Economics 7350 - Growth and Development II

Prof. Vollrath
University of Houston, Spring 2020

January 13, 2020

Class Structure

This class is for upper level graduate students. Class is in McElinney 212, M/W from 1-2:30pm. My website, which includes a page for this class on which I may post extra material, is at https://growthecon.com

The course grade is going to consist of the following:

Fundamental homeworks (20%)

Three short papers (25% each)

Class participation (5%)

Fundamentals

(Jan 13-Feb 5): The course is going to start with several weeks of work on fundamental tools used in modern growth theory (and other areas like trade and urban economics): heterogenous goods using CES in both discrete and continuous terms, accounting for markups, Stone-Geary and non-homothetic CES income effects, properties of generalized means. And whatever else I find might be useful as we go along.

There are two homeworks associated with this material. I will distribute handouts with details on each assignment in class, as necessary.

Due Jan 27: (10%) Nested production structures

Due Feb 3: (10%) Aggregation and market power

Each calendar day that an assignment is late lowers the percentage you can earn by one. For example, if you turn in the nested structure homeowkr on January 28th, the *best* you can do is earn 9 of the possible 10 percentage points.

Applications

The remainder of the course is going to be concerned with applications of the fundamental tools, although we may have to build some additional tools for ourselves as we go. In the hope of keeping this interesting

for everyone, I'm proposing that we jointly select topics and papers from the following set. Each section contains a brief description of the topic, has some key papers we can study (or add to, or subtract from).

They also contain some possible assignments associated with each topic, which would take the form of a short paper. Only one assignment from each topic would be required. My expectation is that you'd work on three of these.

We will all need some time to prepare for these sections, so the plan is to talk about the choice of topics in class on **January 29th**. You should think about your preferences, and perhaps skim the abstracts of papers in each section, so that you can form an opinion on what you want to talk about. I am entirely open to adding other papers that you are interested in. The material from my other course (Econ 7340) on the "deep roots" of development is also open for discussion as subtopics. See the Spring 2019 syllabus on my website for this course to see that material.

Structural change and growth: One of the central features of economic growth and development is the shift of economic activity out of agriculture, into manufacturing, and then ultimately into services. Those industries tend to have different productivity levels and growth rates, but at the same time we continue to see balanced growth in the aggregate. How do we explain and reconcile these facts?

- B. Herrendorf, R. Rogerson, and Á. Valentinyi (2014). "Growth and Structural Transformation". *Handbook of Economic Growth*. Vol. 2. Handbook of Economic Growth. Elsevier. Chap. 6, pp. 855–941 (see my website for a copy)
- R. L. Ngai and C. A. Pissarides (2007). "Structural Change in a Multisector Model of Growth". *American Economic Review* 97.1, pp. 429–443
- D. Comin, D. Lashkari, and M. Mestieri (2019). *Structural Change with Long-run Income and Price Effects*. Working Paper 21595. National Bureau of Economic Research
- T. Boppart (2014). "Structural Change and the Kaldor Facts in a Growth Model With Relative Price Effects and Non Gorman Preferences". *Econometrica* 82, pp. 2167–2196
- B. Herrendorf, R. Rogerson, and A. Valentinyi (2013). "Two Perspectives on Preferences and Structural Transformation". *American Economic Review*
- W. J. Baumol (1967). "Macroeconomics of Unbalanced Growth: The Anatomy of Urban Crisis". *The American Economic Review* 57.3, pp. 415–426
- P. Bustos, B. Caprettini, and J. Ponticelli (2016). "Agricultural Productivity and Structural Transformation: Evidence from Brazil". *American Economic Review* 106.6, pp. 1320–65
- A. Young (2014). "Structural Transformation, the Mismeasurement of Productivity Growth, and the Cost Disease of Services". *American Economic Review* 104.11, pp. 3635–67
- **Assignment:** Changes in time allocations associated with structural change.
- **Assignment:** Relationship of structural change to level of income.

Productivity with input/output structures: Allowing for sectors (or firms, or whatever) to supply one another with intermediates makes for tedious accounting, but changes the effect of a productivity shock in one area of the economy on the aggregate. While developing a way of doing this input/output accounting, we can also allow for market power and misallocations to have an effect on productivity.

