

Topics in Development Economics

Ping Wang

Washington University in St. Louis/TSE (pingwang@wustl.edu)

Spring 2022: F 9:00-11:00 AM (2/18-6/17; online)

Local Instructor: Wen-Chieh Lee

(jffl1803@nccu.edu.tw; office hour: F 11-11:30 AM)

COURSE DESCRIPTION:

This course is devoted to selected topics development economics from dynamic and global perspectives. It begins by highlighting important empirical facts concerning growth and development in various countries at different development stages. Fundamental growth and development theory are then delivered, to provide a framework to explain empirical facts and to evaluate the consequences of commonly adopted development policies systematically. Topics include (i) technological changes and industrial transformation, (ii) skills, health and labor market development, (iii) demographic transition, (iv) inequality, (v) institutions and poverty problems, and (vi) political economy and global development. Cross-country empirical evidence and country case studies will be provided throughout the lectures. The main purpose of this course is to help you strengthen the fundamentals toward conducting research in these areas.

While I have a reading list below for your study (with some papers required and some highly recommended), I will have my own lecture notes provided as supplements. It is important to bring these supplements to class as it will minimize your notes-taking effort and maximize your quality-learning of my lectures. While mathematical tools may help you strengthen your ability to conduct economic analysis for your post-bachelor studies and future career, they will be heavily discounted in the evaluation of your course performance (as indicated below). That is, there is no need to be concerned with technicalities, but simply feel relaxed to enjoy a true learning experience.

I encourage active participation throughout my lectures and welcome questions at any moment. I will also save sufficient time for general discussions toward the end each class.

GRADING:

Your course performance will be evaluated based on:

1. two take-home projects connecting theory to practice (20% each),
2. case study with critical presentation of one of the 9 chapters from Banerjee and Duflo (2011) or one of the 15 chapters from Acemoglu and Robinson (2012), see highly recommended books listed below (15%),
3. a term paper (35%) and presentation of preliminary term paper (10%).

Learning is far more important than testing. Thus, there will be no formal exams. The take-home projects are to help you understand the methodologies learned and apply them to real world cases. The term paper asks you to delineate economic issues underlying a particular topic of your choice as long as it is related to the broad area of development economics (preferably about 20 pages double-space in 12pt font with one-inch margins, to be submitted electronically as well). The presentation will be about 15-20 minutes each: case study presentation will be held on 5/6 whereas preliminary term paper presentation will be on 5/27, with the number of sessions depending on the enrollment size. Both take-home projects and the term paper are to be submitted electronically by the respective due dates (be sure your e-file is legible). Honor code should be observed. No deferral of take-home projects or term paper is granted except medical or family emergency.

TIMETABLE:

2/18	Lecture I
2/25	Lecture II-1
3/4	Lecture II-1, II-2
3/11	Lecture II-2
3/18	Lecture III, first take-home project distributed
3/25	Lecture III, e-copy of your project submitted to me by 9 AM (copying local instructor)
4/1	Lecture IV
4/8	Lecture IV
4/15	Lecture V, second take-home project distributed
4/22	Lecture VI, e-copy of your project submitted to me by 9 AM (copying local instructor)
4/29	Lecture VI
5/6	Case study
5/13	Lecture VII
5/20	Lecture VIII
5/27	Preliminary Term Paper Presentation
6/3	Happy Dragon Boat Festival
6/10	Term Paper Preparation (assisted by local instructor)
6/17	Term Paper Preparation (assisted by local instructor), e-copy submitted to me by 5 PM

READINGS: (* Required; + Highly Recommended)

There will be no required text, but limited materials from the following books will be used.

- Jones, C. (1998), *Introduction to Economic Growth*, Norton.
- Ray, D. (1998). *Development Economics*, Princeton University Press.
- +Easterly, W. (2001), *The Elusive Quest for Growth*, Cambridge, MIT Press.
- Parente, S., Prescott, E. (2002), *Barriers to Riches*, MIT Press Books, The MIT Press.
- +Wan Jr., H. Y. (2004), *Economic Development in a Globalized Environment: East Asian Evidences*, Springer.
- Sachs, J. (2005), *The End of Poverty: Economic Possibilities for Our Time*, Penguin Books.
- +Banerjee, A.V., and E. Duflo (2011), *Poor Economics: A Radical Rethinking of the Way to Fight Global Poverty*, MIT Press.
- +Acemoglu, D., and J. A. Robinson (2012), *Why Nations Fail: The Origins of Power, Prosperity, and Poverty*, Crown Business.

