

STEG Virtual Course on *'Key Concepts in Macro Development'*

The STEG research programme is offering a virtual course entitled "Key Concepts in Macro Development" for the spring of 2021, which will be taught by a series of lecturers.

What? The course is designed around a series of modules of two 90-minute lectures. These modules introduce workhorse models, methods, and ideas in an organized fashion, as well as going over some empirics and recent contributions. The 6 modules constitute 12 lectures. In addition, we have supplemental lectures that are more stand alone and focus on other important topics in macroeconomic development. Together the modules and supplemental lectures constitute 20 lectures, a full quarter course.

Why? Macro development is a small field. Textbooks are unavailable, and while many graduate programs teach some of these concepts in their courses, very few have a specific course organized around and dedicated to macro development. This virtual course will fill the gap for Ph.D. students or even junior faculty throughout the profession who are interested in these topics but do not have access otherwise. The virtual classes will be interactive, just as virtual graduate lectures in most departments are now.

For whom? The course is open free-of-charge to all interested Ph.D. students and economics faculty. Course materials (syllabus, lecture presentations, and recorded lectures) will be available after the fact on the STEG website.

How to attend? Those who apply and register for the course by January 31 are expected to attend regularly and can actively participate in the Zoom class. Registered graduate students should have a faculty sponsor them.

When? February 5-May 7, either one (Friday) or two (Thursday and Friday) lectures a week, 4 pm London time (GMT through March dates, and then GMT+1 for April and May dates)

[Register for the course here](#)

Course Syllabus Schedule of Lectures:

Module 1: Introduction

- **Friday, February 5**, Lecture 1: Empirical overview of macro development – Richard Rogerson (Princeton)
- **Friday, February 12**, Lecture 2: Development accounting: methods and findings – Julieta Caunedo (Cornell)
- **Thursday, February 18**, Supplemental Lecture: Human capital in developing countries – Todd Schoellman (Minneapolis Fed)

Module 2: Structural transformation

- **Friday, February 19**, Lecture 3: Key theories - Berthold Herrendorf (Arizona State)
- **Friday, February 26**, Lecture 4: Structural transformation, home production, and labour markets – L. Rachel Ngai (LSE)
- **Thursday, March 11**, Supplemental lecture: Labour market frictions and development – Mark Rosenzweig (Yale)

Module 3: Misallocation

- **Friday, March 12**, Lecture 5: Firm-level misallocation: benchmark model and early results – Richard Rogerson (Princeton)
- **Thursday, March 18**, Supplemental lecture: Political Institutions and development – Leonard Wantchekon (Princeton)
- **Friday, March 19**, Lecture 6: Recent applications and advance – Pete Klenow (Stanford)

Module 4: Agricultural productivity

- **Thursday, March 25**, Lecture 7: Agricultural productivity gap: measurement and explanations – David Lagakos (Boston U)
- **Friday, March 26**, Supplemental lecture: Technology diffusion and adoption – Chris Tonetti (Stanford)
- **Thursday, April 1**, Lecture 8: Barriers to technology adoption: what we know from micro empirics – Lauren Falcao Bergquist (Michigan)

Module 5: Risk and heterogeneous agents

- **Thursday, April 8**, Supplemental lecture: Migration and risk – Mushfiq Mobarak (Yale)
- **Friday, April 9**, Lecture 9: Heterogeneous agents models and methods – Ben Moll (LSE)
- **Friday, April 16**, Lecture 10: Applications to development – Yongseok Shin (Washington U. in St. Louis)
- **Thursday, April 22**, Supplemental lecture: Demographic transition and development – Michèle Tertilt (Mannheim)

Module 6: Spatial frictions

- **Friday, April 23**, Lecture 11: Basic trade/spatial model – Melanie Morten (Stanford)
- **Friday, April 30**, Lecture 12: Applications to development – David Atkin (MIT)
- **Thursday, May 6**, Supplemental lecture: Trade, FDI, and development – Natalia Ramondo (Boston U.)
- **Friday, May 7**, Supplemental lecture: Urbanization and development – Klaus Desmet (Southern Methodist)