- D. Baqaee and E. Farhi (2019). *A Short Note on Aggregating Productivity*. NBER Working Papers 25688. National Bureau of Economic Research, Inc
- D. R. Baqaee and E. Farhi (2017). *Productivity and Misallocation in General Equilibrium*. Working Paper 24007. National Bureau of Economic Research
- D. Baqaee and E. Farhi (2018). *The Microeconomic Foundations of Aggregate Production Functions*. Working Paper 25293. National Bureau of Economic Research
- C. I. Jones (2011). "Misallocation, Economic Growth, and Input-Output Economics". *NBER Working Papers* 16742
- E. Liu (2019). "Industrial Policies in Production Networks". *The Quarterly Journal of Economics* 134.4, pp. 1883–1948
- **Assignment:** Calculating aggregate labor and capital elasticities using I/O structures

Market power and growth: Once we see that market power and allocations can influence productivity, it becomes a candidate for explaining changes in growth rates, such as the recent slowdown in developed country growth. Does this in fact make sense given the data?

- S. Basu (2019). "Are Price-Cost Markups Rising in the United States? A Discussion of the Evidence". *Journal of Economic Perspectives* 33.3, pp. 3–22
- J. De Loecker and J. Eeckhout (2017). *The Rise of Market Power and the Macroeconomic Implications*. Working Paper 23687. National Bureau of Economic Research
- U. Akcigit and S. T. Ates (2019). *Ten Facts on Declining Business Dynamism and Lessons from Endogenous Growth Theory*. NBER Working Papers 25755. National Bureau of Economic Research, Inc
- P. Aghion et al. (2019). *A Theory of Falling Growth and Rising Rents*. Working Paper 26448. National Bureau of Economic Research
- E. Anderson, S. Rebelo, and A. Wong (2018). *Markups Across Space and Time*. Working Paper 24434. National Bureau of Economic Research
- C.-T. Hsieh and E. Rossi-Hansberg (2019). *The Industrial Revolution in Services*. Working Paper 25968. National Bureau of Economic Research
- H. Hopenhayn, J. Neira, and R. Singhania (2018). *From Population Growth to Firm Demographics: Implications for Concentration, Entrepreneurship and the Labor Share*. Working Paper 25382. National Bureau of Economic Research
- D. Koh, R. Santaeulalia-Llopis, and Y. Zheng (2018). *Labor Share Decline and Intellectual Property Products Capital*. Working Papers 873. Queen Mary University of London, School of Economics and Finance
- D. Autor et al. (2017). *The Fall of the Labor Share and the Rise of Superstar Firms*. NBER Working Papers 23396. National Bureau of Economic Research, Inc
- **Assignment:** Market power and growth in a non-US setting

Misallocation across firms and sectors: The standard model is built assuming that workers and/or capital can move freely between firms or industries, meaning output is maximized given preferences and technologies. However, there may be frictions, and these lower output to some degree, possibly acting as a large part of cross-country differences.

- C.-T. Hsieh and P. J. Klenow (2009). "Misallocation and Manufacturing TFP in China and India". *Quarterly Journal of Economics* 124.4, pp. 1403–1448
- D. Restuccia and R. Rogerson (2008). "Policy Distortions and Aggregate Productivity with Heterogeneous Plants". *Review of Economic Dynamics* 11.4, pp. 707–720
- D. Vollrath (2009). "How important are dual economy effects for aggregate productivity?" *Journal of Development Economics* 88.2, pp. 325–334
- D. Vollrath (2014). "The Efficiency of Human Capital Allocations in Developing Countries". *Journal of Development Economics* 108, pp. 106–118
- **Assignment:** Replicating Ziebarth's study of historical misallocation

Spatial activity, urbanization, and growth: Normal models of economic growth do not deal with *where* activity happens, even though there are clear trends in urbanization as economies develop and clear patterns across urban areas in size and productivity. Spatial models allow us to think of both congestion effects (crowding) and agglomeration effects (positive feedback or spillovers).