There will be a total of 15 required readings, where you should focus on issues, approaches toward addressing the problems under study, economic analyses logical reasoning, and main findings and policy recommendations, while ignoring technical contents.

I. Introduction: Measurement and Stylized Facts

- Islam, N. (1995), "Growth empirics: a panel data approach," *Quarterly Journal of Economics*, 110, 1127-1170.
- Jones, L. and R. Manuelli (1997), "The Source of Growth," *Journal of Economic Dynamics and Control*, 21, 75-114.
- Boldrin, M., B. Chen and P. Wang (2004), "Introduction: A Quick Reference to Growth Theory," in M. Boldrin, B. Chen and P. Wang (eds.), *Human Capital, Trade and Public Policy*,

Edwards-Edgar.

+Caselli, F. (2005) "Accounting for Cross-Country Income Differences," *Handbook of Economic Growth*, North-Holland.

*Jones, C. (2015), "The Facts of Economic Growth," NBER working paper #21142.

II. Fundamental Growth and Development Theory

1. Growth Theory

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

Barro, R. J. (1990), "Government Spending in a Simple Model of Endogenous Growth," *Journal of Political Economy*, 98, S103-S125.

+Romer, P. (1990), "Endogenous Technological Change," *Journal of Political Economy*, 98, 71-102.

Rebelo, S. (1991), "Long Run Policy Analysis and Long Run Growth," *Journal of Political Economy*, 99, 500-521.

+Aghion, P. and P. Howitt (1992), "A Model of Growth Through Creative Destruction," *Econometrica*, 60, 323-351.

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

Bond, E., P. Wang and C. Yip (1996), "A General Two-Sector Model of Endogenous Growth with Physical and Human Capital: Balanced Growth and Transitional Dynamics," *Journal of Economic Theory*, 68, 149-173.

Jones, C. (1998), *Introduction to Economic Growth*, Norton.

Kongsamut, P., Rebelo, S., Xie, D. (2001), "Beyond balanced growth," *Review of Economic Studies*, 68, 869-882.

Lucas, R. (2002), *Lectures on Economic Growth*, Harvard University Press.

Parente, S., Prescott, E. (2002), *Barriers to Riches*, MIT Press Books, The MIT Press.

Bond, E. W., K. Trask and P. Wang (2003), "Factor Accumulation and Trade: Dynamic Comparative Advantage with Endogenous Physical and Human Capitals," *IER*, 44, 1041-1060.

+Banerjee, A.V., Duflo, E. (2005), "Growth theory through the lens of development economics," *Handbook of Economic Growth*, 1, 473-552.

+Acemoglu, D. and V. Guerrieri (2008), "Capital Deepening and Nonbalanced Economic Growth," *Journal of Political Economy*, 116, 467-498.

2. Development Theory

Schumpeter, Joseph (1911), *Theory of Economic Development*, Cambridge: Harvard University Press (Reprinted 1936).

Rosenstein-Rodan, Paul N. (1961), "Notes on the Theory of the 'Big Push'," in Howard S. Ellis (ed.), *Economic Development for Latin America*, London, UK: Macmillan, 57-66.

Maddison, Angus (1982), *Phases of Capitalist Development*, Oxford University Press, UK.

+Abramovitz, M. (1986), "Catching up, forging ahead and falling behind," *Journal of Economic History*, 46, 385-406.

*Murphy, Kevin M., Andrei Shleifer and Robert W. Vishny (1989), "Industrialization and the Big Push," *JPE*, 97, 1003-1026.

Syrquin, M. (1988), "Patterns of Structural Change," in Hollis Chenery and T.N. Srinivasan, eds., *Handbook of Development Economics*, Vol. 1, Amsterdam and New York: North Holland,

- 1988, chapter 7, pp. 203–273.
- Azariadis, C. and A. Drazen (1990), “Threshold Externalities in Economic Development,” *Quarterly Journal of Economics*, 105, 501-526.
- +Lucas, R.E. Jr. (1990), “Why doesn't capital flow from rich to poor countries?” *American Economic Review*, 80, 92-96.
- +Redding, S. (1996), “Low-Skill, Low-Quality Trap: Strategic Complementarities between Human Capital and R&D,” *Economic Journal*, 106, 458-471.
- Ray, D. (1998). *Development Economics*, Princeton University Press.
- Easterly, W. (2001), *The Elusive Quest for Growth*, Cambridge, MIT Press.
- Wan Jr., H. Y. (2004), *Economic Development in a Globalized Environment: East Asian Evidences*, Springer.