Reading List

I. Rogerson

Required reading:

Jones, C. (2016). The Facts of Economic Growth. In Taylor, J. B. and Uhlig, H., editors, Handbook of Macroeconomics, volume 2 of Handbook of Macroeconomics, chapter 1, pages 3--69. Elsevier. Sections 4.6-4.7

II. Caunedo

Required reading:

Caselli, F. (2005). "Accounting for Cross-Country Income Differences." In Aghion, P. and Durlauf, S., editors, Handbook of Economic Growth, volume 1 of Handbook of Economic Growth, chapter 9, pages 679--741. Elsevier. Sections 2, 3 and 7

Additional readings:

1. Efficiency units when measuring inputs

a. Human capital:

Jones, B. F. (2014). The human capital stock: A generalized approach. American Economic Review, 104(11):3752--77.

Caselli, F. and Ciccone, A. (2019). The human capital stock: A generalized approach: Comment. American Economic Review, 109(3):1155--74.

b. Physical capital:

Caselli, F. and Wilson, D. J. (2004). Importing technology. Journal of Monetary Economics, 51(1):1-32.

Caunedo, J. and Keller, E. (2020). Capital Obsolescence and Agricultural Productivity. The Quarterly Journal of Economics, 136(1): 505--561.

2. Factor biased technology

Caselli, F. and Coleman, Wilbur John, I. (2006). The world technology frontier. American Economic Review, 96(3):499--522.

Acemoglu, D. and Zilibotti, F. (2001). Productivity Differences. The Quarterly Journal of Economics, 116(2): 563--606.

3. Channels:

a. Human capital:

Pritchett, L. (2006). Chapter 11 does learning to add up? the returns to schooling in aggregate data. volume 1 of Handbook of the Economics of Education, pages 635--695. Elsevier. Section 2.2 & 3

b. Relative prices:

Hsieh, C.T. and Klenow, P. J. (2007). Relative Prices and Relative Prosperity. *American Economic Review*, 97(3):562--585.

Duarte, M. and Restuccia, D. (2019). Relative Prices and Sectoral Productivity. *Journal of the European Economic Association*, 18(3):1400--1443.

c. Sectoral disparities:

Gollin, D., Parente, S., and Rogerson, R. (2002). The role of agriculture in development. *American Economic Review*, 92(2):160--164.

Restuccia, D., Yang, D. T., and Zhu, X. (2008). Agriculture and aggregate productivity: A quantitative cross-country analysis. *Journal of Monetary Economics*, 55(2):234--250.

III. Schoellman

Required Reading:

Lutz Hendricks and Todd Schoellman. Human capital and development accounting: New evidence from wage gains at migration. *Quarterly Journal of Economics*, 133(2):665--700, 2018

Juan Carlos Cordoba and Marla Ripoll. What explains schooling differences across countries? *Journal of Monetary Economics*, 60(2):184--202, 2013

Additional Readings:

a. Measurement:

Marta De Philippis and Federico Rossi. Parents, schools and human capital differences across countries. *Journal of the European Economic Association*, forthcoming

Todd Schoellman. Education quality and development accounting. *Review of Economic Studies*, 79(1): 388--417, 2012

David Lagakos, Benjamin Moll, Tommaso Porzio, Nancy Qian, and Todd Schoellman. Life-cycle wage growth across countries. *Journal of Political Economy*, 126(2): 797--849, 2018

Benjamin F. Jones. The human capital stock: A generalized approach. *American Economic Review*, 104(11): 3752--3777, 2014

b. Models of Human Capital Differences:

Flavio Cunha, James J. Heckman, and Susanne M. Schennach. Estimating the technology of cognitive and noncognitive skill formation. *Econometrica*, 78(3):883--931, 2010

Francisco J. Buera, Joseph P. Kaboski, Richard Rogerson, and Juan I. Vizcaino. Skill-biased structural change. *Review of Economic Studies*, forthcoming

Robert E Lucas Jr and Benjamin Moll. Knowledge growth and the allocation of time. *Journal of Political Economy*, 122(1):1--51, 2014

IV. Herrendorf

Required Reading:

Herrendorf, Berthold, Richard Rogerson, and Akos Valentinyi, "Growth and Structural Transformation," in Philippe Aghion and Steven N. Durlauf, eds., *Handbook of Economic Growth*, Vol. 2, Elsevier, 2014, pp. 855–941.

