

# Topics in Macroeconomics III: Cities and the Geography of Growth

2020–21 Academic Year

Master of Research in Economics, Finance and Management

## 1. Description of the subject

- Topics in Macroeconomics III
  - Total credits: 3 ECTS
  - Type of subject: Elective
  - Department of Economics and Business
  - Teaching team: Dávid Nagy and Giacomo Ponzetto
- Code: 32082  
Workload: 75 hours  
Term: 2nd

## 2. Teaching guide

- **Introduction**

As a continuation of “Topics in Macroeconomics II: Agglomeration and Economic Geography,” the objective of this course is to introduce the students to further active research areas in economic geography. We will study a set of models and tools that are commonly used in the field, and we will cover recent papers, both theoretical and empirical. The assignments for the course are intended to foster engagement with the current research frontier and to stimulate creative thinking about the students' own research projects.

- **Contents**

We continue studying the spatial distribution of economic activity in a world in which labor is mobile across locations. In this course, we focus specifically on cities and the geographic patterns and determinants of economic growth. Looking at cities, we will study the problem of workers' choices of their residential and workplace locations, as well as the sorting of different skill groups within and across cities. Next, we will argue that cities act as engines of economic growth by hosting the accumulation of human capital, innovation and entrepreneurship. Finally, we will study structural quantitative models of growth across space.

- **Assessment and Grading System**

The system of grading is the same as in “Topics in Macroeconomics II.” That is, one week after the last class, each student must submit a final project. The project should be around 6 and no more than 10 pages long and can be any of the following:

- a. The proposal for an original paper.
- b. A sufficiently challenging extension of an existing model or replication of an existing empirical analysis, which might become the basis of a paper.
- c. A critical survey of the literature on a specific topic that was not extensively covered in class.
- d. Referee reports on two important articles, preferably unpublished.

Any of the projects must be discussed beforehand with the teachers. Grading will take into account that projects belonging to types (a) and (b) are more challenging than those of types (c) and (d).

### 3. Programme of activities

The following outline sketches the topics covered in the course. Required readings are marked by a star. The reading list is subject to changes before and during the class.

#### Residential and Workplace Choice in Cities (Nagy)

- \* Ahlfeldt, G., Redding, S., Sturm, D. and Wolf, N. (2015): The economics of density: Evidence from the Berlin Wall. *Econometrica* 83(6), 2127-2189.
- \* Monte, F., Redding, S. and Rossi-Hansberg, E. (2015): Commuting, migration and local employment elasticities. *American Economic Review* 108(12), 3855-3890.
- Allen, T., Arkolakis, C. and Li, X. (2015): Optimal city structure. Mimeo.
- Lucas, R. and Rossi-Hansberg, E. (2002): On the internal structure of cities. *Econometrica* 70(4), 1445-1476.
- Tabuchi, T. and Thisse, J. (2002): Taste heterogeneity, labor mobility and economic geography. *Journal of Development Economics* 69, 155-177.

#### The Geography of Skills (Nagy)

- \* Davis, D. and Dingel, J. (2020): The comparative advantage of cities. *Journal of International Economics* 123, 103291.
- \* Diamond, R. (2016): The determinants and welfare implications of US workers' diverging location choices by skill: 1980-2000. *American Economic Review* 106(3), 479- 524.
- Behrens, K., Duranton, G. and Robert-Nicoud (2014): Productive cities: Agglomeration, selection and sorting. *Journal of Political Economy* 122(3), 507-553.
- Costinot, A. and Vogel, J. (2010): Matching and inequality in the world economy. *Journal of Political Economy* 118(4), 747-786.
- Giannone, E. (2019): Skill-biased technical change and regional convergence. Mimeo.

#### Human Capital (Ponzetto)

- \* Acemoglu, Daron, and Josh Angrist. 2000. "How Large Are the Social Returns to Education? Evidence from Compulsory Attendance Laws." In *NBER Macroeconomics Annual 2000*, vol. 15, edited by Ben S. Bernanke and Kenneth Rogoff, 9-74. Cambridge, MA: MIT Press.
- \* De la Roca, Jorge, and Diego Puga. 2017. "Learning by Working in Big Cities." *Review of Economic Studies* 84(1): 106-42.