III. Technological Changes and Industrial Transformation

- Rostow, Walt W. (1960), *The Stage of Economic Growth*, Cambridge, UK: Cambridge University Press.
- Tsiang, S. C. (1964), “A Model of Economic Growth in Rostovian Stages,” *Econometrica*, 32(4), 619-648.
- Goodfriend, M. and J. McDermott (1995), “Early Development,” *American Economic Review*, 85, 116-133.
- Caselli, F. (1999), “Technological Revolutions,” *American Economic Review*, 89, 78-102.
- Aghion, P., N. Bloom, R. Blundell, R. Griffith, and P. Howitt (2005), “Competition and Innovation: An Inverted-U Relationship,” *Quarterly Journal of Economics*, 120, 701-728.
- Atkeson, A. and P. Kehoe (2005), “Modeling and Measuring Organization Capital,” *Journal of Political Economy*, 113, 1026-53.
- +Hansen, G. and E. Prescott (2002), “From Malthus to Solow,” *American Economic Review*, 92, 1205-1217.
- *Gollin, D., S. Parente and R. Rogerson (2003), “The Role of Agriculture in Development,” *American Economic Review* P&P, 93.
- *Wang, P. and D. Xie (2003), “Activation of a Modern Industry,” *Journal of Development Economics*, 393-410.
- +Wan Jr., H. Y. (2004), *Economic Development in a Globalized Environment: East Asian Evidences*, Springer.
- Caselli, F., Coleman, J. (2006), “The World Technology Frontier,” *American Economic Review*, 96, 499-522.
- Young, A. (2012), “The African Growth Miracle,” *JPE*, 120, 696-739.
- +Rodrik, D. (2015), “Premature Deindustrialization,” NBER working paper #20935.
- Wang, P., T.N. Wong and C. Yip (2018), “Technology Assimilation and Aggregate Productivity,” NBER working paper # 24960.
- +Herrendorf, B., R. Rogerson, and A. Valentinyi (2014), “Growth and Structural Transformation,” *Handbook of Economic Growth*.
- Young, Alwyn (2014) "Structural Transformation, the Mismeasurement of Productivity Growth, and the Cost Disease of Services." *American Economic Review*, 104(11): 3635-67.
- Gallipoli, G. and C.A. Makridis (2018), “Structural transformation and the rise of information technology,” *Journal of Monetary Economics*, 91-110.
- Herrendorf, B. and T. Schoellman (2018), “Wages, human capital, and barriers to structural transformation,” *American Economic Journal-Macroeconomics*.
- Cravino, J. A.A. Levchenko, and M. Rojas (2019), “Population Aging and Structural Transformation,” NBER working paper #26327.

Hu, Y., T. Kunieda, K. Nishimura and P. Wang (2020), "Flying or Trapped," NBER working paper #27278.