Additional Readings:

Acemoglu, Daron and Veronica Guerrieri, "Capital Deepening and Non-Balanced Economic Growth," *Journal of Political Economy*, 2008, 116, 467–498.

Boppart, Timo, "Structural Change and the Kaldor Facts in a Growth Model with Relative Price Effects and Non-Gorman Preferences," *Econometrica*, 2014, 82, 2167–2196.

Echevarria, Cristina, "Changes in Sectoral Composition Associated with Economic Growth," *International Economic Review*, 1997, 38, 431–452.

Herrendorf, Berthold, Christopher Herrington, and Akos Valentinyi, "Sectoral Technology and Structural Transformation," *American Economic Journal: Macroeconomics*, 2015, 7, 1–31.

Herrendorf, Berthold, Richard Rogerson, and Akos Valentinyi, "Two Perspectives on Preferences and Structural Transformation," *American Economic Review*, 2013, 103, 2752–2789.

Herrendorf, Berthold, Richard Rogerson, and Akos Valentinyi, "Structural Change in Investment and Consumption: A Unified Approach," forthcoming: *Review of Economic Studies*, 2020.

Kongsamut, Piyabha, Sergio Rebelo, and Danyang Xie, "Beyond Balanced Growth," *Review of Economic Studies*, 2001, 68, 869–882.

Ngai, L. Rachel and Christopher A. Pissarides, "Structural Change in a Multisector Model of Growth," *American Economic Review*, 2007, 97, 429–443.

V. Ngai

Required Reading:

Ngai, L. Rachel and Barbara Petrongolo, "Gender Gaps and the Rise of the Service Economy," *American Economic Journal: Macroeconomics*, 2017, 9 (4), 1–44

Ngai, L. Rachel, and Christopher A. Pissarides. 2008. "Trends in hours and economic growth." *Review of Economic Dynamics*, 11 (2): 239–56.

Additional Readings:

Aguiar, Mark, and Erik Hurst. 2007b. "Measuring Trends in Leisure: The Allocation of Time Over Five Decades." *Quarterly Journal of Economics*, 122 (3): 969–1006.

Bridgman, Benjamin, Georg Duernecker and Berthold Herrendorf 2018. "Structural Transformation, marketization, and household production around the world." *Journal of Development Economics*, 133: 102-126.

