# SHANGHAI UNIVERSITY OF FINANCE AND ECONOMICS Advanced Macroeconomics II Fall 2019

Instructor: Rongsheng Tang TA: Xiaoming Gong

E-mail: tang.rongsheng@sufe.edu.cn
Office: School of Economics 323
Office Hours: Mondays 16:10-17:10

E-mail: gong.xm@icloud.com
Office: School of Economics 104
Office Hours: Tuesdays 13:00-14:00

## **COURSE DESCRIPTION:**

This course is the second of a two-module course in advanced macroeconomics, covering 16 weeks from September 9 to December 23, and we meet every Monday 13:20-16:10. This module is primarily devoted to contemporary issues in growth and development. This course begins by reviewing the fundamentals, followed by several advanced topics in endogenous growth, human capital, labor market and income distribution, firm distribution, misallocation, industrial 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.

# **GRADING:**

You should finish a working paper by the end of semester. To help you achieve this goal, several short presentations on the progress of your work are arranged. Each of presentations may take 30 mins. The scores are as follows: (i) Presentation 1: present pre-proposal (10%), (ii) Presentation 2: present a proposal (20%), (iii) Presentation 3: present preliminary results (30%), (iv) Presentation 4: present the final results (30%), (v) final draft of working paper (10%). In addition, you can earn up to 5 bonus points (5%) for attendance. No reschedule of the presentation or deferral of presentation will be given except medical or family emergency.

## **ATTENDANCE**

Each time you will receive N attendance credit if you were present in class, N=5/M where M is the number of attendance credit events offered. Signing on behalf of a friend (who is absent) is equivalent to academic dishonesty and will be reported to the University authorities, if discovered. If you are absent from class but have an entry on the sign-up sheet you will be held liable for academic dishonesty.

#### **TEXTS:**

There is no official textbook, the following books, however, may be useful at various occasions (no more than one or two chapters per book though). Some of these texts are particularly useful methodologically:

- Infinite-horizon continuous-time optimization: AH, BF, BS, GH
- Infinite-horizon discrete-time optimization: BF, SL

- Overlapping generations framework: AZ, GR
- Computational dynamic models: LS
- (AC) Daron Acemoglu, Introduction to Modern Economic Growth, Princeton University Press.
- (AH) Aghion, P. and P. Howitt (1998), Endogenous Growth Theory, MIT Press.
- (AZ) Azaridis, C. (1993), Intertemporal Macroeconomics, Blackwell publisher.
- (BF) Blanchard, O. and S. Fischer (1990), Lectures in Macroeconomics, MIT Press.
- (BS) Barro, R. and X. Sala-i-Martin (1995), Economic Growth, McGraw-Hill.
- (DR) Romer, D. (1996), Advanced Macroeconomics, McGraw-Hill.
- (DZ) Drazen, A. (2000), Political Economy in Macroeconomics, Princeton University Press.
- (GR) Galor, O. (2007), Discrete Dynamical System, Springer.
- (GH) Grossman, G. and E. Helpman (1991), *Innovation and Growth in Global Economy*, MIT Press.
- (LS) Ljungqvist, L. and T. Sargent (2000), Recursive Macroeconomic Theory, MIT Press.
- (SL) Stokey, N. and R. Lucas with E. Prescott (1989), Recursive Methods in Economic Dynamics, Harvard University Press.

## **TIMETABLE:**

Major Issues in Growth and Development
Exploring the World of Growth and Development
Micro/Macro data in Macroeconomics
Foundations of Dynamic Macroeconomic Analysis
Computation in Macroeconomics
Endogenous Growth Theory
Technology Advancement
Presentation 1: Pre-proposal
Human Capital
Labor Market
Presentation 2: Proposal
Income Distribution I
Income Distribution II
Firm Distribution
Misallocation
<b>Presentation 3: Semi-final presentation</b>
Industrial Transformation I
Industrial Transformation II
Chinese Economy I
Chinese Economy II
<b>Presentation 4: Final presentation</b>
Hand-in working paper

#### READINGS

## A. Endogenous Growth

Lucas, R. E., Jr. (1988), "On the Mechanics of Economic Development," JME, 22, 3-42.

Jones, L. and R. Manuelli (1990), "A Convex Model of Equilibrium Growth: Theory and Policy Implications," JPE, 98, 1008-1038.

Lucas, R. E., Jr. (1993), "Making a Miracle," Econometrica, 61, 251-272.

Barro, R. J. and X. Sala-i-Martin (1992), "Public Finance in Models of Endogenous Growth," RES, 59, 645-661.

Barro, R. J. (1990). Government spending in a simple model of endogenous growth. *Journal of Political Economy*, 98(5, Part 2), S103-S125.

