Syllabus

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Course: Economic Growth
Professor:

2025 SECOND SEMESTER

COURSE OUTLINE

This course covers a number of key issues (theory and empirics) in the broad literature of economic growth. We begin with classical and neoclassical models, then develop into endogenous growth theory. After that we explore some papers in the following mais subjects: human capital and international diffusion of ideas and technology, financing of human capital, occupation choices, location choices, income distribution, life cycle, retirement.

METHODOLOGY

Much of the class will revolve around discussion of assigned readings. This makes it essential that students read the selected papers before lecture and come prepared to discuss. Besides that students will have to choose a paper from the bibliography section to present and critically assess. The in-class presentation should be based on slides prepared and submitted as part of the assessment. And finally, it is expected that students write and present a paper proposal.

PROGRAM

1. Questions and Evidence
2. Solow Model and Extensions (MRW (1992))
3. Neoclassical Growth: Ramsey-Cass-Koopmans
4. Overlapping Generations Model
5. Neoclassical Endogenous Growth Model
6. Endogenous Technological Change Model
7. Directed Technological Change Model
8. Human Capital and Development
9. Geography, Location Decisions and Growth
10. Structural Transformation and Technological Change
11. Diffusion of Ideas/Technology

BIBLIOGRAPHY

The topics for the lectures are:

I. <u>Questions and Evidence:</u>

1. Acemoglu, D. (2009). Introduction to Modern Economic Growth, Chapter 1.

2. Barro, R.; Sala-i-Martin, X. (2003). Economic Growth, 2ed. The MIT Press. Chapter 1.
3. Klenow, P. & Rodríguez-Clare, A. (1997), "The Neoclassical Revival in Growth Economics"
4. Jones, C. (1997), "On the Evolution of the World Income Distribution"

II. Solow Model and Extensions (MRW (1992)):

1. Acemoglu, D. (2009). Introduction to Modern Economic Growth, Chapters 2, 3 and 4.
2. Barro, R.; Sala-i-Martin, X. (2003). Economic Growth, 2ed. The MIT Press. Chapter 1.
3. Mankiw, Romer & Weil (1992), "A Contribution to the Empirics of Economic Growth"
4. Solow, R. (1956), "A Contribution to the Theory of Economic Growth"

III. Neoclassical Growth: Ramsey-Cass-Koopmans:

5. Acemoglu, D. (2009). Introduction to Modern Economic Growth, Chapters 5 and 8.
6. Barro, R.; Sala-i-Martin, X. (2003). Economic Growth, 2ed. The MIT Press. Chapter 2.

IV. Overlapping Generations Model:

7. Acemoglu, D. (2009). Introduction to Modern Economic Growth, Chapters 5 and 9.
8. Bewley, T. F. (2007). General Equilibrium, Overlapping Generations Models, and Optimal Growth Theory, Harvard University Press, Cambridge, Massachusetts.

V. Neoclassical Endogenous Growth Model:

9. Acemoglu, D. (2009). Introduction to Modern Economic Growth, Chapters 10, 11 and 12.

VI. Directed Technological Change Model:

10. Acemoglu, D. (2009). Introduction to Modern Economic Growth, Chapter 15.
11. Acemoglu, D. and Zilibotti, F. (2001). Productivity Differences, The Quarterly Journal of Economics, 116(2).
12. Souza, G. (2024). The Labor Market Consequences of Appropriate Technology, Working Paper.

VII. Institutions and Growth:

13. Acemoglu, D., S. Johnson and J. A. Robinson (2001). "The Colonial Origins of Comparative Development: An Empirical Investigation", American Economic Review 91: 1369- 1401.

VIII. Human Capital and Development:

14. Acemoglu, D. and Autor, D., 2011. "Skills, tasks and technologies: Implications for employment and earnings". Handbook of labor economics, 2011 – Elsevier
15. Agostinelli, F., Doepke, M., Sorrenti, G. and Zilibotti, F. 2021. "When the Great Equalizer Shuts Down: Schools, Peers, and Parents in Pandemic Times". Working paper.
16. Bils, M., Kaymak, B. and Wu, K. 2021. "Labor Substitutability among Schooling Groups". Working paper.
17. Bills, M. e P. Klenow, 2000. "Does Schooling Causes Growth?," American Economic Review, 90, 5, 1160-1183.
18. Cordoba. J.C. and Marla Ripoll. What explains schooling differences across countries? Journal of Monetary Economics, 60(2):184--202, 2013
19. Costinot, Arnaud, and Jonathan Vogel. 2010. "Matching and Inequality in the World Economy." Journal of Political Economy 118 (4): 747–86

