

Syllabus
Advanced Topics in Economic Growth:
Perspectives of New Structural Economics
FALL 2020

Professor Yong Wang
(last update: September 18, 2020)

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Class Time and Venue: 3:10pm to 6pm, Monday, Classroom 311, Science Building.

Office Hours: by appointment (please contact Ms. Shaona Ma at shaonama@nsd.pku.edu.cn)

Description of the Course

This PhD course serves two main purposes. One is to provide a rigorous theoretical training on New Structural Economics in the area of Economic Growth and Macroeconomics (one of the mandatory courses in Field A). The second is to help students get started with academic research in this area. The course will be mainly taught in English in order to improve students' skills in oral and written English). This course is most suitable for econ PhD students who have already taken the first-year PhD courses on micro, macro and econometrics. Other students are also welcome to audit this course.

Grading and Requirement:

1. Problem Sets¹ (5% × 6)

Requirement and Format:

- (1) You have to finish six mandatory problem sets.
- (2) For any problem set, you could work with one more student and hand in a joint copy of solutions.
- (3) You must type out your solutions neatly in English or Chinese.
- (4) Feel free to make additional assumptions for the problem sets when you think they are necessary.

2. Midterm Exam (50%, November 23, 2020)

Requirement and Format: closed-book exam; based on the course materials covered in class.

3. Research Proposal and Presentation (20%, deadline for the written proposal: January 11, 2021)

Requirement and Format:

(1) Each student should turn in a five-page research proposal (due on January 11). It must address a growth topic highly related to this course, specify the main ideas, and be neatly typed in Chinese or English.

(2) On December 28, you must first make a formal and in-class brief presentation on your proposal topic and your plan for the written proposal.

(3) You are strongly encouraged to develop your proposal based on one of the research-oriented problem sets. It might serve as your second-year paper after you work hard enough on it in the following semester.

4. No late homework or proposal will be accepted without prior verifiable justifications.

Schedules²

Lecture One: Endowment-Driven Structural Change.

Key References:

- Jiandong Ju, Justin Yifu Lin, and Yong Wang. 2015. "Endowment Structures, Industrial Dynamics, and Economic Growth", *Journal of Monetary Economics*: 244-263
- Justin Yifu Lin and Yong Wang. 2019. "Remodeling Structural Change", in Celestin Monge and Justin Yifu Lin, eds., *Oxford Handbook of Structural Transformation*, Oxford University Press.
- Yong Wang and Xuemin Tang. 2019. "Human Capital, Industrial Dynamics and Skill Premium", unpublished working paper

¹The problem sets are mostly based on the instructor's ongoing research, but sometimes adapted from the research papers of others. Failure to obtain grade B or above in two or more problem sets will result in grade F for the whole course automatically.

²The ordering of the lectures is subject to change, depending on the actual progress of teaching.

Lecture Two: Vertical Structure, Institutional Reforms and China's Macro Development.

Key References:

- Xi Li, Xuewen Liu, and Yong Wang, 2016. "A Model of China's State Capitalism", working paper (Chinese Version Published on Jingjixuebao (Tsinghua), 2014)
- Shi-Yuan Pan, Yong Wang and Qi Zhang. "A Political Economy Model of Reforms under Vertical Structure", working in progress
- Xin Wang, Yong Wang and Wei Xiang. "Trade Liberalization, Vertical Structure and Firm Markups", working in progress
- Yong Wang, 2013, "Fiscal Decentralization, Endogenous Policies, and Foreign Direct Investment: Theory and Evidence from China and India", Journal of Development Economics 103: 107-123
- Yong Wang, 2018. A Research Note on Innovation Under Vertical Structure. Unpublished Note.
- Wang, Yong, 2015, "A Model of Sequential Reforms and Economic Convergence: The Case of China", China Economic Review 32: 1-26
- Wang, Yong. 2012. A Research Note on Time-Consistent Liberalization. Unpublished.
- Wang, Yong. 2017. "Vertical Structure and SOE Reforms", International Economic Review (in Chinese)

Lecture Three: Labor Market Frictions

Key References:

- Yong Wang and Siyu Chen. 2019. "Industrial Dynamics, Skill Mismatch and Structural Unemployment", unpublished working paper.
- Zhe Li and Yong Wang. "Mismatch and Industrial Upgrading", working in progress.

