

CITY SYSTEMS, URBAN HISTORY, AND ECONOMIC MODERNITY

Urbanization and the Transition from Agrarian to Industrial Society

Gary Fields

One of the defining issues in the transition from agrarian to industrial society is the role played by urbanization in the creation of industrial modernity. The approach to this issue deriving from “urban history” consists of intensive case study research focused on particular urban places. A second approach, inspired by traditions in geography, demography, and planning, focuses on systems of cities and the role of such systems in promoting and reflecting the process of economic development. Practitioners of this approach insist that urban history should be a history of urbanization that transcends the experiences of individual urban communities. This essay is a comparison and critique of models developed by theorists from this second group. The comparison focuses on how four broad themes—trade, production, population, and state-building—function as prime movers of urbanization and economic modernization. The results of this comparison suggest that population movements play a decisive role in urban development and the transition to industrial modernity but these population shifts are best understood in conjunction with the impacts of trade patterns, production activities, and state-building.

One of the most compelling issues in the transition from agrarian to industrial society is the role played by urban development in the creation of industrial modernity. Central to this issue is the puzzle of whether the city is the agent or the product of industrial modernization (Hohenberg, 1990). The methodological approach to this puzzle deriving from “urban history,” consists primarily of intensive case study research. Its focus lies in describing the characteristics of a particular urban place and how such individual places serve as microcosms of broader historical transformations. Urban histories, however, frequently suffer from the same weaknesses that plague other intensive case studies: the potential for the individual case to be representative and generalizable is

often limited.¹ There is an alternative approach to the problem of the city and industrialization that, despite emerging from the tradition of urban history, is critical of the emphasis on particular urban communities. Inspired by traditions influential in planning such as geography and demography, this approach focuses on systems of cities and the role of such systems in promoting and reflecting the process of economic development. Proponents of this view insist that urban history should be a *history of urbanization* that transcends the experience of individual urban communities and focuses on broad themes in the transition from preindustrial to industrial society (de Vries, 1984: 3; Hohenberg & Lees, 1985: 2; van der Woude et al., 1990:1).

Figure 1
Schematic Comparison of Urban History and History of Urbanization

	Urban History	History of Urbanization
Unit of Analysis	Individual City	Systems of Cities
Method	Intensive Single Case Study	Extensive System Case Study
Causal Model	From Individual City to Historical Generalization	From Historical Generalization to City Systems

In Search of a Model

This essay is an analysis and critique of this alternative approach. It compares models of urbanization pioneered by Fernand Braudel, Jan de Vries, and Paul Hohenberg and Lynn Lees who, despite a shared critique of urban history, exhibit considerable differences with respect to the issue of city-building and economic modernization. These differences focus on the interplay of four broad themes—trade, production, population, and state-building—

¹On intensive and extensive case study research in the social sciences see Sayer (1992: 241-251).

and the relative impacts of these themes on urban development and the transition from agrarian to industrial society. How these models differ in their approach to these themes, and their strengths and weaknesses in uncovering the causal relationships in urbanization and industrialization, are the subjects of this essay.

The sources for trade, production, population, and state-building as prime movers of urban development and industrialization derive from a venerable historiography on the city and economic modernity. It is from the collective legacy established in the work of Henri Pirenne (1925), Adam Smith (1776), Thomas Malthus (1798), and Max Weber (1921), that the city and economic modernity take shape in conjunction with commerce, manufacturing, demographic shifts, and the politics of nation-building. These older works provide the foundations for the analysis and critique of the urbanization models developed by Braudel, de Vries, and Hohenberg and Lees at the core of this essay.

In his celebrated classic, *Medieval Cities* (1925), Henri Pirenne developed a compelling model of how cities in Europe re-emerged in the eleventh century after a period of dormancy. Known as the “Pirenne Thesis,” this model assigned a singular importance to trade as the catalyst for urbanization and economic modernization (Havighurst, 1976: ix-xxiv). According to Pirenne, the rebirth of cities in the second millennium resulted from an economic revival in Europe spearheaded by the growth of maritime commerce. This urban rebirth constituted a sharp break with the Dark Ages which Pirenne had characterized as a society “without foreign markets living in a condition of almost complete isolation” (Pirenne, 1969: 19). In Pirenne’s view, trade and the rebirth of cities that it engendered “marked the beginning of a new era in the internal history of Western Europe” (Pirenne, 1969: 153). What emerged from Pirenne’s account of this transition to modernity was an image of the city as an *entrepôt* of trade.

Roughly 150 years before publication of *Medieval Cities*, Adam Smith in his path breaking work, *The Wealth of Nations*, (1776) developed a picture of the city consistent with many of the economic changes taking place in late eighteenth-century England. While Smith conceded the role played by cities in facilitating trade, he also insisted upon the crucial function of cities as centers of production (Smith, 1976; Lepetit, 1994: 82-84). Central to Smith’s theory of production was his notion of the division of labor in a workshop—Smith’s celebrated pin factory—that made production activities more efficient. From the division of labor in a workshop

emerged his concept of a division between industry and agriculture, and town and country. “There are some sorts of industry,” he notes, “which can be carried on nowhere but in a great town” (Smith, 1976: I 31). Thus, for Smith, urbanization as a catalyst of economic modernity does not rest merely on exchange. Cities are focal points for the manufacture of goods.

Before the eighteenth century had ended, Thomas Malthus provided yet another way of viewing the phenomenon of urbanization and the modern economy. In his influential *Essay on Population* (1798), Malthus outlined a relationship between food production and human reproduction in accounting for population growth and decline. In the process, he created a powerful model for comprehending the process of urban growth. Embedded in his model was a set of relationships between the agrarian economy, the urban economy, and the demographic behaviors of agrarian and urban populations. For Malthus, population growth could be understood as fixed within specified limitations imposed by a finite stock of arable land and agricultural productivity. Urbanization was linked to demographic trends that hinged upon the capacity of the agrarian economy to sustain a non-food producing population (Malthus, 1986: 14-24; Wrigley and Schofield, 1981: 457-480; Eltis, 1984: 106-139). Malthus thus created a framework for linking urbanization to the agricultural economy and patterns of population and demographic change.

Finally, in contrast to the economic and demographic characteristics of urbanization found in the works of Pirenne, Smith and Malthus, Max Weber imbues the city with a decidedly *political* dimension. In his work, *The City* (1921), Weber observes how the very idea of “urban area” denotes a form of human organization requiring analytical categories that go beyond economics, and insists that the concepts for analysis of the city must be political (Weber, 1958: 74). Through politics, the city exercises autonomy over an urban territory. What interests Weber is how the city assumes this autonomy which he insists, lies in the nature of the city as “a ‘community’ with special political and administrative institutions.” In Weber’s work, the city is part of a broader historical process marked by the tendency of society to create institutions for perfecting human domination over the social, economic, and political environment. What results from this process of institutional rationalization is the phenomenon of bureaucracy. Where institutional rationalization, bureaucratic administration, and politics converge, the modern nation state begins. From the emphasis in Weber on the process of institutional rationalization, coupled with the city as a fundamentally political

entity, emerges the outlines of a framework linking the city and the political process of territorial domination and state-building, to the development of the modern economy.