IV. Skills, Health and Labor Market Development

- +Romer, P. (1990), "Human Capital and Growth: Theory and Evidence," Carnegie-Rochester Conference Series, 32, 251-286.
- Stokey, N. (1991), "Human Capital, Product Quality, and Growth," Quarterly Journal of Economics, 106, 587-616.
- +Tallman, E. and P. Wang (1994), "Human Capital Evolution and Endogenous Growth: Evidence from Taiwan," Journal of Monetary Economics, 34, 101-124.
- Laing, D., T. Palivos and P. Wang (1995), "Learning, Matching and Economic Growth," Review of Economic Studies, 62, 115-129.
- +Tamura, Robert (2001), "Teachers, growth, and convergence," Journal of Political Economy, 109, 1021-1059. 369-393.
- Fender, J. and P. Wang (2003), "Educational Policy in a Credit Constrained Economy with Skill Heterogeneity," International Economic Review, 44, 939-964.
- Grossman, G. (2004), "The Distribution of Talent and the Pattern and Consequences of International Trade," Journal of Political Economy, 209-239.
- +Acemoglu, D. and S. Johnson (2007), "Disease and Development: The Effect of Life Expectancy on Economic Growth," Journal of Political Economy, 115, 925-985.
- Weil, David N. (2007), "Accounting for the Effect of Health on Economic Growth," Quarterly Journal of Economics, 122, 1265-1306.
- Chen, B., H. Chen and P. Wang (2011), "Public Policy and Human Capital Accumulation in an Endogenously Growing Economy with Labor-Market Frictions," International Economic Review, 52, 131-160.
- Meghir, Costas, Renata Narita and Jean-Marc Robin (2015), "Wages and Informality in Developing Countries." American Economic Review, 105(4): 1509-46.
- Murphy, K. and R. Topel (2015) "Human Capital Investment, Inequality and Economic Growth NBER #21841.
- Wang, Y. and P. Wang (2016), "Barriers to Health and Poverty Trap," NBER #19263.
- Charles I. Jones (2016), "Life and Growth," Journal of Political Economy, 124, 539-578.
- Grossman, G. E. Helpman, E. Oberfield, and T. Sampson (2018), "The Productivity Slowdown and the Declining Labor Share: A Neoclassical Exploration," Harvard working paper.
- *Acemoglu, D. and P. Restrepo (2019), "Automation and New Tasks: How Technology Displaces and Reinstates Labor," Journal of Economic Perspectives, 33(2), 3-30.
- +David E. Bloom, D. Canning, R. Kotschy, K. Pretzner and J. J. Schünemann (2019), "Health and Economic Growth: Reconciling the Micro and Macro Evidence," NBER working paper #26003.
- +Wang, P. and Y. Wang (2020), "Health and Economic Development from Cross-Country Perspectives," Economic Review, Federal Reserve Bank of St. Louis.
- *Eichenbaum, M.S., S. Rebelo and M. Trabandt (2020), "The Macroeconomics of Epidemic," NBER working paper #26882.
- Acemoglu, D., V. Chernozhukov, I. Werning and M.D. Whinston (2020), "A Multi-Risk SIR Model with Optimally Targeted Lockdown," NBER working paper #27102.
- +Kaplan, G., B. Moll and G.L. Violante (2020), "The Great Lockdown and the Big Stimulus: Tracing the Pandemic Possibility Frontier for the U.S.," BFI Working Paper.
- Liao, P., P. Wang, Y. Wang, and C.K. Yip (2021), "Educational Choice, Rural-urban Migration and Economic Development," Economic Theory (forthcoming).

V. Demographic Transition

- Razin, A. and U. Ben-Zion (1975), "An Intergenerational Model of Population Growth," *American Economic Review*, 65, 923-33.
- +Barro, R. J. and G. S. Becker (1989), "Population Growth and Economic Growth," *Econometrica*, 57.
- *Becker, G. S., K. Murphy and R. Tamura (1990), "Human Capital, Fertility, and Economic Growth," *Journal of Political Economy*, 98, S12-S37.
- Kremer, M. (1990), "Population Growth and Technological Change: One Million B.C. to 1990," *Quarterly Journal of Economics*, 108, 681-716.
- +Wang, P., C. Yip and C. Scottes (1994), "Fertility Choice and Economic Growth: Theory and Evidence," *Review of Economics and Statistics*, 71, 255-266.
- +Galor, Oded and Weil, David (2000), "Population, technology and growth: from Malthusian stagnation to the demographic transition and beyond," *American Economic Review*, 90, 806-828.
- Greenwood, J. and A. Seshadri (2002), "The US Demographic Transition," *American Economic Review*, 92, 153-159.
- *Greenwood, J., A. Seshadri, and G. Vandenbroucke (2005), "The Baby Boom and Baby Bust," *American Economic Review*, 95, 183-207.
- Bara, M. and O. Leukhina (2009), "Demographic transition and industrial revolution: A macroeconomic investigation," *Review of Economic Dynamics*.
- Manuelli, R. and A. Seshadri (2009), "Explaining International Fertility Differences," *Quarterly Journal of Economics*, 124, 771-807.
- Aaronson, Daniel, Fabian Lange and Bhashkar Mazumder (2014) "Fertility Transitions along the Extensive and Intensive Margins." *American Economic Review*, 104(11): 3701-24.
- Cervellati, Matteo and Uwe Sunde (2015) "The Economic and Demographic Transition, Mortality, and Comparative Development." *American Economic Journal: Macroeconomics*, 7(3): 189-225.
- +Liao, P., P. Wang, Y. Wang, and C.K. Yip (2021), "Fertility and Internal Migration," *Economic Review*, Federal Reserve Bank of St. Louis.
- Jiang, H., H. Lien, P. Wang and Y. Wang (2021), "Ability Heterogeneity, Labor Market Activity and Timing of Childbearing in Dynamic General Equilibrium," (in progress).