Lecture Four: Trade and Industrial Upgrading

Key References:

- Yong Wang, 2014, "Industrial Dynamics, International Trade, and Economic Growth," working paper (Chinese Version Published on China Economic Quarterly, 2018)
- Weisheng Zhang, 2019. "Sequential Production, Industrial Upgrading and International Trade", term paper
- Yong Wang and Ran Zhang, 2016. "The Rise of the Service Sector in an Open Economy", unpublished working paper

Lecture Five: Factor Endowment and Technology

Key References:

- Wang, Yong. 2014. "Market Structure, Factor Endowment, and Technology Adoption", unpublished working paper
- Michele Boldrin, Yong Wang and Lijun Zhu. 2019. "The Cyclical Behaviors of Factor Shares", working paper
- Yong Wang, Zhongchen Fan, and Xinze Li, 2019. "Endowment Structure, Technological Innovation, and Industrial Upgrading", working paper (in Chinese)

Lecture Six: Middle-Income Traps

Key References:

- Wang, Yong and Shang-Jin Wei, 2019. "The Sandwich Effect: Challenges for Middle-Income Countries", working paper
- Ping Wang and Yong Wang, 2019, "Human Capital Institutions and Middle-Income Trap", working in progress
- Lin, Justin Yifu and Yong Wang, 2020. "Structural Change, Industrial Upgrading and Middle-Income Trap", Journal of Industry, Competition and Trade 20(2), 359-394, [Special issue on Development Policies, edited by Dani Rodrik]

Lecture Seven: Endowment Structure, Structural Change and Income Distribution

Key References:

- Yong Wang and Zhongkai Shen, 2018. "Factor Endowment, Income Distribution and Industrial Upgrading", working paper (Chinese Version Published on China Economic Quarterly, 2018)
- Yong Wang, 2019. "A Model of Industrialization and Rural Income Distribution", China Agricultural Economic Review 11(3), 507-535
- Yong Wang, 2009. "Endogenous Coalition, Income Distribution and Economic Growth" (Chinese version published on World Economic Papers, 2004)

Lecture Eight: Endowment Structure, Industrial Policies and Industrial Upgrading

Key References:

- Ju Jiandong, Justin Yifu Lin, Yong Wang, 2011. "Marshallian Externality, Industrial Upgrading, and Industrial Policies", World Bank Policy Research Working Paper
- Lin, Justin Yifu and Yong Wang, 2019. "Structural Change, Industrial Upgrading and Middle-Income Trap", Journal of Industry, Competition and Trade, Special issue on Development Policies, edited by Dani Rodrik, forthcoming
- Justin Yifu Lin, Yong Wang, Yi Wen, and Yangfan Xu. 2020. "Infrastructure Investment and Industrial Upgrading", working in progress

Lecture Nine: Endowment Structure, Heterogeneous Firms, and Industrial Dynamics

Key References:

- Erzo G. Luttmer and Yong Wang. "A Model of Firm Dynamics and Industrial Dynamics", working in progress
- Ping Wang, Yong Wang and Lijun Zhu. "Spinoff and Economic Growth", working in progress
- Yong Wang and Lan Zhu, 2019. "Rise of Labor Costs and Upgrading of Manufacturing Firms: An Empirical Analysis of New Structural Economics Based on the Manufacturing Survey Data in Guangdong Province" (in Chinese), INSE working paper.

Lecture Ten: Other Related Research

Key References:

- Wang, Yong, Jenny Xu, and Xiaodong Zhu. 2014. "Structural Change and Real Exchange Rate Dynamics: Theory and Applications to China and US", working paper
- Wen-Tai Hsu, Yu Sun, and Yong Wang, "Land Misallocation and Structural Transformation", working in progress.
- Jinhui Bai and Yong Wang. 2016. "A Model of Optimal Bank Size Distribution", unpublished research note

1. Structural Change

Surveys:

- Herrendorf, Berthold, Richard Rogerson and Akos Valentinyi, 2014, "Growth and Structural Transformation" Handbook of Economic Growth.
- Matsuyama, Kiminori, 2008, "Structural Change," in L. Blume and S. Durlauf, eds., the New Palgrave Dictionary of Economics, 2nd Edition, Palgrave Macmillan.
- Justin Yifu Lin and Yong Wang. 2019. "Remodeling Structural Change", in Celestin Monge and Justin Yifu Lin, eds., Oxford Handbook of Structural Transformation, Oxford University Press.