\* Glaeser, Edward L. 1999. "Learning in Cities." *Journal of Urban Economics* 46: 254-77.

\* Glaeser, Edward L., and Albert Saiz. 2004. "The Rise of the Skilled City." *Brookings-Wharton Papers on Urban Affairs* 5: 47-94.

\* Moretti, Enrico. 2004. "Estimating the Social Return to Higher Education: Evidence from Longitudinal and Repeated Cross-Sectional Data." *Journal of Econometrics* 121(1-2): 175-212.

\* Rauch, James E. 1993. "Productivity Gains from Geographic Concentration of Human Capital: Evidence from the Cities." *Journal of Urban Economics* 34(3): 380-400.

Berry, Christopher R., and Edward L. Glaeser. 2005. "The Divergence of Human Capital Levels Across Cities." *Papers in Regional Science* 84(3): 407-44.

Ciccone, Antonio, and Giovanni Peri. 2006. "Identifying Human-Capital Externalities: Theory with Applications." *Review of Economic Studies* 73(2): 381-412.

### **Innovation and Entrepreneurship (Ponzetto)**

\* Arzaghi, Mohammad, and J. Vernon Henderson. 2008. "Networking off Madison Avenue." *Review of Economic Studies* 75(4): 1011-38.

\* Audretsch, David B., and Maryann P. Feldman. 1996. "R&D Spillovers and the Geography of Innovation and Production." *American Economic Review* 86(3): 630-40.

\* Carlino, Gerald A., Satyajit Chatterjee, and Robert M. Hunt. 2007. "Urban Density and the Rate of Invention." *Journal of Urban Economics* 61(3): 389-419.

\* Duranton, Gilles, and Diego Puga. 2001. "Nursery Cities: Urban Diversity, Process Innovation, and the Life Cycle of Products." *American Economic Review* 91(5): 1454-77.

\* Gaspar, Jess, and Edward L. Glaeser. 1998. "Information Technology and the Future of Cities." *Journal of Urban Economics* 43: 136-56.

\* Glaeser, Edward L., Hedi Kallal, José Scheinkman, and Andrei Shleifer. 1992. "Growth in Cities." *Journal of Political Economy* 100: 1126-52.

\* Glaeser, Edward L., William R. Kerr, and Giacomo A. M. Ponzetto. 2010. "Clusters of Entrepreneurship." *Journal of Urban Economics* 67: 150-68.

Carlino, Gerald A., and William R. Kerr. 2015. "Agglomeration and Innovation." In *Handbook of Regional and Urban Economics*, Vol. 5A, edited by Gilles Duranton, J. Vernon Henderson and William C. Strange, 349-404. Amsterdam: Elsevier.

Davis, Donald R., and Jonathan I. Dingel. 2016. "A Spatial Knowledge Economy," working paper.

Duranton, Gilles, and Diego Puga. 2005. "From Sectoral to Functional Urban Specialisation." *Journal of Urban Economics* 57(2): 343–70.

Glaeser, Edward L. 2005. "Reinventing Boston, 1630–2003." *Journal of Economic Geography* 5(2): 119–53.

Glaeser, Edward L., and Giacomo A. M. Ponzetto. 2010. "Did the Death of Distance Hurt Detroit and Help New York?" In *Agglomeration Economics*, edited by Edward L. Glaeser, 303–37. Chicago, IL: University of Chicago Press.

### **The Geography of Growth (Nagy)**

\* Desmet, K., Nagy, D. and Rossi-Hansberg, E. (2018): The geography of development. *Journal of Political Economy* 126(3), 903–983.

Brülhart, M. and Sbergami, F. (2009): Agglomeration and growth: Cross-country evidence. *Journal of Urban Economics* 65, 48–63.

Desmet, K. and Rossi-Hansberg, E. (2014): Spatial development. *American Economic Review* 104(4), 1211–1243.

Eckert, F. and Peters, M. (2018): Spatial structural change. Mimeo.

Nagy, D. (2020): Hinterlands, city formation and growth: Evidence from the U.S. westward expansion. Mimeo.