- Buera, Francisco J., and Joseph P. Kaboski. 2012. "The Rise of the Service Economy." *American Economic Review* 102 (6): 2540–69.
- Burda, Michael, Daniel S. Hamermesh, and Philippe Weil. 2013. "Total work and gender: Facts and possible explanations." *Journal of Population Economics* 26 (1): 239–61.
- Dinkelman, Taryn and L. Rachel Ngai (2020), "Home production, women's market work and structural transformation"
- Freeman, Richard B., and Ronald Schettkat. 2005. "Marketization of household production and the EU-US gap in work." *Economic Policy* 20 (41): 6–50.
- Greenwood, Jeremy, Ananth Seshadri, and Mehmet Yorukoglu. 2005. "Engines of Liberation." *Review of Economic Studies* 72 (1): 109–33
- Gronau, Reuben 1997. "The Theory of Home Production: The Past Ten Years." *Journal of Labor Economics*, 15: 197-205.
- Lee, Donghoon, and Kenneth I. Wolpin. 2006. "Intersectoral Labor Mobility and the Growth of the Service Sector." *Econometrica* 74 (1): 1–46.
- Lebergott, Stanley. 1993. *Pursuing Happiness: American Consumers in the Twentieth Century*. Princeton: Princeton University Press
- Moro, Alessio, Solmaz Moslehi, and Satoshi Tanaka, "Does Home Production Drive Structural Transformation?," *American Economic Journal: Macroeconomics*, 2017, 9 (3), 116–146.
- Ngai, L. Rachel and Christopher A. Pissarides, "Taxes, Social Subsidies, and the Allocation of Work Time," *American Economic Journal: Macroeconomics*, October 2011, 3 (4), 1–26
- Ramey, V. A. (2009). Time Spent in Home Production in the Twentieth-Century United States: New Estimates from Old Data. *The Journal of Economic History* 69 (1), 1-47.
- Ramey, Valerie and Neville Francis 2009. "A Century of Work and Leisure." *American Economic Journal: Macroeconomics* 1(2):189-224.
- Rogerson, Richard, "Structural Transformation and the Deterioration of European Labor Market Outcomes," *Journal of Political Economy*, April 2008, 116 (2), 235–259.
- Reid, Margaret G. 1934. *Economics of Household Production*. New York: John Wiley and Sons

VI. Rosenzweig

Required Reading:

- Foster, Andrew D. and Mark R. Rosenzweig (2018). "Are There Too Many Farms in the World? Labor-Market Transaction Costs, Machine Capacities and Optimal Farm Size." NBER Working Paper No. 23909.

Adamopoulos, Tasso and Diego Restuccia (2020). "Land Reform and Productivity: A Quantitative Analysis with Micro Data." *American Economic Journal: Macroeconomics*, 12(3): 1–39.

Additional Readings:

a. Labour Markets, Productivity and Farm Scale:

Adamopoulos, Tasso and Diego Restuccia (2014). "The Size Distribution of Farms and International Productivity Differences." *American Economic Review* 104(6): 1667-1697

Deolalikar, Anil B. (1981). "The Inverse Relationship between Productivity and Farm Size: A Test Using Regional Data from India." *American Journal of Agricultural Economics* 63 (2): 275-279.

Muyanga, Milu and T S Jayne (2019). "Revisiting the Farm Size-Productivity Relationship Based on a Relatively Wide Range of Farm Sizes: Evidence from Kenya." *American Journal of Agricultural Economics* 101 (4): 1140-1163.

Restuccia, Diego and Raul Santaaulalia-Llopis (2017). "Land Misallocation and Productivity." NBER Working Paper No. 23128.

Sadoulet, Elisabeth, Alain De Janvry, and Catherine Benjamin (1998). "Household Behavior with Imperfect Labor Markets." *Industrial Relations* 37 (1).

Sen, Amartya Kumar (1962). "An Aspect of Indian Agriculture." *The Economic Weekly* February.

Zhao, Xiaoxue (2020). "Land and labor allocation under communal tenure: Theory and evidence from China." *Journal of Development Economics* 147.

b. Surplus labour and development

Lewis, Arthur (1954). "Development with Unlimited Supplies of Labour," *The Manchester School* 22: 139-92.

Ranis, Gustav and John H. Fei (1961). "A Theory of Economic Development." *American Economic Review* 51(4): 533-565.

Additional readings:

Anderson, Siwan, Patrick Francois, and Ashok Kotwal. 2015. "Clientelism in Indian Villages." *American Economic Review*, 105 (6): 1780-1816.

Alesina, Alberto, Stelios Michalopoulos, and Elias Papaioannou. 2016. "Ethnic Inequality." *Journal of Political Economy*, Volume 124, Number 2.

Bardhan Pranab, Dilip Mookherjee, 2005. Decentralizing antipoverty program delivery in developing countries, *Journal of Public Economics*, Volume 89

Casey Katherine, A. Kamara and N. Meriggi, "An Experiment in Candidate Selection," Working Paper, Stanford University.