Topics and Papers:

A. Basics of Structural Change

- *Kongsamut, Piyabha, Rebelo, Sergio and Danyang Xie. 2001. "Beyond Balanced Growth." Review of Economic Studies 68: 869-882
- *Ngai, L. Rachel, and Christopher A. Passarides. 2007. "Structural Change in a Multi-Sector Model of Growth." American Economic Review 97 (January): 429-443
- *Herrendorf, Berthold, Richard Rogerson and Akos Valentinyi, 2013, "Two Perspectives on Preferences and Structural Transformation", American Economic Review, 103(7): 2752-89.

B. Structural Change and Labor Market

- *Ngai, L. Rachel, and Christopher A. Passarides. 2008. "Trends in Hours and Economic Growth", Review of Economic Dynamics, volume 11(April): 239–256
- *Richard Rogerson, 2008. "Structural Transformation and the Deterioration of European Labor Market Outcomes," Journal of Political Economy, 116(2): 235-259.
- Yong Wang and Siyu Chen. 2019. "Human Capital, Industrial Dynamics and Skill Premium", unpublished working paper
- Yao, Wen and Xiaodong Zhu. 2018. "Structural Change and Aggregate Employment Fluctuations in China and the US." working paper
- Herrendorf, B., & Schoellman, T. (2018). "Wages, human capital, and barriers to structural transformation." American Economic Journal: Macroeconomics, 10(2).

C. Structural Change and Aggregate Productivities

- *Caselli, Francesco, and John Coleman. 2001. "The U.S. Structural Transformation and Regional Convergence: A Reinterpretation." Journal of Political Economy 109 (June): 584-617.
- *Duarte, Margarida and Diego Restuccia, 2010. "The Role of Structural Transformation in Aggregate Productivity", Quarterly Journal of Economics
- Restuccia, Diego, Dennis Tao Yang, and Xiaodong Zhu. 2008. "Agriculture and Aggregate Productivity: A Cross-Country Quantitative Analysis." Journal of Monetary Economics 55 (2): 234-250.
- Lagakos, David, and Michael Waugh. 2013. "Selection, Agriculture, and Cross-Country Production Differences." American Economic Review 103 (2): 948-80.
- Gollin, Douglas, David Lagakos, and Michael Waugh. 2013. "The Agriculture Productivity Gap." Quarterly Journal of Economics 129 (2): 939-993.

³Subject to Updates.

D. Structural Change and Capital Intensities [Approach of **New Structural Economics**]

- Lin, Justin Yifu, 2011. "New Structural Economics: A Framework for Rethinking Development," World Bank Research Observer, 26 (2) : 193-221. [Based on the Kuznets Lecture at Yale in 2011]
- *Jiandong Ju, Justin Yifu Lin, and Yong Wang. 2015. "Endowment Structures, Industrial Dynamics, and Economic Growth", Journal of Monetary Economics: 244-263
- Yong Wang and Xuemin Tang. 2019. "Human Capital, Industrial Dynamics and Skill Premium", unpublished working paper
- *Daron Acemoglu, and Veronica Guerrieri. 2008. "Capital Deepening and Nonbalanced Economic Growth." Journal of Political Economy 116 (June): 467-498.

E. Structural Change and Income Effect

- Foellmi and Zweimuller, 2008. "Structural Change, Engel's Consumption Cycles and Kaldor's Facts of Economic Growth", Journal of Monetary Economics, 55: 1317-1328.
- Boppart, Timo. 2014. "Structural Change and the Kaldor Facts in a Growth Model with Relative Price Effects and Non-Gorman Preferences", Econometrica, 2014
- Laitner, John. 2000. "Structural Change and Economic Growth." Review of Economic Studies 67(July): 545-561
- Comin, Diego, Danial Lashkari, and Marti Mestieri. 2018 "Structural Change with Long-run Income and Price Effects." Unpublished Working Paper.

F. Structural Change and Service

- *Buera, Francisco J. and Joseph P. Kaboski. 2012 . "The Rise of the Service Economy", American Economic Review
- Lee and Wolpin, 2006. "Intersectoral Labor Mobility and the Growth of the Service Sector," Econometrica 47: 1-46.
- Autor, David H., and David Dorn. 2013. "The Growth of Low-Skill Service Jobs and the Polarization of the US Labor Market." American Economic Review, 103(5): 1553-97.
- Young, Alwyn. 2014. "Structural Transformation, the Mismeasurement of Productivity Growth, and the Cost Disease of Services." American Economic Review, 104(11): 3635-67.
- Lin, Justin Yifu and Yong Wang, 2019. "Structural Change, Industrial Upgrading and Middle-Income Trap", Journal of Industry, Competition and Trade, Special issue on Development Policies, edited by Dani Rodrik.
- Buera, Francesco, Joseph Kaboski and Richard Rogerson, 2018. "Skill-biased Structural Change", unpublished working paper
- Yong Wang and Ran Zhang, 2016. "The Rise of the Service Sector in an Open Economy", unpublished working paper

