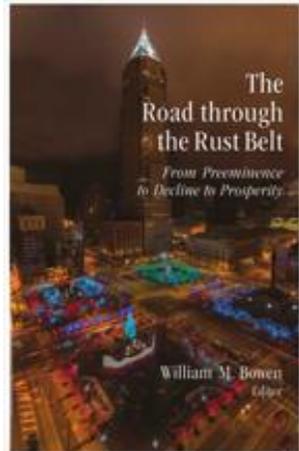

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the Rust Belt**

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to Decline to Prosperity**

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Editor

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Midwestern Urban and Regional Responses to Global Economic Transition

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Midwestern industrial cities continue to cede ground to low-cost, overseas competitors in the increasingly global economy. Yet transitions present opportunities and Rust Belt regions can experience prosperity despite losing the market dominance in manufacturing that they once enjoyed.

Human urban and regional settlements have existed within a system of economic expansion and contraction that may be traced back continuously at least to the development of Afro-Eurasian interregional trade in the Bronze Age (Frank and Thompson 2005; Smith 2009). The characteristic structure and cycles of this system have included core-periphery divisions of labor, alternating periods of rivalry and hegemony, and economic periods of upswing and downswing. The characteristics of the total system at any given time have strongly influenced local economic activities and overall levels of prosperity (Frank 1993).

Today's midwestern industrial cities are in some ways similar to other cities throughout history. Their local economies are parts of a larger, continuous system of economic expansion and contraction. They are driven by forces of innovation and entrepreneurship, capital accumulation, division and specialization of labor, and changes in demand and market sizes. Yet they are somewhat different from many other cities in that they originated roughly during the latter part of the industrial revolution and came to economic preeminence during the first half of the twentieth century, at which time the population not only in the United

States but in the world was larger than ever. These cities developed when transportation and communication technologies were advancing to previously unimaginable power and influence. Today, midwestern industrial cities face a new economic world order, with more competition from around the globe than ever before (Bair 2005; Ducruet and Notteboom 2012; Gereffi, Humphrey, and Sturgeon 2005; Henderson and Nadvi 2011; Henderson et al. 2002; Winters and Yusuf 2007).

To understand any system, one must understand the larger one within which it is embedded. Thus, this chapter starts with a brief overview of the evolution of the economic world system within which midwestern industrial cities attained world-scale economic dominance in the late nineteenth and early twentieth centuries. This gives perspective on why these cities achieved such preeminence, and helps provide insight as to why they cannot reasonably expect to reclaim it today. Next, the chapter briefly reviews some recent scholarly literature describing the technological, industrial, and political-economic changes during the early twenty-first century. These shifts seem likely to continue and possibly even to accelerate the long-term evolutionary trends from smaller-scale, simpler sociotechnical and trade systems to larger-scale and more complex ones. The chapter then considers some of the implications of these trends for the renewal of prosperity in midwestern industrial cities. We conclude by suggesting that the idea of prosperity needs to be reframed relative to the previous concept, which was centered on economic world dominance. However, on the basis of the reframed idea, renewed prosperity is well within reach for large segments of the population in midwestern industrial cities.

MIDWESTERN INDUSTRIAL CITIES WITHIN THE ECONOMIC WORLD ORDER THROUGH THE TWENTIETH CENTURY

Trade and investment across borders began long before the rise of modern capitalism (Muller 2009). However, there is little doubt that global economic transition intensified during and after the Industrial Revolution (More 2000). Some of the major underlying factors included the use of fossil fuels, the development of textile technology, the factory

system, the growth of the human population and its concentration in urban areas, and the modernization of agricultural, mining, and metallurgical production processes. Other factors driving intensification and diffusion included the expansion of transportation through newly created and developed railroads, canals, macadamized roads, steamships, and refrigerated railway cars. Much was also promoted institutionally by radically reduced tariffs, designed to induce international trade, and the practice of pegging national currencies to gold, so as to have a common unit of exchange, especially in Europe.

Industrial Growth in the Midwest

As the Industrial Revolution diffused from Great Britain and Europe to the United States, midwestern cities were well-poised to take advantage of the newly developed methods of production. By the turn of the twentieth century, advantageous locations along prominent waterways, agricultural surplus, abundant and fertile land, availability of natural resources, and high levels of immigration resulted in flourishing manufacturing sectors throughout midwestern industrial cities and helped catapult them to the first rank of worldwide competitiveness. This dominance was achieved through mass production driven by fossil fuels, blue-collar labor forces and mechanization, and national consumption of goods at historically unprecedented rates, allowing relatively large segments of the populations within midwestern industrial cities to enjoy great prosperity.

These cities continued to grow through the early twentieth century, along with the entire American economy, arguably because of previously unparalleled opportunities to achieve scale economies offered by the exceptionally large U.S. domestic market (Hannah 2008). Between 1900 and 1920, the U.S. population increased 40 percent, from 76.1 to 106.5 million, while real gross domestic product rose 63 percent, from \$422.8 to \$687.7 billion.¹ Midwestern industrial cities thrived primarily on trade with other U.S. markets, taking advantage of railroads, waterways, and Great Lakes shipping routes. Furthermore, labor needs continued to be met through great international in-migratory flows, all but guaranteeing continued economic growth and development.

The period between World War I and World War II brought further ascendancy of midwestern industrial cities. Partially this was attribut-

able to events in other parts of the world with respect to which nobody in these U.S. cities had much if any control. Russia became the Soviet Union and closed itself off economically from competing with the rest of the world. Similarly, amidst the turmoil of the Weimar Republic's efforts to recover from the devastation of World War I, the Germans sought complete economic self-reliance. At least partially in consequence of the rapidly diffusing European retreat from international trade along with the stock market crash of 1929, widespread bank failures, and a precipitous decrease in demand for manufactured and other products, the world economy went into a deep depression in the 1930s. The closing of national borders to international trade contributed to mass unemployment, social upheaval, and the rise of fascism, all of which laid the foundation for World War II. The Great Depression induced widespread protectionism in an effort to shore up national economies around the world. For example, in the United States, the Smoot-Hawley Tariff Act of 1930 was signed into law on June 17, 1930, with the purpose of raising U.S. tariffs to record levels on over 20,000 imported goods. U.S. markets were generally large enough to consume the products coming out of midwestern industrial cities, and the widespread retreat from international trade reduced supplier competition for such products, indirectly contributing to the success of these cities.

At the end of World War II, the standing of midwestern industrial cities was nearing its peak. At the same time, American policymakers and most global leaders were convinced that the protectionist policies and trade policies in place after the First World War were an economic disaster and tended to result in antagonism and conflict. This led to efforts, spearheaded by the United States, to begin laying the institutional groundwork necessary for expanding international trade (e.g., lower U.S. tariffs). The results of these initiatives were manifold: the World Bank was created to help fund infrastructure in war-ravaged Europe; the International Monetary Fund took on the task of stabilizing the currencies of troubled economies; and the General Agreement on Tariffs and Trade (GATT) was established to reduce trade barriers and provide a forum for discussion of further reductions.²

While the United States and most European countries were working to bolster international trade, the communist countries, led by the Soviet Union and China, remained inwardly focused and did not participate. The centrally planned and controlled Soviet government's policy

was to ensure that the bulk of the country's production was traded and consumed exclusively within the Eastern European block of communist countries. International trade by the Chinese was largely precluded, not only by communist economic policies of centralized control, but because of the protracted civil war they had fought since the 1920s and the subsequent conflict with the Japanese during World War II. China had very little industry, high unemployment, and massive food shortages. In the United States in general and midwestern industrial cities in particular, widespread fear of communism stimulated industrial production for the manufactured goods and services needed to support the Cold War. The influence of communism also had the largely salutary indirect effect that communist countries did not provide supply-side economic competition for the goods produced by midwestern manufacturers.

