Department of Economics, Northwestern University, Spring 2021 Kiminori Matsuyama, Email: <u>k-matsuyama@northwestern.edu</u> homepage: <u>https://faculty.wcas.northwestern.edu/~kmatsu/</u>

**Title:** Econ 460-2 International Trade (with applications to Growth, Development and Structural Change)

**Description:** This is a Ph. D course in international trade. The ultimate goal is to study how "globalization," i.e., interactions btw countries, regions, and cities (e.g., trade in goods, factor movements, technology transfers/diffusions), contribute their growth, inequality, and structural change. To this end, we review the basic models of growth and structural change and those of international trade, economic geography, and regional/urban economics, which have been developed separately. We will then look at several recent attempts to integrate these models to understand their interactions.

19 Zoom sessions at https://northwestern.zoom.us/j/93	<u>81778684</u> I ask you to ke	eep the video ON as muc	ch as possible.
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	Tuesday, 1:30pm-2:50pm	Thursday, 1:30pm-2:50pm	Friday, 12:30pm-1:50pm
Week 1		Yes, April 1	No, April 2
Week 2	Yes, April 6	No, April 8	Yes, April 9
Week 3	Yes, April 13	No, April 15	Yes, April 16
Week 4-Week 9		Yes	Yes
Week 10	Yes, June 1	Yes, June 3	No, June 4

The zoom link is set for **ThFr 12:30pm-3pm**, regardless of the actual schedule, so that you might receive the reminders. Just ignore the reminders and stick with the schedule listed above.

My 9 lectures (Apr 1-Apr 30), 3 guest lectures by Martí Mestieri (May 6-13), 7 student presentations (May 14-June 3).

**Evaluation:** Attendance (25%); Participation (25%); Presentation (50%). This should be viewed as a mere formality. As a Ph.D student, you should stop worrying about the grade. You should instead worry about finding topics to pursue for your research.

**Presentation:** Each of 7 registered students gives one presentation, during which a few related papers is discussed. Here's how it works. From the reading list below (mostly from the second half) and possibly based on your suggestions, I create a list of about 10 "themes", where each "theme" consists of some (two to five) related papers. You can find a preliminary list on p.7. The papers in each theme might be related in that they might be written by the same author(s) who apply the same theoretical apparatus to different issues. Or they might be related in that the same issue is addressed differently by different sets of authors. From this list of about 10 themes, you choose one theme, which you may further narrow down to a few papers for your presentation. *For example*, suppose you choose a theme consisting of four papers. Then, you may select three papers out of the four. Then, in your presentation, you spend 10 minutes explaining what the theme is, 50 minutes discussing one paper in detail, and then two papers briefly in 10 minutes each.

The list found on p.7 is still preliminary, but I hope to finalize it soon. In the meantime, you can look at the list and let me know if you are interested in presenting a particular theme (and the date of your presentation if you have any preferences). You could also propose a set of papers not listed below. After all, there are lots of papers that might be relevant and yet not listed there (possibly because I am unaware of them or have simply forgotten about them). I will accommodate your interest, as long as it is reasonable.

**Reading List:** Always preliminary and incomplete. This list contains different types of material: textbook treatments, surveys, classics, recently published articles, and working papers, as well as my lecture notes and presentation slides. Note that it is never easy to classify papers into different topics, because good papers often address many different issues. For this reason, I may sometimes jump back and forth across topics, even though I indicate the dates in which I might discuss some topics.

