Econ 523: Public Finance Princeton University Fall 2018, Session II

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**Overview:** This course provides graduate-level discussion of topics and methods in public finance.

**Objectives:** This course has two objectives. The first is to teach current topics and methods in public finance. The second is to advance students' development as economists by providing training in the production of high-quality research. This training may help students read, contribute to, and draw from recent progress in this literature.

The course covers a wide variety of applied econometric and theoretical approaches. It also discusses applications of a wide variety of datasets and methods that are useful in many settings for public finance and applied economics research.

#### **Requirements:**

- 1. Required reading: Papers marked with two stars (\*\*) are required reading
- 2. Written response papers: There will be short written response papers due at 9 am on the day of each lecture. These written response papers should be 1 page and should summarize a (\*) paper that will be discussed in class and provide two "big picture" comments on the assigned paper (e.g., suggestions for future research, questions related to the paper that the paper does not address, alternative interpretations of the evidence, and major substantive concerns with the analysis (ideally with suggestions for investigating/addressing)). The goal is to get you to think actively, critically, and constructively about research.
- 3. <u>Problem Sets</u>: There will be a couple problem sets focused on learning tools by going through applied examples in the problem set
- 4. <u>Virtual paper</u>: This will be your main project for the course. The purpose of making the assignment a virtual paper is that I would rather you get 50% of the way toward a project you are excited to continue after the semester finishes than you complete a project in the timeframe of the course to which you will never return. You will formulate an original research idea, develop a practical plan for executing the idea, and take initial steps in the execution. The paper may take the following form:
  - a. Introduction: What is the specific question and why is the question of interest?
  - b. Literature Review/ Contribution: How does your paper fit into the broader literature? What is the potential contribution of this paper relative to the existing literature? What do we learn about the world that we didn't know before your paper?

- c. Theoretical Motivation: This could be actual theory or just a sketch of the relevant theory that underlies your question.
- d. Data: What data would you use to answer/address this question? Why are the data well suited to the question?
- e. Empirical Methodology: How would you use the data to answer your question? Be explicit about identification and causality, keeping in mind that the same set of empirical facts can often support many theories. Depending on the nature of your question and the ease of accessing and using the data, I may ask you to make significant progress in the actual implementation of your proposed empirical work.
- f. Falsification Tests: What other specifications, tests and investigations could either bolster or cast doubt upon the primary tests of your hypotheses?
- g. Preliminary Results: The extent of the results provided will differ across students based on the project and discussions with me.

#### **Grades:**

- 1. 25% for the written response papers and class participation
- 2. 25% for problem sets
- 3. 50% for a "virtual" paper

## **Audit Policy**

If you are a 3rd year or above and wish to audit the course, send me an email introducing yourself and so you can be added to the class list (as always, please include "econ523" in the subject line). Auditors are not required to complete the written assignments, but are expected to do the starred readings and participate in class.

#### Schedule (subject to change):

- Overview material (during part I)
  - o 9/18 Overview of public finance
  - o 9/20 Incidence

#### • Spatial Public Finance

- o 11/6 Overview of spatial public finance & the Rosen Roback model
- o 11/8 Place-based policies: theory
- o 11/13 Place-based policies: evidence
- o 11/15 Sorting, Fiscal federalism

## Capital Taxation

- o 11/20 Capital taxation: overview, facts, and theory
- o 11/22 No class (Thanksgiving)
- o 11/27 Henrik Kleven on "Wealth and Bequest taxation"
- o 11/29 Capital taxation: corporate taxation

#### • Taxing firms and top earners

- o 12/4 Firms, taxes, and financial policy
- o 12/6 Investment

- o 12/11 Entrepreneurship, Innovation, and Top earners
- o 12/13 Student presentations of virtual papers

## Reading List (subject to change)

General References

#### A. Useful Textbooks

Anthony B. Atkinson and Joseph E. Stiglitz. 2015. *Lectures in Public Economics*. New York, NY: McGraw Hill.

