

Econ 524: Public Finance
Princeton University
Spring 2021, Session II

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(subject Econ524)

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. Problem Sets: There will be a couple problem sets focused on learning tools by going through applied examples in the problem set
3. Written response papers: There will be a few short written response papers due at 9 am on the day of 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.
4. Virtual paper: 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.
- f. Falsification Tests: What other specifications, tests and investigations could either bolster or cast doubt upon the primary tests of your hypotheses?

Grades:

1. 40% for the written response papers and class participation
2. 40% for problem sets
3. 20% for virtual paper

Schedule (subject to change):

- **Overview material**
 - 1. Overview of public finance
 - 2. Applied Economics Tools
- **Spatial Public Finance**
 - 3. Overview of spatial public finance & the Rosen Roback model
 - 4a. Place-based policies: theory
 - 4b. Place-based policies: evidence
 - 5. Sorting, Fiscal federalism
- **Capital Taxation**
 - 6. Capital taxation: overview, facts, and theory
 - 7. The distribution and taxation of wealth
 - 8. Capital Gains and Inheritance taxation
 - 9. Business tax policy and firm location
- **Tax policy, investment, and innovation**
 - 10. Investment and corporate financial policy
 - 11. Entrepreneurship, Innovation, and Top earners
- **Optimal Taxation (usually covered by Henrik)**
 - 12. Optimal Taxation

Assignments (subject to change):

- Response to Albouy (2009) due before lecture 3
- Problem Set on spatial taxation due before lecture 4
- Response to Bayer, Ferreira, and McMillan (2007) before lecture 5
- Response to Jakobsen Jakobsen Kleven, Zucman (2020) before lecture 6
- Problem Set on Wealth Tax/ Capital Gains Score before lecture 8
- Problem Set on Million Dollar Plants/ Event Studies due before lecture 9
- Problem Set on Roy Model and Entrepreneurship due before lecture 11

- Virtual Paper Presentations at end of the term

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. <http://www.rajchetty.com/index.php/lecture-videos>

Finkelstein, Amy. Public Economics lectures. <https://economics.mit.edu/faculty/afink/courses>

Hendren, Nathan. Public Economics lectures. <https://scholar.harvard.edu/hendren/classes/public-economics-ii-2450b>

Stantcheva, Stefanie. Public Economics Lectures. <https://scholar.harvard.edu/stantcheva/classes/ec2450a-public-economics-and-fiscal-policy-i>

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
<https://economics.mit.edu/faculty/dautor/courses>

Murphy, Kevin. Chicago Price Theory.
<https://home.uchicago.edu/cbm4/cpt/index.html>

D. Trade Lecture Notes:

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

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

I. Overview of Public Finance and the Role of Government, Applied Tools [2 lecture]

**NBER public economics program overview
<http://www.nber.org/programs/pe/>

**Zoutman, Floris, Evelina Garilova, Arnt Hopland. 2018. “Estimating Both Supply and Demand Elasticities Using Variation in a Single Tax Rate,” *Econometrica*, 86(2): 763-771.

Piketty, Thomas, Emmanuel Saez, and Gabriel Zucman, 2018, “[Distributional National Accounts: Methods and Estimates for the United States](#),” *Quarterly Journal of Economics*, 133(2): 553-609.

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

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

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, Amsterdam: North-Holland.

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

II. Spatial Public Finance, Rosen-Roback Model, Place-Based Policy [3 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.

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.

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.

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

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

D. Big Push and Agglomeration in Production

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.

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

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.

Zodrow, George R. and Peter Mieszkowski (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.

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.

III. Capital Taxation [4 lectures]

Stantcheva, Stefanie (2020), "Dynamic Taxation" Annual Review of Economics.

A. The Distribution and Taxation of Wealth

Saez, Emmanuel and Gabriel Zucman (2019). "[Progressive Wealth Taxation](#)" *Brookings Papers on Economic Activity*.

Kopczuk, Wojciech, 2015, "[What do we know about the evolution of top wealth shares in the united states?](#) *Journal of Economic Perspectives*, 29(1): 47-66.

*Jakobsen, Katrine, and Kristian Jakobsen, Henrik Kleven, and Gabriel Zucman (2020). "[Wealth Taxation and Wealth Accumulation: Evidence from Denmark](#)," *Quarterly Journal of Economics*, 135(1): 329-388.

**Smith, Matt, Owen Zidar, and Eric Zwick, 2020, "[Top Wealth In America: New Estimates and Implications for Taxing the Rich](#)," working paper.