The Impact of Globalization

Communism notwithstanding, the period between the 1950s and the 1970s brought an enormous overall increase in international trade. Perhaps most importantly, it was at this time that Japan and the “East-Asian Tigers”—Singapore, Hong Kong, Taiwan, and South Korea—began large-scale export-oriented industrialization. The rise of industrial production, especially in the Far East, created new competition for midwestern industry in downstream markets for finished goods. Japanese production, in particular, began to compete seriously in the United States, at first with small, inexpensive trinkets, toys, and baubles of low quality, and later with high-quality motorcycles and vehicles such as automobiles, as well as office machinery, scientific and optical equipment, semiconductors, and other electronic components. U.S. firms had no choice but to participate in increasingly globalized markets, either by inclusion or exclusion.

Early signs of the decline of midwestern industrial cities—the rise of the Rust Belt—began to appear in the 1960s, as both the concept and processes of globalization began to take new root. The word “globalize” began to show up in the academic literature in the 1960s and in the mainstream press in the 1980s, roughly meaning to make global in scope (Liu, Hong, and Liu 2012; Oner et al. 2010; Oswick, Jones and Lockwood 2009). Greater numbers of people than ever before started to move around the world; more places were involved in the global

economy; and flows of international goods and investments increased significantly. A greater reliance on international markets occurred universally, except in the communist regimes, and competition increased acutely in markets that had been essentially dominated by midwestern industry.

U.S. Socioeconomic Trends

Economic decline beginning in the 1950s in midwestern cities was additionally caused by a mix of factors, foremost amongst which may have been the widespread preferences of individuals to move to places with mild winters, along with increased incomes that made it possible to act upon these preferences, and the mass production of affordable air-conditioning technology (Rappoport 2003). Another major contributor was the rapidly changing industrial composition of U.S. employment. At the end of World War II, service industries accounted for 10 percent of nonfarm employment compared to 38 percent for manufacturing. By 1996, service industries accounted for 29 percent of nonfarm employment compared to 15 percent for manufacturing (Meisenheimer 1998). The changing composition of industry meant a shift from heavy manufacturing of such goods as steel and automobiles, which were concentrated in midwestern cities, to service industries, which were freer to locate throughout the country. Moreover, the cost of labor in the heavily unionized northern and midwestern cities was higher than the cost of labor in the largely union-free South and West. These factors played a significant role in the massive population migrations that occurred from the North and Midwest to the South and West (Greenwood 1997; Hobbs and Stoops 2002). To make matters worse for the inner cities, a shift occurred in the population of metropolitan areas, from cities to suburbs, brought on by widespread adoption of the automobile starting during the mid-twentieth century, along with massive investment in highway and road construction. As described in Box 1.1, the result of such trends can have dire consequences.

Economic Change in China

As the twentieth century came to a close, by far the most significant systemic alteration in world markets affecting midwestern indus-

**Box 1.1 Economic Decline in Formerly Preeminent Cities:
Detroit's Bankruptcy**

On July 18, 2013 the city of Detroit filed for Chapter 9 bankruptcy protection. As the 11th largest city in the U.S., Detroit's bankruptcy stands as a dubious marker in the urban history of a city once considered the icon of American industry. While Detroit had been suffering from severe fiscal stress since at least 2002 (Scorsone and Bateson 2012), the possibility of bankruptcy became all but imminent with the appointment of Kevyn Orr as Emergency Manager in March 2013.^a The city's debt has been estimated to be somewhere between \$18 and \$20 billion (Davey and Walsh 2013), with the city's pension fund being its largest creditor (Renaud-Komiya 2013). While some pin Detroit's failures squarely on the backs of a corrupt local government that completely failed at managing the city's finances (Marotta 2013; Auslin 2013), others see the bankruptcy as an outcome of not only this financial mismanagement, but also a set of multifaceted and complex issues plaguing the city for decades, including deindustrialization; globalization; suburban sprawl, which reduced the city's tax base; fiscal stress in the form of annual operating deficits; burdensome health care and pension costs; city services stymied by outdated technology and poor service delivery; and clear race and class separation between the city and surrounding region (Florida 2013; Davey and Walsh 2013).

As the largest municipal bankruptcy in U.S. history, there is keen interest in how Detroit will navigate these somewhat uncharted waters—less than 500 municipalities have sought Chapter 9 protection since its inception in the 1930s (U.S. Courts, n.d.). Many municipalities are experiencing greater fiscal stress since the Great Recession, and legacy costs (i.e., pension and other retiree benefits) are of particular concern to many midwestern industrial cities as many of these cities face similarly steep contribution requirements (Scorsone and Bateson 2012). In a 2012 report that evaluated merits of Chapter 9 bankruptcy for the city of Detroit, Scorsone and Bateson (2012) note that the primary advantage of bankruptcy is cost containment, specifically in regard to reduction of legacy costs, as well as improvements in cash flow.

Box 1.1 (continued)

The impact on residents and the existing assets of the Detroit is also a key concern. Both residents and city workers have been assured that city services will continue uninterrupted (Davey and Walsh 2013), but certainly changes lie ahead. Furthermore, although the liquidation of local assets is not allowed under Chapter 9, creditors have still requested and received appraisals of artwork at the Detroit Institute of Art. Kevyn Orr has stated that the sale of artwork was not in the city's plans (Haskell 2013).

Florida (2013) argues that bankruptcy may be the reset Detroit needs and that it may help bolster the city's nascent revitalization efforts by stabilizing its fiscal management, spurring greater regional cooperation, and highlighting the need for more equitable and inclusive urban revitalization models. Thus, many questions remain about Detroit's fiscal and economic future, and both the Rust Belt and the nation will be keenly observing its progress through bankruptcy, whether it helps propel the city's revitalization prospects, and the impact on residents, employees, and governance structure.

^aFiscal stress "refers to [financial] indicators that merit further attention [and] may be indicated by budget shortfalls, decreasing cash balances, or increasing debt loads" (Scorsone and Bateson 2012, p. 2). As Emergency Manager, Orr is the primary decision-maker and has the power to remove both the Mayor and Detroit City Council, through both Orr and local officials have been working cooperatively to this point.

trial cities was the end of communist economic ideology in China. The accession to power of Deng Xiaoping upon the death of Mao Zedong in 1976 gave rise to the so-called Chinese economic miracle, and changed the future of supremacy within the economic world system (Rodriguez 2011). Whereas previously it had been feasible for a relatively wide range of midwestern industries to achieve world-level preeminence, the ascendancy of China on global markets placed constraints on the options for midwestern firms. Substantial Chinese penetration began in markets that had been virtually the exclusive domain of U.S. manufacturing. China's export bundle increasingly overlapped with that of U.S.

production, and did so at progressively low relative prices. In 1972, Chinese products were present in only 9 percent of manufacturing product categories, but by 2005 they were present in 85 percent (Schott 2008). With China's huge and inexpensive labor force, high savings rates, and investment in infrastructure, its industry began to pose new and daunting levels of competition for the United States and for other countries.