These four themes—trade, production, population, and state-building—are the basis in this essay for a comparative critique of urbanization models in the work of Fernand Braudel, Jan de Vries, and Paul Hohenberg and Lynn Hollen Lees. Each has contributed in fundamental ways in transforming urban history into the history of urbanization. By creating models of the urban process, but positioning such models within concrete historical settings, these historians have fused urban theory with historical empiricism in a way that is often neglected in urbanization models crafted within the discipline of planning. Traditionally, planning, in its treatment of the urban process, has exhibited an over-reliance on highly abstract theories of urbanization, from the “isolated state” of Von Thunen (1826), to the “central places” of Christaller (1933), to the “space economy” of Isard (1956) in planning itself. Models from the history of urbanization create a far-more enriching empirical framework for evaluating and testing such theories. In focusing on these models, this essay seeks to broaden the more traditional approach in planning to the problem of city-building.

The essay consists of three sections. The first section focuses on the work of Braudel, the next section examines the model of de Vries, while the final section analyses the framework of Hohenberg and Lees. Each section evaluates differences in approach to the role of trade, production, population, and state-building in urbanization, and critiques the strengths and weaknesses of each model. The concluding section synthesizes the findings from this comparative critique in order to identify more definitively, what is decisive in urbanization and the transition from agrarian to industrial society.

From Material Life and Markets, to Capitalism and Urbanization

In examining European cities of the preindustrial *ancien regime*, Fernand Braudel asks why the cities of Europe were like “steam-engines” while cities throughout the rest of the world were like “clocks” (Braudel, 1981: 510). He builds a “dynamic model of the turbulent evolution of the West,” in order to explain this phenomenon. For Braudel, the turbulence of the West was due to the development of capitalism that differentiated Europe from the rest of the world. Therefore, in his model of Europe’s unique

process of urbanization, Braudel aims to show that in the West: “Capitalism and towns were basically the same thing...” (Braudel, 1981: 514). His story of urbanization in Europe is intimately linked to his explanation of how capitalism emerged from the preindustrial economy.

In Braudel’s historical world, the emergence of capitalism begins with the coexistence within the preindustrial economy of “two universes, two ways of life foreign to each other...” (Braudel, 1977: 6). Existing in one universe are “the structures of everyday life.” These structures consist of habits, customs and behaviors inherited from the past that human beings do unconsciously as part of a daily routine. They function as “inertias” giving the preindustrial economy its absence of motion. In the other universe exist activities that anticipate the attributes of growth and development—activities in which human beings enter into exchanges with one another requiring conscious purpose. These exchanges form the second universe of the preindustrial world, the *market economy* which is distinct from capitalism and predates it. For Braudel, it is from this starting point of conscious exchanges in a market that history begins its process of development toward capitalism and modernity.

What links this process of capitalist development to the process of urbanization is the role played by cities as catalysts for trade and markets. For Braudel, this story of cities, markets, and trade begins with a concept borrowed from Pirenne: the urban renaissance of the eleventh century. Braudel, however, transforms this idea by shifting the emphasis away from maritime trade, and focuses instead on the linkages of trade between town and country in creating the market economy.

Braudel writes that the urban renaissance in Europe was precipitated by a rise of “rural vigor” (Braudel, 1981: 510). This rural dynamism brought to the nascent cities the representatives of rural authority—nobles, princes, and ecclesiastics. Once established, these urban settlements became markets for the exchange of goods (Braudel, 1981: 501). Braudel’s concept of the town as “market,” however, involves far more than the notion of a bazaar at a physical market site. The town assumes a role in a market economy by virtue of its relationship with its surrounding rural area. This relationship, however, is never limited to a single town because, for Braudel, where there is one town, there must be other towns. Since towns cannot exist independent of other towns, the relationships between urban and rural hinterlands become generalized into a widespread phenomenon. From these

relationships emerges an urban “hierarchy” consisting of an order of cities and the links of these cities to their respective rural domains. This hierarchy forms a patchwork of urban/rural interactions and is the basis of the exchanges in preindustrial society forming the market economy.

Despite origins in the vitality of the countryside, cities had to overcome a fundamental problem with respect to their rural brethren. Towns had to resolve the fundamental division of labor between town and country. In order to exist, the town has to secure a source of sustenance from agriculture. This dependence requires the town to dominate its rural environs so as to ensure its material livelihood. As a consequence, cities ruled their agricultural hinterlands “autocratically, regarding them exactly as later powers regarded their colonies, and treating them as such” (Braudel, 1981: 510).

What enables the city to assert this dominance over the countryside—and lay claim to its own freedom and autonomy—is *money*. For Braudel, “money meant towns” while “cities and money created modernity” (Braudel, 1981: 511; 1977: 15). Money is the intermediary for the market economy linking urban and rural areas. It forms the threads of networks holding together the trade linkages between town and country. European cities used the power of money and their control of markets to overcome their disadvantages with respect to the countryside. In reaping the benefits of unparalleled freedom owing to their control of money, towns became, along with money, both motors of capitalism and indicators of the capitalist process (Braudel, 1977: 15).

If the autonomy of cities depended upon their ability to channel growth by controlling the market economy, cities were also the beneficiaries of a second “miracle” of equal importance in accounting for their revival and freedom: their independence from the rule of territorial states. Braudel remarks that history is full of urban rebirths but these revivals always featured two competitors, the city and the state. In previous urban revivals, however, the state was invariably the victor and the city would be placed under its yoke. The story in Europe, at least in some areas, was quite different (Braudel, 1981: 511).

The miracle in the West was not so much that everything sprang up again from the eleventh century...The miracle of the first great urban centuries in Europe was that the city [as opposed to the state] won hands down, at least in Italy, Flanders and Germany. It was able to try the experiment of leading a completely separate life for quite a long time. This was a colossal event.

Two inexorable forces would gradually alter this early pattern of urban development: population cycles and, beginning in the sixteenth century, the growth of what had formerly prevailed over the city, the nation state. These two phenomena account for ongoing shifts among cities in terms of rank within the structure of the European urban hierarchy but of these two, population growth and decline is for Braudel more fundamental. Nevertheless, the ascendancy of the territorial state, when grafted upon this primary determinant of historical change, created sweeping changes within the European urban system.