Alan J. Auerbach and Martin Feldstein, eds. 2004. *Handbook of Public Economics*, Vols. 1-4. Amsterdam: North Holland.

Wildasin, David. 2013. Urban Public Finance. Abingdon, UK: Routledge.

Fujita, M., P.R. Krugman, A.J. Venables and M. Fujita. 1999. *The Spatial Economy: Cities, Regions and International Trade* (Vol. 213). Cambridge, MA: MIT Press.

Train, Kenneth E. 2003. *Discrete Choice Methods with Simulation*. Cambridge: Cambridge University Press. (Especially chapters 2, 3 and 5.)

#### B. Public Economics Lecture Notes:

Saez, Emmanuel and Gabriel Zucman. Graduate Public Economics Notes (Econ 230B). https://eml.berkeley.edu//~saez/course/course.html

Chetty, Raj. Public Economics Lectures. <a href="http://www.rajchetty.com/index.php/lecture-videos">http://www.rajchetty.com/index.php/lecture-videos</a>

#### C. Applied Microeconomics Lecture Notes:

Card, David. Labor Economics Notes (Econ 250A). https://eml.berkeley.edu/~webfac/card/e250a\_f16/e250a.shtml

Autor, David. Labor Economics Lecture Notes <a href="https://economics.mit.edu/faculty/dautor/courses">https://economics.mit.edu/faculty/dautor/courses</a>

### D. Trade Lecture Notes:

Allen, Treb and Costas Arkolakis. Elements of Advanced International Trade Notes. <a href="https://sites.google.com/site/treballen/graduate-trade">https://sites.google.com/site/treballen/graduate-trade</a>

Donaldson, Dave and Arnaud Costinot. Trade Notes. <a href="http://dave-donaldson.com/teaching/">http://dave-donaldson.com/teaching/</a>

#### I. Overview of Public Finance and the Role of Government, Incidence [2 lectures]

### A. Overview

- (\*\*) NBER public economics program overview <a href="http://www.nber.org/programs/pe/">http://www.nber.org/programs/pe/</a>
- (\*) Piketty, Thomas, Emmanuel Saez, and Gabriel Zucman, 2017, "Distributional National Accounts: Methods and Estimates for the United States," Working Paper. http://gabriel-zucman.eu/files/PSZ2017.pdf

Barro, Robert and Jason Furman, 2018, "The macroeconomic effects of the 2017 tax reform," *Brookings Papers on Economic Activity*. <a href="https://www.brookings.edu/wp-content/uploads/2018/03/4">https://www.brookings.edu/wp-content/uploads/2018/03/4</a> <a href="https://www.brookings.edu/wp-content/uploads/2018/03/4">barrofurman.pdf</a>

Auerbach, Alan, and James Hines, "Taxation and Economic Efficiency," *Handbook of Public Economics*, vol. 3, Chapter 21; Sections 1-3.

Hendren, Nathaniel. 2016. "The Policy Elasticity" in J. Brown ed., *Tax Policy and the Economy*. Cambridge: MIT Press, Volume 30, 51-89.

#### B. Incidence

(\*\*)Don Fullerton and Gilbert E. Metcalf. 2002. "Tax Incidence." Chapter 26 in *Handbook of Public Economics*, Vol. 4, eds. Alan J. Auerbach and Martin Feldstein, pp. 1787-1872, Amerstdam: North-Holland.

Rothstein, Jesse, 2010, "Is the EITC as Good as an NIT? Conditional Cash Transfers and Tax Incidence." *American Economic Journal: Economic Policy* 2 (1), February, p.p. 177-208.

(\*) Cabral, M., Michael Geruso, and Neale Mahoney, 2018, "Do Larger Health Insurance Subsidies Benefit Patients or Producers? Evidence from Medicare Advantage" *American Economic Review* 108.8, 2048-87.

Fabinger, M. and Glen Weyl, 2013, "Pass-through as an Economic Tool: Principle of Incidence under Imperfect Competition" *Journal of Political Economy* 121(3): 528-583

Einav, L., Amy Finkelstein, and Pietro Tebaldi, 2018, "Market Design in Regulated Health Insurance Markets: Risk Adjustment versus Subsidies" working paper

Summers, L. 1989. "Some Simple Economics of Mandated Benefits," *American Economic Review*, 79(2), May 1989, 177-183.