- G. Michaels, F. Rauch, and S. J. Redding (2012). "Urbanization and Structural Transformation". *The Quarterly Journal of Economics* 127.2, pp. 535–586
- R. Jedwab and D. Vollrath (2015). "Urbanization without growth in historical perspective". *Explorations in Economic History* 58.C, pp. 1–21
- K. Desmet and E. Rossi-Hansberg (2014). "Spatial Development". *American Economic Review* 104.4, pp. 1211–1243
- K. Desmet, D. K. Nagy, and E. Rossi-Hansberg (2018). "The Geography of Development". *Journal of Political Economy* 126.3, pp. 903–983. eprint: `https://doi.org/10.1086/697084`
- S. J. Redding and E. Rossi-Hansberg (2017). "Quantitative Spatial Economics". *Annual Review of Economics* 9.1, pp. 21–58. eprint: `https://doi.org/10.1146/annurev-economics-063016-103713`
- **Assignment:** Creating spatial model of economic activity (using the Redding-Rossi-Hansberg paper)

Supplemental Reading

What follows is a rough set of related papers. I've erred in including papers with tangential connections, in order to avoid being too narrow.

Structural change, mis/allocations

Adamopoulos, T. and D. Restuccia (2014). "The Size Distribution of Farms and International Productivity Differences". *American Economic Review* 104.6, pp. 1667–97.

Adamopoulos, T. et al. (2017). *Misallocation, Selection and Productivity: A Quantitative Analysis with Panel Data from China*. Working Papers tecipa-574. University of Toronto, Department of Economics.

Adeyinka, A., S. Salau, and D. Vollrath (2017). "Structural Change and the Possibilities for Future Growth in Nigeria". *Structural Change, Fundamentals, and Growth: A Framework and Case Studies*. Ed. by M. McMillan, D. Rodrik, and C. Sepulveda. IFPRI.

Akino, M. and Y. Hayami (1974). "Sources of Agricultural Growth in Japan, 1880–1965". *The Quarterly Journal of Economics* 88.3, pp. 454–479.

Alvarez-Cuadrado, F. and M. Poschke (2011). "Structural Change Out of Agriculture: Labor Push versus Labor Pull". *American Economic Journal: Macroeconomics* 3, pp. 127–158.

Ashraf, Q. and O. Galor (2011). "Dynamics and stagnation in the malthusian epoch". *American Economic Review* 101.5, pp. 2003–41.

Baumol, W. J. and W. G. Bowen (1965). "On the Performing Arts: The Anatomy of Their Economic Problems". *The American Economic Review* 55.1/2, pp. 495–502.

Baumol, W. J. (1967). "Macroeconomics of Unbalanced Growth: The Anatomy of Urban Crisis". *The American Economic Review* 57.3, pp. 415–426.

Baumol, W. J. (2012). *The Cost Disease: Why Computers Get Cheaper but Healthcare Doesn't*. New Haven, CT: Yale University Press.

Betts, C., R. Giri, and R. Verma (2013). *Trade, Reform, And Structural Transformation in South Korea*. MPRA Paper 49540. University Library of Munich, Germany.

Boppart, T. (2014). "Structural Change and the Kaldor Facts in a Growth Model With Relative Price Effects and Non Gorman Preferences". *Econometrica* 82, pp. 2167–2196.

Boserup, E. (1965). *The Conditions of Agricultural Growth*. Earthscan Publications.

Bray, F. (1994). *The Rice Economies, Technology and Development in Asian Societies*. Berkeley, CA: University of California Press.

Buera, F. J. and J. P. Kaboski (2009). "Can Traditional Theories of Structural Change Fit The Data?" *Journal of the European Economic Association* 7.2-3, pp. 469–477.

Buera, F. J. and J. P. Kaboski (2012). "The Rise of the Service Economy". *American Economic Review* 102.6, pp. 2540–69.

Bustos, P., B. Caprettini, and J. Ponticelli (2016). "Agricultural Productivity and Structural Transformation: Evidence from Brazil". *American Economic Review* 106.6, pp. 1320–65.

Caselli, F. and W. J. C. II (2001). "The U.S. Structural Transformation and Regional Convergence: A Reinterpretation". *Journal of Political Economy* 109.3, pp. 584–616.

Chanda, A. and C.-J. Dalgaard (2008). "Dual economies and international total factor productivity differences: Channelling the impact from institutions, trade, and geography". *Economica* 75.300, pp. 629–661.

Clark, G. (2002). "The Agricultural Revolution and the Industrial Revolution". UC-Davis Working Paper.

Collier, P. and S. Dercon (2014). "African Agriculture in 50 Years: Smallholders in a Rapidly Changing World?" *World Development* 63. Economic Transformation in Africa, pp. 92 –101.