Xiong, W. (2018). The Mandarin Model of Growth (No. w25296). NBER working paper

Akcigit, U. (2017). Economic growth: The past, the present, and the future. *Journal of Political Economy*, 125(6), 1736-1747.

# **B.** Technology Advancement

Romer, P. (1990), "Endogenous Technological Change," JPE, 98, 71-102.

Aghion, P., & Howitt, P. (1992). A Model of Growth Through Creative Destruction. Econometrica: 323-351.

Garcia-Macia, D., Hsieh, C. T., & Klenow, P. J. (2019). How Destructive is Innovation? Forthcoming in Econometrica.

# C. Human Capital

Tamura, Robert (2001), "Teachers, growth, and convergence," JPE, 109, 1021-1059. 369-393.

Grossman, G. (2004), "The Distribution of Talent and the Pattern and Consequences of International Trade," JPE, 209-239.

Grossman, G. M., Helpman, E., Oberfield, E., & Sampson, T. (2017). Balanced growth despite Uzawa. *American Economic Review*, 107(4), 1293-1312.

Acemoglu, D. and S. Johnson (2007), "Disease and Development: The Effect of Life Expectancy on Economic Growth," JPE, 115, 925-985.

Lucas, R. (2004), "Life Earnings and Rural-Urban Migration," JPE, 112, S29-59.

Charles I. Jones (2016), "Life and Growth," JPE, 124, 539–578.

Hsieh, C. T., Hurst, E., Jones, C. I., & Klenow, P. J. (2019). The Allocation of Talent and US Economic Growth. Forthcoming in Econometrica.

# D. Labor Market

Lucas, R. (2004), "Life Earnings and Rural-Urban Migration," JPE, 112, S29-59.

Charles I. Jones (2016), "Life and Growth," JPE, 124, 539–578.

Hsieh, C. T., Hurst, E., Jones, C. I., & Klenow, P. J. (2019). The Allocation of Talent and US Economic Growth. Forthcoming in Econometrica.

Jovanovic, B. (2009), "The Technology Cycle and Inequality," RES, 76, 707-729.

Jovanovic, B. (2014). Misallocation and growth. American Economic Review, 104(4), 1149-71.

Şahin, A., Song, J., Topa, G., & Violante, G. L. (2014). Mismatch unemployment. *American Economic Review*, 104(11), 3529-64.

Acemoglu, D., & Autor, D. (2011). Skills, tasks and technologies: Implications for employment and earnings. In *Handbook of Labor Economics* (Vol. 4, pp. 1043-1171).

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.

Lee, S. Y., & Shin, Y. (2017). *Horizontal and vertical polarization: Task-specific technological change in a multi-sector economy* (No. w23283). NBER working paper.

## **E.** Income Distribution

Glomm, G. and B. Rivikumar (1992), "Public vs. Private Investment in Human Capital Endogenous Growth and Income Inequality," JPE, 100, 813-834.

Aghion, P. (2002), "Schumpeterian Growth Theory and the Dynamics of Income Inequality," Econometrica, 70, 855-882.

Violante, G. (2002), "Technological Acceleration, Skill Transferability and the Rise in Residual Inequality," QJE, 117, 297-338.

Kambourov, G. and I. Manovskii (2009), "Occupational Mobility and Wage Inequality," RES, 76, 731-759.

Piketty, T., & Saez, E. (2003). Income inequality in the United States, 1913–1998. *The Quarterly Journal of Economics*, 118(1), 1-41.

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.

Jones, C. I., & Kim, J. (2018). A Schumpeterian model of top income inequality. *Journal of Political Economy*, 126(5), 1785-1826.

Acemoglu, D., & Dell, M. (2010). Productivity differences between and within countries. *American Economic Journal: Macroeconomics*, 2(1), 169-88.

Burstein, A., E. Morales, and J. Vogel (2015), "Accounting for Changes in Between-Group Inequality," NBER #20855.

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.

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.

De Nardi, M. (2015), "Quantitative Models of Wealth Inequality: A Survey," NBER #21106.

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.

#### F. Firm Distribution

Hopenhayn, H. A. (1992). Entry, exit, and firm dynamics in long run equilibrium. *Econometrica*: 1127-1150.

Eaton, J., & Kortum, S. (2002). Technology, geography, and trade. *Econometrica*, 70(5), 1741-1779.

Bernard, A. B., Eaton, J., Jensen, J. B., & Kortum, S. (2003). Plants and productivity in international trade. *American Economic Review*, *93*(4), 1268-1290.

Melitz, M. J. (2003), "The Impact of Trade on Intra-Industry Reallocations and Aggregate Industry Productivity," Econometrica, 71, 1695-1725.