Acemoglu, D. and Josh Angrist, 2001, "Consequences of Employment Protection? The Case of Americans with Disabilities Act" *Journal of Political Economy* 109(5)

## II. Spatial Public Finance, Rosen-Roback Model, Place-Based Policy [4 lectures]

### A. Spatial Model:

Rosen, Sherwin. 1979. "Wage-Based Indexes of Urban Quality of Life." In *Current Issues in Urban Economics*, eds. Peter Mieszkowski and Mahlon Straszheim. Baltimore: Johns Hopkins University Press.

\*\*Roback, Jennifer. 1982. "Wages, Rents, and the Quality of Life." *Journal of Political Economy* 90(6): 1257-1278.

\*Albouy, David. 2009. "The Unequal Geographic Burden of Federal Taxation." *Journal of Political Economy* 117(4): 635-667

Gyourko, Joseph and Joseph Tracy. 1989. "The Importance of Local Fiscal Conditions in Analyzing Local Labor Markets." *Journal of Political Economy* 97(5): 1208–1231.

Glaeser, Edward L. 2013. "Urban Public Finance." In *Handbook of Public Economics*, Vol. 5, eds. Alan J. Auebach, Raj Chetty, Martin Feldstein and Emmanuel Saez, 195–256. Amsterdam: Elsevier.

## **Recent Applications:**

Albouy, David. 2016. "What are Cities Worth? Land Rents, Local Productivity, and the Total Value of Amenities." *Review of Economics and Statistics* 98(3): 477–487.

Albouy, David, Gabriel Ehrlich and Minchul Shin. 2017. "Metropolitan Land Values." R&R, *Review of Economics and Statistics*.

Hsieh, Chang and Enrico Moretti. 2017. "Why do Cities Matter? Local Growth and Aggregate Growth?" National Bureau of Economics Working Paper No. 21154.

#### B. Place-based Policies:

\*\*Kline, Patrick and Enrico Moretti. 2014. "People, Places, and Public Policy: Some Simple Welfare Economics of Local Economic Development Programs." *Annual Review of Economics* 6: 629–662.

\*Busso, Matias, Jesse Gregory and Patrick Kline. 2013. "Assessing the Incidence and Efficiency of a Prominent Place-Based Policy." *American Economic Review* 103(2): 897-957.

Austin, Benjamin, Eduard Glaeser, and Lawrence Summers, 2018. "Saving the heartland: Placed-based policies in the 21<sup>st</sup> Century America." *Brookings Papers on Economic Activity Conference Draft.* 

Glaeser, Edward and Joshua Gottleib. 2008. "The Economics of Place-Making Policies." *Brookings Papers on Economic Activity* 2: 155-239.

Bartik, Timothy. 1991. *Who Benefits From State and Local Economic Development Policies?* Kalamazoo, MI: W.E. Upjohn Institute for Employment Research.

Gregory, Jesse, and Chao Fu. 2016. "Estimation of an Equilibrium Model with Externalities: Combining the Strengths of Structural Models and Quasi-Experiments." R&R, *Econometrica* 

# C. Agglomeration in Consumption (and Public Goods)

Diamond, Rebecca. 2016. "The Determinants and Welfare Implications of US Workers Diverging Location Choices by Skill: 1980-2000." *American Economic Review* 106(3): 479-524

Moretti, Enrico. 2013. "Real Wage Inequality." *American Economic Journal: Applied Economics* 5(1): 65-103.

\*\* Fajgelbaum, Morales, Suárez Serrato, and Owen Zidar. 2018. "State Taxes and Spatial Misallocation." Forthcoming, *Review of Economic Studies*.

Fajgelbaum, Pabl, and Cecile Gaubert. 2018. "Optimal Spatial Policies, Geography and Sorting," working paper.