Comin, D., D. Lashkari, and M. Mestieri (2019). *Structural Change with Long-run Income and Price Effects*. Working Paper 21595. National Bureau of Economic Research.

Craig, B. J., P. G. Pardey, and J. Roseboom (1997). "International Productivity Patterns: Accounting for Input Quality, Infrastructure, and Research". *American Journal of Agricultural Economics* 79.4, pp. 1064–1076.

Desmet, K. and E. Rossi-Hansberg (2014). "Spatial Development". *American Economic Review* 104.4, pp. 1211–1243.

Duarte, M. and D. Restuccia (2010). "The Role of the Structural Transformation in Aggregate Productivity". *Quarterly Journal of Economics* 125.1, pp. 129–173.

Eberhardt, M. and D. Vollrath (2016). "The Role of Crop Type in Cross-Country Income Differences".

Eberhardt, M. and D. Vollrath (2018). "The Effect of Agricultural Technology on the Speed of Development". *World Development* 109, pp. 483–496.

Echevarria, C. (1997). "Changes in Sectoral Composition Associated with Economic Growth". *International Economic Review* 38.2, pp. 431–52.

Evenson, R. E. and D. Gollin (2003). "Assessing the Impact of the Green Revolution, 1960 to 2000". *Science* 300.5620, pp. 758–762.

FAO (2007). "FAOSTAT". Online database.

Fouka, V. and A. Schlaepfer (2015). "Agricultural Labor Intensity and the Origins of Work Ehtics". Working paper.

Fuglie, K. (2010). "Total factor productivity in the global agricultural economy: Evidence from FAO Data". *The shifting patterns of agricultural production and productivity worldwide*. Ed. by P. P. Julian Alston Bruce Babcock. Ames, Iowa: Midwest Agribusiness Trade and Research Information Center, pp. 63–95.

Geertz, C. (1963). *Agricultural Involution: The Processes of Ecological Change in Indonesia*. Berkeley, CA: University of California Press.

Gollin, D. (2010). "Agricultural Productivity and Economic Growth". *Handbook of Agricultural Economics*. Ed. by P. Pingali and R. Evenson. Vol. 4. Elsevier, pp. 3825 –3866.

Gollin, D., R. Jedwab, and D. Vollrath (2016). "Urbanization with and without industrialization". *Journal of Economic Growth* 21.1, pp. 35–70.

Gollin, D., D. Lagakos, and M. Waugh (2014). "The Agricultural Productivity Gap". *Quarterly Journal of Economics* 129.2.

Gollin, D., S. Parente, and R. Rogerson (2004). "Farm Work, Home Work, and International Productivity Differences". *Review of Economic Dynamics* 7.4, pp. 827–850.

Gollin, D., S. Parente, and R. Rogerson (2007). "The Food Problem and the Evolution of International Income Levels". *Journal of Monetary Economics* 54, pp. 1230–1255.

Graham, B. and J. R. W. Temple (2006). "Rich Nations, Poor Nations: How Much can Multiple Equilibria Explain?" *Journal of Economic Growth* 11.1, pp. 5–41.

Grigg, D. (1974). *The Agricultural Systems of the World*. Cambridge University Press.

Gutierrez, L. and M. M. Gutierrez (2003). "International R&D spillovers and productivity growth in the agricultural sector. A panel cointegration approach". *European Review of Agricultural Economics* 30.3, pp. 281–303.

Hayami, Y. and V. W. Ruttan (1970). "Agricultural Productivity Differences among Countries". *American Economic Review* 60.5, pp. 895–911.

Hayami, Y. and V. W. Ruttan (1985). *Agricultural Development: An International Perspective*. Baltimore: Johns Hopkins University Press.

Hayami, Y., V. W. Ruttan, and H. M. Southworth (1979). *Agricultural Growth in Japan, Taiwan, Korea, and the Philippines*. Honolulu, HI: East-West Center.

Hayashi, F. and E. C. Prescott (2008). "The Depressing Effect of Agricultural Institutions on the Prewar Japanese Economy". *Journal of Political Economy* 116.4, pp. 573–632.

Henderson, J. V. et al. (2016). *The Global Spatial Distribution of Economic Activity: Nature, History, and the Role of Trade*. NBER Working Papers 22145. National Bureau of Economic Research, Inc.