1. Structural Change: Introduction (Lecture 1: Thursday, April 1)

Lecture Note, "Structural Change: An Overview," Last Revised on 2021.03.28

Herrendorf, Rogerson, Valentinyi, "Growth and Structural Transformation", <u>Handbook of Economic Growth</u>. Rodrik, "Premature Deindustrialization", <u>J Econ Growth</u>, 2018. Ngai-Pissaridis, "Structural Change in a Multi-Sector Model of Growth", AER 2007. Fujiwara-Matsuyama, "A Technology Gap Model of Premature Deindustrialization," CEPR#15530, <u>slides dated on 2020.12.12</u> Comin-Mestieri-Lashkari, "Structural Transformation with long-run Income and Price effects," Ecta 2021

2. Demand Systems: CES and Beyond (Lecture 2: Tuesday, April 6)

Lecture Note, "Demand Systems: CES and Beyond," dated on 2021.04.07 Hanoch, 1975

Matsuyama, Supplement to "Engel's Law in the Global Economy" Online Appendix, Ecta, 2019. Matsuyama-Ushchev, "Beyond CES: Three Alternative Classes of Flexible Homothetic Demand Systems" CEPR DP12210 Matsuyama-Ushchev, "Three Classes of Multi-Factored CRS Production Functions" slides dated on 2020.04.14 3. Monopolistic Competition: CES and Beyond (Lecture 3: Friday, April 9)

Lecture Note on "Monopolistic Competition: CES and Beyond," Last Revised on 2021.03.18 Dixit-Stiglitz, "Monopolistic Competition and Optimum Product Variety" AER 1977. Matsuyama "Complementarities & cumulative processes in models of monopolistic competition," JEL 1995 Matsuyama "Complementarities, Instability, and Multiplicity," JER 1997 Zhelobodko-Kokovin-Parenti-Thisse, "Monopolistic Competition: Beyond the CES," Econometrica 2012. Parenti-Ushchev-Thisse, "Toward a Theory of Monopolistic Competition," JET 2017. Thisse-Ushchev, "Monopolistic Competition Without Apology," Hdbk of Game Theory & Industrial Organization Behrens-Murata, "General Equilibrium Models of Monopolistic Competition: A New Approach," JET 2007 Bertoletti-Etro, "Monopolistic Competition When Income Matters," EJ, 2016 Feenstra, EL Kimball, JMCB Matsuyama-Ushchev, "When does procompetitive entry imply excessive entry?" CEPR-#14991, slides revised, 2021.03.25. Matsuyama-Ushchev, "Constant Pass-Through," CEPR-DP15475. slides dated on 2021.03.31. Kasahara-Sugita, "Nonparametric Identification of Production Function, Total Factor Productivity, and Markup from Revenue Data." Thisse-Ushchev, "When Can a Demand System be Described by a Multinomial Logit with Income Effect?", 2016. Anderson, De Palma, Thisse, Discrete Choice Theory of Product Differentiation

4. Expanding Variety and Horizontal Innovation Model of Growth (Lecture 4: Tuesday, April 13)

Lecture Note on "Horizontal Innovation Models," Last Revised on 2020.12.15 Lecture Note on "Horizontal Innovation Models: Applications," Last Revised on 2011-04-11 Gancia-Zilibotti, "Horizontal Innovation in the Theory of Growth and Development," <u>Hdk Econ Growth</u> vol.1A Romer, P. "Endogenous Technological Change", JPE 1990 RiveraBatiz-Romer "Economic integration and endogenous growth," QJE, 1991. Acemoglu, <u>Introduction to Modern Economic Growth</u>, ch.12, ch.13, ch.15 Grossman-Helpman, <u>Innovation and Growth</u>, ch. 3. Boucekkine-Latzer-Parenti, "Variable Mark-up in the Long Run," JMathE Latzer-Matsuyama-Parenti, "Reconsidering the Market Size Effect on Innovation and Growth," CEPR-DP14991

5. Vertical Innovation Models of Growth

Lecture Note on "Vertical Innovation Models," Last Revised on 2011-04-14

Aghion-Howitt, "A Model of Growth through Creative Destruction," Econometrica 1992. Acemoglu, <u>Introduction to Modern Economic Growth</u>, ch.14. Grossman-Helpman, <u>Innovation and Growth</u>, ch.4.