The Chinese economic transformation can generally be explained by microeconomic and institutional reforms based on decentralization, privatization, and the development of markets (Lin, Cai, and Li 1996), and by newly adopted macroeconomic policies favoring openness through increased international trade, direct investment, and integration into global production networks (Chai 1998; Lardy 2003; Lie, Romilly, and Song 1997). In the big picture, the macroeconomic openness side probably has had a larger, more direct impact upon midwestern industrial cities. However, the reform side is in some ways more instructive for those interested in the renewal of these cities, in that it illustrates the tremendous economic power that can be unleashed by the proper market incentives for self-initiative and responsibility.

The reforms were born of the revival of private enterprise following massive state spending on industrialization under Mao, along with the unimaginable catastrophes brought on by the Great Leap Forward in 1957 and the Cultural Revolution in 1966. In the aftermath of Mao's death, confusion over leadership and the control of political power at the national level brought opportunities for brave regional governments, including the well-known Anhui province in eastern China, to establish some elementary private ownership arrangements. There, for the first time since the rise of centralized communist economic control, farmers were allowed to meet their quotas and to keep excess production to sell in markets. This gave farmers the incentives to take risk and to use their intelligence to improve agricultural productivity.

Optimism for a better future grew massively along with the increases in agricultural productivity. The gains in productivity in turn stimulated the development and diffusion of the township and village enterprises in Anhui province and elsewhere. These enterprises produced a wide variety of goods and services, such as clothing and other consumer items. Production decisions began to be made by local actors with information about area conditions and markets, rather than by commu-

nist party chiefs in Beijing. Although these local actors did not at first have formal property and ownership rights over their products, they continued to follow the established Anhui province model, allowing the participants in township and village enterprises to be residual claimants on the output of their labor.

Soon, people all over the country were allowed to act as if they were the owners of any products they created in excess of the minimum amount set for them by the local leadership. Individuals throughout the vast Chinese population were thereby incentivized to produce and to begin saving and investing in their land and themselves. The economic miracle was thus born of a newfound freedom for the Chinese people to respond to market incentives, which created a sense of hope for changing some of the stagnant economic conditions created by the past mistakes of communism.

Today's economic world order provides new and daunting challenges and opportunities in midwestern industrial cities. Looming large among these challenges is economic competition by the Chinese, as well as by other newly emerging global economic competitors. Households, firms, and policymakers within the region will need to recognize and to act upon the conditions of the twenty-first century, not those of the past period of midwestern industrial dominance.

MIDWESTERN INDUSTRIAL CITIES WITHIN TODAY'S CHANGING ECONOMIC WORLD ORDER

The post–World War II economy was transformed not only by systemic changes in global-level competition but also, especially of late, by a combination of population growth and advancements in information and communication technologies. Attendant increases in interdependence throughout social systems have brought new difficulties in understanding the substantive aspects of problems such as the renewal of prosperity in midwestern industrial cities. Population growth brings greater demand for food, shelter, and other resources. Starting with the Industrial Revolution in the 1700s, advanced societies have met these demands by increasing the intensity and scale of production, leading to higher levels of output, driven primarily by fossil fuels. In turn, indus-

trialization has had major geopolitical, strategic, economic, and social implications, some of which bear directly on the prospects for midwestern industrial cities, and some of which could hamper the ability of the United States and its allies to maintain security (Jackson and Howe 2008).

To be clear, the United States and indeed the entire world is larger than ever before and still growing. At the turn of the twentieth century, when midwestern industrial cities were being formed, the population of the United States was 76 million and the world population was 1.7 billion. Today, the U.S. population is 309 million and the world population is just over 7 billion. According to midrange projections for 2050, the U.S. population will be 400 million (U.S. Census Bureau 2013) and the world population will be 9.5 billion (United Nations 2012). All the additional people will need food, water, clothing, shelter, and other subsistence items. They will want electricity and public infrastructure for sewerage and transportation. If and when they become wealthy, they will also demand luxury goods, sometimes lots of them. All of this requires resources from nature. Thus, these unprecedented population sizes pose new risks of resource depletion, problems of resource competition, and increased pressures for interregional trade. Johnson and Earle (2000, p. 301) also argue that increased population size almost invariably brings greater opportunities and pressures for increasingly centralized political and economic control of the means of subsistence, largely because of risk management, technological complexity, and trade considerations.

Population Growth, Technology, and the Exploitation of Resources

Growth in population has historically been interdependent with technological innovation. As populations have continued to increase, greater levels of industrial production have been required to meet the sustenance needs of households. This has tended to add to the demand for agricultural products and for energy and other upstream resources or inputs to production. Moreover, the way industry and the market economy have met this enlarged demand is by first exploiting the easiest-to-acquire, most immediately available, and therefore least costly resources. As these readily accessible resources have become depleted, it has become increasingly advantageous for industry to turn to less desirable

and more costly alternatives. Technological innovation is one of the primary strategies with which industry has exploited these options.

Take as an illustration recent efforts to drill for oil in deep water in places such as the Gulf of Mexico. Previously the oil and gas industry exploited the relatively accessible oil resources located in shallower water and closer to land. Prior to the 1990s, most of the oil came from shallow water wells, where drilling and production platforms could stand on stilts anchored to the sea floor. As one would expect given a growing population, the demand for oil continued to increase. During the 1990s, Global Positioning Systems (GPS) navigation technology became available; this made it possible for drilling rigs and ships to stay precisely positioned over an oil well using satellite navigation and microthrusters. Drilling rigs could thus be located and kept in exact position long enough to lay the many miles of pipes required to exploit a deepwater oil resource, and without drilling and production platforms anchored to the sea floor. Deepwater drilling has thus now taken off in the Gulf. The easiest-to-acquire, immediately available, and least-costly oil resources have been largely depleted, and new technologies have made it possible to exploit previously ignored or inaccessible ones.

New technologies have enabled more people in more households to meet their sustenance needs and to enjoy their luxury goods. Further advancements in technology have made it possible for industry to exploit additional resources, facilitating increased population growth, which has posed problems that require more technological innovation, allowing even less accessible resources to be utilized. According to More (2000), this sort of positive feedback loop between population growth and technological innovation has allowed industrialization to continue to meet the sustenance needs of growing populations since the beginning of the Industrial Revolution. Johnson and Earle (2000, p. 29) argue that this has been a general tendency in human societies throughout history, leading to an “upward spiral” of political-economic integration and more powerful leaders.