Hendricks, L. (2010). "Cross-country variation in educational attainment: structural change or within-industry skill upgrading?" *Journal of Economic Growth* 15 (3), pp. 205–233.

Herrendorf, B., R. Rogerson, and A. Valentinyi (2013). "Two Perspectives on Preferences and Structural Transformation". *American Economic Review*.

Herrendorf, B., R. Rogerson, and Á. Valentinyi (2014). "Growth and Structural Transformation". *Handbook of Economic Growth*. Vol. 2. Handbook of Economic Growth. Elsevier. Chap. 6, pp. 855–941.

Hicks, J. H. et al. (2017). *Reevaluating Agricultural Productivity Gaps with Longitudinal Microdata*. Working Paper 23253. National Bureau of Economic Research.

Hsieh, C.-T. and E. Rossi-Hansberg (2019). *The Industrial Revolution in Services*. Working Paper 25968. National Bureau of Economic Research.

Imbs, J. and R. Wacziarg (2003). "Stages of Diversification". *The American Economic Review* 93.1, pp. 63–86.

Johnson, T. R. and D. Vollrath (2017). "The role of land in temperate and tropical agriculture". Working paper.

Johnston, B. F. and P. Kilby (1975). *Agriculture and Structural Transformation: Economic Strategies in Late-Developing Countries*. New York, NY: Oxford University Press.

Johnston, B. F. and J. W. Mellor (1961). "The Role of Agriculture in Economic Development". *American Economic Review* 51.4, pp. 566–93.

Jorgenson, D. and F. Gollop (1992). "Productivity Growth in U.S. Agriculture: A Postwar Perspective". *American Journal of Agricultural Economics* 74.3, pp. 745–50.

Kogel, T. and A. Prskawetz (2001). "Agricultural Productivity Growth and Escape from the Malthusian Trap". *Journal of Economic Growth* 6.4, pp. 337–57.

Kongasmut, P., S. Rebelo, and D. Xie (2001). "Beyond Balanced Growth". *Review of Economic Studies* 68.4, pp. 869–882.

Koren, M. and S. Tenreyro (2007). "Volatility and Development". *The Quarterly Journal of Economics* 122.1, pp. 243–287.

Lagakos, D. (2016). "Explaining Cross-Country Productivity Differences in Retail Trade". *Journal of Political Economy* 124.2, pp. 579–620.

Lagakos, D. and M. Waugh (2013). "Selection, Agriculture, and Cross-Country Productivity Differences". *American Economic Review* 103.2, pp. 948–80.

Lewis, A. (1954). "Economic Development with Unlimited Supplies of Labour". *The Manchester School* 22.2, pp. 139–191.

Liu, E. (2019). "Industrial Policies in Production Networks". *The Quarterly Journal of Economics* 134.4, pp. 1883–1948.

Martin, W. and D. Mitra (2001). "Productivity Growth and Convergence in Agriculture versus Manufacturing". *Economic Development and Cultural Change* 49.2, pp. 403–22.

Matsuyama, K. (1992). "Agricultural Productivity, Comparative Advantage, and Economic Growth". *Journal of Economic Theory* 58.2, pp. 317–334.

Matsuyama, K. (2002). "The Rise of Mass Consumption Societies". *Journal of Political Economy* 110.5, pp. 1035–1070.

McMillan, M., D. Rodrik, and Í. Verduzco-Gallo (2014). "Globalization, Structural Change, and Productivity Growth, with an Update on Africa". *World Development* 63. Economic Transformation in Africa, pp. 11 –32.

Mellor, J. W. (1995). "Introduction". *Agriculture on the Road to Industrialization*. Ed. by J. W. Mellor. Baltimore: Johns Hopkins University Press.

Michaels, G., F. Rauch, and S. J. Redding (2012). "Urbanization and Structural Transformation". *The Quarterly Journal of Economics* 127.2, pp. 535–586.

Mundlak, Y. (2000). *Agriculture and Economic Growth: Theory and Measurement*. Cambridge, MA: Harvard University Press.

Ngai, R. L. and C. A. Pissarides (2007). "Structural Change in a Multisector Model of Growth". *American Economic Review* 97.1, pp. 429–443.

