

## Regional disparities and urban economics (Topics)

Syllabus, Spring 2019

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**Credits:** 6

**Official info:**

**Permanent link to syllabus:** <https://www.dropbox.com/s/ta9gqe88ggdfu6h/2019syllabusRDUE.doc?dl=0>

**Lectures/seminars:** Tuesday **8:30-10am** M4020, Thursday **8:45-10am** M5220

**Exam type:** Essays + optional final exam (details below)

**Note:** Teaching mode: active learning. We won't meet every week.

**Course web site:** <https://moodle.unige.ch/course/view.php?id=3365>

### Course objectives and active learning techniques

Why is Manhattan so densely populated while most of North America is empty, and housing prices in NYC are among the highest in the World? Why are incomes and unemployment in the South of Italy comparable to those in Greece but those in the North comparable to Bavaria? Why does virtually all innovation take place in major cities and why do cities create a disproportionate share of wealth? In short, why do cities *make us richer, smarter, greener, healthier and happier*?<sup>1</sup> Many costs are also associated with urban life: commutes are longer and dwellings are smaller and more expensive in large cities than in small towns.

Market failures make the spatial distribution of economic activities suboptimal, with either too much or too little agglomeration, and lead people and firms to locate in the wrong places. Many public interventions also shape the location of economic and human activities: most countries heavily regulate land use and implement place-based public policies; transportation networks affect trade and commuting costs, which are a key element in the location decision of firms and households.

This course provides a broad introduction to the discipline that addresses such issues – modern regional and urban economics – with a focus on market failures and the role of public intervention.

#### **How you learn is as important as what you learn**

The course uses active learning techniques. Such techniques accelerate your learning and improve the depth of your understanding. They also focus on **soft skills** that are particularly valuable on the job market (such as working in teams and evaluate each other's work). Class attendance is thus fundamental and active student participation is strongly encouraged.

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<sup>1</sup> This is the subtitle to Edward Glaeser's great book, The Triumph of the City, MacMillan, 2011.

Much of your learning will occur during the class and the class will strongly complement everything else.

We will meet only every other week or so. I will ask you to read articles or watch short videos ahead of meetings. This work can be done on your own or in small groups (it is up to you). The idea is to flip the usual learning model: you learn the basics first ahead of the class; and we use the time in class to answer questions and apply the concepts to specific problems and questions.

To summarize, at the end of the course, students will

- 1) be **knowledgeable** about
  - a. the economic causes of regional disparities
  - b. the economic costs and benefits of urbanization
  - c. the impact of public intervention on spatial disparities
  - d. the econometric techniques that economists use to identify causal effects in economics in general (and urban economics in particular)
- 2) be able to **interpret maps and diagrams** as a way to synthesize complex information
- 3) **master** analytical tools to **analyse real world issues**

During the course, students will

- 4) develop **critical thinking** to analyse complex socio-economic issues
- 5) **communicate** complex information to others in a synthetic way
- 6) **solve problems in teams** and **provide feedback** to fellow students.

### **Evaluation/exam**

- There are five homework essays or sets of slides
- Your class evaluation is the best-of-four average
- Alternatively, you may take a written exam (two hours, no material allowed) but that would somewhat defeat the purpose of flipping the class. It's your choice.
- If you miss too many classes (regardless of the reason) you will have to take the final exam, which would then count for half of your final grade.

### **Course etiquette and other issues:**

- Time keeping. Lectures start sharply at 8:25. Do not be late.
- Switch off your mobile phones during class.
- We have no power regarding exam dates.
- We refer to the current document as 'the syllabus.' We update this document frequently and you can access any time through the moodle.
- Many issues can be dealt with by email but an immediate answer cannot be expected (especially for emails sent on Friday at 10 pm). Unless we are out of town, we try to reply

within a week. When the answer you expect is long and complex, please ask for a face-to-face meeting. We will also ask you to come for a personal meeting if we receive an email question for which the answer is likely to be more than 3-line long.

- Please start any email by typing 'RDUE' in the subject line. We teach several courses. We do not reply to emails that fail to fulfil this requirement.
- But before sending any email, remember that this syllabus contains the answer to most of your questions!

## Tentative schedule

Week	Topic	Skills and goals
8	1. Introduction and stylized facts	Spatial disparities How to read maps and histograms?
8 and 10	2. Agglomeration mechanisms	Agglomeration economies and Urban premium What is an economic model?
10 and 12	3. The empirics of agglomeration economies	Magnitude of agglomeration economies How do we establish causal links between economic outcomes?
14	4. Dispersion mechanisms	Spatial equilibrium and Urban costs What drives housing and land prices?
18	5. The economics of urban costs	Urban costs and city size Are cities oversized? Which ones?
20	6. Transportation infrastructures and local economic development	The fundamental law of congestion How to synthesize a large and heterogeneous literature?
22	7. Catch-up (if needed) or exam (if you request one)	

## Readings and textbooks

**Readings:** The course is almost entirely based on academic articles. Though we are making some of the material in the reading list available on the course website, learning how to find articles and books on the web and in the library is part of your skill acquisition in this programme. As a result, I will not be answering emails requesting this or that paper.