G. Structural Change and Balanced Trade

- *Mastuyama, Kiminori. 2009. "Structural Change in an Interdependent World: A Global View of Manufacturing Decline," Journal of the European Economic Association, 7 (April-May): 478-486.
- Uy, Timothy, Kei-Mu Yi and Jing Zhang. 2013. "Structural Transformation in an Open Economy." Journal of Monetary Economics.

- Teignier, M. (2018). The role of trade in structural transformation. *Journal of Development Economics*, 130, 45-65.

H. Structural Change, Unbalanced Trade, and Balassa-Samuelson Implications

- Kehoe, Tim, Kim J. Ruhl and Joseph B. Steinberg, 2017. "Global Imbalances and Structural Change in the United States", *Journal of Political Economy*.
- Wang, Yong, Jenny Xu, and Xiaodong Zhu. 2014. "Structural Change, Trade Balance, and Real Exchange Rate: Theory and Applications to China and US", working paper
- Ravikumar, B., Ana Maria Santacreu and Michael J. Sposi, 2018. "Capital Accumulation and Dynamic Gains from Trade." working paper
- Betts, C., Giri, R. and Verma, R., 2017. "Trade, reform, and structural transformation in South Korea". *IMF Economic Review*, 65(4), pp.745-791.
- Ju, J., Lin, J.Y., Liu, Q. and Shi, K., 2020. "Structural changes and the real exchange rate dynamics". *Journal of International Money and Finance*, 107, p.102192.
- Zhu, X., Xu, J. and Wang, Y., 2016. "Structural Change and the Dynamics of China-US Real Exchange Rate". In 2016 Meeting Papers (No. 1010). Society for Economic Dynamics.

I. Others.

- Buera, Francisco J. and Joseph P. Kaboski. 2012. "Scale and the Origins of Structural Change", *Journal of Economic Theory* 147: 684-712
- Ilyina, Anna and Roberto Samaniego. 2012. "Structural Change and Financing Constraints". *Journal of Monetary Economics* 59(2), March 2012, 166-179.
- *Imbs, Jean, and Romain Wacziarg. 2003. "Stages of Diversification" *American Economic Review*, 93(1): 63-86.
- Bustos, Paula, Bruno Caprettini and Jacopo Ponticelli. 2016. "Agricultural Productivity and Structural Transformation: Evidence from Brazil." *American Economic Review*, 106(6): 1320-65.
- Wen-Tai Hsu, Yu Sun, and Yong Wang "Land Misallocation and Structural Transformation", working in progress.
- Sposi, Michael. 2018. "Evolving Comparative Advantage, Sectoral Linkages, and Structural Change." *Journal of Monetary Economics*.

2. International Trade and Economic Growth

Surveys:

- Ventura, Jaume, 2005, "A Global View of Economic Growth", Chapter 22, *Handbook of Economic Growth*.
- Stephen Redding, 2011. "Theories of Heterogeneous Firms and Trade," *Annual Review of Economics*, 3, 77-105.

Topics and Papers

A. Innovation, Imitation, Trade, and Convergence

- *Krugman, Paul. 1979."A Model of Innovation, Technology Transfer, and the World Distribution of Income." *Journal of Political Economy* 87(April): 253-266