Ramankutty, N. et al. (2002). "The global distribution of cultivable lands: current patterns and sensitivity to possible climate change". *Global Ecology and Biogeography* 11.5, pp. 377–392.

Rao, P. D. S. (1993). *Intercountry comparisons of agricultural output and productivity*. Tech. rep. Rome: FAO Economic and Social Development Paper.

Restuccia, D. and R. Santaeulalia-Llopis (2015). *Land Misallocation and Productivity*. Working Papers tecipa-533. University of Toronto, Department of Economics.

Restuccia, D., D. Yang, and X. Zhu (2008). "Agriculture and Aggregate Productivity". *Journal of Monetary Economics* 55.2, pp. 234–250.

Rodrik, D. (2013). "Unconditional Convergence in Manufacturing". *Quarterly Journal of Economics* 128.1, pp. 165–204.

Rodrik, D. (2016). "Premature deindustrialization". *Journal of Economic Growth* 21.1, pp. 1–33.

Rodrik, D. and M. S. McMillan (2011). "Globalization, Structural Change and Productivity Growth". NBER Working Paper 17143.

Ruthenberg, H. (1976). *Farming Systems in the Tropics*. Oxford, UK: Clarendon Press.

Ruttan, V. W. (2002). "Productivity Growth in World Agriculture: Sources and Constraints". *Journal of Economic Perspectives* 16.4, pp. 161–184.

Sasso, S. and J. Ritzen (2016). *Sectoral Cognitive Skills, R&D, and Productivity: A Cross-Country Cross-Sector Analysis*. IZA Discussion Papers 10457. Institute for the Study of Labor (IZA).

Satchi, M. and J. Temple (2009). "Labor Markets and Productivity in Developing Countries". *Review of Economic Dynamics* 12.1, pp. 183–204.

Schultz, T. W. (1953). *The Economic Organization of Agriculture*. New York, NY: McGraw-Hill.

Sposi, M. J. (2015). *Evolving comparative advantage, sectoral linkages, and structural change*. Globalization and Monetary Policy Institute Working Paper 231. Federal Reserve Bank of Dallas.

Swiecki, T. (2017). "Determinants of Structural Change". *Review of Economic Dynamics* 24, pp. 95–131.

Temple, J. (2005). "Dual Economy Models: A Primer for Growth Economists". *The Manchester School* 73.4, pp. 435–478.

Temple, J. and L. Woessmann (2011). "Dualism and Cross-Country Growth Regressions". *Journal of Economic Growth* 3, pp. 187–228.

Timmer, M. P. and G. J. de Vries (2007). "A Cross-Country Database for Sectoral Employment and Productivity in Asia and Latin America, 1950-2005". GDCC Research Memorandum GD-98.

Timmer, M. P. and G. J. de Vries (2009). "Structural change and growth accelerations in Asia and Latin America: a new sectoral data set". *Cliometrica* 3.2, pp. 165–190.

Timmer, P. (2002). "Agriculture and economic development". *Handbook of Agricultural Economics*. Ed. by B. L. Gardner and G. C. Rausser. Vol. 2. 1. Elsevier. Chap. 29, pp. 1487–1546.

Tombe, T. (2015). "The Missing Food Problem: Trade, Agriculture, and International Productivity Differences". *American Economic Journal: Macroeconomics* 7.3, pp. 226–58.

Ungor, M. (2017). "Productivity Growth and Labor Reallocation: Latin America versus East Asia". *Review of Economic Dynamics* 24, pp. 25–42.

Uy, T., K.-M. Yi, and J. Zhang (2013). "Structural change in an open economy". *Journal of Monetary Economics* 60.6, pp. 667–682.

Vollrath, D. (2007). "Land Distribution and International Agricultural Productivity". *American Journal of Agricultural Economics* 89.1, pp. 202–216.

Vollrath, D. (2009). "How important are dual economy effects for aggregate productivity?" *Journal of Development Economics* 88.2, pp. 325–334.

Vollrath, D. (2009). "The dual economy in long-run development". *Journal of Economic Growth* 14.4, pp. 287–312.

Vollrath, D. (2012). "Land tenure, population, and long-run growth". *Journal of Population Economics* 25.3, pp. 833–852.

Vollrath, D. (2013). "Measuring Aggregate Agricultural Labor Effort in Dual Economies". *Eurasian Economic Review* 3.1, pp. 39–58.