For Braudel, it is the movements of population growth and decline that connect capitalist development and urban development. If the market economy is the driving force toward capitalist modernity, and if capitalism and urbanization are the same thing in the West, then the puzzle that Braudel must resolve with respect to urbanization is how this market economy engenders capitalism. Braudel finds the answer to this problem in the way the market economy itself expands in preindustrial society. The expansion of the market economy, in turn, is contingent upon the equilibria and disequilibria that occur in the market owing to the critical independent variable of population growth and decline.

After 1450 the number of people in Europe increased rapidly, for after the Black Death mankind was forced—and was able—to compensate for the huge losses of life during the preceding century. This recuperation continued until the next great ebbing...the demographic mechanism attempted to remain balanced but equilibrium was rarely achieved. Following one upon the other as if planned—or so it seems to historians—these ebbs and flows reveal the rules for the long-term trends that continued to operate until the eighteenth century (Braudel, 1977: 9).

Population cycles transform the conditions of demand in the market economy and prepare the foundations for a new group of historical figures to emerge: the large-scale merchants. These actors insert themselves into the marketplace and exploit disparities in supply and demand for commodities in disparate markets caused by the disequilibria of constant demographic shifts. By commandeering enormous stocks of goods and taking advantage of arbitrage in different markets, these merchants form international trade networks that control markets in a virtually monopolistic fashion. They create a form of exchange “sophisticated and domineering,” that represented a “counter market” to the exchange relationships between individuals in local marketplaces. Perhaps more significantly these large-scale merchants succeed in

subverting the regulations imposed upon the process of exchange in local markets by local officials. According to Braudel, the longer and more domineering these large-scale merchant networks become, and the more successful they are at freeing themselves from local regulations, “the more clearly the capitalistic process emerges” (Braudel, 1977: 53). With this growth of capitalism, the urban system begins to change its structure. Larger market towns control commerce between town and country in a more regionally-oriented, rather than local, context.

The growth of the nation state during the sixteenth and seventeenth centuries creates a new pattern of urbanization featuring the enormous population growth of large capital cities. Prior to the sixteenth century, population increases favored all towns indiscriminately, whatever their size. By the beginning of the seventeenth century large cities, especially capitals, emerged in the West due to the steady advance of territorial states: “they had caught up with the headlong gallop of the towns” (Braudel, 1981: 525). In their ascendancy, these states provoked a transformation in the hierarchy of the European urban system—a movement induced by politics and led by London and Paris.

These capital cities “mark a turning point in world history” (Braudel, 1981: 527). They helped produce national markets without which the modern nation state could not exist. In this process, the capital cities were both the catalysts of state-building and outcomes of state formation. They became centers of political administration, bureaucracy, and culture. They became symbols of state power. Perhaps more importantly, in assuming an ever-greater role in the functions of the state, they became population centers and thus centers of consumption. As centers of consumption, the capital cities strengthened the impulses of capitalism by encouraging, to an even greater extent, the activities of large-scale monopolistic merchant chains. It was these merchant networks that made possible the massive provisioning of large cities. From this fact, Braudel draws a highly metaphorical conclusion about the relationship of capitalism to capitals when he remarks that “the ‘stomach’ of London and the ‘stomach’ of Paris were revolutionary” (Braudel, 1977: 28).

The role of population movements and state-building gives rise to one of the most important concepts in Braudel’s work on urbanization and capitalist development: the concept of dominant cities within world economies. Braudel uses the concept of “world economy” to explain the relationship between the capitalist development of Europe and the rest of the world. A world economy

refers not to the economy of the world but to the economy of a region “to the degree that it forms an economic whole” (Braudel, 1977: 81). Such an economy has three characteristics: 1) it occupies a given geographic space; 2) it has a pole or center represented by one dominant city; and 3) it is divided into successive concentric zones. Europe is a world economy that, in its successive transformations, reveals both the capitalist process, and the primacy of a dominant city. In this process of capitalist development, Europe undergoes a “centering, decentering, and recentering” in which a city assumes the dominant position within the economy, stagnates, and is replaced by the emergence of a new dominant city (Braudel, 1977: 84).

An initial centering of the European economy occurred in the 1380s, which conferred upon Venice the dominant position. In 1500 there was a shift from Venice to Antwerp. The period of 1550-60 brought a return to dominance of the Mediterranean with the center in Genoa. By the beginning of the seventeenth century, the central city of Europe had moved once again, this time to Amsterdam where it remained until 1780-1815 when London became the dominant city of Europe. Amsterdam marks the end of what Braudel calls the domination of city-state centers within the European world economy. London, by contrast, was not a city-state but the capital of Britain which conferred upon both the City and the nation “the irresistible power of a national market” (Braudel, 1977: 95). With London’s accession “a page was turned in the history of Europe and of the world...” A dominant city, not a city-state, stood at the forefront of a world economy that for the first time aspired to control the economic destiny of the entire world (Braudel, 1977: 102, 104).

For all of its magisterial character in positioning urbanization within the context of capitalist development and linking urbanization to population cycles, the formation of national markets, and the provisioning of national capitals by large-scale merchant networks, Braudel’s model is not without problems. Perhaps most troubling is his insistence that, in the West, capitalism and urbanization “were basically the same thing” (Braudel, 1981: 514). Not only does such an assertion create ambiguities with respect to precapitalist urbanization, but it also contradicts aspects of Braudel’s own argument. He admits that his story of city development in Europe begins, much like the account of Pirenne, with the revival of trade and markets in the period of the urban renaissance beginning in the eleventh century. If capitalism and cities are the same thing, is it not contradictory for an urban renaissance to occur in the eleventh century, well before the advent

Berkeley Planning Journal

of capitalism? Capitalism and urbanization are certainly linked, as Braudel argues, but so too are anterior modes of production—feudalism, antiquity—linked to the development of cities. The point is that different modes of production engender different patterns of urbanization and different types of urban systems. Missing in Braudel's model is how the unique attributes of capitalism—what Braudel terms its “monopolistic and domineering” tendencies—are embodied in the capitalist urban system. How do these attributes differentiate the cities of the early modern period when capitalism begins to emerge, from the cities of the medieval period? It is in other models, also inspired by urban history as the history of urbanization, that clues to this puzzle are to be found.

