Special Issue : Urban Economics and History

Introduction

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Introduction

This special issue discusses research at the intersection of urban economics and economic history. Over the past decade, economists have invested significant amounts of time and money to uncover historical records from archives. They started digitizing conventional data from old registers and employed insights from machine learning to extract and harness information from historical maps or texts. The return on these costly investments are unique insights into past developments at a high spatial resolution that make every (urban) economists' hearts sing since they provide rich opportunities to study the spatial organization, growth and subsequent reorganization of economic activities over time.

Despite the rising importance of research in urban economics with a historical perspective, this strand of the literature has not been covered in the Handbook of Regional and Urban Economics nor is there any other review article that seeks to organize this literature. The objective of this special issue is to fill this gap and provide the reader with the first systematic overview of the growing body of literature that lies at the intersection of urban economics and economic history.

This issue starts with a comprehensive introduction by Hanlon and Heblich (2022) who take a big-picture look at the literature from three distinct perspectives. First, a *between-city perspective* with contributions that study the origin and development of cities. Studies in this area address classic urban economics questions, such as the size and type of cities, agglomeration benefits, the importance of locational advantages, and the impact of place-based policies. Second, a *within-city perspective* that

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reviews research on the organization of economic activities within cities. Contributions to this strand aim to understand the economic forces that determine the location decisions of firms and households within cities along with public policies designed to affect equilibrium outcomes. Third, a perspective on *urban growth* that focuses on the contribution of cities to overall economic development. This section discusses work that employs measures of population density as proxy for countries' economic growth and development over long periods of time and seeks to integrate the perspectives of economic historians who tend to focus on the impact of economic growth on the level of population in a location and urban economists who are interested in the distribution of population across space. The specific benefits of a historical perspective on these areas of urban economics is that (i) key forces in urban economics play out over long periods of time; (ii) urban infrastructure and housing investments do not happen over night and once in place depreciate slowly; (iii) (economic) shocks to cities happen infrequently—think about the recent pandemic—such that our best predictions about their future implications are derived from historical experiences.

This review article is followed by a selection of papers written by leading experts in the field which will further synthesize contributions at the intersection of urban economics and economic history, and discuss future research opportunities. Contributions to the issue are arranged in seven overriding topics: *Cities in Early Ages*, *Path Dependence*, *Infrastructure*, *Industries*, *Immigrants*, *History and Developing Countries*, and *Methodology*. The next section provides a brief summary of all contributions in this special issue.

Content

All articles in the special issue were commissioned from leading experts in various research areas concerned with cities in a historical perspective. The invited contributions represent syntheses of distinct lines of research in the sense that they explain the state of the art and revolve around important questions that should be addressed in future research.

A starting point is the study of determinants underlying the creation and location choice of cities. Bosker (2022) argues that combining newly available spatially fine-grained data with advanced empirical and computational methods will provide new insights on the relevance of many alleged city seeds. Once created, some cities will thrive, whereas others will stagnate or even disappear. Jedwab, Johnson and Koyama (2022) explore patterns of city growth in the Middle Ages based on theory and empirical findings from urban economics. They discuss the role of a variety of factors such as agriculture development, physical geography, economies of scales and human capital spillovers, as well as disamenities and constraints on mobility. They analyze how cities reacted to shocks such as Black Death and how institutions became increasingly important.

Growth of cities may not only depend on contemporaneous determinants or shocks, but also on past ones that could influence cities' long-run development path. This concept of path dependence is formally developed by Allen and Donaldson (2022) who propose a simple dynamic model of economic geography with many heterogeneous locations interacting through trade, migration, agglomeration externalities and endogenous fertility. Their model puts an emphasis on the distinction between agglomeration spillovers that affect productivity contemporaneously and those which do so with some lag. Lin and Rauch (2022) extend this line of thought and discuss what happens after a localized shock in

the past, i.e. whether the economy is going to revert to its original state or whether it is going to persist in the new equilibrium after the temporary shock. In line with Allen and Donaldson (2022), they emphasize that the spatial economy could be characterized by multiple equilibria or multiple steady-state equilibrium paths where history and expectations can play decisive roles.

There are two specific factors that play an important role in the development of cities: infrastructure and institutions. Beach (2022) focuses on health infrastructure and argues that typhoid fever and other waterborne diseases were eradicated in the US between 1900 and 1930 thanks to a mix of technological, scientific, economic and bureaucratic innovations. Bogart (2022) turns the perspective to the role of transport infrastructure and institutions, especially formal political constraints. It is shown that policies funding and placing infrastructure usually reflect the aim of those in power or with greater political influence.

Urbanization is closely linked to the development of industries. Atack, Margo and Rhode (2022) show that in the nineteenth century U.S., manufacturing intensified and became more urban. A key reason is the development of the transport system, especially railroads. Andrews and Whalley (2022) focus on innovations as driver of manufacturing growth and propose an empirical investigation of their changing spatial patterns over the last 150 years for the US. In particular, they show that innovations were already highly concentrated in the decades after Civil War.