6. Competitive Trade: Ricardian Theory (Lecture 5: Friday, April 16)

Lecture Note on "Competitive Trade: Ricardian Trade Theory," Last Revised on 2020.12.07 Lecture Note on "Growth in an Interdependent World," Last Revised on 2011-04-22 Matsuyama, "Ricardian Trade Theory," New Palgrave Dictionary 2<sup>nd</sup> Edition, 2008. Dornbusch-Fischer-Samuelson, "Comparative Advantage, Trade, and Payments in a Ricardian model...," AER 1977. Krugman, "A Technology Gap Model of International Trade," 1985. Matsuyama, "Credit Market Imperfections and Patterns of International Trade and Capital Flows," JEEA, 2005 Acemoglu-Ventura, "The World Income Distribution," QJE 2002. Eaton-Kortum, "Technology, Geography and Trade," Econometrica 2002. Costinot-Donaldson-Komunjer, "What Goods Do Countries Trade?" REStud 2012 Lind-Ramondo, "Trade with Correlation," 2019.

7. Competitive Trade: Factor Proportions and Assignment Models (Lecture 6: Thursday, April 22)

Lecture Note on "Competitive Trade: Factor Proportion," Last Revised on 2020.12.10 Ventura, "Growth and Interdependence," QJE 1997 Grossman, "Heterogeneous Workers and International Trade," <u>Review of World Economies</u>, 2013 Matsuyama, "A Simple Model of Sectoral Adjustment," REStud 1991. Ohnsorge-Trefler, "Sorting it out: International trade with heterogenous workers," JPE 2007. Adao, "Worker Heterogeneity, Wage Inequality, and International Trade" Costinot-Vogel, "Beyond Ricardo: Assignment Models in International Trade" ARE 2015. Costinot-Vogel, "Matching and Inequality in the World Economy," JPE 2010. Costinot-Vogel-Wang, "An Elementary Theory of Global Supply Chains," REStud, 2013.

8. "New" Trade Theory: Agglomeration, Home Market Effect and Economic Geography (Lecture 7: Friday, April 23)

Lecture Note on "Scale Economies, Product Differentiation, and Monopolistic Competition," Last Revised on 2020.12.15 Helpman-Krugman, <u>Market Structure and Foreign Trade</u>, MIT Press. Krugman, "Intra-Industry Specialization and the Gains From Trade," JPE, 1981. Matsuyama-Takahashi, "Self-Defeating Regional Concentration," REStud 1998. Matsuyama, "Endogenous Ranking & Equilibrium Lorenz Curve Across (ex-ante) Identical Countries" Econometrica, 2013 Lecture Note on "The Home Market Effect and New Economic Geography" Last Revised on 2020.12.15 Krugman, "Scale Economies, Product Differentiation, and the Pattern of Trade," AER, 1980. Matsuyama, "The Home Market Effect and Patterns of Trade Between Rich and Poor Countries," Matsuyama, "Geographical Advantage: Home Market Effect in a Multi-Country Setting," Fujita, Krugman, and Venables. <u>The Spatial Economy</u>, MIT Press. Krugman, "Increasing Returns and Economic Geography" JPE Krugman and Venables, "Globalization and Inequality of Nations," QJE 1995

I am not sure what I would cover on Lecture 8 (Thursday, April 29) and Lecture 9 (Friday, April 30). Perhaps, a (small) subset of papers from Topics 9 & 10 in one lecture, and a (small) subset of papers from Topics 11 & 12 in another. In that case, I will leave a large number of papers in these topics for your presentations.

9. Structural Change, Productivity Growth, Nonhomotheticity, and Income Distribution

Lecture Note, "Structural Change: An Overview"