Cities, Regions, and Urban Systems

In *European Urbanization 1500-1800*, Jan de Vries observes that in works of urban history, early modern cities are entrapped between two historical landscapes (de Vries, 1984: 1-10). In one landscape, the European city is a medieval creation; in the other, the city is a creation of the industrial revolution. Both of these approaches, however, fail to grasp how the transitional economy of the early modern period and the urbanism it engendered, constituted a unique society, neither feudal nor industrial. De Vries creates a third landscape to bridge the historical abyss between feudalism and industrial capitalism, and reveals how early modern urbanization was distinct from medieval urbanism, and how it served as the prerequisite for factory-based urbanization. In his framework, urban and rural populations respond to changing patterns of production and trade in both rural and urban economies. The movements of these populations create a system of cities that served as the foundation for industrialization. In contrast to Braudel's qualitative, and often non-linear, mosaic of economic life and urbanization, de Vries uses a quantitative approach along with statistical model-building to establish causal relationships between economic, demographic and urban phenomena.

Cities from 1500 to 1800 in de Vries's account, are part of a broader process of economic change in which new patterns of trade and the emergence of rural “protoindustry,” created *regional* economies. These new trade patterns eclipsed the more localized trade between towns and their immediate rural hinterlands. At the same time, “protoindustrialization,” though rural in its physical setting, relied upon cities for exporting the output of rural production. Together, trade networks and rural industry established

the regional basis of early modern European economic development. While international trade in the early modern period was dynamic in altering the contours of the European economy, regional trade actually formed the backbone of the early modern economy (de Vries, 1982: 147). This idea of Europe, “organized into hundreds of regional trading economies with cities as their focal points,” is the starting point for de Vries’ analysis of early modern urbanization (de Vries, 1982: 148). He builds upon this idea in emphasizing how, from the regional orientation of early modern European economic development, a unique *system* of cities emerged that served as the foundation for industrialization. De Vries tells this story of urban transformation in the context of the most essential type of trade for city populations, the grain trade that secured urban food stocks.

During the Middle Ages, urban food supplies were a municipal concern. Towns secured foodstuffs through highly regulated market relationships with their immediate rural surroundings. These regulations required sellers of agricultural goods to sell to the urban public at designated open markets and prohibited the sale of foodstuffs in other market towns. Wholesalers and speculators were anathema in this system. By the seventeenth century, the task of supplying nonagricultural populations created a demand that could not be met by this highly regulated localized approach. The solution was the establishment of a permanent long distance bulk trade in which grain from the Baltic, transported mainly by Dutch and English ships, supplied not only Northern Europe but the Mediterranean region as well. Its lasting impact was to shift the medieval pattern of urban provisioning away from the limited relationships between the town and its hinterland in favor of more regionally-based networks. Trade became the domain of professional merchant wholesalers, who by abandoning the smallest markets and forcing trade flows into larger market towns, succeeded in escaping the restrictions of local officials in the regulated open markets (de Vries, 1982: 163). The result was the weakening of the tightly controlled trade links of the town and its environs and the creation of more extended, regionally-based trading economies. Larger cities gained population at the expense of the smaller cities as a new pattern of urbanization emerged corresponding to the more regional, as opposed to local, focus of trade and market links.

The development of rural industry during the seventeenth and eighteenth centuries reinforced the regional orientation of the early modern economy. Rural production was undertaken for export to regional markets. The precondition for this system of rural

production was the decline of urban production that resulted from several “crises” within urban industry where manufacturing had prevailed during the period of medieval urbanization (de Vries, 1984; Ogilvie and Cerman, 1996: 2; Gutmann, 1988). These crises weakened the medieval urban industrial system, enabling a new set of actors—merchants and agrarian laborers and farmers—to become involved in manufacturing. With profits at their disposal from trade, these merchants sought investment opportunities in production but were averse to the regulated environment of urban manufacturing enforced by guilds. In an effort to break free of these restrictions, they created new centers of production in rural areas by “putting out” (outsourcing) manufacturing work to agricultural populations, resulting in a dispersion of industry to the countryside.²

With its newly burgeoning manufacturing activities, the countryside became more attractive as an economic option for both agricultural and urban populations. These economic opportunities, in turn, influenced migration patterns of people from both city and rural areas. It is the quantitative aspects of these migration patterns and their impacts on urbanization that de Vries seeks to uncover.

Two aspects of urbanization deriving from population shifts are of particular interest to de Vries: 1) *demographic* urbanization which tracks the shifts in population from rural to urban locations; and 2) *structural* urbanization which traces the changes in the location of activities fostering the concentration of population in urban nodes. His goal is to develop quantitative measures for these two phenomena, and to show how the statistical features of demographic and structural urbanization produced the system of cities at the center of his study. The foundation for this quantitative task in *European Urbanization* is a database consisting of population estimates at 50-year intervals for European cities with at least 10,000 inhabitants from 1500-1800.

When statistics from the database are assembled, they reveal a steady increase in levels of demographic urbanization from 5.6% in 1500 to 10% in 1800 that de Vries insists is statistically misleading (de Vries, 1984: 38). The anomaly is due to the fact that small cities have been omitted from the analysis. If smaller cities are included in the analysis, then rates of urbanization would be higher

²This shift to rural industry in the early modern period reflects “long cycles of industrial history” in which manufacturing activity from the late medieval period through the nineteenth century shifts its location from urban to rural back to urban areas (Gutmann, 1988).

at the outset and would not exhibit as dramatic an increase. In order to reconcile this anomaly, de Vries concedes that the scope of the study must be expanded to uncover the demography of cities with fewer than 10,000 inhabitants—a task for which data does not exist.

In order to fill this gap, de Vries relies upon rank-size distributions typically used for assessing the position of cities in an urban hierarchy. He uses the technique in *European Urbanization*, however, to estimate the number of smaller cities in a rank-size distribution.³ The inclusion of cities with populations above 5000 shows not only that preindustrial Europe was more urban in 1500, but also that its rate of urbanization from 1500-1800 was more muted, rising from 9.6% in 1500 to 13% in 1800 (de Vries, 1984: 73). This pattern of urban growth distinguished the cities of the early modern period. More importantly, this pattern of demographic urbanization was the basis for the formation of a single structured urban system (de Vries, 1984: 77).

The structural properties of the urban system, derived from three different statistical techniques, reveal several provocative findings. Using properties of rank-size distributions, de Vries determines that urban growth in 1500-1750 was concentrated in larger cities while at the same time very few new cities emerged. After 1750, smaller cities grew disproportionately while new urban settlements enlarge the stock of existing cities (de Vries, 1984: 101). *Transition matrices* showed that rearrangements in the urban hierarchy were caused less by the expansions of small cities than by the differential growth in regional economies, enabling the dominant city of a growing region to surpass the dominant city of a stagnant region (de Vries, 1984: 149-150). Finally, de Vries measured the *geographic potential* of urban locations by their accessibility to markets and populations in other locations. He tested Braudel's theory of how cities attain dominance over regional economies, stagnate, and are replaced by a new dominant city. Surprisingly, his analysis corresponds to the qualitative picture painted by Braudel of the successive rise of Venice, Antwerp, Genoa, Amsterdam, and London (de Vries, 1984: 161). These tests suggest that European cities formed a polynuclear urban system until the sixteenth century and then evolved by the mid-seventeenth century into a single-centered urban system of regions focused on Northwest Europe and

³De Vries determines the slope of rank size distributions empirically for cities in the database in each time period using least square regression so that the number of smaller cities for each period can be "predicted" by extending the slope below the original threshold (de Vries, 1984: 52).

oriented to the coasts of the Atlantic and North Sea (de Vries, 1984: 168). This single centered regional system suggests that “the Industrial Revolution was not a unique urban watershed” recasting Europe’s urban system. Instead, the urban system that evolved by the mid-seventeenth century was the foundation for the urbanism of industrialization and a precondition of industrial growth (de Vries, 1984: 150).

