

LIAONING UNIVERSITY
Advanced Macroeconomics II
Spring 2024

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COURSE DESCRIPTION

This course covers 16 weeks from March 1 to June 14, and we meet every Friday 13:30-16:20 at 307 Boyuan Building (博远楼307). It is primarily devoted to contemporary issues in growth and development. It begins by reviewing the fundamentals, followed by several advanced topics in endogenous growth, labor market, income distribution, firm distribution/organization, misallocation, structural transformation, and Chinese economy. The main purpose of this course is to help you explore the frontier of growth and development to jump-start your potentially fruitful research in these areas.

TEXTS

There is no official textbook, the following books, however, may be useful on various occasions. Some of these texts are particularly useful methodologically:

[1] Acemoglu, D. (2009), *Introduction to Modern Economic Growth*, Princeton University Press.

[2] Azaridis, C. (1993), *Intertemporal Macroeconomics*, Blackwell publisher.

[3] Barro, R. and X. Sala-i-Martin (1995), *Economic Growth*, McGraw-Hill.

[4] Ljungqvist, L. and T. Sargent (2000), *Recursive Macroeconomic Theory*, MIT Press.

[5] Romer, D. (1996), *Advanced Macroeconomics*, McGraw-Hill.

[6] Stokey, N. and R. Lucas with E. Prescott (1989), *Recursive Methods in Economic Dynamics*, Harvard University Press.

GRADING

Grading: Grades will be based upon a midterm exam, a final exam and class participation. Your grade is the weighted average of the following: class participation (10%), midterm (30%), final exam (60%).

Problem sets: To help you prepare the class, we arrange four problem sets without being graded.

Exams: There are midterm and final exams (cumulative). Midterm exam covers first half materials and will be arranged on the 9th week. Final exam covers all materials that you study. Other details about exams are pending.

Missing an exam: If a student misses an exam, this student will receive a zero grade for the missed exam unless the absence of this student is justified by the school policies. There is no make-up for the exam. If a missing is justified, the weight of the others exam will be shifted. The make-up for the final exam will only be granted if a student provides proper documents. All excused absences require verifiable documents. Providing fake documents may result in disciplinary actions.

Regrade Policy: If a student feels that there are any errors in his or her exam grading, contact the instructor within a week after the grades are posted. Any regrade request after the one-week window will not be granted. If regrading is requested by a student, all the questions in the exam will be regraded.

TIMETABLE

Week	Date	Contents	HW
Week 1	3/1	Introduction/Review: Issues/Facts/Data/Math/Computation	
Week 2	3/8	Modern Growth Theory I: Endogenous Growth	
Week 3	3/15	Modern Growth Theory II: Idea/Knowledge Diffusion	
Week 4	3/22	Labor Market I: Talent Allocation	PS1
Week 5	3/29	Labor Market II: Skill Mismatch	
Week 6	4/5(4/7)	Income Distribution I: Theory	
Week 7	4/12	Income Distribution II: Empirics	
Week 8	4/19	Firm Distribution I: Trade	PS2
Week 9	4/26	Midterm Exam	
Week 10	5/3(5/11)	Firm Distribution II: Organization	
Week 11	5/10	Misallocation I: Measurement	
Week 12	5/17	Misallocation II: Linkage/Network	PS3
Week 13	5/24	Structural Transformation I: Economic Growth	
Week 14	5/31	Structural Transformation II: Agriculture/Service	
Week 15	6/7	Chinese Economy I: Growth Accounting/Labor Market	
Week 16	6/14	Chinese Economy II: Firm Distribution/Structural Transformation	PS4
Week 18	TBA	Final Exam	