One interesting aspect of U.S. city growth is the influx of large waves of immigrants. Eriksson and Ward (2022) study spatial variations in settlement patterns during the Age of Mass Migrations, including the existence of segregation and ethnic enclaves. They also discuss the effects of immigrants on native economic outcomes. Shertzer, Twinam and Walsh (2022) look at the internal organization of cities and provide a historical perspective on present zoning rules. Specifically, they examine to what extent the demand for spatial separation of racial groups influenced some of the earliest zoning ordinances in American cities.

The historical development of cities in developed countries holds important insights for urbanization in developing countries. Glaeser (2022) summarizes five key insights: (i) political power has long driven the growth of cities; (ii) the power of transport to explain success has declined; (iii) infrastructures such as sewers or roads should be combined with incentives; (iv) well-defined property rights over land matter; and (v) the choice of specific institutions for managing infrastructure is important. But one should keep in mind that developing countries also have their own history which influences contemporaneous choices. Brooks and Denoeux (2022) nicely illustrate this when they compare Bogota and Jakarta, two cities that recently built rapid bus transit systems. Bogota was successful thanks to a past streetcar system that properly shaped land use patterns. By contrast, Jakarta struggled because land use patterns were inadequate for new transport infrastructure. A broader perspective is adopted by Chen and Kung (2022) who study long-run urbanization patterns in China. They argue that the center of economic gravity gradually shifted to the south between the 3rd and 12th centuries as a result of mass migration. Elite brought their own human capital and encouraged human capital investments.

The end of the special issue is devoted to three methodological papers that discuss recent theoretical and empirical developments at the intersection of urban economics and economic history. Nagy (2022) discusses the use of general equilibrium models to study the economic impact of historical events such as the railroad evolution. There are three key challenges: the tractability of models, the availability of historical data and issues related to identification. Combes, Gobillon and Zylberberg (2022) advocate the

use of machine learning technics to extract information from historical documents to test urban mechanisms in a historical perspective. Finally, Ahlfeldt and Barr (2022) show how data on durable and tall buildings can be used as historical "big data" to study the evolution of city structure.

Conclusion

There is a rising amount of work at the intersection of urban economics and economic history. This special issue organizes existing research along seven overriding topics and comprises 17 invited contributions written by leading experts in the field. These articles provide valuable guidance and seek to inspire future research in urban economics with a historical perspective. Recent developments in visual recognition and machine learning have opened new windows to the past and researchers can explore increasingly big historical datasets that link register data with additional insights, for example from maps. Analyzing these detailed spatial insights into the historical organization and growth of economic activities through the lens of urban economic models presents a fascinating avenue for future research. A quote that is sometimes related to Mark Twain says that history doesn't repeat itself, but it does rhyme. This is how we would like to think about the relevance of research at the intersection of urban economics and economic history. Historic insights must be evaluated in the context of their time, but once we focus on basic mechanisms, they become externally valid and hold important insights into drivers of the present and future development of cities and regions.

References

Ahlfeldt G. and J. Barr (2022), "Viewing urban spatial history from tall buildings", *Regional Science and Urban Economics*, 103618.

Allen T. and D. Donaldson (2022), "Persistence and Path Dependence: A Primer", *Regional Science and Urban Economics*, 103724.

Andrews M. and A. Whalley (2022), "150 years of the geography of innovation", *Regional Science and Urban Economics*, 103627.

Atack J., Margo R. and P. Rhode (2022), "Industrialization and urbanization in nineteenth century America", *Regional Science and Urban Economics*, 103678.

Beach B. (2022), "Water Infrastructure and Health in U.S. cities", *Regional Science and Urban Economics*, 103674.

Bogart D. (2022), "Infrastructure and Institutions: Lessons from History", *Regional Science and Urban Economics*, 103626.

Bosker M. (2022), "City origins", *Regional Science and Urban Economics*, 103677.

Brooks L. and G. Denoeux (2022), "What if you build it and they don't come? How the ghost of transit past haunts transit present", *Regional Science and Urban Economics*, 103671.

Chen T. and J. Kung (2022), "War shocks, migration, and historical spatial development in China", *Regional Science and Urban Economics*, 103718.

Combes P.Ph., Gobillon L. and Y. Zylberberg (2022), “Urban Economics in a historical perspective: Recovering data with machine learning”, *Regional Science and Urban Economics*, 103711.

Eriksson K. and Z. Ward (2022), “Immigrants and cities during the age of mass migration”, *Regional Science and Urban Economics*, 103593.

Glaeser E. (2022), “What can developing cities today learn from the urban past?”, *Regional Science and Urban Economics*, 103698.

Hanlon W. and S. Heblich (2022), “History and urban economics”, *Regional Science and Urban Economics*, 103751.

Jedwab R., Johnson N. and M. Koyama (2022), “Medieval cities through the lens of urban economics”, *Regional Science and Urban Economics*, 103598.

Lin J. and F. Rauch (2022), “What future for history economics in spatial economics?”, *Regional Science and Urban Economics*, 103628.

Nagy K. (2022), “Quantitative economic geography meets history: Questions, answers and challenges”, *Regional Science and Urban Economics*, 103675.

Shertzer A., Twinam T. and P. Walsh (2022), “Zoning and segregation in urban economic history”, *Regional Science and Urban Economics*, 103652.