VI. Inequality

- 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.
- +Benabou, R. (1996), "Heterogeneity, Stratification and Growth," *American Economic Review*, 86, 584-609.
- Galor and Weil (1996) "The Gender Gap, Fertility and Growth," *American Economic Review*, June, 374-387.
- Violante, G. (2002), "Technological Acceleration, Skill Transferability and the Rise in Residual Inequality," *Quarterly Journal of Economics*, 117, 297-338.
- Galor, O. and O. Moav (2004), "From Physical to Human Capital Accumulation: Inequality and the Process of Development," *Review of Economic Studies*, 71, 1001-1026.
- *Acemoglu, D. and M. Dell (2009), "Productivity Differences between and within Countries," NBER working paper #15155.
- +Piketty, T. (2014), *Capital in the 21st Century*, Harvard University Press.

- Jones, C. I. and J. Kim (2014), “A Schumpeterian Model of Top Income Inequality,” NBER Working Paper.
- *De Nardi, M. (2015), “Quantitative Models of Wealth Inequality: A Survey,” NBER Working Paper #21106.
- +Burstein, A., E. Morales, and J. Vogel (2015), “Accounting for Changes in Between-Group Inequality,” NBER #20855.
- Lagakos, D. (2020), “Urban-Rural Gaps in the Developing World: Does Internal Migration Offer Opportunities?” *Journal of Economic Perspectives*.

VII. Institutions and Poverty Problems

- *Acemoglu, Daron, Simon Johnson, and James A. Robinson (2000) “Reversal of Fortune: Geography and Institutions in the Making of the Modern World Income Distribution,” *Quarterly Journal of Economics*, 117, 1231-94.
- +Acemoglu, D., S. Johnson and J. Robinson (2001), “The Colonial Origins of Comparative Development,” *American Economic Review*, 91, 1369-1401.
- +Easterly, W. (2001), *The Elusive Quest for Growth*, Cambridge, MA: MIT Press.
- Sachs, J. (2005), *The End of Poverty: Economic Possibilities for Our Time*, Penguin Books.
- +Banerjee, A.V., and E. Duflo (2011), *Poor Economics: A Radical Rethinking of the Way to Fight Global Poverty*, MIT Press.
- Daron Acemoglu, James A. Robinson, and Thierry Verdier (2017), “Asymmetric Growth and institutions in an Interdependent World,” *Journal of Political Economy*.
- *Wang, P., T.N. Wong and C. Yip (2018), “Institutional Barriers and World Income Disparities,” *Economic Review*, Federal Reserve Bank of St. Louis.
- Acemoglu, D., G. Egorov, and K. Sonin (2020), “Institutional Change and Institutional Persistence,” BFI working paper.

VIII. Political Economy and Global Development

- Piketty, T. (1995), “Social Mobility and Redistributive Politics,” *Quarterly Journal of Economics*, 110, 551-84.
- Alesina, A. and Spolaore, E. (1997), “On The Number and Size of Nations,” *Quarterly Journal of Economics*, 112, 1027-1056.
- +Acemoglu, Daron, Simon Johnson and James A. Robinson (2005), “The Rise of Europe: Atlantic Trade, Institutional Change, and Economic Growth,” *American Economic Review*, 95, 546-579.
- + Acemoglu, Daron, and James A. Robinson (2012), *Why Nations Fail: The Origins of Power, Prosperity, and Poverty*, Crown Business, NY.
- Daron Acemoglu, Georgy Egorov, Konstantin Sonin (2015), “Political Economy in a Changing World,” *Journal of Political Economy*, 123, 1038–1086.
- *Acemoglu, D., S. Naidu, P. Restrepo, and J. A. Robinson (2019), “Democracy Does Cause Growth,” *Journal of Political Economy*, 127, 47-100.
- *Easterly, W. (2019), “In Search of Reforms for Growth: New Stylized Facts on Policy and Growth Outcomes,” NBER working paper #26318.
- Coibion, O., Y. Gorodnichenko and M. Weber (2020), “Political Polarization and Expected Economic Outcomes,” BFI working paper.