Topics in Macroeconomics V:
International Trade and Growth

2025-26 Academic Year

Master of Research in Economics, Finance and Management

Description of the subject

- Topics in Macroeconomics IV
- Total credits: 3 ECTS — Workload: 75 hours
  Term: 2nd
- Type of subject: Elective
- Department of Economics and Business
- Teaching team: Paula Bustos and Manuel García-Santana

Teaching guide

- **Introduction**

  This course has the goal of introducing students to active research areas in international trade and economic growth. It is the first course in the international trade sequence, followed by "Topics in Macroeconomics V: International Trade and Geography" and "Topics in Macroeconomics VI: Cities and the Geography of Growth". We will study a set of models and tools that are commonly used in these fields, and we will cover recent papers, both theoretical and empirical. The assignments for the course are intended to foster engagement with the current research frontier and to stimulate creative thinking about the students' own research projects.

- **Contents**

  This advanced PhD course introduces students to selected topics on International Trade and Economic Growth. The course covers: the main theories of structural transformation and the associated empirical evidence; the impact of international trade on economic growth in models with endogenous technology and heterogeneous firms, and the associated empirical evidence.

- **Assessment and Grading System**

  There will be no final exam. Instead, one week after the last class, each student must submit a final project. The project should be around 6 and no more than 10 pages long and can be any of the following:

  a. The proposal for an original paper. You can develop an original idea or propose an incremental improvement of a topic/paper that we have discussed. In the proposal, you should state your research idea clearly at the beginning. If the paper is theoretical, you should (at least) sketch your theory and provide some preliminary results. If the paper is empirical, you should (at least) discuss the data sources and variables you will use, and what econometric specifications you will estimate. If there are some preliminary results, even better.

  b. A critical survey of the literature on a specific topic that was not extensively covered in class.

  c. Referee reports on two important articles, preferably unpublished.

  Any of the projects must be discussed beforehand with the teachers. Grading will take into account that projects belonging to types (a) are more challenging than those of types (b) and (c).

Programme of activities

1. Structural transformation

1.1 Supply side: Theories with Exogenous Technology

Theory (1.5 lectures MM)

Differences in Productivity:

*Ngai and Pissarides (2007), "Structural Change in a Multi-Sector Model of Growth", AER.

Differences in Capital Intensity:

*Acemoglu and Guerrieri (2008), "Capital Deepening and Nonbalanced Economic Growth", JPE.

Alvarez-Cuadrado, Long and Poschke, (2017) "Capital-labor Substitution, Structural Change and Growth", TE.

Investment and Consumption

Herrendorf, Rogerson, Valentinyi, (2021) “Structural Change in Investment and Consumption: A Unified Approach”, Review of Economic Studies.

Garcia-Santana, Pijoan-Mas, Villacorta, (2021) “Investment Demand and Structural Change”, Econometrica.

Background readings:

Acemoglu, “Introduction to Modern Economic Growth”, Chapter 20

Herrendorf, Rogerson, Valentinyi, “Growth and Structural Transformation”, Handbook of economic growth.

Buera, Kaboski "Can Traditional Theories of Structural Change Fit The Data?," JEEA 2009, vol. 7(2-3), pages 469-477, 04-05.

Buera, Kaboski, Mestieri and O'Connor, "The Stable Transformation Path", CEPR WP 2019.

Empirical evidence (2 lectures PB)

* Bustos, P., B. Caprettini, and J. Ponticelli (2016). Agricultural Productivity and Structural Transformation: Evidence from Brazil. American Economic Review.

Heblich, S., Redding, S. J., & Voth, H. J. (2022). *Slavery and the British Industrial Revolution* (No. w30451). National Bureau of Economic Research.

Fajgelbaum, Pablo, and Stephen J. Redding. "Trade, Structural Transformation, and Development: Evidence from Argentina 1869–1914." *Journal of Political Economy* 130.5 (2022): 1249-1318.

* Bustos, P., G. Garber, and J. Ponticelli (2020). Capital accumulation and structural transformation. *The Quarterly Journal of Economics* 135 (2), 1037–1094.

Colmer, J. (2021). Temperature, labor reallocation, and industrial production: Evidence from India. *American Economic Journal: Applied Economics* 13 (4), 101–24.

Adao, Rodrigo, Costas Arkolakis, and Federico Esposito. "General Equilibrium Effects in Space: Theory and Measurement" (2022).

* Borusyak, Kirill, Rafael Dix-Carneiro, and Brian Kovak. "Understanding Migration Responses to Local Shocks." (2022).

* Albert, Christoph, Paula Bustos, and Jacopo Ponticelli. *The Effects of Climate Change on Labor and Capital Reallocation*. No. w28995. National Bureau of Economic Research, 2021.

Asher, Sam, and Paul Novosad. 2020. "Rural Roads and Local Economic Development." *American Economic Review*, 110 (3): 797-823.

Hjort, Jonas, and Jonas Poulsen. 2019. "The Arrival of Fast Internet and Employment in Africa." *American Economic Review*, 109 (3): 1032-79.

Background reading:

* Corden and Neary, (1982) "Booming Sector and De-Industrialisation in a Small Open Economy", Economic Journal.

* Matsuyama, Kiminori, "Agricultural Productivity, Comparative Advantage, and Economic Growth," Journal of Economic Theory 58 (December 1992): 317-334.

Matsuyama, Kiminori, “Structural Change in an Interdependent World: A Global View of Manufacturing Decline”, Journal of the European Economic Association, 2009.

Gollin, D., Jedwab, R. & Vollrath, D. Urbanization with and without industrialization. *J Econ Growth* **21**, 35–70 (2016).

Redding, Stephen, and Anthony J. Venables. "Economic geography and international inequality." *Journal of international Economics* 62.1 (2004): 53-82.