READINGS

A. Modern Growth Theory

- [1] Lucas, R. E., Jr. (1988), "On the Mechanics of Economic Development," *Journal of Monetary Economics*, 22, 3-42.
- [2] Lucas, R. E., Jr. (1993), "Making a Miracle," *Econometrica*, 61, 251-272.
- [3] Barro, R. J. (1990). Government spending in a simple model of endogenous growth. *Journal of Political Economy*, 98(5, Part 2), S103-S125.
- [4] Romer, P. (1990), "Endogenous Technological Change," *Journal of Political Economy*, 98, 71-102.
- [5] Aghion, P., & Howitt, P. (1992). A Model of Growth Through Creative Destruction. *Econometrica*: 323-351.
- [6] Akcigit, U. (2017). Economic growth: The past, the present, and the future. *Journal of Political Economy*, 125(6), 1736-1747.
- [7] Akcigit, U., & Nicholas, T. (2019). History, Microdata, and Endogenous Growth. *Annual Review of Economics*, 11, 615-633.
- [8] Akcigit, U., Hanley, D., & Serrano-Velarde, N. (2021). Back to basics: Basic research spillovers, innovation policy, and growth. *The Review of Economic Studies*, 88(1), 1-43.

- [9] Hopenhayn, H., & Squintani, F. (2021). On the Direction of Innovation. *Journal of Political Economy*, 129(7), 1991-2022.
- [10] Akcigit, U., Grigsby, J., Nicholas, T., & Stantcheva, S. (2022). Taxation and innovation in the twentieth century. *The Quarterly Journal of Economics*, 137(1), 329-385.
- [11] Akcigit, U., Hanley, D., & Stantcheva, S. (2022). Optimal taxation and R&D policies. *Econometrica*, 90(2), 645-684.
- [12] Schankerman, M., & Schuett, F. (2022). Patent screening, innovation, and welfare. *The Review of Economic Studies*, 89(4), 2101-2148.
- [13] CAI, J., & LI, N. (2019). Growth Through Inter-sectoral Knowledge Linkages. *Review of Economic Studies*, 86, 1827-1866.
- [14] Buera, F. J., & Oberfield, E. (2020). The global diffusion of ideas. *Econometrica*, 88(1), 83-114.
- [15] Jarosch, G., Oberfield, E., & Rossi-Hansberg, E. (2021). Learning from coworkers. *Econometrica*, 89(2), 647-676.
- [16] Fernald, John G., and Charles I. Jones. (2014). The Future of US Economic Growth. *American Economic Review*, 104 (5): 44-49.
- [17] Liu, E., Mian, A., & Sufi, A. (2022). Low interest rates, market power, and productivity growth. *Econometrica*, 90(1), 193-221.
- [18] Jones, Charles I. (2022). The End of Economic Growth? Unintended Consequences of a Declining Population. *American Economic Review*, 112 (11): 3489-3527.

B. Labor Market

- [1] Federico Rossi. (2022). The relative efficiency of skilled labor across countries: Measurement and interpretation. *American Economic Review*, 112(1):235–66.
- [2] Dinerstein, Michael, Rigissa Megalokonomou, and Constantine Yannelis. (2022). Human Capital Depreciation and Returns to Experience. *American Economic Review*, 112 (11): 3725-62.
- [3] Nicola Bianchi, Giulia Bovini, Jin Li, Matteo Paradisi, Michael Powell. (2022). Career Spillovers in Internal Labour Markets. *The Review of Economic Studies*.
- [4] Lucas, R. (2004), “Life Earnings and Rural-Urban Migration,” *Journal of Political Economy*, 112, S29-59.
- [5] Charles I. Jones (2016), “Life and Growth,” *Journal of Political Economy*, 124, 539–578.
- [6] Hsieh, C. T., Hurst, E., Jones, C. I., & Klenow, P. J. (2019). The allocation of talent and us economic growth. *Econometrica*, 87(5), 1439-1474.
- [7] Jovanovic, B. (2014). Misallocation and Growth. *American Economic Review*, 104(4), 1149-71.
- [8] Davis, D. R., & Dingel, J. I. (2019). A spatial knowledge economy. *American Economic Review*, 109(1), 153-70.
- [9] Şahin, A., Song, J., Topa, G., & Violante, G. L. (2014). Mismatch Unemployment. *American Economic Review*, 104(11), 3529-64.
- [10] Baley, Isaac & Figueiredo, Ana & Ulbricht, Robert. (2022). Mismatch Cycles. *Journal of Political Economy*.
- [11] Deming, D. J. (2017). The growing importance of social skills in the labor market. *The Quarterly Journal of Economics*, 132(4), 1593-1640.
- [12] Guvenen, F., Kuruscu, B., Tanaka, S., & Wiczer, D. (2020). Multidimensional skill mismatch. *American Economic Journal: Macroeconomics*, 12(1), 210-44.