The combination of population growth and technological advancement has changed the international calculus of production, consumption, and competition in a way that is unlikely to reverse itself in the lifetime of anyone alive today, and it has brought new forms of risk. Take, for instance, products that come from rare earth elements, upstream resources used, among other things, in automobile production, petro-

leum refining, flat panel displays in cell phones, portable digital versatile discs (DVDs) and laptops, magnets, batteries, generators, medical devices, jet fighter engines, missile guidance systems, antimissile defense, and space-based satellites and communication systems. The United States used to be self-reliant in domestically produced rare earth elements, but over the past 15 years it has become 100 percent reliant on imports, primarily from China, largely because of lower-cost operations there (Humphries 2012).³

Dependence on upstream resources from foreign countries entails potentially enormous economic and political vulnerabilities. Factors such as distant natural hazards and accidents, as well as possibly hostile foreign political and economic decision makers who control upstream resources, threaten the stability of the production processes upon which the well-being of segments of local populations depend. Insofar as global markets function properly, and no hostilities arise, markets will continue to solve some of these risk problems efficiently. However, the integration of local production processes into global markets means a loss of local security for the affected firms and households.

The Need for Innovation and Entrepreneurship

As long as the U.S. and world populations continue to grow, demand will continue to increase for new technologies that enable improvements in the efficiency and effectiveness with which previously inaccessible resources can be utilized. The newly accessible resources will in turn enable increasing population growth, with its attendant increases in industrial specialization and trade. This is one big reason why innovation and entrepreneurship really matter. Regardless of whether the populations of midwestern industrial cities grow, remain stable, or shrink, rising national and world populations will put greater demand on resources and cause increased competition in markets. Households and firms in these cities can innovate, bring new goods and services to market, and either successfully compete in these markets or be excluded from them. Alternatively, households or firms can migrate in search of a better set of circumstances, as many have done over the past few decades.

Innovation, which is arguably the most desirable prospect for firms and the households that depend on them, can be seen in the central

Ohio automotive cluster, which has been able to maintain a competitive advantage over alternative locations that might offer better labor or input costs by focusing on high-value-added manufacturing. As Hill, Samuel, and Stewart (2008) explain:

The traditional ways in which manufacturers have tried to add value to products have been to offer better quality, lower cost or more speed or dependability in meeting just-in-time demands. These factors have become business necessities: Delivery reliability, quality and cost are now standard. The new value opportunities lie in customer experience, supply risk, and product and process innovation. The quality of the business relationship, the support for innovation, and the drive to minimize supply risk perhaps best explain why some OEMS [original equipment manufacturers] are succeeding and others are struggling. New domestics like Honda of America Manufacturing [located in central OH] tend to nurture a close relationship with their chosen suppliers, even providing access to the production lines in order to improve not only product but process. Tier 1 suppliers spoke favorably of customer companies that exhibited willingness to work with them on product development and pricing. This kind of close relationship has real economic benefit in that it helps reduce risk and spur innovation. (pp. 12–13)

Technology has always been a driving force for economic change, and Freeman (1989) classifies the latest shifts attributable to information and communication as the fourth major technological revolution. This fourth phase adds to the textile innovations of the late eighteenth and early nineteenth centuries, railroads in the mid to late nineteenth century, and electricity as well as the internal combustion engine during the late nineteenth and early twentieth century. The most recent transition has accelerated the development of international markets and powerful multinational and global corporations, and has fostered a new economic climate that features the rise of the service sector, the loss of prominence for manufacturing, and widespread consumerism.

Castells (1996) notes that this latest movement has been multidimensional in nature, but that a new paradigm rooted in major advancements within information and communication technologies lies at its heart. These technological improvements have vastly increased the integration of the existing world economy and created a new globalized economy. While the previous international economy experienced

capital accumulation that flowed between countries, the new globalized economy differs in that its “core components have the institutional, organizational, and technological capacity to work as a unit in real time, or in chosen time, on a planetary scale” (p. 102).

The process of industrial globalization is characterized by connections within national markets via consumers, production processes, and the expansion of market competition (Wiersema and Bowen 2008). In turn, consumers and the productive activities of firms are linked through globalized industries, which make products and services ever more standardized through increasingly homogenized consumer preferences and global economies of scale in both manufacturing and research and development (Wiersema and Bowen 2008). During the latter half of the twentieth century, globalization was also aided by government policies favoring deregulation and free market principles (Castells 2000; Singh 1994); reduced trade barriers and costs of international transportation and communications (Hummels, Ishii, and Yi 1999; Krueger 1995); increased integration of global capital markets (Sachs et al. 1995); greater capital mobility and reduced transaction costs; and a larger number of financial instruments (Irwin 1996). All of these changes have unalterably affected the markets within which midwestern industries must compete.

The Outcomes of Globalization

By the 1990s, many developing countries had been brought into the world economy, with increases in foreign direct investment, technology transfer, and production efficiencies (McMillan and Rodrik 2011). This world market has, among other things, resulted in the breakdown of the traditional, vertically integrated “Fordist” production process, which formed the core of the U.S. manufacturing sector in the middle of the twentieth century (Feenstra 1998), and in the growth of specialization by individual countries on certain phases of production (Hummels, Ishii, and Yi 1999). The outcomes of globalization have also included increased levels of regional, national, and global competition (Wiersema and Bowen 2008), cross-border mergers and acquisitions (UNCTAD 1987–1999), and the growth of multinational firms (Wiersema and Bowen 2008). Collectively, these outcomes have negatively impacted the economies of midwestern industrial cities, partially by increasing competition in product markets, and partially by concentrating the cen-

ters of financial control in fewer and fewer world cities, exacerbating the decline that began during the 1960s and 1970s. Integration of the developing countries into the world economy all but guarantees that the population and productive output of the United States in general, and of midwestern industrial cities in particular, will continue to steadily shrink as a share of the world's total (Jackson and Howe 2008).⁴

Newly structured global-scale corporations have seized upon before-unseen economies of scale in production, distribution, marketing, and management, giving way to a new level of world consumerism that was a death knell for many previously thriving midwestern firms that did not or could not operate on this scale (Levitt 1983). The global corporation is a more advanced entity than the multinational corporation, and one that “operates with resolute consistency—at a low relative cost—as if the entire world (or major regions of it) were a single entity; it sells the same things in the same way everywhere” (Levitt 1983, p. 92). While global competition has forced U.S. firms to be more productive and efficient (Hill, Samuel, and Stewart 2008), these benefits have not come without high costs, including stagnating wage rates (Lawrence and Slaughter 1993) and lost manufacturing jobs (Levitt 1983), which contributed to the decline of cities and regions that were once industrial powerhouses, such as those in the Midwest.

The “new economy” that had more or less fully emerged by the 1990s was integrated as never before in history at a global scale. It was rooted in global knowledge and ideas, with wealth and job creation tied to innovation and technology in all sectors of the economy (Acs, de Groot, and Nijkamp 2002; Atkinson and Gottlieb 2001). Electricity and the electrical engine helped bolster the industrial-based economy that allowed cities such as Cleveland and Detroit to prosper during the early and middle decades of the twentieth century. Similarly, the new knowledge-centric economy has been driven by microelectronics, computing, and digital communication advancements, including the Internet and extensive software developments, which have spurred the growth of places like Silicon Valley and the Research Triangle (Castells 1996). The infrastructure and transportation linkages that created comparative advantages for many midwestern cities during the early part of the twentieth century were crucial to the success of their manufacturing industries. But these linkages were less important to burgeoning knowledge-intensive industries that rely heavily on human capital to

create a competitive advantage, and that are primarily service- rather than production-oriented while competing at a global scale.