- *Helpman, Elhanan. 1993. "Innovation, Imitation, and Intellectual Property Rights." *Econometrica*, November 1993, 61(6), pp. 1247-1280.
- Young, Alwyn. 1991, "Learning by Doing and the Dynamic Effects of International Trade." *Quarterly Journal of Economics*, 106 (1991): 369-406.
- Rivera-Batiz, Luis A., and Paul M. Romer. 1991. "Economic Integration and Endogenous Growth." *Quarterly Journal of Economics*, 106 (May): 531-55.
- Krugman, P. and A. Venables, 1995. "Globalization and Inequality of Nations," *Quarterly Journal of Economics*, 110, 857-80
- Mastuyama, 2013, "Endogenous Ranking and Equilibrium Lorenz Curve Across (ex ante) Identical Countries," *Econometrica*, 81: 2009-2031.
- Jan Eeckhout and Boyan Jovanovic, 2012, "Occupational Choice and Development", *Journal of Economic Theory* 147: 657-683
- Wang, Yong and Shang-Jin Wei, 2014. "Trade and Non-convergence of Middle-Income Countries", working paper
- Liu, Q., & Qiu, L. D. (2016). "Intermediate input imports and innovations: Evidence from Chinese firms' patent filings". *Journal of International Economics*, 103, 166-183.
- König, M., Song, Z. M., Storesletten, K., & Zilibotti, F. (2020). "From Imitation to Innovation: Where Is all that Chinese R&D Going?"
- Lind, N. (2018). "INNOVATION, KNOWLEDGE DIFFUSION, AND GLOBALIZATION". NBER Working Paper.
- Perla, J., & Tonetti, C. (2014). "Equilibrium imitation and growth". *Journal of Political Economy*, 122(1), 52-76.
- Lucas, R. E., & Moll, B. (2014). "Knowledge growth and the allocation of time". *Journal of Political Economy*, 122(1), 1-51.
- Buera, F. J., & Oberfield, E. (2020). "The Global Diffusion of Ideas". *Econometrica*, 88(1), 83-114.

B. Dynamic HO Trade, Factor Accumulation, and Growth

- *Acemoglu D. and J. Ventura, (2002) "The World Income Distribution," *The Quarterly Journal of Economics*, 117.
- * Ventura, Jaume. 1997. "Growth and Interdependence." *Quarterly Journal of Economics*, February: 57-84
- Bajona, Claustre and Timothy J. Kehoe. 2010. "Trade, Growth, and Convergence in a Dynamic Heckscher-Ohlin Model", *Review of Economic Dynamics*, 13 (July): 487-513
- Atkeson, Andrew and Patrik. J. Kehoe, (2000). "Paths of Development for Early- and Late Bloomers in a Dynamic Heckscher-Ohlin Model," *Federal Reserve Bank of Minneapolis Staff Report* 256.
- Nancy L. Stokey. 1996. "Free Trade, Factor Returns, and Factor Accumulation", *Journal of Economic Growth*, 1: 421-447
- Stokey, Nancy L. 1991. "The Volume and Composition of Trade Between Rich and Poor Countries." *Review of Economic Studies*, 58 (1991): 63-80.
- *Jin, Keyu. 2012. "Industrial Structure and Financial Capital Flows", *American Economic Review* 102(5): 2111-2146.
- *Yong Wang, 2014, "Industrial Dynamics, International Trade, and Economic Growth," working paper

- Lorenzo Caliendo, 2011, “On the Dynamics of the Heckscher-Ohlin Theory” Yale University Working paper

C. Heterogeneous Firms and Static Trade

- *Jonathan Eaton and Samuel Kortum. 2002. ”Technology, Geography, and Trade.” *Econometrica*, 70: 1741-1780.
- *Alvarez, Fernando and Lucas, Robert Jr., 2007. ”General equilibrium analysis of the Eaton-Kortum model of international trade,” *Journal of Monetary Economics*, Elsevier, vol. 54(6): 1726-1768, September.
- Andrew Bernard, Jonathan Eaton, J. Bradford Jensen, and Samuel Kortum, 2003, ”Plants and Productivity in International Trade”, *American Economic Review*, 93(4), 2003, 1268-1290.
- *Andrew Bernard, Bradford Jensen, Stephen Redding, and Peter Schott, 2007. ”Comparative Advantage and Heterogeneous Firms”, *Review of Economic Studies*, 73(1): 31-66.
- *Melitz., Marc J. ”The Impact of Trade on Intra-Industry Reallocations and Aggregate Industry Productivity.” *Econometrica*, 71 (2003): 1695-1725.
- Melitz, Marc J., and Gianmarco I.P. Ottaviano. 2008. “Market Size, Trade, and Productivity.” *Review of Economic Studies*, 75 (January): 295-316.
- Edmond, Chris and Virgiliu Midrigan, and Daniel Xu, 2015. ”Competition, Markups, and the Gains from International Trade”, *American Economic Review*