These findings led to the central problem of the study in which de Vries examined the interaction of demographic and structural urbanization in terms of migration and its impacts on urban growth. In order to isolate the impact of migration on urbanization and to assess its importance relative to fertility, nuptiality, and mortality, de Vries constructed a migration model that presented the preindustrial family with three basic life choices: 1) moving to the city; 2) remaining in agriculture; and 3) entering the expanding array of rural industrial activity (de Vries, 1984: 221).

This migration model revealed that the conventional view of urbanization, as a trend fed by a mobility revolution, is misleading. Migration rates were high during the early modern period and remained steady. Change in the urban-rural population was due more to changing differentials in fertility and mortality (de Vries, 1984: 234). Far more revolutionary than rural to urban migration was the migration of agricultural populations into rural industry. Whereas farm-urban migration tends to preserve existing structures, “entry into rural industry is potentially explosive...” (De Vries, 1984: 237). For de Vries, the direction of migrants to the cities was large in 1500-1650. Thereafter, the attractive power of the cities deteriorated and the role of migrants to rural industry from 1650-1750 assumed greater importance. The effect of these shifting migration patterns was nothing less than a restructuring of the European economy that served as the foundation for the industrial revolution (de Vries, 1984: 239). The early modern urban system modeled in *European Urbanization* was a consequence of a new protoindustrial regional economy that served as the critical link between an agrarian-artisanal world, and modern industrial society.

One of the most important contributions that emerges from de Vries’ work is the role of the early modern city in promoting the formation of regional industrial systems and regional economies. These regional economies gradually evolved to form a single-centered European urban system that resulted from the interplay of regional trade, population shifts, and new patterns of production—protoindustry—located in rural areas. What emerged from the new patterns of trade, migration, and production, was a hierarchical

urban system distinct from the structure of medieval urbanism preceding it, and from the urban system of the industrial revolution that followed. In contrast to Braudel, state building is not prominent in the creation of the early modern urban system. Where de Vries' analysis raises some questions is his assertion that rural-to-urban migration tended to preserve existing social structures while migration to rural industry was more robust as a catalyst for the industrial revolution. Why would this be the case? It is not clear how the otherwise compelling empirical material from the migration model supports this claim. There are certainly good reasons for suspecting that rural industry and the migration patterns supporting it, far from acting as a precursor to industrial transformation, functioned as a conservative force in stabilizing the countryside, and constraining the transition to an urban-based industrial system. In many instances, the migration of rural populations to urban areas acted more decisively to disrupt the social relations of the existing preindustrial agrarian economy, creating the basis for the so-called agricultural revolution of larger, more productive farm units. And in accounts as diverse as Paul Bairoch (1973) and Robert Brenner (1976), it is precisely the productivity advance of agriculture associated with this agricultural revolution, that is the precondition for long-term economic development and the transition to industrial society (Brenner, 1976: 68; Bairoch, 1973: 454).⁴ Where rural to urban migration is assigned a far more prominent role in creating the basis for the early modern urban system is actually in the model of Hohenberg and Lees.

Central Places and Networks

In *The Making of Urban Europe*, authors Paul Hohenberg and Lynn Hollen Lees acknowledge that while each city has its own unique history, "only a larger focus than the city itself will reveal the urban role in Europe's past" (Hohenberg and Lees, 1995: 2). For Hohenberg and Lees, the common functions and structures of urban development are held together in "a web of interconnections." They seek to uncover these interconnections in

⁴This is not meant to conflate the very different analyses of Bairoch and Brenner but there is an inescapable convergence in their views of agricultural revolution as the catalyst for the industrial revolution, with Bairoch focusing on the technology of agriculture, and Brenner focusing on the creation of capitalist class relations in the countryside.

developing “a history of the way Europe urbanized” (Hohenberg and Lees, 1995: 3).

According to Hohenberg and Lees, the defining characteristic of cities is their fundamental dependence, which makes them part of *systems* (Hohenberg and Lees, 1995: 4). Cities maintain a dependent relationship with three entities. They are dependent upon: 1) their rural surroundings; 2) the larger political units in which they exist; and 3) other cities. These relationships in which cities interact with their immediate environs, with broader territorial surroundings, and with each other are the webs defining these systems. “Cities are systems within systems of cities” is the metaphor of B.J.L. Berry used by the authors to emphasize their point. The authors propose two models as starting points for analyzing these systems.

The first model incorporates the tradition from economic geography pioneered by Walter Christaller, known as *central place theory*. This model is based upon the role of the city as a central place supplying its surroundings with special services—economic, administrative, or cultural—that call for concentration at a point in geographic space. A hierarchy of such central places forms a region around a dominant central city. Cities, however, also link regions with the world beyond, enabling the region to pursue what is termed in classical trade theory as its “comparative advantage.” In this role, cities belong to networks of trade and communications that extend beyond the borders of the country where the city is located. As links in such networks, cities become part of a second model termed the *Network System*.

Despite the analytical power of these two models, there is another element to urbanization that is not captured in the largely economic interpretation of cities as central places or nodes in networks. Cities often develop and grow because of their role in promoting the formation of nation states and the territorial ambitions of these political entities. Thus, the framework established by Hohenberg and Lees for their analysis of urbanization consists of the interplay of Central Place and Network Systems—the two economic models—mediated by the politics of statecraft.

These two models offer theoretical frameworks for understanding two contrasting modes of economic and urban development. In the central place system, development occurs from the rural base upward and results in urban agglomerations and the formation of regions. The logic of the central place model leads to a union of regions, the culmination of which is the national state.

Network development, on the other hand, emanates from the urban core outward. This thrust outward, generated through networks of trade and communication, results in the formation of empire. The experience of European urbanization actually reveals “both sorts of processes at work” (Hohenberg and Lees, 1995: 6).