Another major component of this “new economy” was the momentous shift from manufacturing to the service sector, leading to a new industrial structure for many regions within the United States. The demise of the global dominance of the U.S. manufacturing sector began in the late twentieth century, during a period when developing countries experienced significant gains in technical skills and closed education gaps that previously existed with other nations, particularly in industrial and engineering fields; this was accomplished by developing infrastructure within universities, technical institutions, and vocational training schools (Singh 1994). These knowledge and infrastructure gains, coupled with rapid capital mobility, allowed U.S. manufacturing firms to exploit the regulatory, trade, wage, and environmental policies present within many developing countries by either relocating there or subcontracting through firms within those areas (Feenstra 1998). Furthermore, changes from recent technological innovations also directly affected the operations of the manufacturing sector through the expansion of new products, reduced costs, a reorganization of firms and industries, improved structure and efficiencies of large factories and firms, changes in production systems, flexible specialization, and the introduction of just-in-time production (Singh 1994).

The multidimensional forces of globalization that propelled a shift in industrial structure for many regions within the United States also helped to trigger a new, heavily bifurcated occupational structure, composed of higher-wage information technology jobs and lower-wage service sector occupations, and the decline of mid-wage, blue-collar manufacturing positions. A steady drop in both plant and firm sizes was seen in manufacturing throughout the United States and other western industrialized nations, which resulted from a combination of reduced noncore business activities and new computer-based technologies that improved productivity (Carlsson 1989).

The transition we have described means a larger-scale, more integrated, technologically intensive, knowledge-based, and service-oriented world economic order. As the influence of China, and to a lesser degree India and Brazil, continues to grow, the U.S. economic system in general, and the midwestern economic systems in particular, will surely play a less dominant role on the world stage. But we do not

see this as a cause for alarm. There is no convincing evidence that the inhabitants of cities with greater economic dominance in world markets fare better than residents in cities with lesser dominance.⁵ Goals, objectives, and policies oriented toward improved quality of life for residents rather than attainment or reattainment of economic dominance appear to offer greater promise for the future of midwestern industrial cities.

NEW STRATEGIES AND OPPORTUNITIES FOR PROSPERITY

In general terms, the global economic transition is driven by population growth together with technological progress, but in its details it is complex beyond human understanding. The transition is inseparable from the myriad of day-to-day decisions by unimaginably large numbers of individuals throughout the economic world order. The disconcerting and sometimes frustrating experience of uncertainty in the face of change felt within midwestern industrial cities is no doubt exacerbated by the belief that these cities will not in the twenty-first century regain the world-level preeminence they enjoyed in the twentieth century.

As a consequence, a sense of social and economic crisis and bewilderment is common today in many midwestern industrial cities and elsewhere. Within these places, there is a widespread perception of loss of past prosperity and a diminished feeling of well-being. A frequently shared view is that things used to be better, and public policies and programs must be devised and implemented to restore previous levels of affluence. Yet there is little agreement on what specific actions should be taken to this end. Public policy proposals differ vastly, not only in terms of what actions should be taken, but also who should initiate and take responsibility for them, and who should pay for them. Moreover, efforts to sort through and interpret the multitudes of inconsistent and at times even contradictory facts, rules, norms, and interests served by any given proposal tend to leave people frustrated, sometimes even those of us who have dedicated our work lives to studying cities and public policies. We are presented with a predicament in which we encounter conceptualizations and relationships among multiple interdependent variables, all of which are necessary to think coherently about the renewal

of prosperity in these cities, but which when taken together exceed our unaided mental powers to meaningfully evaluate.

This book is predicated on the perspective that while midwestern industrial cities will not remain globally preeminent, they need not necessarily continue to experience diminished prosperity. Although the time and circumstances since the heyday of midwestern industrial domination have changed and sociotechnical systems have become larger scale and more complex, the foundations of renewed prosperity may stem today, much as they always have, from a vibrant market economy. Capitalistic markets are a central phenomenon of modern life. They, and the institutional frameworks that enable and sustain them, such as the U.S. Constitution, are arguably more than a little responsible for the initial rise of prosperity in industrial cities in the nineteenth and twentieth centuries.

The Importance of the Market

Capitalistic markets are in no small measure the cause of wealth and productivity increases and are the vehicle that has made a much broader array of goods and services accessible to many more people than ever before. Capitalistic markets and their institutional frameworks have been the source of technological advancements, a previously unimaginable range of choice of occupation and lifestyle, and unprecedented levels of happiness and well-being enjoyed by a relatively large percentage of the population today (Stevenson and Wolfers 2008, Nelson 1990, Ridley 2010). Perhaps most importantly, these markets, together with their enabling institutions, have arguably given rise to unprecedented access to more and better information. Consequently, examination of these markets, their institutional frameworks, and their effects on prosperity from various political and disciplinary perspectives (and from perspectives that transcend normal disciplinary boundaries) is too important to be left only to economists and public policymakers, largely because they involve a great deal more than what we typically think of as “economic” and “political” issues.

Of course, not everyone has confidence that unfettered markets and free institutions alone can or will renew prosperity in today’s midwestern industrial cities, especially without exacerbating other problems, such as distributional inequities between class and race. Indeed, the

concept of a capitalist market is merely a model or abstraction from reality that helps us to represent and grasp some key elements of our societies and their relationships to one another. Moreover, this model may not be an altogether adequate one. It neglects to consider a range of political and social realities that depart from premises of consumer choice and decentralized decision making. For instance, it does not provide guidance on how and when societies should regulate monopolies or provide infrastructure. It tends to come up short as to how or when societies should respond to problems of extreme income inequality and inequity. It provides no reason to have compassion for firms that go under or for individual households that have been placed at risk for homelessness and unemployment as a result of market efficiencies.

The ideal type of capitalistic market makes certain assumptions about private property, exchange between legally free individuals, and the production and distribution of goods and services through mutual understandings and agreements between transacting parties to market transactions. The assumptions about private property, in turn, presuppose the existence of governmental authority to design and establish laws and property rights, and police power for the enforcement of those laws and rights. The assumptions about exchange between legally free individuals presuppose that people possess certain rights that meaningfully distinguish them from serfs or slaves, and that labor is not forcibly extracted from them through the exercise of superior political authority or power. The assumptions about the production and distribution of goods presuppose that decisions to exchange are not made by custom or through the coercive use of power by any sort of centralized authority. In turn, all of these assumptions are open to question, if in no other way than in their applicability in any given situation or set of situations, including the renewal of prosperity in midwestern industrial cities.

The Role of Public Policy

Nevertheless, some suppositions must always be made prior to any systematic examination of a phenomenon. In this book, the assumption throughout all of the individual contributions is that while capitalistic markets provide the only tried and tested method of achieving prosperity, they have certain imperfections for which public policies are at times necessary. Furthermore, all of the contributions are consistent

with the following propositions: that augmented production (rather than consumption) and exchange of goods and services within the context of free institutions offer the best long-term solution to the social and economic problems of Rust Belt regions;⁶ that the development of renewed productive capacity in these regions will in the first instance require up-front investments of time, attention and energy, and in the second instance financial capital; that many of the most important resources and factors in the production of capital goods are not and will never be completely mobile with respect to space and time; and that therefore net increases in regional prosperity necessitate urban institutions, public policies, practices, and cultures willing and able to divert into enhanced production input resources that would otherwise go to goods and services that are immediately consumed.