- [13] Lise, J., & Postel-Vinay, F. (2020). Multidimensional skills, sorting, and human capital accumulation. *American Economic Review*, 110(8), 2328-76.
- [14] Acemoglu, D., & Autor, D. (2011). Skills, tasks and technologies: Implications for employment and earnings. In *Handbook of Labor Economics* (Vol. 4, pp. 1043-1171).
- [15] Autor, David & Dorn, D. (2013). The growth of low-skill service jobs and the polarization of the US labor market. *American Economic Review*, 103(5), 1553-97.
- [16] Goos, M., Manning, A., & Salomons, A. (2014). Explaining job polarization: Routine-biased technological change and offshoring. *American Economic Review*, 104(8), 2509-26.
- [17] Sang Yoon (Tim) Lee & Yongseok Shin, 2018. "Horizontal and Vertical Polarization: Task-Specific Technological Change in a Multi-Sector Economy," *NBER Working Paper*
- [18] Daron Acemoglu & Jonas Loebbing. (2022). Automation and Polarization (No. 30528). NBER Working Paper.
- [19] Acemoglu, D., & Restrepo, P. (2022). Demographics and automation. *The Review of Economic Studies*, 89(1), 1-44.

C. Income Distribution

- [1] Piketty, T., & Saez, E. (2003). Income inequality in the United States, 1913–1998. *The Quarterly Journal of Economics*, 118(1), 1-41.
- [2] Glomm, G. and B. Rivikumar (1992), “Public vs. Private Investment in Human Capital Endogenous Growth and Income Inequality,” *Journal of Political Economy*, 100, 813-834.
- [3] Aghion, P. (2002), “Schumpeterian Growth Theory and the Dynamics of Income Inequality,” *Econometrica*, 70, 855-882.
- [4] Grossman, G. M., & Helpman, E. (2018). Growth, trade, and inequality. *Econometrica*, 86(1), 37-83.
- [5] Violante, G. (2002), “Technological Acceleration, Skill Transferability and the Rise in Residual Inequality,” *The Quarterly Journal of Economics*, 117, 297-338.
- [6] Jovanovic, B. (2009), “The Technology Cycle and Inequality,” *The Review of Economic Studies*, 76, 707-729.
- [7] Kambourov, G. and I. Manovskii (2009), “Occupational Mobility and Wage Inequality,” *The Review of Economic Studies*, 76, 731-759.
- [8] Acemoglu, D. and Restrepo, P. (2022). Tasks, Automation, and the Rise in U.S. Wage Inequality. *Econometrica*, 90: 1973-2016.
- [9] Loebbing, J. (2022). An elementary theory of directed technical change and wage inequality. *The Review of Economic Studies*, 89(1), 411-451.
- [10] Zhifeng Cai and Jonathan Heathcote. College tuition and income inequality. *American Economic Review*, 112(1):81–121, January 2022.
- [11] Adermon, A., Lindahl, M., & Palme, M. (2021). Dynastic human capital, inequality, and intergenerational mobility. *American Economic Review*, 111(5), 1523-48.
- [12] Jones, C. I., & Kim, J. (2018). A Schumpeterian model of top income inequality. *Journal of Political Economy*, 126(5), 1785-1826.
- [13] Aghion, P., Akcigit, U., Bergeaud, A., Blundell, R., & Hémous, D. (2018). Innovation and top income inequality. *The Review of Economic Studies*, 86(1), 1-45.
- [14] Acemoglu, D., & Dell, M. (2010). Productivity differences between and within countries. *American Economic Journal: Macroeconomics*, 2(1), 169-88.