Canen, Nathan, Rafael Ch, Leonard Wantchekon. 2020. Political Uncertainty, Market Structure and the Forms of State Capture. Working Paper.

Beg, Sabrin, 2020. Tenancy and Clientelism. Working Paper, University of Delaware

Cole, Shawn. "Fixing market failures or fixing elections? Agricultural credit in India." *American Economic Journal: Applied Economics* 1.1 (2009): 219-50

Dal Bo, Ernesto, Frederic Finan, Nicolas Li, Laura Schechter, Information Technology and Government Decentralization: Experimental Evidence from Paraguay. Forthcoming, *Econometrica*.

Francois Patrick, Ilia Rainer and Francesco Trebbi "How is Power Shared In Africa?" *Econometrica*, March 2015, Vol. 83(2) 465-503.

Huneus, Federico, and In Song Kim. "The Effects of Firms' Lobbying on Resource Misallocation." (2020), Yale University, mimeo

Ferraz, Claudio and Frederico Finan. 2011. "Electoral Accountability and Corruption: Evidence from the Audit Reports of Local Governments" (with Frederico Finan), *American Economic Review*, June 2011, Vol. 101: 1274–1311.

Khwaja, Asim Ijaz, and Atif Mian. "Do lenders favor politically connected firms? Rent provision in an emerging financial market." *The Quarterly Journal of Economics* 120.4 (2005): 1371-1411

Nunn, Nathan, and Nancy Qian. 2014. "US Food Aid and Civil Conflict." *American Economic Review*, 104 (6): 1630-66.

Habyarimana James, Macartan Humphreys, Dan Posner and Jeremy Weinstein 2007. "Why Does Ethnic Diversity Undermine Public Goods Provision? An Experimental Approach." *American Political Science Review* 101.04 (2007): 709-725.

Martina Martinez Bravo, Priya Mukherjee and Andreas Stegman, 2017, "The Non-Democratic Roots of Elite Capture: Evidence from Soeharto Mayors in Indonesia" *Econometrica*, November 2017, 85 (6), 1991-2010.

Pande, Rohini. "Can mandated political representation increase policy influence for disadvantaged minorities? Theory and evidence from India." *American Economic Review* 93.4 (2003): 1132-1151

VII. Rogerson

Required reading:

Chang-Tai Hsieh, Peter J. Klenow, Misallocation and Manufacturing TFP in China and India, *The Quarterly Journal of Economics*, Volume 124, Issue 4, November 2009, Pages 1403–1448, <https://doi.org/10.1162/qjec.2009.124.4.1403>

Restuccia, Diego, and Richard Rogerson. "The causes and costs of misallocation." *Journal of Economic Perspectives* 31, no. 3 (2017): 151-74.

Additional readings:

Hopenhayn, Hugo, 2014. "Firms, Misallocation, and Aggregate Productivity: A Review". *Annual Review of Economics*

Restuccia and Rogerson, 2008. "Policy Distortions and Aggregate Productivity with Heterogeneous Establishments." *Review of Economic Dynamics*

Nezih Guner, Gustavo Ventura and Xu Yi, 2008. "Macroeconomic Implications of Size-Dependent Policies." *Review of Economic Dynamics*

VIII. Wantchekon

Required Reading:

Acemoglu, Daron, and James A. Robinson. "Economic Backwardness in Political Perspective." *American Political Science Review* 100.1 (2006): 115-131

Akcigit, Ufuk, Salomé Baslandze, and Francesca Lotti. "Connecting to Power: Political Connections, Innovation, and Firm Dynamics". No. 2020-5. Federal Reserve Bank of Atlanta, 2020

Burgess, R., Jedwab, R., Miguel, E., Morjaria, A. and Padró i Miquel, G. The value of democracy: evidence from road building in Kenya. *American Economic Review*, 105.6 (2015): 1817-51.

