition associated with prime defense contractors such as ship builders, plane manufacturers, or weapons and munitions firms. See Philip Israelевич and David D. Weiss, “The Effects of Defense Cuts on the Chicago Economy,” Chicago Fed Letter, Federal Reserve Bank of Chicago, January 1992.


18Workshop Summary Series, No. 6, comments by David Walters.


20In research conducted for this project, Jack Hervey and William Strauss constructed foreign currency measures against the dollar that are specific to the Midwest’s export composition. Their research suggests that the Midwest’s export success has run counter to deleterious trends in the exchange currencies of the region’s major export destinations. It is more likely that the region’s export success derives from a favorable pattern of expansion in foreign markets and from improving productivity. See Hervey and Strauss, “A Regional Export-Weighted Dollar: A Different Way of Looking at Exchange Rate Changes,” Assessing the Midwest Economy Working Paper Series, No. GL-2, Federal Reserve Bank of Chicago, 1996.


Notes (continued)

24Per later discussion, the evidence is consistent but far from conclusive.
25Such figures are merely suggestive and not definitive, assuming, for example, the shift between part-time and full-time workers across regions and regional differences in labor force growth do not distort the findings.
26The evidence is also consistent with falling wages having resulted from a shrinking economy (and shrinking labor demand). The early period strongly suggests the falling wages were caused by loss of manufacturing and attendant high-paying jobs and by excess supplies of willing workers. Whether lower wages have worked to help revive later investment and employment in the region is, as yet, unclear.
27See Bourbakis, op. cit.
29Fiscal capacity measures of a state, for example, are constructed by comparing a state’s per capita tax base to the nation’s, aggregated across all commonly used tax bases, e.g., sales, income, and property value. See Advisory Commission on Intergovernmental Relations, Measuring State Fiscal Capacity and Effort 1987, Washington, DC, 1989.
33Examples include: statewide chambers of commerce in each of the five states; state research institutions, such as the Institute of Government and Public Affairs and the Great Cities Program (University of Illinois at Chicago), the LaFollette Institute (University of Wisconsin-Madison), the State and Local Policy Program and the Humphrey Institute of Public Affairs (University of Minnesota); the Institute for Development Strategies (Indiana University), the Heinz School of Public Policy at Carnegie Mellon, and the College of Urban Affairs at Cleveland State University; private organizations and firms, such as the Upjohn Institute for Employment Research, the Civic Committee of the Commercial Club of Chicago, the MacArthur (Chicago) and Mott (Detroit) foundations, First Chicago NBD Corporation, Ameritech; utilities, such as Detroit Edison; and public and quasi-public bodies, such as the Council of Great Lakes Governors (Chicago), the Council of Great Lakes Industries (Chicago), The Great Lakes Commission (Ann Arbor, MI), the Indiana Economic Development Council, and the Northeast-Midwest Institute (Washington, DC).
39See Workshop Summary Series, No. 2.
40For example, plant productivity for the steel industry improved dramatically. Martin Kenney and Richard Florida report that from 1985 through the first quarter of 1991 productivity improved from 4.2 man-hours per ton of steel shipped to 2.8 in the National Steel’s Great Lakes Works integrated steel mill (Beyond Mass Production, Oxford University Press, 1993, p. 178).
41At the same time, the spatial distribution of the industry changed dramatically, with the regional distribution of ore-based capacity shifting away from the Pittsburgh–Youngstown region to the Great Lakes region. Capacity in the millinum segment grew most dramatically in the South, where it more than tripled. See Patricia Beeson and Frank Giarratani, Spatial Aspects of Capacity Change by the US Steel Industry, University of Pittsburgh, November 1995. Also, Florida and Kenney, “Restructuring in Place: Japanese Investment, Production Organization, and the Geography of Steel,” Economic Geography, Vol. 68, No. 2, 1992.
42Kim, op. cit.
43See Baldwin et al., op. cit., and U.S. Department of Commerce, op. cit.
44Figure 30 presents evidence on three of the 17 technologies surveyed. For more detail, see Kler, op. cit.
45For a look at regional technology diffusion using the Survey of Manufacturing Technology data, see Jane Sneddon Little and Robert K. Triest, Technology Diffusion in U.S. Manufacturing: The Geographic Dimension, Federal Reserve Bank of Boston, 1996. The authors find that geography does make a difference to the speed of adoption of advanced technologies. Even taking into account industry and plant characteristics, they find proximity to other users of technology to be associated with higher rates of adoption.
Notes (continued)