#### D. Big Push and Agglomeration in Production (skip for time)

Murphy, Kevin M., Andrei Shleifer and Robert Vishny. 1989. "Industrialization and the Big Push." *Journal of Political Economy* 97(5): 1003-1026.

\*Kline, Patrick. 2010. "Place Based Policies, Heterogeneity, and Agglomeration." *American Economic Review* 100(2): 383–387.

Rosenthal, Stuart S. and William Strange. 2004. "Evidence on the Nature and Sources of Agglomeration Economies." In *Handbook of Urban and Regional Economics*, Volume 4, eds. Vernon Henderson and Jacques Thisse, pp. 2119-2172, Amsterdam: Elsevier.

\*Kline, Patrick and Enrico Moretti. 2014. "Local Economic Development, Agglomeration Economies and the Big Push: 100 Years of Evidence from the Tennessee Valley Authority." *Quarterly Journal of Economics* 129(1): 275–331

# E. Fiscal Federalism, Sorting (skip some of these papers for time)

\*Oates, Wallace E. 1999. "An Essay on Fiscal Federalism." *Journal of Economic Literature*, 37(3), pp. 1120-1149.

(\*\*) Gordon, Roger H. 1983. "An Optimal Taxation Approach to Fiscal Federalism." Quarterly Journal of Economics 98 (4) (November 1): 567--86.

R. P. Inman and D. L. Rubinfeld (1997). "Rethinking federalism." The Journal of Economic Perspectives, pp. 43–64

Tiebout, Charles M. 1956. "A Pure Theory of Local Expenditures." *Journal of Political Economy* 64 (5) (October 1): 416--424.

\*M. Feldstein and M. Wrobel (1998). "Can State Taxes Redistribute Income?" JPE 68.3, pp. 369–396

Zodrow, Geroge R. and Peter Mieszowski (1986) "Pigou, Tiebout, Property Taxation and the Underprovision of Local Public Goods" *Journal of Urban Economics* 19, pp. 356-370.

Albouy, David (2012) "Evaluating the Efficiency and Equity of Federal Fiscal Equalization." *Journal of Public Economics* 96(9-10), pp. 824-839.

J. Donahue (1997). "Tiebout or not Tiebout." JEP 11.4, pp. 73–82

Rosen, Kenneth T. 1982. "The Impact of Proposition 13 on House Prices in Northern California: A Test of the Interjurisdictional Capitalization Hypothesis," *Journal of Political Economy*.

R. F. Epple Dennis and T. Romer (1984). "Equilibrium among local jurisdictions: Toward an integrated treatment of voting and residential choice." JPE 24.3, pp. 281–308

Epple, Dennis and Holger Sieg (1999) "Estimating Equilibrium Models of Local Jurisdictions." *Journal of Political Economy* 107, pp. 645-81.

Rhode, Paul and Koleman Strumpf. "Assessing the Importance of Tiebout Sorting: Local Heterogeneity from 1850 to 1990," AER 2003.

R. Fernandez and R. Rogerson (1996). "Income Distribution, Communities, and the Quality of Public Education." QJE 111.1, pp. 135–164

W. Oates (1995). "Searching for Leviathan." AER 75.4, pp. 748–757

T. Besley and S. Coate (2003). "Centralized versus decentralized provision of local public goods: a political economy approach." Journal of public economics 87.12, pp. 2611–2637

Fogli, A. and Veronica Guerrieri (2018) "The End of the American Dream? Inequality and Segregation in US cities" working paper

Cabral, Marika and Caroline Hoxby. "The Hated Property Tax: Salience, Tax Rates, and Tax Revolts." Working paper 2017.

Bewley, Truman. "A Critique of Tiebout's Theory of Local Public Expenditures." Econometrica 1981.

Card, David, Alexander Mas, Jesse Rothstein (2008) "Tipping and the Dynamics of Segregation." *Quarterly Journal of Economics*, 122(2), pp. 775-805.

Bovenberg, A. Lans and Bas Jacobs. "Redistribution and Education Subsidies are Siamese Twins." Journal of Public Economics 2005.

