Department of Economics, University of Toronto
ECO2704H1F – Topics in Growth and Development
Fall 2019

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Office: Max Gluskin House (150 St. George Street), Room 201
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Lectures: T 5-7pm GE 100

Overview:
The purpose of this course is to introduce students to a selected set of frontier research on growth and (the macro aspects of) development. Lectures will provide empirical motivations for the selected topics and introduce/discuss key papers/model frameworks in the literature. The main objective of this course is to apply economic theory to understand and interpret empirical observations on economic development and growth. In this course, we will study in detail the ability of theoretical models to account for the empirical facts characterizing economic development and growth over time and across countries. Students are expected to read all the papers that will be presented in class and participate actively in class discussions.

Course Work and Grading:
The final grade will be determined as follows: Class participation (20%), two-hour final exam (40%), 6 paper reports (20%), and a paper presentation (PhDs) / assignment report (MAs) (20%). No other work will count towards your final grade. Paper reports should be no longer than one page and will be based on a designated reading for the week to be announced in the previous class. About one third of the report concisely describes what the paper does, another third summarizes the main contribution of the paper, and the remaining third discusses the paper's main limitations and potential avenues for progress/improvement. You should be prepared to discuss your report in class. The details of class presentations for PhD students and assignment report for MA students will be discussed in class.

E-mail Policy:
In my experience, e-mail is not the most effective means for discussing economics, office hours are more appropriate. I will only respond to e-mails from utoronto accounts and that are clearly identified as ECO2704 in the subject line.

Academic integrity will be strictly enforced.

Course Outline and Selected Readings:
(tentative and subject to change, * means will go over in some detail in class)

1. Introduction: Development Facts and the Neoclassical Growth Model

    - Peter Klenow and Andres Rodriguez-Clare (1997), "The Neoclassical Revival in

Growth Economics: Has It Gone Too Far?", NBER Macroeconomics Annual, Cambridge MA.

- Francesco Caselli (2005), "Accounting for Cross-Country Income Differences," Handbook of Economic Growth.
- Margarida Duarte and Diego Restuccia (2006), "The Productivity of Nations," Federal Reserve Bank of Richmond Economic Quarterly, Volume 92 (3), Summer, pp. 195-223.
- Chang-Tai Hsieh and Peter Klenow (2010), "Development Accounting", American Economic Journal: Macroeconomics, vol. 2(1), pages 207-23.
- Restuccia, Diego (2011), "Recent Developments in Economic Growth," Federal Reserve Bank of Richmond Economic Quarterly, Volume 97 (3), Third Quarter, pp. 329-357.
- Restuccia, Diego and Guillaume Vandenbroucke (2014), "Explaining Educational Attainment across Countries and over Time," Review of Economic Dynamics, Volume 17 (4), October, pp. 824-841.
- Chad Jones (2016), "The Facts of Economic Growth," Handbook of Macroeconomics, Volume 2A, pp. 3-69.
- Lecture notes/slides.

2. Structural Transformation and Growth

- (*) Berthold Herrendorf, Richard Rogerson and Akos Valentinyi (2014), "Growth and Structural Transformation," Handbook of Economic Growth.
- Kongsamult, Rebelo and Xie (2001), "Beyond Balanced Growth," Review of Economic Studies October.
- L. Rachel Ngai and Christophe Pissarides (2007), "Structural Change in a Multi-Sector Model of Growth," American Economic Review, 97, 429-443.
- Daron Acemoglu and Veronica Guerrieri (2008), "Capital Deepening and Nonbalanced Economic Growth," Journal of Political Economy, vol.116, no.3.
- Doug Gollin, Stephen Parente, and Richard Rogerson (2002), "The Role of Agriculture in Development," American Economic Review, P&P.
- (*) Margarida Duarte and Diego Restuccia (2010), "The Role of the Structural Transformation in Aggregate Productivity," Quarterly Journal of Economics 125 (1), 129173.
- (*) Margarida Duarte and Diego Restuccia (2019), "Relative Prices and Sectoral Productivity," Journal of the European Economic Association.
- Berthold Herrendorf and Akos Valentinyi (2013), "Which Sectors Make the Poor Countries so Unproductive?" Journal of the European Economic Association, (10), pp. 323-41.
- Timo Boppart (2014), "Structural Change and the Kaldor Facts in a Growth Model with Relative Price Effects and Non-Gorman Preferences," Econometrica, 82(6), November: 2167-96.

- Diego Comin, Danial Lashkari, and Marti Mestieri (2015), "Structural Change with Long-Run Income and Price Effects," NBER working paper 21595, September.
- Tomasz Swiecki (2016), "Determinants of Structural Change," manuscript, University of British Columbia.
- Berthold Herrendorf, Chris Herrington, and Akos Valentinyi (2015), "Sectoral Technology and Structural Transformation," American Economic Journal: Macroeconomics 7(4): 104-133.
- Duernecker, Georg, and Berthold Herrendorf. "Structural Transformation of Occupation Employment," manuscript, Arizona State University, 2016.
- Lecture notes/slides.