- [15] Burstein, A., Morales, E., & Vogel, J. (2019). Changes in between-group inequality: computers, occupations, and international trade. *American Economic Journal: Macroeconomics*, 11(2), 348-400.
- [16] Song, J., Price, D. J., Guvenen, F., Bloom, N., & Von Wachter, T. (2019). Firming up inequality. *The Quarterly Journal of Economics*, 134(1), 1-50.
- [17] Piketty, T., & Zucman, G. (2014). Capital is back: Wealth-income ratios in rich countries 1700–2010. *The Quarterly Journal of Economics*, 129(3), 1255-1310.
- [18] De Nardi, M. (2015), “Quantitative Models of Wealth Inequality: A Survey,” NBER working paper.
- [19] Moll, B., Rachel, L. and Restrepo, P. (2022), Uneven Growth: Automation's Impact on Income and Wealth Inequality. *Econometrica*, 90: 2645-2683.

D. Firm Distribution/Organization

- [1] Hopenhayn, H. A. (1992). Entry, exit, and firm dynamics in long run equilibrium. *Econometrica*: 1127-1150.
- [2] Melitz, M. J. (2003), “The Impact of Trade on Intra-Industry Reallocations and Aggregate Industry Productivity,” *Econometrica*, 71, 1695-1725.
- [3] Garicano, Luis. (2000). “Hierarchies and the Organization of Knowledge in Production.” *Journal of Political Economy* 108(5):874-904.
- [4] Garicano, L. and Rossi-Hansberg E. (2006). “Organization and inequality in a knowledge economy.” *The Quarterly Journal of Economics* 121(4):1383–1435.
- [5] Caliendo, L. and Rossi-Hansberg E. (2012). “The impact of trade on organization and productivity.” *The Quarterly Journal of Economics* 127(3):1393–1467.
- [6] Caicedo, S., Lucas Jr, R and Rossi-Hansberg E. (2019). “Learning, career paths, and the distribution of wages.” *American Economic Journal: Macroeconomics* 11(1):49–88.
- [7] Grobovšek, J. (2020). Managerial delegation, law enforcement, and aggregate productivity. *The Review of Economic Studies*, 87(5), 2256-2289.
- [8] Akcigit, U., Alp, H., & Peters, M. (2021). Lack of selection and limits to delegation: firm dynamics in developing countries. *American Economic Review*, 111(1), 231-75.
- [9] Battiston, D., Blanes i Vidal, J., & Kirchmaier, T. (2021). Face-to-face communication in organizations. *The Review of Economic Studies*, 88(2), 574-609.
- [10] Gumpert, A., Steimer, H., & Antoni, M. (2022). Firm Organization with Multiple Establishments. *The Quarterly Journal of Economics*, 137(2), 1091-1138.
- [11] Achyuta Adhvaryu, Anant Nyshadham, Jorge Tamayo. (2022) Managerial Quality and Productivity Dynamics. *The Review of Economic Studies*.

E. Misallocation

- [1] Restuccia, D. and R. Rogerson (2008), Policy Distortions and Aggregate Productivity with Heterogeneous Establishments," *Review of Economic Dynamics* 11(4), 707-720.
- [2] Hsieh, C. T. and P. Klenow (2009), “Misallocation and Manufacturing Productivity in China and India,” *The Quarterly Journal of Economics*, 124, (4), 1403-1448
- [3] Oberfield, E. (2013). Productivity and misallocation during a crisis: Evidence from the Chilean crisis of 1982. *Review of Economic Dynamics*, 16(1), 100-119.
- [4] Buera, F., J. Kaboski and Y. Shin (2011), “Finance and Development: A Tale of Two Sectors,” *American Economic Review*, 101(5), 1964-2002.