Cellini, Stephanie, Fernando Ferreira, and Jesse Rothstein. "The Value of School Facility Investments: Evidence from a Dynamic Regression Discontinuity Design." QJE 2010.

P. Bayer, F. Ferreira, and R. McMillan (2007). "A Unified Framework for Measuring Preferences for Schools and Neighborhoods." Journal of Political Economy 115.4

Black, Sandra. "Do Better Schools Matter? Parental Valuation of Elementary Education." QJE 1999.

#### F. Spatial Disparities in Opportunity: (skip for time)

\*Chetty, Raj, Nathaniel Hendren, Patrick Kline and Emmanuel Saez. 2014. "Where is the Land of Opportunity? The Geography of Intergenerational Mobility in the United States." *Quarterly Journal of Economics*, 129(4): 1553-1623.

Moretti, Enrico. 2011. "Local Labor Markets." In *Handbook of Labor Economics*, Vol. 4B, eds. Orley Ashenfelter and David Card, pp. 1237–1313, San Diego: Elsevier.

Chetty, Raj, N. Hendren and L. Katz. 2016. "The Effects of Exposure to Better Neighborhoods on Children: New Evidence from the Moving to Opportunity Experiment." *American Economic Review*, Vol. 106(4): 855-902.

Chyn, Eric. 2016. "Moved to Opportunity: The Long-Run Effect of Public Housing Demolition on Labor Market Outcomes of Children." R&R *American Economic Review*.

Chetty, Raj, Nathaniel Hendren, Frina Lin and Jeremy Majerovitz. 2016. "Childhood Environment and Gender Gaps in Adulthood." *American Economic Association Papers and Proceedings* 106(5): 282-288.

Chetty, Raj and N. Hendren. 2017. "The Impacts of Neighborhoods on Intergenerational Mobility I: Childhood Exposure Effects and II: County-Level Estimates." National Bureau of Economic Research Working Paper No. 23001.

Baum-Snow, Nathaniel and Ronni Pavan. 2013. "Inequality and City Size." *Review of Economics and Statistics* 95(5): 1535-1548.

Cutler, David M., Edward L. Glaeser and Jacob L. Vigdor. 1999. "The Rise and Decline of the American Ghetto." *Journal of Political Economy* 107(3): 455-506.

## III. Business Taxation [2 lectures]

#### A. Overview and Policy:

Cooper, Michael, John McClelland, James Pearce, Richard Prisinzano, Joe Sullivan, Danny Yagan, Owen Zidar, and Eric Zwick, 2016, "Business in the United States: Who Owns it and How Much Tax Do They Pay?" in *Tax Policy and the Economy*, Cambridge: MIT Press, Vol 30: 90-128, Brown.

http://faculty.chicagobooth.edu/owen.zidar/research/papers/CMPPSYZZ-2016.pdf

Furman, Jason, 2014. "Business Tax Reform and Economic Growth." <a href="https://obamawhitehouse.archives.gov/sites/default/files/docs/business\_tax\_reform\_and\_economic growth">https://obamawhitehouse.archives.gov/sites/default/files/docs/business\_tax\_reform\_and\_economic growth</a> if.pdf

Auerbach, Alan, and Kevin Hassett, 2015, "Capital Taxation in the 21st Century." https://eml.berkeley.edu/~auerbach/Auerbach-Hassett%201-8-15.pdf

Auerbach, Alan, 2010, "A Modern Corporate Tax" *Hamilton project paper*. <a href="http://www.hamiltonproject.org/papers/a modern corporate tax">http://www.hamiltonproject.org/papers/a modern corporate tax</a>

US Treasury Office of Tax Analysis, 2017. "The Case for Responsible Business Tax Reform," *Office of Tax Analysis working paper*.

https://www.treasury.gov/resource-center/tax-policy/Documents/Report-Responsible-Business-Tax-Reform-2017.pdf

CEA, 2017. "Corporate Tax Reform and Wages: Theory and Evidence" <a href="https://www.whitehouse.gov/sites/whitehouse.gov/files/documents/Tax%20Reform%20and%20Wages.pdf">https://www.whitehouse.gov/sites/whitehouse.gov/files/documents/Tax%20Reform%20and%20Wages.pdf</a>

## B. Corporate Tax Incidence:

\*Harberger, Arnold. 1962. "The Incidence of the Corporation Tax." *Journal of Political Economy* 70(3): 215-240.