20. Fernandez, R. and Rogerson, R. “Sorting and Long-Run Inequality” QJE (2001) 116 (4): 1305-1341
21. Ferriere, A., Navarro, G. and Reyes-Heroles, R. 2021. “Escaping the Losses from Trade: The Impact of Heterogeneity onn Skill Formation”. Working paper.
22. Fujimoto, J., Lagakos, D. and Van Vuren, M. 2021. “Aggregate and Distributional Effects of `Free' Secondary Schooling in the Developing World”. Working paper.
23. Hanushek, E. e D. D. Kimko, 2000. “Schooling, Labor-Force Quality, and the Growth of Nations,” American Economic Review, 90, 5, 1184-1208.
24. Hanushek, E. and Ruhose, E., 2017. “Knowledge Capital and Aggregate Income Differences: Development Accounting for U.S. States", American Economic Journal: Macroeconomics, 9 (4), 184-224
25. Hendricks, L. and Todd Schoellman. Human capital and development accounting: New evidence from wage gains at migration. Quarterly Journal of Economics, 133(2):665--700, 2018
26. Herrero, J. and Ocampo, S. 2021. “Self-Employment and Development”. Working paper
27. Hsieh, Hurst, Jones, and Klenow, 2019. "The Allocation of Talent and U.S. Economic Growth”, Econometrica, 87 (5), 1439-74.
28. Jang, S. and Yum, M. 2021. “Aggregate and Intergenerational Implications of School Closures: A Quantitative Assessment”. Working paper.
29. Jones, B. 2014. The Human Capital Stock: A Generalized Approach, American Economic Review. 104(11)
30. Jovanovic, B. 2014. “Misallocation and Growth”, American Economic Review, 104 (4): 1149-71.
31. Lentz, R. and Roys, N. 2015. “Training and Search on the Job”, working paper
32. Manuelli, R., and Seshadri, A., 2014. “Human Capital and the Wealth of Nations.” American Economic Review, 104 (9), 2736-62. **
33. Roys and Seshadri, 2015. “Economic Development and the Organization of Production”, working paper.
34. Tkhir, A. 2021. “Education and Tax Policies in the Presence of Informality”. Working paper

IX. Geography, Location Decisions and Growth

1. Benabou, R. 1996. “Heterogeneity, Stratification, and Growth: Macroeconomic Implications of Community Structure and School Finance.” American Economic Review, 86, 584-609.
2. Eaton, Jonathan, and Zvi Eckstein. 1997. “Cities and Growth: Theory and Evidence from France and Japan.” Regional Sci. and Urban Econ. 27 (August): 443–74.
3. Fogli, A. and Guerrieri, V. “The End of the American Dream? Inequality and Segregation in US Cities”, NBER Working Paper No. 26143, July 2019
4. Gennaioli, N.,, LaPorta,R., Lopez-de-Silanes,F. and Shleifer, A.. 2013. “Human Capital and Regional Development.” Quarterly Journal of Economics 128 (1): 105-164
5. Glaeser, Edward L. 1999. “Learning in Cities.” J. Urban Econ. 46 (September): 254–77.
6. Glaeser, Edward L., and David C. Mare. 2001. “Cities and Skills.” J. Labor Econ. 19 (April): 316–42.
7. Glomm, Gerhard. 1992. “A Model of Growth and Migration.” Canadian J. Econ.25 (November): 901–22.
8. Glomm, G., and B. Ravikumar. “Public versus private investment in human capital: endogenous growth and income inequality.” Journal of Political Economy 100 (1992): 818-34.
9. Fernandez, R. and R. Rogerson. “Public Education and Income Distribution: A Dynamic Quantitative Evaluation of Education- Finance Reform.” American Economic Review 88 (1998): 813-33.

10. Lucas, R. E. Jr. 2004. “Life Earnings and Rural-Urban Migration”, Journal of Political Economy, 112 (1). **
11. Rossi-Hansberg, E., Sarte, P. and Schwartzman, F. 2021. “Cognitive Hubs and Spatial Redistribution”. Working paper.
12. Walsh, C. 2021. “Firm Creation and Local Growth”. Working paper.

X. Structural Transformation and Growth

1. Buera, F, Kaboski, J and Rogerson, R. “Skill Biased Structural Change”
2. Buera, F., Kaboski, J., Rogerson,R and Juan I. Vizcaino. Skill-biased structural change. Review of Economic Studies, forthcoming
3. Cervellati, Matteo, and Uwe Sunde. 2015. "The Economic and Demographic Transition, Mortality, and Comparative Development." American Economic Journal: Macroeconomics, 7(3): 189-225.
4. DasGupta, K. 2010. “The Missing Middle in Developing Countries Revisited”
5. Doss, C., Gollin, D., Gottlieb, C. and Poschke, M. 2021. “Gender, Work, and Structural Transformation”. Working paper.
6. Duarte, M. and D. Restuccia, (2010). “The Role of the Structural Transformation in Aggregate Productivity” Quarterly Journal of Economics.
7. Duarte, M. 2021. “Services and the Decline of the U.S. Employment-to-Population Ratio”. Working paper.
8. Eeckhout, J. Jovanovic, B. 2012. “Occupational Choice and Development.” Journal of Economic Theory
9. Fons-Rosen, C., Roldan-Blanco, P. and Schmitz, T. 2021. “The Aggregate Effects of Acquisitions on Innovation and Economic Growth”. Working paper.
10. Hojin, B., Schoellman, T. and Vindas, A. 2021.” Wages during Structural Transformation: The Importance of Cohort Labor Supply Decisions”. Working Paper.
11. Kremer, M. and D. Chen, 2002. “Income Distribution Dynamics with Endogenous Fertility”. Journal of Economic Growth, 7, 2002, 227-58.
12. Kogan, L., Ppanikolaou, D., Schmidt, L. and Seegmiller, B. 2021. “Technological Change and Occupations over the Long Run”. Working paper.
13. Monge-Naranjo, A., P. Cavalcanti and L. Pereira (2025). “Of Cities and Slums”, Accepted, Journal of Political Econony **
14. Oksana Leukhina and Michael Bar, 2010. “Demographic Transition and Industrial Revolution: A Macroeconomic Investigation,”, Review of Economic Dynamics, 13(2), 424-451.
15. Porzio, T., Rossi, F. and Santangelo, G. 2021. “The Human Side of Structural Transformation: Human Capital, Schooling And Mobility Frictions”. Working paper