Acemoglu, "Introduction to Modern Economic Growth", Chapter 20 Matsuyama, "The Rise of Mass Consumption Societies," JPE 2002. Buera-Kaboski "Can Traditional Theories of Structural Change Fit The Data?" JEEA 2009. Buera-Kaboski, "The Rise of the Service Economy," AER Oct 2012 Buera-Kaboski, "Scale and the Origins of Structural Change," JET Mar 2012 Boppart, "Structural Change and the Kaldor Facts in a Growth Model," Econometrica 2014. Alder, Mueller, Boppart "A Theory of Structural Change that Can Fit the Facts", <u>AEJ Macro</u> forthcoming Comin-Mestieri-Lashkari, "Structural Transformation with long-run Income and Price effects," Econometrica 2021 Bohr-Mestieri-Yavuz, "Engel's Treadmill: The Never-Ending Pursuit of Cornucopia" Buera-Kaboski, Rogerson, Vizcaino "Skill-Biased Structural Change", forthcoming REStud Herrendorf-Rogerson-Valentinyi, "Two Perspectives of Preferences and Structural Transformation", AER 2013 Garcia-Santana, Pijoan-Mas, Villacorta, "Investment Demand and Structural Change", WP Herrendorf-Rogerson-Valentinyi, "Structural Change in Investment and Consumption: A Unified Approach", REStud 2021 Duernecker-Herrendorf-Valentinyi, "Structural Change within the Services Sector and the Future of Cost Disease."

10. Structural Change, Nonhomotheticity, and Income Distribution in Open Economies

Lecture Note on "Structural Change and Trade under Nonhomotheticity," Last Revised on 2020.12.17 Matsuyama, "A Ricardian Model with a Continuum of Goods under Nonhomothetic Preferences," JPE 2000. Matsuyama, "Structural change in an interdependent world: A global view of manufacturing decline", JEEA2009 Matsuyama, "Engel's Law in the Global Economy,…" <u>Econometrica</u>, 2019. 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" QJE2014 Uy, Yi, Zhang. "Structural Change in an Open Economy," JME, 2013. Lewis, Monarch, Sposi and Zhang, "Structural Change and Global Trade," Sposi, Yi, and Zhang, "Structural Change and Deindustrialization," Fujiwara-Matsuyama, "A Global View of Premature Deindustrialization," Kork in Progress. Lecture Note on "A Global View of Premature Deindustrialization," Last Revised on 2019-10-31

11. Heterogenous Firms

Hopenhayn, "Firms, misallocation, and aggregate productivity: A review." Annual Review of Economics, 2014.
Melitz-Redding, "Heterogenous Firms and Trade," <u>Handbook of International Economics</u>, vol.4, 2015
Melitz, "The Impact of Trade on Intra-Industry Reallocations and Aggregate Industry Productivity," Econometrica 2003
Chaney, "Distorted Gravity: The Intensive and Extensive Margins of International Trade," AER 2008.
Segerstrom-Sugita, "The Impact of Trade Liberalization and Industrial Productivity," JEEA 2015.
Helpman-Melitz-Yeaple, "Export vs. FDI with Heterogeneous Firms," AER 2004
Bernard-Redding-Schott, "Comparative Advantage and Heterogeneous Firms," REStud 2007.
Yeaple, "A Simple Model of Firm Heterogeneity, International Trade, and Wages," JIE 2005
Melitz-Ottaviano, "Market Size, Trade and Productivity," REStud 2008
Parenti, "Large and Small firms in a Global Market," JIE 2015.
Dhingra-Morrow, "Monopolistic competition and optimal product diversity under firm heterogeneity," JPE 2019