The authors are interested in the extent to which these two models of urban systems are capable of explaining the development patterns of European urban growth over a long period of time. They divide the process of urbanization in Europe into three periods: 1) the feudal, preindustrial age from the eleventh to the fourteenth centuries; 2) the protoindustrial period from the fourteenth to eighteenth centuries; and 3) the industrial age from the eighteenth century to the present day. The feudal era was a period of urban expansion while the protoindustrial period that followed, reflected “trendless fluctuation.” Rapid growth resumed during the industrial age. The authors attribute this growth pattern to the impact of a fundamental variable—population movements—and the interaction of population with trade, and production activities.

In general, when population increased rapidly in more densely settled areas, so too did the number and size of cities. The long waves of population growth provided the human material for city building. A basic interdependence bound together people, production, and trade; urban activities and urbanites multiplied together. (Hohenberg and Lees, 1995: 7)

European urbanization was thus a three-phase process. Each phase was dependent upon the patterns of demography “link[ing] human settlements with modes of production and exchange” (Hohenberg and Lees, 1995: 9). Because population movements occupy such a key role in their analysis of urbanization, Hohenberg and Lees are compelled to seek an explanation for changes in European population. They insist that any such analysis of population must begin with the model established by Malthus who made the tension between population growth and food production the thesis of his work.

Malthus claimed that population growth, especially in urban areas, was sustainable only if sufficient food was available. Food production, on the other hand was constrained by a finite stock of arable land. According to Malthus, population growth over a long period of time was impossible because agricultural production, owing to the fixed stock of land, could not be expanded commensurately. Malthus observed two sets of relationships that he believed were responsible for keeping population in balance with its food base. He termed these relationships *preventive* and *positive* checks. When population increases, it puts pressure on the existing

land resulting in a rise in food prices and a fall in incomes. If population continues to increase and prices continue to rise to a certain threshold, it triggers a preventive check on further increase by altering marriage patterns thereby depressing nuptiality and with it fertility. If, despite the preventive check, the population continues to increase and prices continue to rise to an even higher threshold, putting food beyond the means of some, a positive check actually causes mortality to rise thereby halting or reversing population increase. Malthus believed that the positive check was confined chiefly to the lowest orders of society and those societies with low standards of living. Both checks, however, may operate simultaneously though they will tend to vary inversely with one another in different societies. Where preventive checks are strong, positive checks will be weak and vice versa.

As a general framework for the movements of population in the preindustrial era, the model of Malthus retains a high degree of explanatory power.⁵ What Malthus failed to recognize, however, were the effects of technological change in the agrarian sector that helped offset the limitations of finite amounts of arable land assumed in the model. It is such transformations in the agrarian economy of the late medieval world that, according to Hohenberg and Lees, enabled rural-to-urban migration to occur, supporting the growth and development of cities. They argue that the origins of cities in the feudal period stemmed from rising agricultural productivity linked to several modest inventions and changes in cropping systems permitting more intensive food production. This productivity advance made it possible to generate the added surplus needed to support more nonproducers of food, thereby encouraging urban population growth in the form of migration away from the autarky of the manorial estates. Along with rising agricultural productivity, certain incentives existed to encourage this rural to urban migration. Growing demands of feudal elites for luxury wares led to the concentration of population in towns to serve as communication and coordination links for trade in luxury items. Such trade, in conjunction with rural to urban migration, was a critical factor in the emergence of medieval cities.

⁵“Before 1800 matters fell out much as Malthus had insisted they must...Over-rapid population growth in relation to food production formed the Achilles heel of the traditional world. Unless and until a way was found of preventing the effect of population growth from raising food prices and thus depressing real wages, an economy in the incipient stages of growth could not be made proof against the stresses its development entailed” (Wrigley and Schofield, 1981: 412, 466).

These early cities functioned as systems in an urban hierarchy of both central places and networks. Hohenberg and Lees critique central place theory, however, with its emphasis on local exchange between a central place and its surroundings, as insufficient for describing the process of urbanization. They argue, convincingly, that networks of long distance trade, not necessarily the result of central place development, played an earlier and more important role in medieval city building than what is suggested in central place theory. Most cities “have a place in both sorts of systems” (Hohenberg and Lees, 1994: 71).

If trade both within central places and international networks, was the basis of medieval urbanization, early modern urbanization was built upon a political economy distinct from the medieval period preceding it and the industrial period that followed. The expansion of production activity was one of the most significant features differentiating the protoindustrial economy of the early modern period from the medieval period (Hohenberg and Lees, 1994: 103). The medieval urban system responded to this new protoindustrial economy by transforming its character. In the process, the city in the early modern period exhibited “increased activity in direct production: handicrafts, manufactures and building” (Hohenberg and Lees, 1994: 103). Despite the fact that the protoindustrial economy induced a great deal of rural manufacturing activity, Hohenberg and Lees challenge the assumption of protoindustry as a strictly rural phenomenon. They insist that the urban population engaged in production activity “formed a remarkable fraction of total urban employment” (Hohenberg and Lees, 1994: 103).

Urban industry did not duplicate rural production but functioned in a reciprocal relationship with it (Hohenberg and Lees, 1994: 113). Cities specialized in the production of luxury goods while rural producers specialized in ordinary, everyday goods. The two types of production thrive in different economic conditions. Urban industry prospers when grain prices and property incomes are high because the products are purchased by higher income recipients of rent. Rural industry thrives in conditions of low grain prices and high wages. Because the rural sector still dominated the economic fortunes of early modern Europe, the prosperity of rural and urban worlds shifts according to the allocation of shares of agricultural surplus (Hohenberg and Lees, 1994: 113).

In order to clarify these relationships and the interactions between rural and urban economies, Hohenberg and Lees develop a model linking the fortunes of the two sectors to long term

movements in population and prices (Hohenberg and Lees, 1994: 113-118). The urban system of early modern Europe depicted in the model shows the urban sector evolving in a series of four stages. In the first stage, increased rural activity leads to more trade and protoindustrial production. Cities participate in this recovery through their role as central places and urban markets grow as a consequence. In the second phase, as the recovery spreads and property incomes revive, long distance trade increases and so does urban participation in international trading networks. In a third stage of maximum prosperity, urban manufactures grow and join trade and finance to increase urban incomes. In the final stage of urban development, urban prosperity actually coincides with a general economic downturn. This condition transforms the relationship of the city to the rest of the economy into one of parasitism consistent with the growth of the large capital cities. The city becomes marked by enormous contrasts between rich and poor while the growing role of the state transforms the city into a monument to territorial and imperial power.