All of the contributions assume confidence in public policies and institutions supportive of innovation, entrepreneurship, specialization, and trade as the best route to renewed regional prosperity. But just as markets have certain limitations, so do public policies. Not all public policies are conducive to renewed prosperity; indeed, as the following chapters discuss, even some of those public policies advocated in terms of their positive effects on midwestern regional economic development may do more harm than good.

We hope that the chapters in this book can avoid getting narrowly associated with labels such as “conservative” or “liberal.” The focus is on how older industrial regional systems really work and what can and should be (and what cannot and should not be) done through both public institutions and private markets in efforts to improve their performance. How might urban policy be used to renew and update capitalist markets so as to put old industrial regions back on the road to prosperity? What mix of market versus nonmarket allocation mechanisms is optimal? How can and do free people in such regions, living in democratic capitalist systems, solve problems to meet the needs and wants of others, so as to turn their perceptions of scarcity and loss into ones of abundance?

Reframing Prosperity

When thinking of prosperous places, we may invoke images that translate to a high quality of life and living standards, such as vibrant artistic, musical, and literary communities; entertainment districts with

a relatively high number of restaurants, bars, and cultural institutions; an environment with great parks, green spaces, and recreational activities; accessible, convenient, and affordable transportation; good schools and universities; and low rates of poverty, with high levels of employment. This is not an exhaustive list, nor are these characteristics only found in places such as New York, Chicago, or Los Angeles.

It seems to us that an important component of prosperity centers on reframing this concept. The economic dominance that was previously associated with many midwestern industrial cities is unlikely to reemerge, especially in light of the previously discussed transitions and the influence of growing economies such as China and India. However, it is important to note that prosperity need not be exclusively tied with economic dominance. Rather, the idea of a prosperous city is that most if not all of the people who live in it have good lives. In the spirit of Amartya Sen (1999), the people in a prosperous city have the freedom to live the kinds of lives they value. They see themselves as active participants in shaping their own futures and by taking initiative and accepting the responsibility for themselves and their actions, they have the opportunity to better themselves and the prospects faced by their children. There are numerous examples of urban and regional economies that have attained high levels of prosperity without economic preeminence, and there is an abundance of knowledge available to help to turn the problems currently facing midwestern industrial cities into opportunities. This book is all about such knowledge.

The concept of prosperity, which is traditionally linked to wealth and measured in terms of income, unemployment, and poverty rates, may be meaningfully and fruitfully reexamined with a more comprehensive approach, one that deemphasizes consumptive aspects and focuses on productive ones, as well as on the social, psychological, and health-related components (Bergmann 2010; Fodor 2001, 2012; Hamilton 2003; Jackson 2009; Sen 1999). In particular, the emerging policies and practices of smart decline and right-sizing are working to address the unique realities facing formerly dominant industrial cities, which include planning for fewer people, buildings, and land uses, as well as better aligning physical landscapes to meet the needs of future populations (Hollander 2011; Popper and Popper 2002; Schilling and Logan 2008). Furthermore, there is evidence that slower-growing metropolitan statistical areas (MSAs), in terms of population, outperform higher-

growth MSAs on many measures of prosperity, including income and poverty rates (Fodor 2012).

Within the realm of midwestern industrial cities, achieving prosperity will require the leadership within cities and regions to broaden their focus from past models targeted at economic dominance and heavily focused on short-term economic development strategies. While the consideration of short-term strategies inclusive of business attraction, retention, and expansion is warranted, these transactions need to be linked to strengthening and improving the assets within the region's larger portfolio of products, businesses, and people.⁷ Past actions of the leadership within many cities and regions have tended to be based on the overriding importance and inevitability of increasing globalization and the argument that, to be competitive in world markets, cities must compete for footloose industry not tied to any particular location or country, which can relocate in response to local economic conditions. Striving to succeed in globally competitive markets at all costs has proved less than successful for many places and has served to intensify levels of inequality among cities and among social strata within cities. Many of the economic development strategies adopted in efforts to compete for footloose investment tend to be short-term in nature and to focus on immediate needs as well as politically marketable achievements, such as job creation and growth of tax bases. While these approaches may produce some desired outcomes, they fail to address the longer-term components of a comprehensive economic development strategy, which moves beyond selling the existing assets of a region and toward improving, strengthening, and changing assets for long-term prosperity.

This book is predicated upon the assumption that renewed prosperity is feasible in midwestern industrial cities if (and only if) good decisions are made within them by individuals with influence in both the public and private sectors. Moreover, restructured public policy, especially microeconomic policy, is essential, as well as increased levels of international business exchange, especially with the Chinese.

The Industrial Revolution changed the economic world order by giving prominence to cities, regions, and nations that could adapt their governance structures and the organizational processes through which they made collective choices toward the power of free markets and private, personal industry, and innovation. By empowering the individuals within local economic systems, the Industrial Revolution empow-

ered the cities, regions, and nations it affected. It led to a system in which nothing will improve the fortunes of firms and individuals more effectively and efficiently than public and private sector decisions that increase production of the goods and services people value and the exchange of such goods and services in free and competitive markets. This is as true for midwestern industrial cities today as it was during their inception, as it was for Chinese cities during their recent economic miracle, and as it is for cities throughout the global economic system.

Notes

1. Measured in constant 2005 dollars (<http://www.measuringworth.com/datasets/usgdp/result.php>).
2. GATT later became the World Trade Organization (WTO), which today sets the ground rules for international commerce.
3. Such considerations have recently given rise to the President's National Strategy for Global Supply Chain Security (<http://www.whitehouse.gov/the-press-office/2012/01/25/fact-sheet-national-strategy-global-supply-chain-security>).
4. The rate of growth of the U.S. population, along with the rates of growth of other advanced industrial nations such as Japan and Germany, is slowing down somewhat relative to the rate of growth of the world population overall. Partially this relative shrinkage is attributable to the high growth rates in Africa and India. Partially it is also attributable to fertility declines that have historically been found to go hand in hand with the development of wealthy and advanced industrial economies (Guinnane 2011). Various theories of fertility decline have been brought forward to explain population growth rate declines, including ones that attribute them to factors such as the availability of contraceptives, women's decisions to postpone childbirth, the relatively high cost of raising children in advanced industrial economies, and more women choosing to remain in the workforce rather than have children (Becker, Murphy, and Tamura 1990; Bryant 2007; Galor 2012; Guinnane 2011).
5. Indeed, the "global-city hypothesis" (Friedmann 1986) asserts that the most economically dominant cities are especially prone to extremes of inequality.
6. For a thoughtful, stimulating, and informative argument that far from being the path to prosperity, society's orientation toward consumption is at the heart of our social ills, see Hamilton (2003).
7. This conceptualization of a regional economic development framework stems from multiple lectures and discussions with Ned Hill.