D. Idea Flows, Dynamic Trade, and Growth

- Fernando Alvarez, Francisco Buera, and Robert E. Lucas Jr., 2011. “Idea Flows, Economic Growth, and Trade,” University of Chicago, working paper
- Buera, Francisco and E. Oberfield. 2015, “The Global Diffusion of Ideas,” NBER #21844.
- Jesse Perla, Christopher Tonetti, and Michael Waugh, 2012, ”Equilibrium Technology Diffusion, Trade, and Growth”, NYU, working paper
- Jonathan Eaton, Sam Kortum, Brent Neiman, and John Romalis. 2016. ”Trade and the Global Recession”, *American Economic Review* Vol. 106(11): 3401-3438
- Andrew Atkeson and Ariel Burstein, 2010, “Innovation, Firm Dynamics, and International Trade,” *Journal of Political Economy*, Vol. 118, No. 3 (June), pp. 433-484
- Alvarez, Fernando. 2017. ”Capital Accumulation and International Trade”, University of Chicago working paper
- Sampson, T., 2016. ”Dynamic selection: an idea flows theory of entry, trade, and growth”. *The Quarterly Journal of Economics*, 131(1), pp.315-380.
- Alvarez, F.E., Buera, F.J. and Lucas Jr, R.E., 2013. ”Idea flows, economic growth, and trade” (No. w19667). National Bureau of Economic Research.
- Perla, J., Tonetti, C. and Waugh, M.E., 2015. ”Equilibrium technology diffusion, trade, and growth” (No. w20881). National Bureau of Economic Research.

3 . Heterogeneous Firms, Firm and Industry Dynamics, Economic Growth Surveys:

- Luttmer, Erzo G.J. 2010, "Models of Growth and Firm Heterogeneity," Annual Reviews of Economics, Vol. 2, 547-576
- Hugo A. Hopenhayn. 2014, "Firms, Misallocation, and Aggregate Productivity: A Review", Annual Review of Economics, Vol. 6: 735-770

Topics and Papers:

A. Aggregate Growth and Firm Heterogeneity

- *Luttmer, Erzo G.J. 2007. "Selection, Growth, and the Size Distribution of Firms". Quarterly Journal of Economics. 122 (August): 1103-44.
- *Luttmer, Erzo G.J., 2011, "On the Mechanics of Firm Growth," The Review of Economic Studies, Vol. 78, No. 3, 1042-1068
- Perla, Jesse and Christopher Tonetti, 2013, "Equilibrium Imitation and Growth", Journal of Political Economy,
- Ben Moll, and Robert E. Lucas, Jr., 2013, "Knowledge Growth and the Allocation of Time", Journal of Political Economy
- Jess Benhabib, Jesse Perla, and Christopher Tonetti, 2014. "The Growth Dynamics of Innovation, Diffusion, and the Technology Frontier", working paper
- *Boyan Jovanovic, 2013, "Misallocation and Growth" American Economic Review, forthcoming.
- Charles I. Jones, 2005. "The Shape of Production Functions and the Direction of Technical Change," Quarterly Journal of Economics 120(2): 517-549
- Cabral and Mata, 2003, "On the Evolution of the Firm Size Distribution: Facts and Theory," American Economic Review, 93(4):1075-1090.
- Arkolakis, 2016, "A Unified Theory of Firm Selection and Growth", forthcoming, Quarterly Journal of Economics
- Coşar, A. Kerem, Nezih Guner and James Tybout, 2016. "Firm Dynamics, Job Turnover, and Wage Distributions in an Open Economy." American Economic Review, 106(3): 625-63.
- Benhabib, J., Perla, J. and Tonetti, C., 2016. "The growth dynamics of innovation, diffusion, and the technology frontier". Report, New York University.[1057].
- Restuccia, D., & Rogerson, R. (2008). "Policy distortions and aggregate productivity with heterogeneous establishments". Review of Economic Dynamics, 11(4), 707-720. <https://doi.org/10.1016/j.red.2008.05.002>

B. Innovation, Product Cycles, Firm Dynamics, and Industry Dynamics

- Grossman, Gene M., and Elhanan Helpman. 1991. "Quality Ladders and Product Cycles." Quarterly Journal of Economics, 106 (1991): 617-650
- Hopenhayn, Hugo A, 1992. "Entry, Exit, and Firm Dynamics in Long Run Equilibrium," Econometrica, vol. 60(5), pages 1127-50, September.
- Boyan Jovanovic and Saul Lach, 1989. "Entry, Exit, and Diffusion with Learning by Doing", The American Economic Review, Vol. 79, No. 4: 690-699
- Boyan Jovanovic and Glenn M. MacDonald, 1994, "The Life Cycle of a Competitive Industry", Journal of Political Economy 102 (2): 322-347
- *Rossi-Hansberg, Esteban and Mark Wright. 2007. "Establishment Size Dynamics in the Aggregate Economy" American Economic Review Volume 97, Number 5, pp. 1639-1666(28)

