

**Instructor:** Professor Diego Restuccia

**Office:** Max Gluskin House (150 St. George Street), Room 201

**Office hours:** T 1-2pm

**E-mail:** diego.restuccia@utoronto.ca

**Lectures:** T 11-1pm WW 126

**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 (50%), and (PhDs) paper presentation / (MAs) assignment report (30%). No other work will count towards your final grade.

**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.

Pre-requisites and academic integrity will be strictly enforced.

**Course Outline and Selected Readings:**

(tentative and subject to change, \* means will go over in detail in class)

1. Introduction: Basic Facts, Development Accounting, 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 Vandenberg (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 (2016), “Relative Prices and Sectoral Productivity,” manuscript, University of Toronto.
- Berthold Herrendorf and Akos Valentinyi (2013), “Which Sectors Make the Poor Countries so Unproductive?” Journal of 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.
- 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.
- Kevin Donovan (2014), “Agricultural Risk, Intermediate Inputs, and Cross-Country Productivity Differences,” manuscript, University of Notre Dame.
- 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.
- Lecture notes/slides.

### 4. Misallocation and Productivity

Benchmark papers:

- (\*) 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.

Survey Papers

- 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 (2016), “The Causes and Costs of Misallocation,” forthcoming, *Journal of Economic Perspectives*.

#### Specific Policies and Endogenous Productivity:

- (\*) Nezih Guner, Gustavo Ventura, and Daniel Xu (2008), “Macroeconomic Implications of Size Dependent Policies,” *Review of Economic Dynamics*, 11(4): pp. 721-44.
- Pablo Fajgelbaum, Eduardo Morales, Juan Carlos Suarez Serrato, and Owen Zidar (2015), “State Taxes and Spatial Misallocation,” manuscript, UCLA.
- Chang-Tai Hsieh 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.

#### 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 Santaella-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 (forthcoming), “Untitled Land, Occupational Choice and Agricultural Productivity,” *American Economic Journal: Macroeconomics*.
- 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.

#### Other Applications:

- Loren Brandt, Trevor Tombe and Xiaodong Zhu (2013), “Factor Market Distortions Across Time, Space and Sectors in China,” *Review of Economic Dynamics*.
- Eric Bartelsman, John Haltiwanger and Stefano Scarpetta (2009), “Cross-Country Differences in Productivity: The Role of Allocation and Selection,” NBER Working Paper 15490.

- Chang-Tai Hsieh, Erik Hurst, Chad Jones and Peter J. Klenow (2012), “The Allocation of Talent and U.S Economic Growth.”
- Simeon Alder (2015) “In the Wrong Hands: Complementarities, Resource Allocation, and TFP,” *American Economic Journal: Macroeconomics*.
- 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 (2016), “Frictional Investment and the Sources of Misallocation,” manuscript, University of Southern California.

## 5. 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.