References

- Acs, Zoltan J., Henri L.F. de Groot, and Peter Nijkamp, eds. 2002. *The Emergence of the Knowledge Economy: A Regional Perspective*. New York: Springer.
- Atkinson, Robert D., and Paul D. Gottlieb. 2001. *The Metropolitan New Economy Index: Benchmarking Economic Transformation in the Nation's Metropolitan Areas*. Washington, DC: Progressive Policy Institute.
- Auslin, Michael. 2013. "Detroit Crosses the Rubicon." *National Review Online*, July 20. <http://www.aei.org/article/economics/detroit-crosses-the-rubicon/> (accessed August 10, 2013).
- Bair, Jennifer. 2005. "Global Capitalism and Commodity Chains: Looking Back, Going Forward." *Competition and Change* 9(2): 153–180.
- Becker, Gary S., Kevin M. Murphy, and Robert Tamura. 1990. "Human Capital, Fertility, and Economic Growth." *Journal of Political Economy* 98(5): S12–37.
- Bergmann, Barbara. 2010. "Is Prosperity Possible Without Growth?" *Challenge* 53(5): 49–56.
- Bryant, John. 2007. "Theories of Fertility Decline and the Evidence from Development Indicators." *Population and Development Review* 33(1): 101–127.
- Carlsson, Bo. 1989. "The Evolution of Manufacturing Technology and Its Impact on Industrial Structure: An International Study." *Small Business Economics* 1(1): 21–37.
- Castells, Manuel. 1996. *The Rise of the Network Society, The Information Age: Economy, Society and Culture*. Malden, MA: Blackwell Publishers.
- . 2000. *The Rise of the Network Society, The Information Age: Economy, Society, and Culture*, 2nd ed. Oxford: Blackwell Publishers.
- Chai, Joseph C.H. 1998. *China: Transition to a Market Economy*. Oxford: Oxford University Press.
- Davey, Monica, and Mary Williams Walsh. 2013. "Billions in Debt, Detroit Tumbles Into Insolvency." *New York Times*, July 18. http://www.nytimes.com/2013/07/19/us/detroit-files-for-bankruptcy.html?pagewanted=all&_r=3& (accessed August 10, 2013).
- Ducruet, Cesar, and Theo Notteboom. 2012. "The Worldwide Maritime Network of Container Shipping: Spatial Structure and Regional Dynamics." *Global Networks* 12(3): 395–423.
- Feenstra, Robert C. 1998. "Integration of Trade and Disintegration of Production in the Global Economy." *The Journal of Economic Perspectives* 12(4): 31–50.

- Florida, Richard. 2013. "Don't Let Bankruptcy Fool You: Detroit's Not Dead." *The Atlantic Cities*, July 22. <http://m.theatlanticcities.com/jobs-and-economy/2013/07/dont-let-bankruptcy-fool-you-detroits-not-dead/6261/> (accessed August 10, 2013).
- Fodor, Eben V. 2001. *Better, Not Bigger: How to Take Control of Urban Growth and Improve Your Community*, 2nd ed. Gabriola Island, BC, Canada: New Society Publishers.
- . 2012. "Relationship Between Growth and Prosperity in the 100 Largest U.S. Metropolitan Areas." *Economic Development Quarterly* 26(3): 220–230.
- Frank, Andre Gunder. 1993. "Bronze Age World System Cycles." *Current Anthropology* 34(4): 383–429.
- Frank, Andre Gunder, and William R. Thompson. 2005. "Afro-Eurasian Bronze Age Economic Expansion and Contraction Revisited." *Journal of World History* 16(2): 115–172.
- Freeman, Chris. 1989. "New Technology and Catching Up." *European Journal of Development Research* 1(1): 86–99.
- Friedmann, John. 1986. "The World City Hypothesis." *Development and Change* 17(1): 69–83.
- Galor, Oded. 2012. "The Demographic Transition: Causes and Consequences." *Cliometrica* 6(1): 1–18.
- Gereffi, Gary, John Humphrey, and Timothy Sturgeon. 2005. "The Governance of Global Value Chains." *Review of International Political Economy* 12(1): 78–104.
- Greenwood, Michael J. 1997. "Internal Migration in Developed Countries." In *Handbook of Population and Family Economics*, Vol. 1B. Mark R. Rosenzweig and Oded Stark, eds. Amsterdam, New York and Oxford: Elsevier Science, North-Holland, pp. 647–720.
- Guinnane, Timothy W. 2011. "The Historical Fertility Transition: A Guide for Economists." *Journal of Economic Literature* 49(3): 589–614.
- Hamilton, Clive. 2003. *Growth Fetish*. Sterling, VA: Pluto Press.
- Hannah, Leslie. 2008. "Logistics, Market Size, and Giant Plants in the Early Twentieth Century: A Global View." *Journal of Economic History* 68(1): 46–79.
- Haskell, Josh. 2013. "Bankrupt Detroit Assesses Its Art Treasures." *ABC News*, August 7. <http://abcnews.go.com/US/bankrupt-detroit-assesses-art-treasures/story?id=19885360> (accessed August 11, 2013).
- Henderson, Jeffrey, Peter Dicken, Martin Hess, Neil Coe, and Henry Wei-Chung Yeung. 2002. "Global Production Networks and the Analysis of Economic Development." *Review of International Political Economy* 9(3): 436–464.

- Henderson, Jeffrey, and Khalid Nadvi. 2011. "Greater China, the Challenges of Global Production Networks and the Dynamics of Transformation." *Global Networks* 11(3): 285–297.
- Hill, Edward W., Jim Samuel, and Fran Stewart. 2008. Driving Ohio's Prosperity. Report prepared for CompeteColumbus. Cleveland, OH: Cleveland State University. http://works.bepress.com/edward_hill/8 (accessed April 8, 2013).
- Hobbs, Frank, and Nicole Stoops. 2002. "Demographic Trends in the Twentieth Century." U.S. Census Bureau, Census 2000 Special Reports, Series CENSR-4, Washington, DC: U.S. Government Printing Office.
- Hollander, Justin B. 2011. "Can a City Successfully Shrink? Evidence from Survey Data on Neighborhood Quality." *Urban Affairs Review* 47(1): 129–141.
- Hummels David L., Jun Ishii, and Kei-Mu Yi. 1999. "The Nature and Growth of Vertical Specialization in World Trade." Staff Reports No. 72. New York: Federal Reserve Bank of New York. http://www.newyorkfed.org/research/staff_reports/sr72.pdf (accessed April 8, 2013).
- Humphries, Marc. 2012. "Rare Earth Elements: The Global Supply Chain." Report to Congress. R41347. Washington, DC: Congressional Research Service.
- Irwin, Douglas A. 1996. "The United States in a New Global Economy? A Century's Perspective." *American Economic Review* 86(2): 41–46.
- Jackson, Richard, and Neil Howe. 2008. *The Graying of the Great Powers: Demography and Geopolitics in the 21st Century*. Washington, DC: Center for Strategic and International Studies.
- Jackson, Tim. 2009. *Prosperity without Growth: Economics for a Finite Planet*. London: Earthscan.
- Johnson, Allen W. and Timothy Earle. 2000. *The Evolution of Human Societies*, 2nd ed. Stanford, CA: Stanford University Press.
- Krueger, Anne O. 1995. "U.S. Trade Policy and the GATT Review." In *The World Economy: Global Trade Policy*, Sven Arndt and Chris Milner, eds. Oxford: Blackwell Publishers, pp. 65–79.
- Lardy, Nicholas R. 2003. "Trade Liberalization and Its Role in Chinese Economic Growth." Paper presented at the International Monetary Fund and National Council of Applied Economic Research conference, "A Tale of Two Giants: India's and China's Experience with Reform and Growth," held in New Delhi, November 14–16. Washington, DC: Institute for International Economics. <http://www.imf.org/external/np/apd/seminars/2003/newdelhi/lardy.pdf> (accessed April 8, 2013).
- Lawrence, Robert Z., and Matthew J. Slaughter. 1993. "International Trade