Fujiwara, Thomas, and Leonard Wantchekon. "Can informed public deliberation overcome clientelism? Experimental evidence from Benin." *American Economic Journal: Applied Economics* 5.4 (2013): 241-55

Additional Readings:

Chattopadhyay, Raghavendra, and Esther Duflo. "Women as policy makers: Evidence from a randomized policy experiment in India." *Econometrica* 72.5 (2004): 1409-1443

Goldstein Markus and Christopher Udry. 2008. "The Profits of Power: Land Rights and Agricultural Investment in Ghana," with Markus Goldstein. *Journal of Political Economy* 116(6): 981-1022

Jensen Nathan, Wantchekon Leonard. Resource Wealth and Political Regimes in Africa. *Comparative Political Studies*. 2004;37(7):816-841.

IX. Klenow

Required Reading:

David, Joel M., and Venky Venkateswaran. 2019. "The Sources of Capital Misallocation." *American Economic Review*, 109 (7): 2531-67.

Hsieh, C.-T., Hurst, E., Jones, C.I. and Klenow, P.J. (2019), The Allocation of Talent and U.S. Economic Growth. *Econometrica*, 87: 1439-1474. <https://doi.org/10.3982/ECTA11427>

Additional Readings:

Bils, Mark, Klenow, Peter J. and Ruane, Cian, (2020), Misallocation or Mismeasurement?, Working Papers, U.S. Census Bureau, Center for Economic Studies.

Bartelsman, Eric, John Haltiwanger, and Stefano Scarpetta. 2013. "Cross-Country Differences in Productivity: The Role of Allocation and Selection." *American Economic Review*, 103 (1): 305-34.

Dhingra, Swati, and John Morrow. "Monopolistic competition and optimum product diversity under firm heterogeneity." *Journal of Political Economy* 127, no. 1 (2019): 196-232.

Buera, Francisco J., Joseph P. Kaboski, and Yongseok Shin. 2011. "Finance and Development: A Tale of Two Sectors." *American Economic Review*, 101 (5): 1964-2002.

Moll, Benjamin. 2014. "Productivity Losses from Financial Frictions: Can Self-Financing Undo Capital Misallocation?" *American Economic Review*, 104 (10): 3186-3221. DOI: 10.1257/aer.104.10.3186

Midrigan, Virgiliu, and Daniel Yi Xu. 2014. "Finance and Misallocation: Evidence from Plant-Level Data." *American Economic Review*, 104 (2): 422-58. DOI: 10.1257/aer.104.2.422

Asker, John, Allan Collard-Wexler, and Jan De Loecker. "Dynamic Inputs and Resource (Mis)Allocation." *Journal of Political Economy* 122, no. 5 (2014): 1013-063.

Edmond, Chris, Virgiliu Midrigan, and Daniel Yi Xu. How costly are markups? 2019 working paper

David Rezza Baqaee, Emmanuel Farhi, Productivity and Misallocation in General Equilibrium, *The Quarterly Journal of Economics*, Volume 135, Issue 1, February 2020, Pages 105–163, <https://doi.org/10.1093/qje/qjz030>

Chang-Tai Hsieh, Peter J. Klenow, The Life Cycle of Plants in India and Mexico , *The Quarterly Journal of Economics*, Volume 129, Issue 3, August 2014, Pages 1035–1084, <https://doi.org/10.1093/qje/qju014>

Bento, Pedro, and Diego Restuccia. 2017. "Misallocation, Establishment Size, and Productivity." *American Economic Journal: Macroeconomics*, 9 (3): 267-303. DOI: 10.1257/mac.20150281

Cole, Harold L., Jeremy Greenwood, and Juan M. Sanchez. "Why doesn't technology flow from rich to poor countries?." *Econometrica* 84, no. 4 (2016): 1477-1521.

Gopinath, Gita, Şebnem Kalemli-Özcan, Loukas Karabarbounis, and Carolina Villegas-Sanchez. "Capital allocation and productivity in South Europe." *The Quarterly Journal of Economics* 132, no. 4 (2017): 1915-1967.