- Atkinson, Andrew and Kehoe, Patrick J. "Modeling and Measuring Organization Capital", *Journal of Political Economy*, 2005, 113(5): 1026-1053
- Stokey, Nancy L. 1988. "Learning by Doing and the Introduction of New Goods." *Journal of Political Economy*, 96: 701-717.
- * Wang, Yong. 2014. "Market Structure, Factor Endowment, and Technology Adoption", working paper
- V. V. Chari and Hugo Hopenhayn, 1991. "Vintage Human Capital, Growth, and the Diffusion of New Technology", *Journal of Political Economy*, Vol. 99(6): 1142-1165
- Boldrin, Michele and David Levine, 2002. "Factor Saving Innovation", *Journal of Economic Theory* 105: 18-41.
- Samaneigo, Roberto, 2010. "Entry, Exit and Investment-Specific Technical Change", *American Economic Review* 100(1): 164-192.
- *Klette and Kortum, 2004, "Innovating Firms and Aggregate Innovation", *Journal of Political Economy*, 112(5): 986-1018.
- Ufuk Akcigit, Murat Alp Celik and Jeremy Greenwood. 2016, "Buy, Keep or Sell: Economic Growth and the Market for Ideas", *Econometrica* 84(3): 943-984.
- Ufuk Akcigit, Harun Alp and Michael Peters, 2018. "Lack of Selection and Limits to Delegation: Firm Dynamics in Developing Countries", NBER Working Paper #21905
- Daron Acemoglu, Gino Gancia, and Fabrizio Zilibotti, 2011. "Competing Engines of Growth: Innovation and Standardization", *Journal of Economic Theory*
- Erzo G. Luttmer and Yong Wang. "A Model of Firm Dynamics and Industrial Dynamics", working in progress [TBC]
- Zhikun Lu and Yong Wang. "Stochastic Growth and Industrial Dynamics", in progress
- Luttmer, E. G. J. (2012). "Technology diffusion and growth". *Journal of Economic Theory*, 147(2), 602-622.
- Foster, L., Haltiwanger, J., & Syverson, C. (2008). Reallocation, firm turnover, and efficiency: Selection on productivity or profitability? *American Economic Review*, 98(1), 394-425.

C. Aggregate TFP and Micro Allocative Efficiency

- *Diego Restuccia and Richard Rogerson, 2008, "Policy Distortions and Aggregate Productivity with Heterogeneous Establishments", *Review of Economic Dynamics* 11: 707-720
- *Hsieh, Chang-Tai. and Peter Klenow, 2009. "Misallocation and Manufacturing TFP in China and India." *Quarterly Journal of Economics*. 124 (4): 1403-48.
- 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.
- Midrigan, Virgiliu and Daniel Xu. 2014. "Finance and Misallocation: Evidence from Plant-level Data" *American Economic Review*
- Hsieh, Hurst, Jones and Klenow, 2013, "The Allocation of Talent and U.S. Economic Growth", *Econometrica*.

D. Spatial Models of Industries and Growth

- Caliendo, Parro, Rossi-Hansberg and Sarte, “The Impact of Regional and Sectoral Productivity Changes on the U.S. Economy”, *Review of Economic Studies*, forthcoming
- Desmet and Rossi-Hansberg, 2014. “Spatial Development”, *American Economic Review*, 104:4, 1211-1243
- Desmet and Rossi-Hansberg, 2009, “Spatial Growth and Industry Age,” *Journal of Economic Theory*, 144(6):2477–2502.
- Lucas and Rossi-Hansberg, 2002, “On the Internal Structure of Cities,” *Econometrica*, 70(4):1445-1476.
- Rossi-Hansberg and Wright, 2007, “Urban Structure and Growth,” *Review of Economic Studies*, 74(2), 597-624.
- Duranton and Puga, 2001, “Nursery Cities: Urban Diversity, Process Innovation, and the Life Cycle of Products,” *American Economic Review*, 91(5):1454-1477.