- and American Wages in the 1980s: Giant Sucking Sound or Small Hiccup?" *Brookings Papers on Economic Activity, Microeconomics 2*: 161–226.
- Levitt, Theodore. 1983. "The Globalization of Markets." *Harvard Business Review* (May-June): 92–102.
- Lie, Xiaming, Peter Romilly, and Haiyan Song. 1997. "An Empirical Investigation of the Causal Relationship between Openness and Economic Growth in China." *Applied Economics* 29(12): 1679–1686.
- Lin, Justin Yifu, Fang Cai, and Zhou Li. 1996. "The Lessons of China's Transition to a Market Economy." *The Cato Journal* 16(2): 201–231.
- Liu, Xingjian, Song Hong, and Yaolin Liu. 2012. "A Bibliometric Analysis of 20 Years of Globalization Research: 1990–2009." *Globalizations* 9(2): 195–210.
- Marotta, David John. 2013. "Detroit's Bankruptcy Doesn't 'Just Happen.'" *Forbes*, August 4. <http://www.forbes.com/sites/davidmarotta/2013/08/04/detroit-s-bankruptcy-doesnt-just-happen/> (accessed August 10, 2013).
- McMillan, Margaret S., and Dani Rodrik. 2011. "Globalization, Structural Change, and Productivity Growth." NBER Working Paper No. 17143. Cambridge, MA: National Bureau of Economic Research. <http://www.nber.org/papers/w17143.pdf> (accessed April 8, 2013).
- Meisenheimer, Joseph R. II. 1998. "The Services Industry in the 'Good' versus 'Bad' Jobs Debate." *Monthly Labor Review* 121(2): 22–47.
- More, Charles. 2000. *Understanding the Industrial Revolution*. New York: Routledge.
- Muller, Jerry Z. 2009. *Thinking about Capitalism*. Chantilly, VA: The Great Courses. http://www.thegreatcourses.com/tgc/courses/course_detail.aspx?cid=5665 (accessed April 8, 2013).
- Nelson, Richard R. 1990. "Capitalism as an Engine of Progress." *Research Policy* 19(3): 193–214.
- Oner, Asli Ceylon, Diana Mitsova, David Prosperi, and Jaap Vos. 2010. "Knowledge Globalization in Urban Studies and Planning: A Network Analysis of International Co-authorships." *Journal of Knowledge Globalization* 3(1): 1–29.
- Oswick, Cliff, Philip J. Jones, and Graeme Lockwood. 2009. "A Bibliometric and Tropological Analysis of Globalization." *Journal of International Business Disciplines* 3(2): 60–73.
- Popper, Deborah E., and Frank J. Popper. 2002. "Small Can Be Beautiful: Coming to Terms with Decline." *Planning* 68(7): 20–23.
- Rappoport, Jordan. 2003. "U.S. Urban Decline and Growth, 1950 to 2000." *Economic Review: Third Quarter*. Kansas City, MO: Federal Reserve Bank of Kansas City. <http://kansascityfed.org/publicat/econrev/Pdf/3q03rapp.pdf> (accessed April 8, 2013).

- Renaud-Komiya, Nick. 2013. "Bankruptcy Administrators Find \$1M Check in Detroit City Hall Drawer." *The Independent*, August, 10. <http://www.independent.co.uk/news/world/americas/bankruptcy-administrators-find-1m-cheque-in-detroit-city-hall-drawer-8755844.html> (accessed August 11, 2013).
- Ridley, Matt. 2010. *The Rational Optimist: How Prosperity Evolves*. New York: HarperCollins Publishers.
- Rodriguez, Peter. 2011. China, India, and the United States: The Future of Economic Supremacy. Chantilly, VA: The Great Courses. http://www.thegreatcourses.com/tgc/courses/course_detail.aspx?cid=5892 (accessed April 8, 2013).
- Sachs, Jeffrey D., Andrew Warner, Anders Åslund, and Stanley Fischer. 1995. "Economic Reform and the Process of Global Integration." *Brookings Papers on Economic Activity* 1: 1–118.
- Schilling, Joseph, and Jonathan Logan. 2008. "Greening the Rust Belt: A Green Infrastructure Model for Right Sizing America's Shrinking Cities." *Journal of the American Planning Association* 74(4): 451–466.
- Schott, Peter K. 2008. "The Relative Sophistication of Chinese Exports." *Economic Policy* 23(53): 5–49.
- Scorsone, Eric, and Nicolette Bateson. 2012. "Evaluating a Chapter 9 Bankruptcy for City of Detroit: Reality Check or Turnaround Solution?" Staff Paper No. 2012-01. East Lansing, MI: Michigan State University, Department of Agricultural, Food, and Resource Economics.
- Sen, Amartya. 1999. *Development as Freedom*. New York: Alfred A. Knopf.
- Singh, Ajit. 1994. "Global Economic Changes, Skills and International Competitiveness." *International Labour Review* 133(2): 167–183.
- Smith, Richard L. 2009. *Premodern Trade in World History*. Abingdon, UK: Routledge.
- Stevenson, Betsey, and Justin Wolfers. 2008. "Growth and Subjective Well-Being: Reassessing the Easterlin Paradox." NBER Working Paper No. 14282. Cambridge, MA: National Bureau of Economic Research. <http://www.nber.org/papers/w14282> (accessed August 16, 2013).
- UNCTAD (United Nations Conference on Trade and Development). 1987–1999. *World Investment Report*. New York: United Nations.
- United Nations. 2012. *World Population Prospects: The 2012 Revision*. New York: United Nations. <http://esa.un.org/wpp/Excel-Data/population.htm> (accessed July 23, 2013).
- U.S. Census Bureau. 2013. "2012 National Population Projections: Middle Series." Washington, DC: U.S. Census Bureau. <http://www.census.gov/population/projections/data/national/2012/summarytables.html> (accessed July 23, 2013).

- U.S. Courts. n.d. "Chapter 9 Municipal Bankruptcy." Washington, DC: United States Courts. <http://www.uscourts.gov/FederalCourts/Bankruptcy/BankruptcyBasics/Chapter9.aspx> (accessed August 11, 2013).
- Wiersema, Margarethe F., and Harry P. Bowen. 2008. "Corporate Diversification: The Impact of Foreign Competition, Industry Globalization, and Product Diversification." *Strategic Management Journal* 29(2): 115–132.
- Winters L. Allan, and Shahid Yusuf, eds. 2007. *Dancing with Giants: China, India, and the Global Economy*. Washington, DC: World Bank and Singapore: Institute of Policy Studies.