Akcigit, Ufuk, Harun Alp, and Michael Peters. 2021. "Lack of Selection and Limits to Delegation: Firm Dynamics in Developing Countries." *American Economic Review*, 111 (1): 231-75. DOI: 10.1257/aer.20180555

Atkeson, Andrew, and Ariel Tomás Burstein. "Innovation, Firm Dynamics, and International Trade." *Journal of Political Economy* 118, no. 3 (2010): 433-84. doi:10.1086/653690.

Kehrig, Matthias, and Nicolas Vincent. Good dispersion, bad dispersion. No. w25923. National Bureau of Economic Research, 2019.

Syverson, Chad. "What determines productivity?." *Journal of Economic Literature* 49, no. 2 (2011): 326-65.

Hopenhayn, Hugo A. "Firms, misallocation, and aggregate productivity: A review." *Annual Review of Economics*. Volume 6, no. 1 (2014): 735-770.

Donaldson, Dave. "The gains from market integration." *Annual Review of Economics*. Volume 7, no. 1 (2015): 619-647.

Asturias, Jose and Hur, Sewon and Kehoe, Timothy J. and Ruhl, Kim Joseph, Firm Entry and Exit and Aggregate Growth (June 16, 2020). FRB of Cleveland Working Paper No. 19-03R, NYU Stern School of Business, Available at SSRN: <https://ssrn.com/abstract=3328873> or <http://dx.doi.org/10.2139/ssrn.3328873>

Peters, Michael. "Heterogeneous markups, growth, and endogenous misallocation." *Econometrica* 88, no. 5 (2020): 2037-2073.

Jie Bai, Seema Jayachandran, Edmund J Malesky, Benjamin A Olken, Firm Growth and Corruption: Empirical Evidence from Vietnam, *The Economic Journal*, Volume 129, Issue 618, February 2019, Pages 651–677, <https://doi.org/10.1111/eoj.12560>

Parente, Stephen L., and Edward C. Prescott. "Barriers to technology adoption and development." *Journal of Political Economy* 102, no. 2 (1994): 298-321.

Howitt, Peter. "Endogenous growth and cross-country income differences." *American Economic Review* 90, no. 4 (2000): 829-846.

Banerjee, Abhijit V., and Esther Duflo. "Growth theory through the lens of development economics." *Handbook of Economic Growth* 1 (2005): 473-552.

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

Marc J. Melitz, Gianmarco I. P. Ottaviano, Market Size, Trade, and Productivity, *The Review of Economic Studies*, Volume 75, Issue 1, January 2008, Pages 295–316, <https://doi.org/10.1111/j.1467-937X.2007.00463.x>

Atkeson, Andrew, and Ariel Burstein. "Pricing-to-market, trade costs, and international relative prices." *American Economic Review* 98, no. 5 (2008): 1998-2031.

Rotemberg, Martin, and T. Kirk White. "Measuring Cross-Country Differences in Misallocation." 2017 Working Paper.

Matvos, Gregor, Seru, Amit and Silva, Rui C., (2018), Financial market frictions and diversification, *Journal of Financial Economics*, 127, issue 1, p. 21-50.

Haltiwanger, John, Robert Kulick, and Chad Syverson. Misallocation measures: The distortion that ate the residual. No. w24199. National Bureau of Economic Research, 2018.

Costinot, Arnaud, and Dave Donaldson. How large are the gains from economic integration? theory and evidence from us agriculture, 1880-1997. No. w22946. National Bureau of Economic Research, 2016.

Restuccia, Diego, and Raul Santaeulalia-Llopis. Land misallocation and productivity. No. w23128. National Bureau of Economic Research, 2017.

Tasso Adamopoulos & Loren Brandt & Jessica Leight & Diego Restuccia, 2019. "Misallocation, Selection and Productivity: A Quantitative Analysis with Panel Data from China," Working Papers tecipa-651, University of Toronto, Department of Economics.