\*\*Fullerton, Don and Chi L. Ta. 2017. "Public Finance in a Nutshell: A Cobb Douglas Teaching Tool for General Equilibrium Tax Incidence and Excess Burden." *National Tax Journal* 70(1): 155-170.

\*Auerbach, Alan. 2006. "Who Bears the Corporate Tax? A Review of What We Know" in J. Poterba ed., *Tax Policy and the Economy*. Cambridge: MIT Press, Volume 20, 1-40.

Fuest, Clemens, Andreas Peichl, and Sebastian Siegloch. 2017. "Do Higher Corporate Taxes Reduce Wages?" forthcoming, *American Economic Review*.

#### C. Evidence on Firm Location, Corporate Taxes, and Million dollar plants

\*\* Suárez Serrato, Juan Carlos and Owen Zidar. 2016. "Who Benefits from State Corporate Tax Cuts? A Local Labor Markets Approach with Heterogeneous Firms." *American Economic Review* 106(9): 2582-2624.

Giroud, Xavier and Joshua Rauh. 2016. "State Taxation and the Reallocation of Business Activity: Evidence from Establishment-Level Data." R&R *Journal of Political Economy*.

\*Hines, James R., Jr. 1996. "Altered States: Taxes and the Location of Foreign Direct Investment in America." *American Economic Review* 86(5): 1076–1094.

Holmes, Thomas. 1998. "The Effect of State Policies on the Location of Industry: Evidence from State Borders." *Journal of Political Economy* 106(4): 667-705.

\*Greenstone, Michael, Richard Hornbeck and Enrico Moretti. 2010. "Identifying Agglomeration Spillovers: Evidence from Winners and Losers of Large Plant Openings." *Journal of Political Economy* 118(3): 536-598.

# D. Corporate Taxation in an Open Economy (skip for time)

Zucman, Gabriel, 2014, "Taxing Across Borders: Tracking Personal Wealth and Corporate Profits," *Journal of Economic Perspectives*, 28(4): 121-148. http://gabriel-zucman.eu/files/Zucman2014JEP.pdf

Auerbach, Alan and Michael Devereux. 2017. "Consumption and Cash-Flow Taxes in an International Setting." Mimeo, UC Berkeley.

Auerbach, Alan, Michael P. Devereux, Michael Keen and John Vella. 2017. "Destination-Based Cash Flow Taxation." Mimeo, UC Berkeley.

Alan Auerbach, "Demystifying the Destination-Based Cash-Flow Tax," *Brookings Papers on Economic Activity*, Fall 2017, 409-432. <a href="https://www.brookings.edu/wp-content/uploads/2018/02/auerbachtextfa17bpea.pdf">https://www.brookings.edu/wp-content/uploads/2018/02/auerbachtextfa17bpea.pdf</a>

Gordon, Roger and James Hines. 2002. "International Taxation," Chapter 28 in *Handbook of Public Economics*, Vol. 4, eds. Alan J. Auerbach and Martin Feldstein, Amerstdam: North-Holland.