Within the system depicted in the model, cities in the early modern period grow and prosper in four ways (Hohenberg and Lees, 1994). Cities can concentrate on local and regional trade as central places. If they are ideally located, they can take advantage of more long distance trade as network gateways. They can also become centers of direct production, "protoindustrial cities." Finally, cities can evolve as centers for administration both in the economic sense—as centers for the collection of surplus and centers of consumption—and in the political sense—as centers for the growing power of the nation state. Interestingly, Hohenberg and Lees claim that these administrative functions of the state were increasingly exercised and enhanced through the linkages developed by cities within central place systems. At the same time the imperial ambitions of nation states became harnessed through the linkages of cities within networks of international trade. In effect, the nation state took advantage of the economic links of cities within central place systems and network systems to promote their territorial and imperial ambitions. The model suggests that all four of the options will be successively favored in accordance with the underlying movements of population and prices. These successive shifts correspond to what actually transpired during the early modern period.

The protoindustrial economy flourished not as a dichotomy between town or country, but as a complementary system involving both rural and urban places and the various elements of a regional urban hierarchy (Hohenberg and Lees, 1994: 130). Cities in the

protoindustrial period expanded their role as trading centers, and as centers of production while the growth of the centralized state imbued cities with new administrative functions (Hohenberg and Lees, 1994: 101). The urban system resulting from this political economy is thus the outcome of political, economic, and demographic factors in which the activities of trade, production, population movements, and state building play complementary roles.

Perhaps the most unique contribution of Hohenberg and Lees is their insight that urbanization in Europe is best understood as the outcome of two very different development patterns—the patterns of central places and the patterns of networks—mediated by the process of state-building. In contrast to the often static and abstract presentation of central place theory, they succeed in imbuing this concept with a decidedly empirical and historical dimension. In addition, the authors reveal how actual trade networks operated in preindustrial society enabling cities to extend their reach and influence, and create linkages with cities over long distances. Such trade and communications networks are in many ways the historical precursors to contemporary networks that figure so prominently in theories of modern urbanization and development. The account of Hohenberg and Lees is also unique in terms of the relative balance played by trade, production, population and state-building in promoting the process of urbanization and the transition from agrarian society. Unlike both Braudel and de Vries, Hohenberg and Lees acknowledge a more important role for urban manufacturing activities in helping create the basis of economic modernity. Nevertheless, their model, like the models of Braudel and de Vries, also places primary emphasis on the fundamental shifts of people in creating the urban places on the eve of the industrial revolution.

Conclusion: Urban History as History of Urbanization

If there is one conclusion to be drawn from the transformation of urban history into the history of urbanization, it is the decisive role played by population movements in urban development and the transition from agrarian to industrial society. Such a conclusion, however, is in no way an affirmation of “biological facts” as the “motive force of history.”⁶ While patterns of population growth and

⁶The reference is to Emmanuel Le Roy Ladurie who insisted upon the primacy of population movements in the preindustrial period as the motive force of history rather than the Marxist theme of class struggle. He argues that “it is in biological facts, rather than in the class struggle, that we must seek the motive force of

decline are fundamental to the process of urbanization, all three models suggest that demographic shifts are themselves best understood in conjunction with the impacts of trade patterns, production activities, and state-building. What remains an open question in these models, however, is the extent to which the demographic trigger of urbanization is the cause or the effect of these broader historical forces. What is also noteworthy as an omission in these models, is the relatively small amount of attention paid to the class structure of the population, along with relations of power between classes that drive human beings to make their own history. This omission is especially poignant in light of the influential work of Robert Brenner (1976) on the impact of agrarian class structures on long-term economic development in Europe, and the wide-ranging influence of the "Brenner Thesis" not only in history but in a range of other disciplines (Aston and Philpin, 1985). Issues of class structure and power in city building thus appear in all three models as a relatively secondary concern.

The model created by Braudel situates urbanization in the context of what he calls the emergence of the capitalistic process within the *ancien régime*. This approach is distinct from the other two in that the unit of analysis in Braudel's model is not technically the urban system but the development of capitalism itself. Nevertheless, his primary focus on broad historical themes places his account of urban development outside of "urban history" and within the framework of the history of urbanization. For Braudel, the development of capitalism is linked to urbanization through the expansion of the market economy. Cities, by establishing networks of trade and exchange with their rural hinterlands, are the embodiment of this market economy. From these trade networks emerges an urban hierarchy and a system of cities. These cities are for Braudel, islands of autonomy and the outposts of economic modernity.

Population cycles create disequilibria within the market economy and enable large scale merchants to exploit the arbitrage in different marketplaces. In organizing themselves into networks of long distance trade, these large scale merchants are the human agents of capitalist development. They succeed in subverting the

history." He goes on to state that "economic fluctuations...are the long-term consequences of the great fits and starts of the population movement...No matter how important it was in the 'ground breaking' stage of our studies, in the last analysis the economy proved quite subservient to the great forces of life and death" (Le Roy Ladurie, 1977: 133).

regulations of local markets and create monopolistic positions for themselves within the market economy. According to Braudel, the more successful these merchants are in establishing monopoly power in the marketplace, the more clearly the process of capitalism emerges. When the nation state succeeds in creating capital cities with enormous populations, these merchants make possible the massive provisioning of these capitals. By the time Braudel's story is concluded, London has become the dominant city in the European world economy by virtue of its role not as a city-state (as was the case with former dominant European cities) but as the capital of the British Isles with its national aspirations and territorial ambitions. National capitals such as London and Paris become population centers and therefore consumption centers—giant “stomachs”—which reinforce capitalist impulses. They help create the national markets of territorial states.

For Braudel, the link of capitalism with urbanization testifies to the sometimes-contradictory causal sequences between different phenomena in his model of urban development. Precapitalist society clearly had an urban fabric. If capitalism and urbanization are the same thing as Braudel insists, a question emerges as to how he can reconcile precapitalist society and medieval urbanization.

Very different from Braudel is the account of de Vries who insists on placing urbanization in the context of the early modern protoindustrial economy with its focus on rural industry and regional, as opposed to local, networks of trade. In the regional economies of early modern Europe, cities became the coordination and communication centers for a permanent long distance bulk trade in the provisioning of nonagricultural populations. At the same time, cities assumed an importance in the growing industrial economy not as centers of production, but as relay points and coordination centers within regional trading networks for the trade in manufactures fabricated, for the most part, in rural areas. As rural phenomena, manufactured goods became part of the urban system as commodities circulating between regions along the trading networks coordinated by cities. Inter-regional linkages, forged upon trade and rural manufacturing, are thus the basis of the early modern urban system. While de Vries acknowledges that the development of nation states and the control of colonial empires by these entities affected inter-urban linkages, territorial state-building plays a secondary role to trade and production in the creation of the urban network and the system of cities. For de Vries, the urban system of early modern Europe, based upon rural industry, and the rural-urban and inter-regional trade linkages, was the basis of national markets and the precursor of industrial modernity.