12. Dynamics of Firm Size Distributions (I have difficulty classifying papers in Topic 12 and Topic 20.

Lecture Note on Models of Firm Growth and Size Distribution, Last Revised on 2021.01.07 Luttmer, "Models of Growth and Firm Heterogeneity", AREconomics, 2010. Luttmer, "On the Mechanics of Firm Growth," REStud, 2011. Klette-Kortum, "Innovating Firms and Aggregate Innovation," JPE 2004 Luttmer, "Selection, Growth, and the Size Distribution of Firms," QJE, 2007. Perla-Tonetti, Equilibrium Imitation and Growth, JPE 2014. Sampson, "Dynamic Selection: An Idea Flows Theory of Entry," Trade and Growth, QJE, 2016. Sampson, "Technology Gap, Trade, and Income," 2020. Perla, Tonetti and Waugh, "Equilibrium Technology Diffusion, Trade, and Growth," AER forthcoming Benhabib-Perla-Tonetti, "Reconciling the models of innovation and diffusion," Econometrica forthcoming. Mestieri Lecture 1 (May 6): Directed Technological Change: Basic Concepts and Application to Wage Inequality Acemoglu 2002 Directed Technical Change Restud Acemoglu 1999 Change in Unemployment and Wage Inequality AER Acemoglu and Autor 2011 Handbook Chapter Labor Economics Barany and Siegel, Job Polarization and Structural Change AEJ Macro Buera Kaboski Rogerson, Skill-Biased Structural Change, Restud Mestieri Lecture 2 (May 7): Directed Technological Change in Multi-Sector Closed Economies Acemoglu et al 2012 AER Directed Technical Change and the Environment Bohr Yavuz Mestieri, WP Engel's Treadmill: The Never-Ending Pursuit of Cornucopia Comin Lashkari Mestieri, WP Structural Change in Innovation Mestieri Lecture 3 (May 13): Technology Diffusion Comin Mestieri Handbook of Economic Growth Chapter Keller JEL on Technology Diffusion Comin Mestieri If Technology Has Arrived Everywhere... AEJMacro Comin Hobijn An Exploration of Technology Diffusion AER Buera Oberfield The Global Diffusion of Ideas, Econometrica Eaton Kortum 99 International Technology Diffusion, IER Fujiwara Matsuyama, WP A Technology Gap Model of Premature Deindustralization.

What you see below is a highly disorganized reading list of topics and papers. From these papers, and from the papers in the papers in Topic 1-12, I plan to create (by the end of April, hopefully much earlier) about 10 sets of papers (themes) for your presentations.

13. Some Growth and Trade Applications of Non-CES Demand Systems

Krugman, "Increasing Returns, Monopolistic Competition and International Trade", JIE 1979. Bertoletti-Etro-Simonovska, "International Trade with Indirect Additivity," AEJ Micro 2018 Dhingra, "Trading Away Wide Brands for Cheap Brands," AER 2013 Costinot-Donaldson-Kyle-Williams, "The more we die, the more we sell: a simple test of the HME," QJE2019 Arkolakis-Costinot-Donaldson-Rodriguez-Clare, "The Elusive Pro-competitive effects of trade," REStud, 2019. Foellmi-Zweimueller, "Income Distribution and Demand-Induced Innovations," <u>REStud</u> 2006 Foellmi-Zweimueller, "Macroeconomics of Model T," <u>JET</u> 2014 Foellmi-Zweimueller, "Structural Change, Engel's Consumption Cycles, and Kaldor's Facts...," <u>JMonE</u> 2008. Foellmi-Hepenstrick-Zweimueller, "International Arbitrage and the Extensive Margin of Trade..." <u>REStud</u> 2018 Foellmi-Hanslin-Kohler, "A Dynamic North-South Model of Demand-Induced Product Cycles," <u>JIE</u> 2018

14. Directed Technological Change, Trade and Wage Inequality

Acemoglu, "Patterns of Skill Premia," REStud, Apr 2003 Gancia-Zilibotti, "Technology and Wealth of Nations," ARE Acemoglu, Gancia, and Zilibotti, "Offshoring and Directed Technological Change," WP Thoenig and Verdier, "A Theory of Defensive Skill-Biased Innovation and Globalization," AER 2003 Matsuyama, "Beyond Icebergs: Toward A Theory of Biased Globalization," REStud, Jan 2007 Epifani-Gancia, "Skill Bias of World Trade," EJ July 2008 Hanlon, "Necessity Is the Mother of Invention: Input Supplies and Directed Technical Change," Econometrica 2015. Burstein-Vogel, "International Trade, Technology and Skill Premium," JPE 2017. Cravino-Sotelo, "Trade-Induced Structural Change and Skill Premium, <u>AEJ Macro</u> 2019. Sampson, "Selection into Trade and Wage Inequality," <u>AEJ Micro</u> 2014. Sampson, "Assignment Reversals: Trade, Skill Allocation and Wage Inequality" JET 2016 Grossman-Helpman, "Growth, Trade, and Inequality," <u>Econometrica</u> 2018 Grossman-Helpman-Kircher, "Matching and sorting and distributional effects of international trade," JPE 2017.