3. Agriculture and Cross-Country Income Differences

- (*) Diego Restuccia, Dennis Tao Yang and Xiaodong Zhu (2008), "Agriculture and Aggregate Productivity: A Quantitative Cross-Country Analysis," Journal of Monetary Economics 55(2), 234-250.
- (*) David Lagakos and Michael Waugh (2013), "Selection, Agriculture and Cross-Country Productivity Differences," American Economic Review 103(2): 948-980.
- Adamopoulos, Tasso, and Diego Restuccia. "Geography and agricultural productivity: Cross-country evidence from micro plot-level data," working paper No. w24532. National Bureau of Economic Research, 2018.
- Donovan, Kevin (2018), "Agricultural Risk, Intermediate Inputs, and Cross-Country Productivity Differences," manuscript, Yale University.
- Gollin, Douglas, David Lagakos and Michael E Waugh (2014), "The Agricultural Productivity Gap in Developing Countries," Quarterly Journal of Economics.
- Berthold Herrendorf and Todd Schoellman (2014), "Wages, Human Capital, and the Allocation of Labor across Sectors," manuscript, Arizona State University.
- Anton Cheremukhin, Mikhail Golosov, Sergei Guriev, and Aleh Tsyvinski (2015), "The Economy of People's Republic of China from 1953," NBER working paper 21397.
- Caunedo, Julieta, and Elisa Keller. 2018. Capital Obsolescence and Agricultural Productivity, Manuscript, Cornell University.
- Chen, Chaoran. 2017. Technology Adoption, Capital Deepening, and International Productivity Differences, Manuscript, National University of Singapore.
- Lecture notes/slides.

4. Misallocation and Productivity: Introduction

- (*) Diego Restuccia and Richard Rogerson (2008), "Policy Distortions and Aggregate Productivity with Heterogeneous Plants," Review of Economic Dynamics, vol. 11(4), pages 707-720, October.

- (*) Chang-Tai Hsieh and Peter J. Klenow (2009), "Misallocation and Manufacturing TFP in China and India," Quarterly Journal of Economics 124, November 1403-1448.
- Eric Bartelsman, John Haltiwanger and Stefano Scarpetta (2009), "Cross-Country Differences in Productivity: The Role of Allocation and Selection," NBER Working Paper 15490.
- Diego Restuccia and Richard Rogerson (2013), "Misallocation and Productivity," Review of Economic Dynamics 16(1): pp. 1-10.
- Diego Restuccia (2013), "Factor Misallocation and Development," The New Palgrave Dictionary in Economics, Online edition.
- Hugo Hopenhayn (2014), "Firms, Misallocation, and Aggregate Productivity: A Review," The Annual Review of Economics.
- (*) Diego Restuccia and Richard Rogerson (2017), "The Causes and Costs of Misallocation," Journal of Economic Perspectives, 31(3), 151-74.
- Restuccia, Diego. "Misallocation and Aggregate Productivity across Time and Space," Canadian Journal of Economics, forthcoming.
- Gorodnichenko, Yuryi, Debora Revoltella, Jan Svejnar, and Christoph T. Weiss. "Resource Misallocation In European Firms: The Role Of Constraints, Firm Characteristics And Managerial Decisions," Working Paper 24444, National Bureau Of Economic Research, March 2018.

5. Specific Policies and Dynamic Implications of Misallocation

- (*) Nezih Guner, Gustavo Ventura, and Daniel Xu (2008), "Macroeconomic Implications of Size Dependent Policies," Review of Economic Dynamics, 11(4): pp. 721-44.
- Chang-Tai Hsieh, Erik Hurst, Chad Jones and Peter J. Klenow (2012), "The Allocation of Talent and U.S Economic Growth."
- Pablo Fajgelbaum, Eduardo Morales, Juan Carlos Suarez Serrato, and Owen Zidar (2015), "State Taxes and Spatial Misallocation," manuscript, UCLA.
- Chang-Tai Hseh and Peter J. Klenow (2014), "The Life Cycle of Plants in India and Mexico," forthcoming, Quarterly Journal of Economics.
- Pedro Bento and Diego Restuccia (2017), "Misallocation, Establishment Size, and Productivity," American Economic Journal: Macroeconomics, Volume 9 (3), July, pp. 267-303.
- Bento, Pedro, and Diego Restuccia. "On Average Establishment Size across Sectors and Countries," manuscript, 2018.
- Hopenhayn, Hugo. "Firm Size and Development, Economía, 2016, 17 (1), 2749.
- Ezra Oberfield (2013), "Productivity and misallocation during a crisis: Evidence from the Chilean crisis of 1982," Review of Economic Dynamics 16 (1): 100-119.