- [5] Midrigan, V., & Xu, D. Y. (2014). Finance and misallocation: Evidence from plant-level data. *American Economic Review*, 104(2), 422-58.
- [6] Gopinath, G., Kalemli-Özcan, Ş., Karabarbounis, L., & Villegas-Sanchez, C. (2017). Capital allocation and productivity in South Europe. *The Quarterly Journal of Economics*, 132(4), 1915-1967.
- [7] Jones, C. I. (2011). Intermediate goods and weak links in the theory of economic development. *American Economic Journal: Macroeconomics*, 3(2), 1-28.
- [8] Liu, E. (2019). Industrial policies in production networks. *The Quarterly Journal of Economics*, 134(4), 1883-1948.
- [9] Bigio, S., & La’o, J. (2020). Distortions in production networks. *The Quarterly Journal of Economics*, 135(4), 2187-2253.
- [10] Baqaee, D. R., & Farhi, E. (2020). Productivity and misallocation in general equilibrium. *The Quarterly Journal of Economics*, 135(1), 105-163.
- [11] Peters, M. (2020). Heterogeneous markups, growth, and endogenous misallocation. *Econometrica*, 88(5), 2037-2073.
- [12] Boehm, J., & Oberfield, E. (2020). Misallocation in the Market for Inputs: Enforcement and the Organization of Production. *The Quarterly Journal of Economics*, 135(4), 2007-2058.
- [13] Lorenzo Caliendo, Fernando Parro, Luca David Opromolla, and Alessandro Sforza. (2021). Goods and factor market integration: A quantitative assessment of the EU enlargement. *Journal of Political Economy*, 129(12):3491–3545.
- [14] Bai, Yan, Keyu Jin and Dan Lvy. (2023). Misallocation under Trade Liberalization, *American Economic Review*, accepted.

F. Structural Transformation

- [1] Kongsamut, P., Rebelo, S., Xie, D. (2001), “Beyond balanced growth,” *The Review of Economic Studies*, 68, 869–882.
- [2] NGAI, L. RACHEL and CHRISTOPHER A. PISSARIDES (2007), “Structural Change in a Multisector Model of Growth”, *American Economic Review*, 97(1), 429-443.
- [3] Boppart, T. (2014). Structural change and the Kaldor facts in a growth model with relative price effects and non-Gorman preferences. *Econometrica*, 82(6), 2167-2196.
- [4] Comin, D., Lashkari, D., & Mestieri, M. (2021). Structural change with long-run income and price effects. *Econometrica*, 89(1), 311-374.
- [5] Manuel García-Santana, Josep Pijoan-Mas, and Lucciano Villacorta (2021). Investment demand and structural change. *Econometrica*, 89(6):2751–2785.
- [6] Herrendorf, B., Rogerson, R., & Valentinyi, A. (2021). Structural Change in Investment and Consumption—A Unified Analysis. *The Review of Economic Studies*, 88(3), 1311-1346.
- [7] Buera, F. J., Kaboski, J. P., Rogerson, R., & Vizcaino, J. I. (2022). Skill-biased structural change. *The Review of Economic Studies*, 89(2), 592-625.
- [8] Fajgelbaum, P., & Redding, S. J. (2022). Trade, Structural Transformation, and Development: Evidence from Argentina 1869–1914. *Journal of Political Economy*, 130(5), 1249-1318.
- [9] Restuccia, D., Yang, D. T., & Zhu, X. (2008). Agriculture and aggregate productivity: A quantitative cross-country analysis. *Journal of Monetary Economics*, 55(2), 234-250.
- [10] Gollin, D., Lagakos, D., & Waugh, M. E. (2013). The agricultural productivity gap. *The Quarterly Journal of Economics*, 129(2), 939-993.
- [11] Lagakos, D., & Waugh, M. E. (2013). Selection, agriculture, and cross-country productivity differences. *American Economic Review*, 103(2), 948-80.