Saez, Emmanuel and Gabriel Zucman, 2016, "[Wealth Inequality in the United States Since 1913: Evidence from Capitalized Income Tax Data](#)," *Quarterly Journal of Economics*, 131(2): 519-578.

Zucman, Gabriel (2019). [Global Wealth Inequality](#). *Annual Review of Economics* 11:109-38.

B. Capital Gains and Inheritance Taxation

Piketty, Thomas, and Emmanuel Saez (2013). "A Theory of Optimal Inheritance Taxation," *Econometrica* 81(5), 1851-1886.

Kopczuk, Wojciech (2013). "Taxation of Intergenerational Transfers and Wealth," in Alan J. Auerbach, Raj Chetty, Martin S. Feldstein, and Emmanuel Saez (eds.), *Handbook of Public Economics* vol. 5, Elsevier: Amsterdam.

Saez, Emmanuel, and Stefanie Stantcheva (2018). "A Simpler Theory of Optimal Capital Taxation," *Journal of Public Economics* 162, 120-142.

Farhi, Emmanuel, and Ivan Werning. 2010. "Progressive Estate Taxation." *Quarterly Journal of Economics* 125 (2): 635-673.

Agersnap, Ole, and Owen Zidar, 2020, "The Tax Elasticity of Capital Gains and Revenue Maximizing Rates," *American Economic Review: Insights*.
<https://scholar.princeton.edu/sites/default/files/zidar/files/capgains.pdf>

Sarin, Natasha, Larry Summers, Owen Zidar, Eric Zwick (2020), "Rethinking how we score capital gains tax reform," working paper.

Joint Committee on Taxation, 2015, "History, Present Law, and Analysis of the Federal Wealth Transfer Tax System,"
<https://www.jct.gov/publications.html?func=startdown&id=4744>

Dowd, Tim and Zack Richards (2020) "Contextualizing Elasticities for Policymaking: Capital Gains and Revenue-Maximizing Rates", JCT working paper.

C. Corporate Tax Incidence and Reform:

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*.

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

**Hines, Jim, 2017, "[Business Tax Burdens and Tax Reform](#)," *Brookings Papers on Economic Activity*.

Gale, Bill, Hilary Gelfond, Aaron Krupkin, Mark J. Mazur, Eric Toder. 2018. "Effects of the Tax Cuts and Jobs Act: A Preliminary Analysis" *Tax Policy Center Paper*.
<https://www.taxpolicycenter.org/publications/effects-tax-cuts-and-jobs-act-preliminary-analysis/full>

Joint Committee on Taxation, December 2017.

- Macroeconomic Analysis Of The Conference Agreement For H.R. 1, The "Tax Cuts And Jobs Act"
- Distributional Effects Of The Conference Agreement For H.R.1, The "Tax Cuts And Jobs Act"
- Estimated Budget Effects Of The Conference Agreement For H.R.1, The "Tax Cuts And Jobs Act"
- <https://www.jct.gov/publications.html?func=select&id=76>

Gravelle, Jane, and Donald Marples (2019). "The Economic Effects of the 2017 Tax revision: Preliminary Observations" *Congressional Research Service*. #R45736.
<https://fas.org/sgp/crs/misc/R45186.pdf>

D. 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. 2019. “State Taxation and the Reallocation of Business Activity: Evidence from Establishment-Level Data.” *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.

**Greenstone, Michael, and Enrico Moretti, 2004. Bidding for Plants: Does winning a ‘Million Dollar Plant’ increase welfare? <https://www.nber.org/papers/w9844>

Slattery, Cailin, and Owen Zidar, 2020, “Evaluating State and Local Business Tax Incentives”. *Journal of Economic Perspectives*.

E. Corporate Taxation in an Open Economy

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. <https://www.brookings.edu/wp-content/uploads/2018/02/auerbachtextfal17bpea.pdf>

Gordon, Roger and James Hines. 2002. “International Taxation,” Chapter 28 in *Handbook of Public Economics*, Vol. 4, eds. Alan J. Auerbach and Martin Feldstein, Amsterdam: 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. Tax policy, Investment, and Innovation [2 lectures]

A. Investment and Payout Taxes

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.

B. Taxes, Innovation, Entrepreneurship

Furman, Jason, 2016, "[Encouraging Innovation and the Role of Tax Policy](#)"

**Jones, Chad, 2019, "Taxing Top Income in a World of Ideas," working paper.

Jones, Chad and Jihee Kim, "A Schumpeterian Model of Top Income Inequality," *Journal of Political Economy* 126, no. 5 (October 2018): 1785-1826.