- John Asker, Allan Collard-Wexler, and Jan De Loecker (2014), "Dynamic Inputs and Resource (Mis)Allocation," Journal of Political Economy 122 (5): 1013-63.
- Ufuk Akcigit, Harun Alp, and Michael Peters (2015), "Lack of Selection and Limits to Delegation: Firm Dynamics in Developing Countries," manuscript, Yale University.
- David, Joel and Venky Venkateswaran (2018), "The Sources of Capital Misallocation," American Economic Review, 2019.
- Ulyssea, Gabriel. "Firms, Informality, and Development: Theory and Evidence from Brazil," American Economic Review, 108(8), August (2018), 2015-2047.

6. Misallocation in Agriculture

- (*) Tasso Adamopoulos and Diego Restuccia (2014), "The Size Distribution of Farms and International Productivity Differences," American Economic Review, 104(6): pp. 1667-97.
- Tasso Adamopoulos and Diego Restuccia (2015), "Land Reform and Productivity: A Quantitative Analysis with Micro Data," manuscript, University of Toronto.
- (*) Diego Restuccia and Raul Santaeulalia-Llopis (2017), "Land Misallocation and Productivity," manuscript, University of Toronto.
- (*) Tasso Adamopoulos, Loren Brandt, Jessica Leight, and Diego Restuccia (2017), "Misallocation, Selection and Productivity: A Quantitative Analysis with Panel Data from China," manuscript, University of Toronto.
- Chen, Chaoran. "Untitled Land, Occupational Choice and Agricultural Productivity," American Economic Journal: Macroeconomics, 9.4 (2017): 91-121.
- Alain de Janvry, Kyle Emerick, Marco Gonzalez-Navarro, and Elizabeth Sadoulet (2015), "Delinking Land Rights from Land Use: Certification and Migration in Mexico," American Economic Review 105 (10): 3125-49.
- Gilles Duranton, Ejaz Ghani, Arti Grover Goswami, and William Kerr (2015), "The Misallocation of Land and other Factors of Production in India," Policy Research Working Paper WPS7221, World Bank.

7. Innovation and Macroeconomics

- Jones, Chad. "Sources of US Economic Growth in a World of Ideas," American Economic Review, March 2002, 92(1), 220-239.
- Acemoglu, Daron, Ufuk Akcigit, Harun Alp, Nicholas Bloom, and William Kerr. "Innovation, Reallocation, and Growth," American Economic Review, forthcoming.
- Garcia-Macia, Daniel, Pete Klenow, and Chang-Tai Hsieh. "How Destructive is Innovation?" Working Paper 22953, National Bureau of Economic Research, December 2016.

- Klette, Tor and Sam Kortum. "Innovating Firms and Aggregate Innovation," Journal of Political Economy, October 2004, 112(5), 986-1018.
- Atkeson, Andrew and Ariel Burstein. "Aggregate Implications of Innovation Policy," manuscript, UCLA, 2018.
- Aghion, Philippe, Antonin Bergeaud, Timo Boppart, Pete Klenow, and Huiyu Li. "Missing Growth from Creative Destruction," American Economic Review, 2019
- Aghion, Philippe, Antonin Bergeaud, Timo Boppart, Pete Klenow, and Huiyu Li. "A Theory of Falling Growth and Rising Rents," Federal Reserve Bank of San Francisco, 2019

8. Technological Progress and Development

   - Jovanovic, Boyan, and Peter Rousseau. "General Purpose Technologies," Handbook of Economic Growth, Volume 1B, Chapter 18, 1182-1224.
   - Acemoglu, Daron, and Pascual Restrepo. "Artificial Intelligence, Automation, and Work," manuscript, 2018.
   - Acemoglu, Daron, and Pascual Restrepo. "Robots and jobs: Evidence from US labor markets," manuscript, 2017.
   - Greenwood, Jeremy, and Ananth Seshadri. "Technological Progress and Economic Transformation," Handbook of Economic Growth, Volume 1B, Chapter 19, 1225-1273.
   - Aghion, Philippe, Benjamin Jones, and Chad Jones. "Artificial Intelligence and Economic Growth," NBER, 2019.

9. Technology Adoption: Facts and Theory

   - Comin, Diego, and Bart Hobijn. "Cross-country technology adoption: making the theories face the facts." Journal of monetary Economics 51.1 (2004): 39-83.
   - (*) Parente, Stephen L., and Edward C. Prescott. "Barriers to technology adoption and development." Journal of Political Economy (1994): 298-321.
   - Comin, Diego, and Bart Hobijn. "An exploration of technology diffusion." The American Economic Review 100.5 (2010): 2031-2059.
   - Comin, Diego A., and Mart Mestieri Ferrer. If Technology has arrived everywhere, why has income diverged?. No. w19010. National Bureau of Economic Research, 2013.
   - Ayrest, Stephen (2016), "Policy Distortions and Technology Adoption," manuscript, University of Toronto.

10. Productivity Slowdown in Advanced Countries

    - TBA