XI. Diffusion of Ideas/Technology

1. Adao, R., Beraja, M. and Pandalai-Nayar, N. 2021. “Technological Transitions with Skill Heterogeneity”. Working paper.
2. Bento, P. and Olmstead-Rumsey, J. 2021. “Market Concentration and the Productivity Slowdow”. Working paper.
3. Berthold Herrendorf and Arilton Teixeira, 2005. “How Barriers to International Trade affect TFP”, Review of Economic Dynamics, 8 (4), 866-876

4. Buera, F., Hopenhayn, H., Shin, Y. and Trachter, N. 2021. “Big Push in Distorted Economies”. Working paper
5. Buera, F. and Oberfield, E. 2015 “The Global Diffusion of Ideas, Econometrica, 88 (1), 83-114 **
6. Coe, D.T., E. Helpman, A.Hoffmaister, 1997. “North-South R&D Spillovers,” Economic Journal, 107 (440), 134-149
7. Comim e Hobijn, 2010. “An Exploration of Technology Diffusion.” American Economic Review 100 (5), 203–59
8. Comim and Hobijn, 2011. “Technology Diffusion and Postwar Growth, NBER, Annual Cambridge, MA
9. DasGupta, K. 2012. “Learning and Knowledge Diffusion in a Global Economy”, Journal of International Economics, 87(2), 323-336
10. Eeckhout, J. Jovanovic, B. 2012. “Knowledge Spillovers and Inequality”, American Economic Review, 92 (5), 1290-1307
11. Garicano, L. and Rossi-Hansberg, E. 2012. “Organizing Growth.”, Journal of Economic Theory, 147(2), 623-656
12. Jesse Perla, Christopher Tonetti, andMichael E. Waugh, 2019. “Equilibrium Technology Diffusion, Trade, and Growth”, working paper
13. Jonathan Chiu & Cesaire Meh & Randall Wright, 2017. "Innovation and Growth with Financial, and other, Frictions”, International Economic Review, 58 (1), 95-125
14. Jovanovic, B. and Wang, Z. 2021. “Idea Diffusion and Property Rights”. Working paper
15. Krusell, Per, and Erika Fäarnstrand Damsgaard, 2010. "The World Distribution of Income: Country TFP choice in a Nelson-Phelps Economy", working paper
16. Lochner, Lance & Monge-Naranjo, Alexander, 2014. "Student Loans and Repayment: Theory, Evidence and Policy," Handbook of the Economics of Education, 5, 397-478
17. Lucas, R., 1988. "On the Mechanics of Economic Development," Journal of Monetary Economics, 22, 3-42.
18. Lucas, R. E. and Moll, B. 2014. ”Knowledge Growth and the Allocation of Time”, Journal of Political Economy, 122 (1), 1-51
19. Parente, S. and E.C. Prescott, 1994. “Barriers to Technology Adoption and Development,” Journal of Political Economy, 102(2), 298-321.
20. Tian, Y., Xia, J. and Yang, R. 2021. “Trade-Induced Urbanization and the Making of Modern Agriculture”. Working paper.

GRADING

Problem Sets: 25%

Presentation of a paper of your choice to the class: 25%

Tips for the presentation can be found on:

https://sites.google.com/site/bertholdherrendorf/presentation-tips

Presentation of your paper’s idea: 20%

Tips for the presentation can be found on:

https://sites.google.com/site/bertholdherrendorf/presentation-tips

Writeup of paper proposal: 30%

The purpose of making the assignment a paper proposal is that I would rather you get 50% of the way toward a project you are excited to continue after the course 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:

1. Introduction: What is the question and why is the question of interest?
2. Literature Review: How does your paper fit into the broader literature?
3. Theoretical Motivation: This could be actual theory or just a sketch of the relevant theory that underlies your question.
4. Data: What data would you use to answer/address this question? Why are the data well suited to the question?
5. Methodology: How would you use the data/model 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.
6. Falsification Tests: What other specifications, tests and investigations could either bolster or cast doubt upon the primary tests of your hypotheses?
7. Preliminary Results: The extent of the results provided will differ across students based on the project and discussions with me.

PROFESSOR – EMAIL