** Kline, Patrick, Neviana Petkova, Heidi Williams, and Owen Zidar (2019) "Who Profits from Patents? Rent-Sharing at Innovative Firms," *Quarterly Journal of*

Economics 134(3): 1343-1404.

** Bell, Alex, Raj Chetty, Xavier Jaravel, Neviana Petkova, and John Van Reenen (2019) "Who Becomes an Inventor in America? The Importance of Exposure to Innovation," *Quarterly Journal of Economics* 134(2): 647–713.

Nick Bloom, Heidi Williams, and John Van Reenen, (2019) "A Toolkit of Policies to Promote Innovation," *Journal of Economic Perspectives* 33 (3): 163- 84.

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. "[Taxation and the International Mobility of Inventors](#)," *American Economic Review*, 106(10), pages 2930-2981, October.

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

Budish, Eric, Benjamin Roin, and Heidi Williams (2015) "Do firms underinvest in long-term research? Evidence from cancer clinical trials," *American Economic Review* 105(7): 2044-2085.

Akcigit, Ufuk, et al, 2018, "[Taxation and innovation in the 20th century](#)", working paper

Howell, Sabrina "[Financing Innovation: Evidence from R&D Grants](#)." *The American Economic Review* 107 (4) 2017, 1136-64.

V. Optimal Taxation [1 lecture]

Optimal Commodity Taxes and Production Efficiency:

Auerbach, Alan (1985). "The Theory of Excess Burden and Optimal Taxation," in Alan J. Auerbach and Martin S. Feldstein (eds.), *Handbook of Public Economics* vol. 1, Elsevier: Amsterdam.

Diamond, Peter A. (1975). "A Many-Person Ramsey Tax Rule," *Journal of Public Economics* 4(4), 335-342.

Diamond, Peter A., and James A. Mirrlees (1971). "Optimal Taxation and Public Production, Part I: Production Efficiency, Part II: Tax Rules," *American Economic Review* 61(1), 8-27, 261-278.

Salanié, Bernard (2003). *The Economics of Taxation*, Chapter 3, MIT Press: Cambridge.

Optimal Income Taxes and Transfers:

Akerlof, George A. (1978). "The Economics of 'Tagging' as Applied to Optimal Income Tax, Welfare Programs, and Manpower Planning," *American Economic Review* 68(1), 8- 19.

Diamond, Peter A. (1998). "Optimal Income Taxation: An Example with a U-Shaped Pattern of Optimal Marginal Tax Rates," *American Economic Review* 88(1), 83-95.

Kleven, Henrik J., Claus T. Kreiner, and Emmanuel Saez (2009). "The Optimal Income Taxation of Couples," *Econometrica* 77(2), 537-560.

Mirrlees, James A. (1971). "An Exploration in the Theory of Optimal Income Taxation," *Review of Economic Studies* 38(2), 175-208.

Nichols, Albert L., and Richard J. Zeckhauser (1982). "Targeting Transfers through Restrictions on Recipients," *American Economic Review Papers & Proceedings* 72(2), 372- 77.

Piketty, Thomas, and Emmanuel Saez (2013). "Optimal Labor Income Taxation," in Alan J. Auerbach, Raj Chetty, Martin S. Feldstein, and Emmanuel Saez (eds.), *Handbook of Public Economics* vol. 5, Elsevier: Amsterdam.

(*) Saez, Emmanuel (2001). "Using Elasticities to Derive Optimal Income Tax Rates," *Review of Economics Studies* 68(1), 205-229.

Saez, Emmanuel (2002a). "Optimal Income Transfer Programs: Intensive Versus Extensive Labor Supply Responses," *Quarterly Journal of Economics* 117(3), 1039-1073.

Salanié, Bernard (2003). *The Economics of Taxation*, Chapters 4 and 8, MIT Press: Cambridge.

Income vs Commodity Taxes:

Atkinson, Anthony B., and Joseph E. Stiglitz (1976). "The Design of Tax Structure: Direct versus Indirect Taxation," *Journal of Public Economics* 6(1), 55-75.

Kaplow, Louis (2006). "On the Undesirability of Commodity Taxation Even When Income Taxation is Not Optimal," *Journal of Public Economics* 90(6), 1235-1250.

Laroque, Guy R. (2005). "Indirect Taxation is Superfluous Under Separability and Taste Homogeneity: A Simple Proof," *Economic Letters* 87(1), 141-144.

Saez, Emmanuel (2002b). "The Desirability of Commodity Taxation Under Non-Linear Income Taxation and Heterogeneous Tastes," *Journal of Public Economics* 83(2), 217-230.