46See Rubenstein, op. cit.
48A recent study by MIT’s International Vehicle Program showed how the productivity of auto assembly plants changed between 1989 and 1993/94. Apparently, the best North American plants of U.S. auto assemblers have nearly caught up with the best Japanese plants. However, the data also show that best practice is a moving target; the plants with the most improved productivity were Japanese plants in North America. See Diana Kurylko, “Assembly-Hour Gap Closing,” Automotive News, March 4, 1996, p. 1.
49See Workshop Summary Series, No. 6.
51Early dynamic modeling suggests that all three countries will realize augmented growth from NAFTA. The dynamic model suggests greater potential gains than previously indicated by static models, partly owing to the ability to account for capital flows, capital accumulation, and other endogenous elements of growing economies.
52Evidence from the U.S.–Canada FTA indicates the two countries have been able to shift production toward their apparent areas of comparative advantage; Canada’s share of its own market has decreased—from 71% in 1980 to 50% in 1994—and its share of the U.S. market has increased—from 2% in 1980 to 2.9% in 1994. The U.S. share of Canada’s market has increased (in manufacturing)—from 21% in 1980 to 36% in 1994—while its share of its own market has declined—from 92% in 1980 to 84% in 1994. Bilateral trade surpluses and deficits show a similar pattern. Thus, by lowering barriers to trade, both nations are able to specialize and trade more, realizing greater wealth through consumption and investment. See comments by Michael Kouparitsas, Gary Scott, and Little summarized in Workshop Summary Series, No. 6.
54Workshop Summary Series, No. 6, comments by Peter Kresl.
55Ibid., comments by Arnold Weber.
56Ibid., comments by Peter Kresl.
57Ibid., comments by Geoff Hewings. Hewings also suggested that intraregional shipments of goods far exceed exports from the region. The export numbers compare to total U.S. goods exported of $585 billion for the year 1995, of which $127 billion went to Canada, $46 billion to Mexico, and $41 billion to the rest of the world.
58For more examples, see Federal Reserve Bank of Chicago, Shaping the Great Lakes Economy, 1992 conference proceedings, p. 49.
60Ibid., op. cit.
62Workshop Summary Series, No. 4, comments by Rebecca Blank.
63Workshop Summary Series, No. 4, comments by Rebecca Blank.
64The Gini coefficient is a widely used measure of income inequality. A Gini coefficient of 0 would indicate perfect equality, i.e., all households would have the same income; a rating of 1 would reflect perfect inequality, with one household receiving all income.
66Workshop Summary Series, No. 4, comments by Kevin Murphy.
71For more information, see Workshop Summary Series, No. 3.
72Ibid., comments by Bernat.
73Ibid., comments by McGranahan; also Crump and Walzer, op. cit.
74Workshop Summary Series, No. 3, comments by McGranahan.
76Workshop Summary Series, No. 3, comments by John Fraser Hart.
77For more information on this topic, see Workshop Summary Series, No. 1.
78See Kim, op. cit.
80For example, in the central city–suburban context, changing information technology has encouraged movement of business service industries to the suburbs. See Atkinson, op. cit. Services in which information is digitized and transmitted via computer and fiber optics are the best prospects for moving to the suburbs. As evidence, the concentration of data-processing jobs has shifted dramatically to the suburbs. Suburban locations have an advantage when it comes to accommodating the needs of digitized services. It is easier to outfit new buildings with smart technologies than to retrofit existing urban structures.
81Workshop Summary Series, No. 4, comments by Rebecca Blank.
Notes (continued)


89See Workshop Summary Series, No. 5.


92Workshop Summary Series, No. 5, comments by Graham Toff and Tim Bartsch.

93Alan Peters and Peter Fisher of the University of Iowa have begun to examine industrial incentives and the pattern of competition among U.S. states and cities. The purpose of their work is to see whether evidence is available to suggest that the spatial pattern of industrial incentives and competition among cities and states does in fact lead to a redistribution of jobs to distressed areas. If the competition to offer the best incentives can create new opportunities for local residents with low reservation wages in high unemployment areas, this should support the contention that the practice of incentives may be a positive-sum game. Their initial results suggest that after at least a decade and a half of intense competition for investment and jobs, the state and local system of taxes and incentives has provided no clear inducement for firms to invest in high unemployment areas.


95Looking at the competitive tax climate features of current state-local systems, Oakland and Testa compared current business taxes by state in relation to each state’s value added. They found that business taxes as a percent of value added would result in much more modest tax rates—the range of 2.5% to 3.5%. If business taxes were reduced to levels commensurate with costs of public services provided, these rates would be even more modest—the range of 1.5% to 2.5% of value added. Any remaining differences among states in tax levels would reflect conscious choices to provide different levels and mixes of public services. Accordingly, one could expect constructive dialogue between the business sector and its government in financing and financing critical government services. The current hodge-podge of business taxation could be replaced by a single business tax levied at a uniform rate on the value added by origin of business. Such a tax would have several advantages. First, if businesses were taxed in proportion to their value added, the taxes paid would closely vary according to the size of the firm and the attendant public services consumed. Second, taxing by origin would mean that taxes were levied in proportion to the geographic location of business activity (i.e., production). Since public services are presumably consumed by locally producing firms, this system would accord with the benefit principle. Last, a tax on value added is neutral with respect to each firm’s choice of method of production. Unlike the current accumulation of state-local business taxes, a uniform tax on value added would neither discriminate against capital-intensive firms nor favor the ever-growing service sector.

96See Eberts, op. cit.


98See Sean P. McAlinden, Brett C. Smith, and David E. Cole, Driving America’s Renaissance, Office for the Study of Automotive Transportation, University of Michigan, 1995. The study further suggests that only about 15% of these positions will not be filled.

99Downes and Testa, op. cit.

100An example of environmental policy of this type includes the Great Lakes Water Quality Guidance. See Allegra Cangelosi, “The GLI: A Major Skirmish in the Environmental Wars of the 104th Congress,” Northeast–Midwest Economic Review, May 1995, pp. 9–12. In addition, the amendments to the Clean Air Act of 1990 allow regional approaches to compliance with certain air quality standards such as urban smog; see Hanson, Kosobud, and Testa, op. cit.

101If this is the case, central cities would seem to have an inherent advantage; they can internalize the wider job and tax revenue benefits in their development activities. However, this competitive advantage may be offset by the fiscal disadvantage that central cities (and potential urban businesses) bear because they must provide public services to low-income households.