Where de Vries contributes a unique perspective on the process of urbanization and economic modernization is in his quantitative modeling of the population changes underlying the formation of the European urban system. Two aspects of these population changes are of interest to de Vries: *demographic* urbanization which tracks the shift in population from rural to urban locations, and *structural* urbanization which traces the changes in the location of activities fostering population concentrations in urban nodes. While population change is the focus of these modeling exercises, de Vries places demographic shifts in the context of early modern regional trading economies and the rural production economy. Embedded within these models are powerful causal relationships between population and migration movements, rural agricultural and industrial production, and regional trade. The relationships between these phenomena are what forged the early modern urban system that served as the foundation for modern industrial society.

The unique contribution of Hohenberg and Lees is their contention that European urbanization reflects two development patterns traditionally modeled by geographers. The first pattern is based upon the role of the city as a central place in a trading relationship with its surroundings. A hierarchy of such central places forms a region around a dominant city in a trading system known as a central place system. In the second pattern, cities also forge trade links but these links are to the world of international commerce. In this role cities belong to network systems that typically extend beyond the borders of the country where the city is located. According to Hohenberg and Lees, however, these two development patterns are mediated by the activity of state building. Cities, they claim, grow and develop not only through the economic processes of central place and network systems but also because of their role in promoting the formation of nation states. Thus they establish a framework for the analysis of urbanization consisting of the interplay of central place and network systems mediated by the politics of statecraft.

What drives the process of urbanization within central place and network systems, however, is the variable of population movements. Hohenberg and Lees insist that the long waves of population growth provided the human material for city building. They differ from both Braudel and de Vries in the emphasis they give to urban production activity in this process of city building and urbanization. They explicitly challenge the notion of proto-industrialization as a rural phenomenon and insist upon the importance of urban manufacturing in the early modern city. In their model, a basic interdependence binds together the movements

of people, trade, production, and state-building. In this sense, the approach of Hohenberg and Lees is perhaps the most evenly balanced with respect to the four themes.

While Malthus may very well have uncovered the fundamental mechanism in the process of early modern urbanization and the transition to industrial society, it is perhaps one of history's ironies that the industrial age brought a reversal in the relationship between population and economy at the core of Malthus' argument. As a result of industrialization—the limits on population growth, that had conditioned the economy and the urban system during the preindustrial, early modern period—seemingly lifted. The industrial revolution and its aftermath during the nineteenth century, succeeded in recasting the relationships between trade, production, population and state-building in determining patterns of urban development. The role of manufacturing, commerce, and the nationalistic politics of state formation became elevated in the creation of a new urban system as population growth became unhinged from its relationship to food production and the stock of arable land. Population growth has now assumed a very different though no less relevant, relationship to the phenomenon of industrial development and urbanization. As a result, themes in the story of urbanization and economic modernization personified by Malthus, Pirenne, Smith and Weber remain relevant on either side of the historical divide between preindustrial and industrial society.

References

- Aston, T.H. and Philpin, C.H.E., eds. 1985. *The Brenner Debate: Agrarian Class Structure and Economic Development in Pre-Industrial Europe*. Cambridge: Cambridge University Press.
- Bairoch, Paul. 1973. "Agriculture and the Industrial Revolution." *The Industrial Revolution*. Carlo M. Cipolla, ed. London: Harvester Press, 1976: 452-506.
- Berry, Brian. 1964. Cities as Systems Within Systems of Cities. *Regional Development and Planning: A Reader*, edited by John Friedmann and William Alonso. Cambridge: MIT Press.
- Braudel, Fernand. 1981 [1967]. *Civilization and Capitalism 15th-18th Century*. Volume I. *The Structures of Everyday Life*. Translated by Sian Reynolds. New York: Harper & Row, 1981.
- Braudel, Fernand. 1977. *Afterthoughts on Material Civilization and Capitalism*. Translated by Patricia Ranum. Baltimore: Johns Hopkins University Press.
- Brenner, Robert. 1976. "Agrarian Class Structure and Economic Development in Pre-Industrial Europe." *Past and Present*. No. 70:30-75.

Berkeley Planning Journal

- de Vries, Jan. 1984. *European Urbanization 1500-1800*. Cambridge: Harvard University Press.
- de Vries, Jan. 1982. *The Economy of Europe in an Age of Crisis, 1600-1750*. Cambridge: Cambridge University Press.
- de Vries, Jan. 1981. Patterns of European Urbanization in Preindustrial Europe, 1500-1800. *Patterns of European Urbanization Since 1500*. Edited by H. Schmal. London: Croom Helm.
- Eltis, Walter. 1984. *The Classical Theory of Economic Growth*. London: Macmillan Press.
- Gutmann, Myron P. 1988. *Toward the Modern Economy: Early Industry in Europe 1500-1800*. Philadelphia: Temple University Press.
- Havighurst, Alfred F. 1976. *The Pirenne Thesis*. Lexington, Massachusetts: Doubleday Anchor.
- Hohenberg, Paul M. 1990. *The City: Agent or Product of Urbanization. Urbanization in History*. Edited by Ad van der Woude, Akira Hayami, and Jan de Vries. Oxford: Clarendon Press.
- Hohenberg, Paul M. and Lynn Hollen Lees. 1995. *The Making of Urban Europe 1000-1994*. Cambridge: Harvard University Press.
- Lepetit, Bernard. 1994. *The Pre-Industrial Urban System: France, 1740-1840*. Translated by Godfrey Rogers. Cambridge: Cambridge University Press.
- Le Roy Ladurie, Emmanuel. 1977. "Motionless History." *Social Science History*. Vol. I(2):115-136.
- Malthus, Thomas Robert. 1986 [1798]. An Essay on the Principle of Population. *The Works of Thomas Robert Malthus*. Volume Two. London: William Pickering.
- Ogilvie, Sheilagh and Markus Cerman. 1996. *European Proto-Industrialization*. Cambridge: Cambridge University Press.
- Pirenne, Henri. 1969 [1925]. *Medieval Cities: Their Origins and the Revival of Trade*. Princeton: Princeton University Press.
- Sayer, Andrew. 1992. *Method in Social Science*. London: Routledge.
- Smith, Adam. 1976 [1776]. *An Inquiry into the Nature and Causes of the Wealth of Nations*. 2 Vols. Oxford: Clarendon Press.
- van der Woude, Ad and Akira Hayami and Jan de Vries, eds. 1990. *Urbanization in History*. Oxford: Clarendon Press.
- Weber, Max. 1958 [1921]. *The City*. New York: The Free Press.
- Wrigley, E.A. and Schofield, R.S. [1981]. *The Population History of England 1541-1871*. Cambridge: Harvard University Press.