15. Poverty Traps, Path-Dependence, and Coordination Failures: Closed Economy

Azariadis-Stachurski, "Poverty Traps," Handbook of Economic Growth, 2005. Matsuyama, "Symmetry-Breaking' New Palgrave 2<sup>nd</sup> edition. Murphly-Shleifer-Vishny, "Industrialization and the Big Push," JPE 1989 Matsuyama, "Increasing Returns, Industrialization and Indeterminacy of Equilibrium," QJE 1991. Ciccone-Matsuyama, "Start-up costs and pecuniary externalities as barriers to economic development" JDE1996. Banerjee and Newman, "Occupational Choice and the Process of Development," JPE 1993 Galor and Zeira, "Income Distribution in Macroeconomics," REStud 1993. Matsuyama, "Endogenous Inequality," REStud 2000 Matsuyama, "Imperfect Credit Markets, Household Wealth Distribution, and Development," ARE 2011. Buera, Hopenhayn, Shin, and Trachter, "Big Push in the Distorted Economies," 2020.
16. Poverty Traps, Path-Dependence, and Coordination Failures: Open Economy
Young, "Learning-By-Doing and the Dynamic Effect of International Trade," QJE 1991 Matsuyama, "Agricultural Productivity, Comparative Advantage, and Economic Growth," JET 1992. Brezi, Krugman, and Tshiddon, "Leapfrogging in International Competition: A Theory of Cycles in National Technological Leadership," AER 1993.

Furukawa, "Leapfrogging Cycles in International Competition," Economic Theory, 2015. Matsuyama, "Financial Market Globalization, Symmetry-Breaking and Endogenous Inequality of Nations," Ecta 2004. Acemoglu-Robinson-Verdier, "Asymmetric Growth and Institution in an Interdependent World," JPE 2017. Allen-Donaldson, "Persistence and Path-Dependence in the Spatial Economy, Atkins, Costinot, and Fukui, "Globalization and the Ladder of Development"

17. Selection and (Spatial Sorting of Heterogeneous Firms and Workers

Matsuyama, "Poverty Traps," New Palgrave Dictionary 2nd edition, 2008.

Redding-Ross-Hansberg, "Quantitative Spatial Economics," ARE 2017.
Behrens-Robert-Nicoud, "Agglomeration Theory and Heterogenous Agents," <u>HandBook Regional & Urban Econ</u>, 2015
Duranton-Puga, "Nursery Cities: Urban Diversity, Process Innovation and the Life Cycle of Products," AER 2001.
Behrens-Duranton-Robert-Nicoud, "Productive Cities: Sorting, Selection, and Agglomeration," JPE 2014.
Eeckout-Pinheiro-Schmidheiny, "Spatial Sorting," JPE 2014.
Davis-Dingel, "A Spatial Knowledge Economy," AER 2019
Davis-Dingel, "Comparative Advantage of Cities, JIE 2020.
Gaubert, "Firm Sorting and Agglomeration," AER 2018
Fajgelbaum-Gaubert, "Optimal Spatial Policies, Geography, and Sorting," QJE 2020
Baldwin-Okubo, Journal of Economic Geography
Nocke, "A Gap for me: Entrepreneurs and Entry," JEEA 2006
Behrens-Robert-Nicoud, "Survival of the fittest in the cities," EJ 2014
Mrazova-Neary, "Selection Effects with Heterogeneous Firms," JEEA 2019
Matsuyama-Ushchev, "Selection and Sorting of Heterogenous Firms Due to the Procompetitive Effect" work in progress; No Slides exist.