Alan Auerbach, Michael Devereux, and Helen Simpson, "Taxing Corporate Income," in J. Mirrlees et al., eds., *Dimensions of Tax Design*, 2010, 837–893. http://www.ifs.org.uk/uploads/mirrleesreview/dimensions/ch9.pdf

Michael Keen and Kai Konrad, "The Theory of International Tax Competition and Coordination," *Handbook of Public Economics*, vol. 5, Chapter 5. http://www.sciencedirect.com/science/article/pii/B9780444537591000054

# IV. Investment and Payout Taxes [1 lecture]

- \*\* Hall, R. E., and D. W. Jorgenson. 1967. "Tax Policy and Investment Behavior." *American Economic Review* 57: 391–414.
- \*\* Auerbach, Alan. 1983. "Corporate Financial Policy and the Cost of Capital." *Journal of Economic Literature* 21(3): 905-940.
- \*\* Cummins, Jason G., Kevin A. Hassett, and R. Glenn Hubbard. 1994. "A Reconsideration of Investment Behavior Using Tax Reforms as Natural Experiments." *Brookings Papers on Economic Activity* 0 (2): 1–59.
- \*\* Zwick, Eric, and James Mahon. 2017. "Tax Policy and Heterogeneous Investment Behavior." *American Economic Review* 107(1): 217-248.
- \*\* Goolsbee, Austan. 1998. "Investment Tax Incentives, Prices, and the Supply of Capital Goods." *Quarterly Journal of Economics* 113 (1): 121–48.
- \* Chetty, Raj, and Emmanuel Saez. 2005. "Dividend Taxes and Corporate Behavior: Evidence from the 2003 Dividend Tax Cut." *Quarterly Journal of Economics* 120(3): 791-833.
- \* House, Christopher L., and Matthew D. Shapiro. 2008. "Temporary Investment Tax Incentives: Theory with Evidence from Bonus Depreciation." *American Economic Review* 98 (3): 737–68.
- \* Yagan, Danny. 2015. "Capital Tax Reform and the Real Economy: The Effects of the 2003 Dividend Tax Cut." *American Economic Review* 105 (12): 3531–63.

Summers, Lawrence H. 1981. "Taxation and Corporate Investment: A q-Theory Approach." *Brookings Papers on Economic Activity* (1): 67–140.

Feldstein, Martin. 1982. "Inflation, Tax Rules and Investment: Some Econometric Evidence." *Econometrica* 50 (4): 825–62.

Summers, Lawrence H. 1987. "Investment Incentives and the Discounting of Depreciation Allowances." In *The Effects of Taxation on Capital Accumulation*, edited by Martin Feldstein, 295–304. Chicago: University of Chicago Press.

Auerbach, Alan J., and Kevin Hassett. 1992. "Tax Policy and Business Fixed Investment in the United States." *Journal of Public Economics* 47 (2): 141–70.

Graham, John R. 2000. "How Big Are the Tax Benefits of Debt?" *Journal of Finance* 55 (5): 1901–41.

Hassett, Kevin A., and R. Glenn Hubbard. 2002. "Tax Policy and Business Investment." In *Handbook of Public Economics*, Vol. 3, edited by Alan J. Auerbach and Martin Feldstein, 1293–343. Amsterdam: Elsevier.

Desai, Mihir A., and Austan D. Goolsbee. 2004. "Investment, Overhang, and Tax Policy." *Brookings Papers on Economic Activity* (2): 285–338.

Edgerton, Jesse. 2010. "Investment Incentives and Corporate Tax Asymmetries." *Journal of Public Economics* 94 (11-12): 936–52.

#### V. Individual Taxation [1 lecture]

#### A. Taxation of High-Income Earners:

(\*\*) Diamond, Peter, and Emmanuel Saez. 2011. "The Case for a Progressive Tax: From Basic Research to Policy Recommendations." *Journal of Economic Perspectives*, 25(4): 165-90. http://pubs.aeaweb.org/doi/pdfplus/10.1257/jep.25.4.165

Mankiw, N Gregory. 2013. "Defending the One Percent." *Journal of Economic Perspectives*, 27(3): 21-34. https://www.aeaweb.org/articles.php?f=s&doi=10.1257/jep.27.3.21

- (\*) Smith, Matt, Danny Yagan, Owen Zidar, Eric Zwick, 2017, "Capitalists in the Twenty-First Century," Working Paper. http://faculty.chicagobooth.edu/owen.zidar/research/papers/capitalists.pdf
- (\*) Zidar, Owen, 2017, "Tax Cuts for Whom? Heterogeneous Effects of Tax Changes on Growth and Employment." Working Paper. http://faculty.chicagobooth.edu/owen.zidar/research/papers/Tax\_Cuts\_for\_Whom\_JPE\_r esubmitted.pdf