- [12] Adamopoulos, T., & Restuccia, D. (2014). The size distribution of farms and international productivity differences. *American Economic Review*, 104(6), 1667-97
- [13] Chen, C. (2017). Untitled land, occupational choice, and agricultural productivity. *American Economic Journal: Macroeconomics*, 9(4), 91-121.
- [14] Adamopoulos, T., & Restuccia, D. (2022). Geography and agricultural productivity: Cross-country evidence from micro plot-level data. *The Review of Economic Studies*, 89(4), 1629-1653.
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- [16] Buera, F. J. and J. P. Kaboski (2012), “The Rise of the Service Economy,” *American Economic Review*, 102, 2540-2569.
- [17] Duernecker, G., Herrendorf, B., & Valentinyi, A. (2017). Structural change within the service sector and the future of Baumol's disease.
- [18] Hsieh, C. T., & Rossi-Hansberg, E. (2019). The industrial revolution in services (No. w25968). *NBER working paper*.
- [19] Fan, T., Peters, M., & Zilibotti, F. (2023). Growing Like India—the Unequal Effects of Service-Led Growth. *Econometrica*, 91(4), 1457-1494.

G. Chinese Economy

- [1] Brandt, L., and Zhu, X. (2010). Accounting for China's growth. *Working paper*.
- [2] Zhu, X. (2012). Understanding China's growth: Past, present, and future. *Journal of Economic Perspectives*, 26(4), 103-24.
- [3] Zilibotti, F. (2017). Growing and slowing down like China. *Journal of the European Economic Association*, 15(5), 943-988.
- [4] Choukhmane, T., Coeurdacier, N., & Jin, K. (2017). The one-child policy and household savings. *Working paper*.
- [5] Fang, H., & Qiu, X. (2023). “Golden Ages”: A Tale of Two Labor Markets in China and the United States. *JPE Macro*.
- [6] Tombe, T., and Zhu, X. (2019). Trade, migration, and productivity: A quantitative analysis of China. *American Economic Review*, 109(5), 1843-72.
- [7] Piketty, T., Yang, L., & Zucman, G. (2019). Capital Accumulation, Private Property, and Rising Inequality in China, 1978–2015. *American Economic Review*, 109(7), 2469-96.
- [8] Song, Z., Storesletten, K., & Zilibotti, F. (2011). Growing like China. *American Economic Review*, 101(1), 196-233.
- [9] Brandt, L., Kambourov, G., & Storesletten, K. (2020). Barriers to Entry and Regional Economic Growth in China, *working paper (No. tecipa-652)*.
- [10] Brandt, L., Dai, R., Kambourov, G., Storesletten, K., Zhang, X. (2021). Serial Entrepreneurship in China. Mimeo.
- [11] Bai, C., Hsieh, C.T., Song, Z., Wang, X. (2019). Conglomerate Formation in China. Mimeo.
- [12] Adamopoulos, T., Brandt, L., Leight, J., & Restuccia, D. (2022). Misallocation, selection, and productivity: A quantitative analysis with panel data from China. *Econometrica*, 90(3), 1261-1282.
- [13] Fang, L., & Herrendorf, B. (2021). High-skilled services and development in China. *Journal of Development Economics*, 151, 102671.
- [14] Chen, X., Pei, G., Song, Z. M., & Zilibotti, F. (2022). Tertiarization Like China (No. w30272). National Bureau of Economic Research.

- [15] Xiong, W. (2018). The Mandarin Model of Growth (No. w25296). *NBER working paper*.
- [16] Markus K Brunnermeier, Michael Sockin, Wei Xiong,(2021). China's Model of Managing the Financial System. *The Review of Economic Studies*.

NOTE

I reserve the right to change this syllabus as time and circumstances dictate. Necessary changes will be announced in class and a copy of the revised syllabus will be posted on Blackboard.

Updated on February 25, 2024