Vollrath, D. (2014). "The Efficiency of Human Capital Allocations in Developing Countries". *Journal of Development Economics* 108, pp. 106–118.

Weil, D. N. and J. Wilde (2009). "How Relevant Is Malthus for Economic Development Today?" *American Economic Review Papers and Proceedings* 99.2, pp. 255–60.

Wiebe, K. et al. (2003). "Resource Quality and Agricultural Productivity: A Multi-Country Comparison". *Land Quality, Agricultural Productivity, and Food Security*. Ed. by K. Wiebe. Northhampton, MA: Edward Elgar Publishing.

Wilde, J. (2012). *How substitutable are fixed factors in production? evidence from pre-industrial England*. MPRA Paper 39278. University Library of Munich, Germany.

Young, A. (2013). "Inequality, the urban-rural gap and migration". *The Quarterly Journal of Economics* 128.4, pp. 1727–1785.

Young, A. (2014). "Structural Transformation, the Mismeasurement of Productivity Growth, and the Cost Disease of Services". *American Economic Review* 104.11, pp. 3635–67.

Markups, growth, market power

Adamopoulos, T. and D. Restuccia (2014). "The Size Distribution of Farms and International Productivity Differences". *American Economic Review* 104.6, pp. 1667–97.

Adamopoulos, T. et al. (2017). *Misallocation, Selection and Productivity: A Quantitative Analysis with Panel Data from China*. Working Papers tecipa-574. University of Toronto, Department of Economics.

Aghion, P. et al. (2019). *A Theory of Falling Growth and Rising Rents*. Working Paper 26448. National Bureau of Economic Research.

Akcigit, U. and S. T. Ates (2019). *Ten Facts on Declining Business Dynamism and Lessons from Endogenous Growth Theory*. NBER Working Papers 25755. National Bureau of Economic Research, Inc.

Akcigit, U. and S. T. Ates (2019). *What Happened to U.S. Business Dynamism?* NBER Working Papers 25756. National Bureau of Economic Research, Inc.

Alder, S. D. (2016). "In the Wrong Hands: Complementarities, Resource Allocation, and TFP". *American Economic Journal: Macroeconomics* 8.1, pp. 199–241.

Anderson, E., S. Rebelo, and A. Wong (2018). *Markups Across Space and Time*. Working Paper 24434. National Bureau of Economic Research.

Banerjee, A. V. and E. Duflo (2005). "Growth Theory through the Lens of Development Economics". *Handbook of Economic Growth*. Ed. by P. Aghion and S. Durlauf. Amsterdam: Elsevier, pp. 473–554.

Baqaee, D. and E. Farhi (2018). *The Microeconomic Foundations of Aggregate Production Functions*. Working Paper 25293. National Bureau of Economic Research.

Baqaee, D. and E. Farhi (2019). *A Short Note on Aggregating Productivity*. NBER Working Papers 25688. National Bureau of Economic Research, Inc.

Baqaee, D. R. and E. Farhi (2017). *Productivity and Misallocation in General Equilibrium.* Working Paper 24007. National Bureau of Economic Research.

Baqaee, D. R. and E. Farhi (2018). *Macroeconomics with Heterogeneous Agents and Input-Output Networks*. Working Paper 24684. National Bureau of Economic Research.

Barkai, S. (2017). "Declining labor and capital shares". Stigler Center for the Study of the Economy and the State.

Barrett, C. B., S. M. Sherlund, and A. A. Adesina (2008). "Shadow wages, allocative inefficiency, and labor supply in smallholder agriculture". *Agricultural Economics* 38.1, pp. 21–34.

Bartelsman, E., J. Haltiwanger, and S. Scarpetta (2013). "Cross-Country Differences in Productivity: The Role of Allocation and Selection". *American Economic Review* 103.1, pp. 305–34.

Basu, S. (2019). "Are Price-Cost Markups Rising in the United States? A Discussion of the Evidence". *Journal of Economic Perspectives* 33.3, pp. 3–22.

Basu, S. and J. Fernald (2002). "Aggregate Productivity and Aggregate Technology". *European Economic Review* 46, pp. 963–991.

Buera, F. J., J. P. Kaboski, and Y. Shin (2011). "Finance and Development: A Tale of Two Sectors". *American Economic Review* 101.5, pp. 1964–2002.

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