18. Consumer Heterogeneity and Nonhomothetic Preferences

Fajgelbaum-Khandelwal, "Measuring the Unequal Gains from Trade," QJE 2016. Faber-Fally, REStud forthcoming Burstein-Vogel

19. Quality Ladders, Vertical Differentiation and Trade

Stokey, "The Volume and Composition of Trade Between Rich and Poor Countries," REStud 1991.
Flam-Helpman, "Vertical Product Differentiation and North-South Trade", AER 1987
Jaimovich-Merella, "Quality ladders in a Ricardian model of trade with nonhomothetic preferences" JEEA 2012
Jaimovich-Merella, "Love for Quality, Comparative Advantage, and Trade" JIE 2015
Fajgelbaum, Grossman and Helpman, "Income distribution, product quality, and international trade," JPE 2011.
Fajgelbaum, Grossman and Helpman, "A Linder Hypothesis for Foreign Direct Investment," REStud, 2015.
Dingel, "Determinants of Quality Specialization," REStud 2017.

20. Diffusion of Technology; Diffusion of Knowledge

Comin-Hobijn, 2010. "An Exploration of Technology Diffusion, AER. Comin-Mestieri, 2018, "If Technology has Arrived Everywhere why has Income Diverged?", AEJ: Macro. Keller, 2002. "Geographic Localization of International Technology Diffusion," AER. Eaton-Kortum, 2006. "Innovation, Diffusion, and Trade," Berkes, Manysheva, Mestieri "World Innovation: Evidence from 100 of Patenting" mimeo Berkes, Gaetani, Mestieri "Cities and Technology Cycles" mimeo. Buera-Lucas, "Idea Flows and Economic Growth" ARE 2018. Buera-Oberfield, "The Global Diffusion of Ideas," Econometrica 2020. Alvarez, Buera and Lucas, "Idea Flows, Economic Growth and Trade" Jovanovic-Rafael, "The Diffusion and Growth of Knowledge," REStud 1986 Lucas-Moll, Knowledge Growth and the Allocation of Time, JPE 2011 Adao-Beraja-PandalaiNayar, "Technological Transition, Skill Heterogeneity Across Generations??? Chari-Hopenhayn, "Vintage Human Capital, Growth, and the Diffusion of New Technology," JPE, 1991.

#### 21. Beyond Balanced Growth

Aghion, Bergeraud, Boppart, Klenow, Li, "A Theory of Falling Growth and Rising Rents", WP Boppart-Krussell "Labor Supply in the Past, Present, and Future: A Balanced Growth Perspective," <u>JPE</u> 2019. Grossman-Helpman-Oberfield-Sampson, "Balanced Growth Beyond Uzawa", <u>AER</u> 2017 Grossman-Helpman-Oberfield-Sampson, "Endogenous Education and Long Run Factor Shares," <u>AERInsights</u>, forthcoming.

#### 22. Financial Globalization and Economic Growth

Matsuyama, "Financial Market Globalization, Symmetry-Breaking and Endogenous Inequality of Nations," Ecta 2004. Mendoza-Quadrini-RiosRull, "Financial integration, Financial development, and global imbalances," JPE, 2009. Gourinchas-Jeanne "Capital flows to developing countries: The allocation puzzle," REStud, 2013

#### 23. Innovation Cycles

Lecture Note on "Endogenous Innovation Cycles," Last Revised on 2019-11-11

Judd, "On the Performance of Patents," Econometrica 1985

Shleifer, "Implementation Cycles," JPE 1986.

Matsuyama, "Growing Through Cycles," Econometrica, 1999.

Matsuyama, Sushko, and Gardini, "Globalization and Synchronization of Innovation Cycles," 2015.