**No textbook** is suitable for all topics. However, several chapters of the following textbooks are useful:

- O'Sullivan. 2007. Urban Economics. McGraw-Hill (**OS** hereafter).

We also use some chapters of the following:

- Handbook of Urban and Regional Economics, vol. 4 (2004) and vol. 5 (2015).

Another important references in Urban Economics in which advanced developments can be found as regard theory is:

- Fujita and Thisse, 2013. Economics of Agglomeration: Cities, Industrial Location, and Globalization. Cambridge University Press.

A comprehensive survey is provided by

- Proost and Thisse. 2019. [What can be learned from spatial economics?](#) Journal of Economic Literature, forthcoming.

You may also use chapters from these advanced monographs:

- Baldwin, Forslid, Martin, Ottaviano and Robert-Nicoud. 2003. Economic Geography and Public Policy. Princeton University Press (**BFMOR** hereafter). Freely downloadable here:  
<http://graduateinstitute.ch/files/live/sites/iheid/files/sites/ctei/shared/CTEI/Baldwin/Publications/Chapters/New%20Economic%20Geography/BFMOR.ZIP>
- Combes, Mayer and Thisse. 2008. Economic Geography. Princeton University Press (**CMT** hereafter).

## Reading list by topics

- [M] Main reading (strongly advised).
- [P] Preliminary reading (non-technical).
- [C] Recommended reading.
- [S] Supplementary reading for the aficionados.

### 1. Stylised facts about cities and introductory reading

- [P] Glaeser. 2010. Why humanity loves, and needs, cities.  
[http://laurent.gobillon.free.fr/page\\_web/articles/Glaeser\\_blog\\_2010.pdf](http://laurent.gobillon.free.fr/page_web/articles/Glaeser_blog_2010.pdf)
- [M/P] **OS** Chapter 2.
- [M] Combes, Duranton, and Gobillon. 2011. The Identification of Agglomeration Economies. Journal of Economic Geography 11(2), 253-266. *Read intro only.*
- [M] Thisse. 2011. Geographical economics: A historical perspective. Recherches Economiques de Louvain 77, 141-168. *A beautiful overview of the whole field.*
- [S] Baldwin, 2006. Globalisation: the great unbundlings. *A lyrical account of the links among globalisation, urbanisation, and industrialisation.*
- [S] Proost and Thisse. 2019. [What can be learned from spatial economics?](#) Journal of Economic Literature, forthcoming.
- [S] Glaeser, 2008. Cities, agglomeration and spatial equilibrium. Oxford University Press (**EG** hereafter). *Chapter 1.*

## 2. Theories of agglomeration

Or, why cities make us more productive.

[M/P] **OS** Chapter 3.

- [P] Duranton. 2008. From cities to productivity and growth in developing countries. *Canadian Journal of Economics* 41, 689-736. *Read only section 2*
- [M] Duranton and Puga. 2004. Micro-foundations of urban agglomeration economies. In Henderson and Thisse (eds), *Handbook of Regional and Urban Economics*, vol. 4.
- [S] **CMT** Chapter 3, section 1: *Presentation of the Dixit-Stiglitz model*.
- [S] **BFMOR** *Appendix of chapter 2 on Dixit-Stiglitz*.
- [S] Sato and Thisse. 2007. Competing for capital when labor is heterogeneous. *European Economic Review* 51, 2054-79.
- [S] Becker and Murphy. 1992. The division of labor, coordination costs and knowledge. *Quarterly Journal of Economics* 107, 1137-60.
- [S] Ethier. 1982. National and international returns to scale in the modern theory of international trade. *American Economic Review* 72(3), 389-405.

