

Spatial Economics Lectures

Stephen Redding

Summary

Economic activity is highly unevenly distributed across space, as reflected by the existence of cities and the concentration of economic functions in specific locations within cities, such as Manhattan in New York and the Square Mile in London. The relative strengths of the agglomeration and dispersion forces that underlie these concentrations of economic activity are central to a range of economic issues. The delicate balance between these two sets of forces helps to determine, for example, the incomes of mobile and immobile factors, the magnitude of investments, and both city and aggregate productivity. The impact of public policies differentiated by location (place-based policies) and of transport infrastructure investments, local taxation, and land regulation is crucially determined by how these policies affect the equilibrium balance between these centripetal and centrifugal forces.

The complexity of modeling spatial interactions between agents has meant that the theoretical literature on economic geography has traditionally focused on stylized settings – such as a small number of symmetric locations – that cannot easily be taken to the data. More recent research has developed quantitative models of the spatial distribution of economic activity. These models are rich enough to incorporate first-order features of the data, such as large numbers of locations with heterogeneous geography, productivity, amenities, and local factors, as well as trade and commuting costs. They are also able to incorporate key interactions between locations, such as trade in goods, migration, and commuting. At the same time, these models are sufficiently tractable to enable quantitative counterfactuals to evaluate empirically meaningful policies and counterfactual scenarios. This course reviews these recent developments in quantitative spatial economics

Readings

Economic Geography

- Fujita, M., P. Krugman, and A. Venables (1999) *The Spatial Economy: Cities, Regions and International Trade*, MIT Press, Chapters 4, 5 and 14.
- Krugman, P. (1991) “Increasing Returns and Economic Geography,” *Journal of Political Economy*, 99(3), 483-99.
- Krugman, P. and A. Venables (1995) “Globalization and the Inequality of Nations,” *Quarterly Journal of Economics*, 857-80.
- Redding, S. and A. Venables (2004) “Economic Geography and International Geography,” *Journal of International Economics*, 62(1), 53-82.
- Davis, Donald and David Weinstein (2002) “Bones, Bombs, and Break Points: The Geography of Economic Activity,” *American Economic Review*, 92(5), 1269-1289.
- Redding, S. and D. Sturm (2008) “The Costs of Remoteness: Evidence from German Division and Reunification,” *American Economic Review*, 98(5), 1766-1797.

Quantitative Spatial Economics

- Redding, Stephen J and Esteban Rossi-Hansberg (2017) “Quantitative Spatial Economics,” *Annual Review of Economics*, 9, 21-58.
- Allen, Treb and Costas Arkolakis (2014) “Trade and the Topography of the Spatial Economy,” *Quarterly Journal of Economics*, 129(3), 1085-1140.
- Ahlfeldt, Gabriel, Stephen J. Redding, Daniel M. Sturm and Nikolaus Wolf (2015) “The Economics of Density: Evidence from the Berlin Wall,” *Econometrica*, 83(6), 2127-2189.
- Monte, Ferdinando, Stephen Redding, and Esteban Rossi-Hansberg (2018) “Commuting, Migration and Local Employment Elasticities,” *American Economic Review*, 108(12), 3855-3890.
- Heblich, Stephan, Stephen Redding and Daniel Sturm (2018) “The Making of the Modern Metropolis: Evidence from London,” *NBER Working Paper*, 25047.
- Redding, Stephen (2016) “Goods Trade, Factor Mobility and Welfare,” *Journal of International Economics*, 101, 148-167, 2016.