Autor, David, 2014. "Skills, education, and the rise of earnings inequality among the 'other 99 percent," David Autor. *Science* 23 May 2014: Vol. 344 no. 6186 pp. 843-851

http://www.sciencemag.org/content/344/6186/843.full

Murphy, Kevin, and Bob Topel, 2016, "Human capital investment, inequality, and growth," NBER Working Paper No 21841. http://www.nber.org/papers/w21841

#### B. Current policy debate (state and local tax deduction):

CBO, 2013 "The Distribution of Major Tax Expenditures in the Individual Income Tax System" https://www.cbo.gov/sites/default/files/113th-congress-2013-2014/reports/43768 DistributionTaxExpenditures.pdf

Cullen, Julie, and Roger Gordon, 2008, "Deductibility of State and Local Taxes: Is there a case for continuing this tax expenditure?" Working Paper <a href="http://econweb.ucsd.edu/~jbcullen/research/deductibility.pdf">http://econweb.ucsd.edu/~jbcullen/research/deductibility.pdf</a>

CBO, 2008, "The Deductibility of State and Local Taxes: https://www.cbo.gov/sites/default/files/110th-congress-2007-2008/reports/02-20-state local tax.pdf

# VI. Taxes, Innovation, Entrepreneurship [1 lecture]

Furman, Jason, 2016, "Encouraging Innovation and the Role of Tax Policy," <a href="https://obamawhitehouse.archives.gov/sites/default/files/docs/20160311\_innovation\_and\_tax\_policy\_itpf.pdf">https://obamawhitehouse.archives.gov/sites/default/files/docs/20160311\_innovation\_and\_tax\_policy\_itpf.pdf</a>

(\*) Nick Bloom, Rachel Griffith, and John Van Reenen, "Do R&D Tax Credits Work? Evidence from a Panel of Countries 1979-1997," *Journal of Public Economics*, July 2002, 1-31.

Julie Cullen and Roger Gordon, "Taxes and Entrepreneurial Risk-Taking: Theory and Evidence for the U.S.," *Journal of Public Economics*, August 2007, 1479-1505

Nirupama Rao "Do Tax Credits Stimulate R&D Spending? The Effect of the R&D Tax Credit in its First Decade"

(\*) Moretti, E. and D. Wilson, 2017. "The Effect of State Taxes on the Geographical Location of Top Earners: Evidence from Star Scientists" *American Economic Review*. 107(7). 1858-1903.

Ufuk Akcigit & Salomé Baslandze & Stefanie Stantcheva, 2016. "<u>Taxation and the International Mobility of Inventors</u>," *American Economic Review*, 106(10), pages 2930-2981, October.

(\*\*) Kline, P. N. Petkova, H. Williams, O. Zidar, 2017, "Who Profits from Patents:

Rent Sharing at Innovative Firms?"

 $\underline{http://faculty.chicagobooth.edu/owen.zidar/research/papers/KPWZ\_profits\_from\_patent} s.pdf$ 

# Supplemental:

Williams, Heidi. 2017, "How do patents affect research investments?" *Annual Review of Economics*. 9:441-649.

Chandra, A. and J. Skinner, 2012, "Technology Growth and Expenditure in Healthcare," *Journal of Economic Literature* 50(3), 645-680.

Finkelstein, Amy. 2004. "Static and Dynamic Effects of Health Policy: Evidence from the Vaccine Industry" *Quarterly Journal of Economics*, 119:2, 527-564.

Bell, A., R. Chetty, X. Jaravel, N. Petkova, J. van Reneen, 2016. "The Lifecycle of Inventors" http://mitsloan.mit.edu/shared/ods/documents/?DocumentID=2679

https://gspp.berkeley.edu/assets/uploads/research/pdf/HoynesRothstein\_formatted.pdf

VII. Student presentations of their papers [last lecture]