## 3. The empirics of agglomeration economies

- [S] Baum-Snow, Nathaniel and Pavan, Ronni. 2012. Understanding the city size wage gap. *Review of Economic Studies*, 79(1):88-127.
- [S] Beaudry, Paul, Green, David A., and Sand, Ben. 2014. Spatial equilibrium with unemployment and wage bargaining: Theory and estimation. *Journal of Urban Economics*, 79(C):2-19.
- [S] Carlino, Jerry and Kerr, William. 2015. Agglomeration and innovation. In Duranton, Gilles, Henderson, Vernon, and Strange, Will, editors, *Handbook of Urban and Regional Economics*, volume 5A. North-Holland, Amsterdam.
- [C] Ciccone and Hall. 1996. Productivity and the density of economic activity. *American Economic Review* 86(1): 54-70.
- [M] Combes, Pierre-Philippe and Gobillon, Laurent. 2015. The empirics of agglomeration economies. In Duranton, Gilles, Henderson, Vernon, and Strange, Will, editors, *Handbook of Urban and Regional Economics*, volume 5A. North-Holland, Amsterdam.
- [C] Combes, Duranton, and Gobillon. 2008. Spatial Wage Disparities: Sorting Matters! *Journal of Urban Economics*, 63(2), 723-742.
- [C] Combes, Pierre-Philippe, Duranton, Gilles, Gobillon, Laurent, and Roux, Sébastien. 2010. Estimating agglomeration effects with history, geology, and worker fixed-effects. In Glaeser, Edward L., editor, *Agglomeration Economics*, pages 15-65. Chicago University Press, Chicago.
- [C] Combes, Duranton, Gobillon, Puga, and Roux. 2012. The Productivity Advantages of Large Cities: Distinguishing Agglomeration from Firm Selection, *Econometrica* 80 (6), 2543 - 2594.
- [C] De la Roca and Puga. 2017. Learning by working in big cities. *Review of Economic Studies*, 84(1):106-142, 2017.

- [C] Duranton, Gilles and Overman, Henry G. 2005. Testing for localization using micro-geographic data. *Review of Economic Studies*, 72(4):1077-1106.
- [C] Glaeser and Maré. 2001. Cities and Skills. *Journal of Labor Economics* 19(2), 316-42.
- [S] Greenstone, Hornbeck and Moretti. 2010. Identifying agglomeration spillovers: Evidence from winners and losers of large plants openings. *Journal of Political Economy* 118(3):536–598.
- [P] CMT *chapter 11*, especially sections 2.1-2.4.

#### 4. Dispersion mechanisms

The monocentric city model: Or, the notion of spatial equilibrium and the internal structure of cities.

- [M] Brueckner. 1987. The structure of urban equilibria. In Mills (ed), *Handbook of Regional and Urban Economics*, vol. 2.
- [M/S] Duranton and Puga. 2015. Urban land use. *Handbook of Regional and Urban Economics*, vol. 5A.
- [M/S] **OS** chapter 7.
- [S] Helpman. 1998. The size of regions. In Pines et al. *Topics in public economics*. Cambridge University Press. A different dispersion mechanism. In both cases dispersion forces arise as a result of competition for land.

#### 5. Labour mobility and spatial equilibrium

Urban systems; or, the notion of spatial equilibrium across cities.

- [M/P] **OS** chapter 4.
- [S] Albouy 2008. Are big cities really bad places to live? Improving quality-of-life estimates across cities. NBER working paper 14472.
- [M] Albouy, Behrens, Robert-Nicoud, and Seegert. 2018. The optimal distribution of population across cities. *Journal of Urban Economics*, in press.
- [M] Behrens, Duranton and Robert-Nicoud. 2014. Productive cities: Sorting, selection and agglomeration. *Journal of Political Economy* 122(3), 507-53.
- [S] Behrens and Robert-Nicoud. 2015. Agglomeration theory with heterogeneous agents. *Handbook of Regional and Urban Economics*, vol. 5A.
- [S] Blanchard and Katz. 1992. Regional Evolutions. *Brookings Papers on Economic Activity* 0(1): 1–61.
- [M] Duranton. 2008. From cities to productivity and growth in developing countries. *Canadian Journal of Economics* 41, 689-736. *Read only section 2*
- [S] Duranton, Gilles and Diego Puga. 2000. Diversity and specialisation in cities: Why, where and when does it matter? *Urban Studies* 37(3): 533–555.
- [S] Glaeser and Gottlieb. 2009. The wealth of cities: Agglomeration economies and spatial equilibrium in the United States. *Journal of Economic Literature* 47(4):983–1028. *Read especially section 2.*
- [M] Henderson. 1974. The size and type of cities. *American Economic Review* 64(4), 640-76. *The canonical model of urban systems.*

- [S] Roback. 1982. Wages, rents, and the quality of life. *Journal of Political Economy* 90(6), 1257-78.

## 6. Empirics of overall spatial disparity

- [M] Arnott and Small. 1994. The economics of traffic congestion. *American Scientist* 82(5), 446-55.
- [C] Baum-Snow. 2007. Did highways cause suburbanization? *Quarterly Journal of Economics* 122(2), 775-805.
- [M] Combes, Duranton, Gobillon (2018). The costs of agglomeration. CEPR dp 9240
- [C] Duranton and Turner. 2012. Urban Growth and Transportation. *Review of Economic Studies*, 79 (4), 1407 - 1440.
- [C] Duranton and Turner. 2011. The Fundamental Law of Road Congestion: Evidence from the US. *American Economic Review* 101(6), 2616-2652.
- [M] Faber, 2014. Trade Integration, Market Size, and Industrialization: Evidence from China's National Trunk Highway System. *Review of Economic Studies*
- [M] Glaeser and Kahn. 2001. Decentralized Employment and the Transformation of the American City. *Brookings/Wharton Papers on Urban Affairs* 2(0): 1-63.
- [S] Rossi-Hansberg, Sarte and Owen. 2009. Firm fragmentation and urban patterns. *International Economic Review* 50(1), 143-86.