Iong and Irmen, "The Supply of Hours Worked and Endogenous Growth Cycles,"

Matsuyama and Ushchev, "Destabilizing Effects of Market Size in the Dynamics of Innovation," CEPR DP15010, Presentation Slides, dated on 2020-09-28

## **Econ 460 Presentation Assignment**

Friday, May 14	Theme A	Thomas Pellet
Thursday, May 20	Theme D1	Giovanni Sciacovelli
Friday, May 21	Theme D2	Luxi Han
Thursday, May 27	Theme E1	Alexander Doser
Friday, May 28	Theme E2c	Ryu Matsuura
Tuesday, June 1	Theme E2b	Michael Cai
Thursday, June 3	Theme C	Miguel Moreira Santana Freire

### Theme A: Alternative Nonhomothetic Demand Systems: Thomas Pellet

Foellmi-Zweimueller, "Income Distribution and Demand-Induced Innovations," <u>REStud</u> 2006 Foellmi-Zweimueller-Wuergler, "Macroeconomics of Model T," <u>JET</u> 2014 Foellmi-Zweimueller, "Structural Change, Engel's Consumption Cycles, and Kaldor's Facts...," <u>JMonE</u> 2008. Foellmi-Hepenstrick-Zweimueller, "International Arbitrage and the Extensive Margin of Trade..." <u>REStud</u> 2018 Foellmi-Hanslin-Kohler, "A Dynamic North-South Model of Demand-Induced Product Cycles," JIE 2018

# Theme C: More on Structural Change Miguel Moreira Santana Freire

Boppart, "Structural Change and the Kaldor Facts in a Growth Model," Econometrica 2014. Alder, Mueller, Boppart "A Theory of Structural Change that Can Fit the Facts", <u>AEJ Macro</u> forthcoming Herrendorf-Rogerson-Valentinyi, "Two Perspectives of Preferences and Structural Transformation", AER 2013 Garcia-Santana, Pijoan-Mas, Villacorta, "Investment Demand and Structural Change", WP Herrendorf-Rogerson-Valentinyi, "Structural change in investment & consumption: A unified approach,"REStud 2021 Duernecker-Herrendorf-Valentinyi, "Structural Change within the Services Sector and the Future of Cost Disease."

## Theme D: Wage Inequality and Trade

## D1 Giovanni Sciacovelli

Cravino-Sotelo, "Trade-Induced Structural Change and Skill Premium, <u>AEJ Macro</u> 2019. Sampson, "Selection into Trade and Wage Inequality," <u>AEJ Micro</u> 2014. Sampson, "Assignment Reversals: Trade, Skill Allocation and Wage Inequality" <u>JET</u> 2016 **D2 Luxi Han** Grossman-Helpman, "Growth, Trade, and Inequality," <u>Econometrica</u> 2018

Grossman-Helpman-Kircher, "Matching and sorting and distributional effects of international trade," JPE 2017.

# **Theme E: Spatial Sorting**

# E1 Alexander Doser

Behrens-RobertNicoud, "Agglomeration Theory and Heterogenous Agents," <u>HandBook Region & Urban Econ</u>, 2015 Behrens-RobertNicoud, "Survival of the fittest in cities: Urbanization and inequality, The Economic Journal, 2014. Behrens-Duranton-RobertNicoud, "Productive Cities: Sorting, Selection, and Agglomeration," JPE 2014. Albouy-Behrens-RobertNicoud-Seegert, The optimal distribution of population across cities, JUE 2018?? **E2a: Michael Cai** 

Eeckout-Pinheiro-Schmidheiny, "Spatial Sorting," JPE 2014.

Diamond "The Determinants & Welfare Implications of US Workers' Diverging Location Choices by Skill," AER 2016 Gaigne-Koster-Moizeau-Thisse, "Who live where in the city?: Amenities, Commuting, and Income Sorting?" WP Davis-Dingel, "A Spatial Knowledge Economy," AER 2019

#### E2b; Ryu Matsuura

Davis-Dingel, "Comparative Advantage of Cities, JIE 2020.

Gaubert, "Firm Sorting and Agglomeration," AER 2018

Fajgelbaum-Gaubert, "Optimal Spatial Polices, Geography, and Sorting," QJE 2020

Duranton-Puga, "Nursery Cities: Urban Diversity, Process Innovation and the Life Cycle of Products," AER 2001.