Brandt, L., Kambourov, G., & Storesletten, K. (2018). *Barriers to Entry and Regional Economic Growth in China*, working paper (No. tecipa-622).

Restuccia, D. and R. Rogerson (2008), Policy Distortions and Aggregate Productivity with Heterogeneous Establishments," Review of Economic Dynamics 11(4), 707-720.

Hsieh, C. T. and P. Klenow (2009), "Misallocation and Manufacturing Productivity in China and India," QJE

## G. Misallocation

Restuccia, D. and R. Rogerson (2008), Policy Distortions and Aggregate Productivity with Heterogeneous Establishments," Review of Economic Dynamics 11(4), 707-720.

Hsieh, C. T. and P. Klenow (2009), "Misallocation and Manufacturing Productivity in China and India," QJE

Oberfield, E. (2013). Productivity and misallocation during a crisis: Evidence from the Chilean crisis of 1982. *Review of Economic Dynamics*, 16(1), 100-119.

Buera, F., J. Kaboski and Y. Shin (2011), "Finance and Development: A Tale of Two Sectors," AER.

Midrigan, V., & Xu, D. Y. (2014). Finance and misallocation: Evidence from plant-level data. *American Economic Review*, 104(2), 422-58.

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.

Jones, C. I. (2011). Intermediate goods and weak links in the theory of economic development. *American Economic Journal: Macroeconomics*, 3(2), 1-28.

Osotimehin, S., & Popov, L. (2018). Misallocation and intersectoral linkages. Mimeo.

Liu, E. (2018). Industrial policies in production networks. Forthcoming in QJE.

#### H. Industrial Transformation

Kongsamut, P., Rebelo, S., Xie, D. (2001), "Beyond balanced growth," RES, 68, 869–882.

Matsuyama, K. (2002), "The Rise of Mass Consumption Societies," JPE, 110, 1035-1070.

Herrendorf, B., R. Rogerson, and A. Valentinyi (2013), "Growth and Structural Transformation," NBER Working Paper.

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.

Gollin, D., Lagakos, D., & Waugh, M. E. (2013). The agricultural productivity gap. *The Quarterly Journal of Economics*, 129(2), 939-993.

Lagakos, D., & Waugh, M. E. (2013). Selection, agriculture, and cross-country productivity differences. *American Economic Review*, 103(2), 948-80.

Adamopoulos, T., & Restuccia, D. (2014). The size distribution of farms and international productivity differences. *American Economic Review*, 104(6), 1667-97

Chen, C. (2017). Untitled land, occupational choice, and agricultural productivity. *American Economic Journal: Macroeconomics*, 9(4), 91-121.

Adamopoulos, T., Brandt, L., Leight, J., & Restuccia, D. (2017). *Misallocation, selection and productivity: A quantitative analysis with panel data from China* (No. w23039). NBER

Buera, F. J. and J. P. Kaboski (2012), "The Rise of the Service Economy," AER, 102, 2540-2569. Fang, L and B. Herrendorf (2019), "High-Skilled Services and Development in China," Working Paper.

Duernecker, G., & Herrendorf, B. (2016). *Structural transformation of occupation employment*. Working paper, February.

Duernecker, G., Herrendorf, B., & Valentinyi, A. (2017). Structural Change within the Service Sector and the Future of Baumol's Disease.

Herrendorf, B., Rogerson, R., & Valentinyi, A. (2019). Structural Change in Investment and Consumption—A Unified Analysis.

# I. Chinese Economy

Chow, Gregory C. (1993), "Capital Formation and Economic Growth in China," QJE, 108, 809-842.

Brandt, L., & Zhu, X. (2010). Accounting for China's growth. Working paper.

Zhu, X. (2012). Understanding China's growth: Past, present, and future. *Journal of Economic Perspectives*, 26(4), 103-24.

Tombe, T., & Zhu, X. (2019). Trade, migration, and productivity: A quantitative analysis of China. *American Economic Review*, 109(5), 1843-72.

Choukhmane, T., Coeurdacier, N., & Jin, K. (2017). The one-child policy and household savings. Working paper.

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.

Song, Z., Storesletten, K., & Zilibotti, F. (2011). Growing like China. *American Economic Review*, 101(1), 196-233.

Brandt, L., Kambourov, G., & Storesletten, K. (2018). *Barriers to Entry and Regional Economic Growth in China*, working paper (No. tecipa-622).

Adamopoulos, T., Brandt, L., Leight, J., & Restuccia, D. (2017). *Misallocation, selection and productivity: A quantitative analysis with panel data from China* (No. w23039). NBER working paper

Fang, L and B. Herrendorf (2019), "High-Skilled Services and Development in China", Working paper

Xiong, W. (2018). The Mandarin Model of Growth (No. w25296). NBER

# 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.