Douglas Gollin & Christopher Udry, 2019. "Heterogeneity, Measurement Error, and Misallocation: Evidence from African Agriculture," CSAE Working Paper Series 2019-01, Centre for the Study of African Economies, University of Oxford.

Gilchrist, Simon, Jae W. Sim, and Egon Zakrajšek. "Misallocation and financial market frictions: Some direct evidence from the dispersion in borrowing costs." *Review of Economic Dynamics* 16, no. 1 (2013): 159-176.

Bau, Natalie, and Adrien Matray. "Misallocation and capital market integration: Evidence from India." (2020).

Lagakos, David. "Explaining cross-country productivity differences in retail trade." *Journal of Political Economy* 124, no. 2 (2016): 579-620.

X. Lagakos

Required reading:

Gollin, Douglas and David Lagakos and Michael E. Waugh (2014) "The Agricultural Productivity Gap", *Quarterly Journal of Economics*, 129 (2), 939-993

Additional readings:

Adamopoulos, Tasso and Diego Restuccia (2014) "The Size Distribution of Farms and International Productivity Differences," *American Economic Review*

Akram, A. A., S. Chowdhury, and A. M. Mobarak (2017): "General Equilibrium Effects of Emigration on Rural Labor Markets," Unpublished Working Paper, Yale University.

Alvarez, J. A. (2020): "The Agricultural Wage Gap: Evidence from Brazilian Micro-data," *American Economic Journal: Macroeconomics*, 12 (1), 153-73

Baseler, Travis (2019): "Hidden Income and Perceived Returns to Migration: Experimental Evidence from Kenya," Unpublished Working Paper, University of Rochester

Bazzi, Samuel, Arya Gaduh, Alexander D. Rothenberg, and Maisy Wong (2016): "Skill Transferability, Migration, and Development: Evidence from Population Resettlement in Indonesia." *American Economic Review*, 106 (9): 2658-98

Bryan, Gharad and Shyamal Chowdhury and Ahmed Mushfiq Mobarak (2014), "Underinvestment in a Profitable Technology: The Case of Seasonal Migration in Bangladesh", *Econometrica*, 82 (5), 1671-1748

Chen, Chaoran. 2017. "Untitled Land, Occupational Choice, and Agricultural Productivity." *American Economic Journal: Macroeconomics*, 9 (4): 91-121.

Gebresilasse, Mesay (2019): "Rural Roads, Agricultural Extension, and Productivity," Unpublished Working Paper, University of Massachusetts

Gollin, Douglas and David Lagakos and Michael E. Waugh (2014) "Agricultural Productivity Differences Across Countries," *American Economic Review* P&P

Gottlieb, C., and J. Grobovsek (2019): "Communal Land and Agricultural Productivity," *Journal of Development Economics*, 138: 235-152

Herrendorf, Berthold and Akos Valentinyi (2012) "Which Sectors Make Poor Countries So Unproductive?", *Journal of the European Economic Association*

Herrendorf, Berthold and Richard Rogerson and Akos Valentinyi (2014) "Growth and Structural Transformation." *Handbook of Economic Growth*

Herrendorf, B. and T. Schoellman (2015): "Why is Measured Productivity so Low in Agriculture?" *Review of Economic Dynamics*, 18, 1003–1022.

Herrendorf, B. and T. Schoellman (2018): "Wages, Human Capital, and Barriers to Structural Transformation," *American Economic Journal: Macroeconomics*, 10, 1–23.

Hicks, J. H., M. Kleemans, N. Y. Li, and E. Miguel (2017): "Reevaluating Agricultural Productivity Gaps with Longitudinal Microdata," NBER Working Paper No. 23253.

Lagakos, David, Sam Marshall, Mushfiq Mobarak, Michael Waugh and Corey Vernot (2020): "Migration Costs and Observational Returns to Migration in the Developing World," *Journal of Monetary Economics*

Lagakos, D., M. Mobarak, and M. E. Waugh (2019): "Welfare Implications of Encouraging Rural-Urban Migration," Unpublished Working Paper, University of California San Diego.

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