## 7. Transportation and local economic development

- [M] Krugman. 1991. Increasing returns and economic geography. *Journal of Political Economy* 99(3): 484-499. *The Half-a-Nobel-prize winning paper.*
- [M] Martin and Rogers. 1995. Industrial location and public infrastructure. *Journal of International Economics* 39, 335-51.
- [M] Puga. 2002. European regional policies in light of recent location theories. *Journal of Economic Geography* 2(4): 373-406. *Read sections 2 and 3 in particular.*
- [M] Redding. 2016. Goods Trade, Factor Mobility and Welfare. *Journal of International Economics*, forthcoming.
- [S] Helpman. 1998. The size of regions. In Pines et al. *Topics in public economics*. Cambridge University Press. *A nice complement to Krugman 1991 and a great introduction to the empirical work of chapter 12 below.*
- [S] **CMT**. *The parts you are interested in.*
- [S] **BFMOR** chapters 9-11.
- [S] Eaton and Kortum. 2012. Putting Ricardo to work. *Journal of Economic Perspectives* 26(2), 65-90. *A very accessible paper surveying the literature from Ricardo's seminal work to EK's influential 2002 Econometrica paper.*
- [S] Robert-Nicoud. 2005. The structure of New Economic Geography Models. *Journal of Economic Geography* 5(2), 201-34. *Establishing the positive properties of NEG models.*
- [S] Charlot, Gaigné, Robert-Nicoud, and Thisse. 2006. Agglomeration and Welfare: The Core-Periphery Model in the Light of Bentham, Kaldor, and Rawls, *Journal of Public Economics* 90(1-2), 325-47. *Establishing the normative properties of NEG models.*
- [S] Ottaviano and Robert-Nicoud. 2006. The 'genome' of NEG models with vertical linkages: A positive and normative synthesis. *Journal of Economic Geography* 6(2), 113-39. *A complement to the paper above.*

- [S] Gagné. 2006. The 'genome' of NEG models with vertical linkages: A comment on the welfare analysis. *Journal of Economic Geography* 6(2), 141-9. *A complement to the papers above.*

## 8. Place-based policies

- [M] Kline and Moretti. 2016. People, Places and Public Policy: Some Simple Welfare Economics of Local Economic Development Programs. *Annual Review of Economics*, forthcoming.
- [M/C] Briant, Lafourcade, and Schmutz. 2015. Can Tax Breaks Beat Geography? Lessons from the French Enterprise Zone Experience. *American Economic Journal: Economic Policy* 7(2), 88-124.
- [M/C] Criscuolo, Martin, Overman, and Van Reenen. 2016. The causal effects of an industrial policy. <http://cep.lse.ac.uk/pubs/download/dp1113.pdf>
- [M] Duranton. 2011. California Dreamin': The Feeble Case for Cluster Policies. *Review of Economic Analysis* 3, 3-45.
- [C] Kline and Moretti. 2016. Local Economic Development, Agglomeration Economies and the Big Push: 100 Years of Evidence from the Tennessee Valley Authority. *Quarterly Journal of Economics*, forthcoming.
- [S] **BFMOR** chapters 17-18.
- [S] Baldwin and Robert-Nicoud. 2007. Entry and asymmetric lobbying: Why governments pick losers, *Journal of the European Economic Association* 5(5), 1064-93. A short, non-technical version is available [here](#).



**Please disregard the table below**

**Schedule (to be completed)**

Week/ Lecture	Lecture	Home work	Goals
8 Tuesday	Stylized facts		Read and interpret maps, tables, figures, and histograms
8 Thursday	Stylized facts Agglomeration		Know about agglomeration economics
9	Agglomeration	<p>Read the handout on Agglomeration economics.</p> <p>Read the following parts of Duranton and Puga's 2004 Handbook chapter:</p> <p>Section 1 in full;                      Section 2: read 2.1, 2.2 (omit 2.2.2-2.2.5), 2.3; Section 3: up to 3.1.2; Section 5.</p>	<p>Understand and learn three economic models about agglomeration economies.</p> <p>For each model, you should be able to answer the following:</p> <p>What are the main assumptions? What do economic agents optimize? Which economic mechanism leads to increasing returns at the city level?</p>