Donaldson, Dave, and Richard Hornbeck. "Railroads and American economic growth: A

"market access" approach." *The Quarterly Journal of Economics* 131.2 (2016): 799-858.

Borusyak, Kirill and Hull, Peter, Non-Random Exposure to Exogenous Shocks: Theory and Applications (January 29, 2020). University of Chicago, Becker Friedman Institute for Economics Working Paper No. 2020-130.

1.2 Demand Side (1.5 Lectures MM)

* Kongsamut, Rebelo and Xie (2001), "Beyond Balanced Growth", Restud

*Boppart, Timo (2014), "Structural Change and the Kaldor Facts in a Growth Model," *Econometrica*.

*Comin, Lashkari, and Mestieri (2021) "Structural Transformation with long-run Income and Price effects," *Econometrica*

Alder, Mueller, Boppart "A Theory of Structural Change that Can Fit the Facts", AEJ: Macro.

Bohr, Yavuz and Mestieri (2023), "Aggregation and Closed-Form Results for Nonhomothetic CES Preferences", WP

2. Trade and Growth

2.1 Trade Theory: Ricardian Trade and Intra-industry Trade (1 lecture MM)

R. Dornbusch, S. Fischer and P. A. Samuelson, "Comparative Advantage, Trade, and Payments in a Ricardian Model with a Continuum of Goods," The American Economic Review Vol. 67, No. 5 (Dec., 1977)

Jonathan Eaton and Samuel Kortum, "Technology, Geography, and Trade" Econometrica, Vol. 70, No. 5 (Sep., 2002),

Paul R. Krugman, "Intraindustry Specialization and the Gains from Trade," Journal of Political Economy, Vol. 89, No. 5 (Oct., 1981),

Elhanan Helpman and Paul R. Krugman, "Market structure and foreign trade: Increasing returns, imperfect competition and the international economy" MIT Press, Cambridge, MA, 1985

2.2 Endogenizing Technology and Comparative Advantage: Home Market Effects, Directed Technical Change and Non-homothetic Preferences

Theory (1 lecture MM)

*Krugman, Paul, (1980), Scale Economies, Product Differentiation, and the Pattern of Trade, *American Economic Review*, 70, issue 5, p. 950-59

*Matsuyama, Kiminori, (2019) "Engel's Law in the Global Economy," Econometrica.

*Matsuyama, Kiminori (2000), "A Ricardian Model with a Continuum of Goods under Nonhomothetic Preferences: Demand Complementarities, Income Distribution, and North-South Trade," JPE, pp.1093-1120.

*Bohr, Mestieri, and Robert-Nicoud (2023), "Heterothetic Cobb Douglas: Theory and Applications", working paper.

Foellmi, R. and Zweimuller, J. (2006)," Income Distribution and Demand-Induced Innovations", Review of Economic Studies, 73(4):941–960.

Foellmi, R. and Zweimüller, J. (2008), "Structural change, Engel's consumption cycles and Kaldor's facts of economic growth", Journal of Monetary Economics, 55(7):1317–1328.

Yi, Sposi and Zhang (2021), "Deindustrialization and Industry Polarization", Chicago Fed

Working Paper.

Comin, Lashkari, Mestieri (2022), "Structural Change in Innovation", working paper.

Bohr, Mestieri and Yavuz (2022), "Engel's Treadmill: The Perpetual Pursuit of Cornucopia", working paper.

Cecilia Fieler, “Non-homotheticity and Bilateral Trade: Evidence and a Quantitative Explanation,” Econometrica

Caron-Fally-Markusen, “International Trade Puzzles: a solution linking production factors and demand,” QJE 2014

Khandelwal, A. Pablo Fagjelbaum, “Measuring the Unequal Gains from Trade,” QJE (2016).

Empirical Evidence (1 Lecture PB)

* Juhász, Réka. 2018. "Temporary Protection and Technology Adoption: Evidence from the Napoleonic Blockade." *American Economic Review*, 108 (11): 3339-76.

Hanlon, W. Walker. "Necessity is the mother of invention: Input supplies and Directed Technical Change." *Econometrica* 83.1 (2015): 67-100.

Bustos, P., Castro-Vincenzi, J. M., Monras, J., & Ponticelli, J. (2019). *Industrialization without innovation* (No. w25871). National Bureau of Economic Research.

Atkin, David, Arnaud Costinot, and Masao Fukui. Globalization and the Ladder of Development: Pushed to the Top or Held at the Bottom?. No. w29500. National Bureau of Economic Research, 2021.

3. Trade and Firm Heterogeneity (2 Lectures PB)

* Melitz, Marc. 2003. “The Impact of Trade on Intra-Industry Reallocations and Aggregate Industry Productivity.” *Econometrica* 71: 1695-1725.

* Melitz, Marc J, and Stephen J Redding. 2014. “Heterogeneous Firms and Trade.” *Handbook of International Economics* 4: 1-54. Elsevier.

* Bustos, Paula, 2011. Trade Liberalization, Exports and Technology Upgrading: Evidence on the Impact of MERCOSUR on Argentinean Firms. *American Economic Review*, 101 (1), 304-340.

Aghion, Philippe, Antonin Bergeaud, Matthieu Lequien, and Marc J. Melitz. 2022. “The Heterogeneous Impact of Market Size on Innovation: Evidence from French Firm-Level Exports.” *Review of Economics and Statistics*.

* Atkin, David, Amit K Khandelwal, and Adam Osman. 2017. “Exporting and firm performance: Evidence from a randomized experiment”. Q*uarterly Journal of Economics* 132.2, pp. 551– 615.

* Felix, Mayara. 2023. Trade, Labor Market Concentration, and Wages.