E. Industry Upgrading and Labor Market Mismatch

- Shimer, Robert. 2007. ”Mismatch.” *American Economic Review*, 97(4): 1074-1101.
- Sahin, A., J. Song, G. Topa, and G.L. Violante, 2012. ”Mismatch Unemployment,” *AER*, forthcoming.
- McLaughlin, Kenneth and Mark Bilal, 2001. ”Interindustry Mobility and the Cyclical Upgrading of Labor,” *Journal of Labor Economics*, 19, 94-135.
- Myungkyu Shim and Hee-Seung Yang, 2014. ”Interindustry Wage Differentials, Technology Adoption, and Job Polarization”, working paper
- Zhe Li and Yong Wang. ”Mismatch and Industrial Upgrading”, working in progress.
- Yong Wang and Siyu Chen. ” Industrial Dynamics, Mismatch and Unemployment”, working in progress.

F. Industry Upgrading, Economic Growth, and Optimal Financial Institutions

- Stein, Jeremy. 2002.” Information Production and Capital Allocation: Decentralized versus Hierarchical Firms.” *Journal of Finance* LVII, no. 5: 1891-1921
- Bengt Holmström and Jean Tirole, 1998, ”Private and Public Supply of Liquidity”, *Journal of Political Economy*, Vol. 106(1):1-40
- Bengt Holmstrom; Jean Tirole. 2007. ”Financial Intermediation, Loanable Funds, and the Real Sector.” *The Quarterly Journal of Economics*, Vol. 112
- Valerie R. Bencivenga and Bruce D. Smith. 1991. ”Financial Intermediation and Endogenous Growth”, *Review of Economic Studies*.
- Brunnermeier, Markus K, and Yuliy Sannikov. 2014. “A Macroeconomic Model With A Financial Sector”. *American Economic Review* 104(2): 379-421.
- T. Beck, R. Levine, 2002. ”Industry Growth and Capital Allocation: Does having a Market- or Bank-Based System Matter?”, *Journal of Financial Economics*.
- Miao, Jianjun, 2005. ”Optimal Capital Structure and Industry Dynamics”, *Journal of Finance* 6: 2621-2659.
- Buera, F., J. Kaboski and Y. Shin, 2012, “Finance and Development: A Tale of Two Sectors,” *American Economic Review*

- Bleck, Alexander and Xuewen Liu, 2018. "Bank Credit Expansion and Credit Misallocation" *Journal of Monetary Economics* 94: 27-40.
- Greenwood, Jeremy, Juan Sanchez and Cheng Wang (2010), "Financing Development: The Role of Information Costs," *American Economic Review* 100: 1875-1891.
- Jinhui Bai and Yong Wang. 2016. "A Model of Optimal Bank Size Distribution", unpublished research note

G. Growth, Factor Income Shares, and Income Distribution

Survey: Vincenzo Quadrini and Jose-Victor Rios-Rull, 2014. "Inequality in Macroeconomics" *NH Handbook of Income Distribution*, volume 2B A.B. Atkinson and F.J. Bourguignon (Eds.) Chapter 15

- Gene Grossman, Elhanan Helpman, Ezra Oberfield, and Thomas Sampson, 2017. "Balanced Growth Despite Uzawa", *American Economic Review* 107.
- Helpman, Elhanan, Oleg Itskhoki, Marc-Andreas Muendler, and Stephen J. Redding. 2016. "Trade and Inequality: From Theory to Estimation." *Rev. Econ. Studies*.
- Karabarbounis, Loukas, and Brent Neiman. 2014. "The Global Decline of the Labor Share." *Quarterly Journal of Economics* 129 (1): 61–103.
- *Kiminori Matsuyama, 2002. "The Rise of Mass Consumption Societies," *Journal of Political Economy*, vol. 110(5), pages 1035-1070
- Benhabib, Jess, Alberto Bisin and Shenghao Zhu, 2011. "The Distribution of Wealth and Fiscal Policy in Economies With Finitely Lived Agents," *Econometrica* 79(1): 123-157.
- Stokey, Nancy, 2016, "Technology, Skill and the Wage Structure," NBER working paper #22176
- *Yong Wang and Zhongkai Shen, "Factor Endowment, Income Distribution and Industrial Upgrading", working paper
- Yong Wang, 2019. "A Model of Structural Change and Rural Income Distribution", NSE working paper

4 . Political Economy and Economic Growth

Surveys:

- Pranab Bardhan, 2016, "State and Development: The Need for a Reappraisal of the Current Literature", *Journal of Economic Literature* 54(3), 862–892
- Acemoglu, Daron, 2009, Chapter 22 and Chapter 23 in *Introduction to Modern Economic Growth*, Princeton University Press
- Timothy Besley and Torsten Persson. 2014. "The Causes and Consequences of Development Clusters: State Capacity, Peace, and Income". *Annual Review of Economics*. 927–950.
- Edmund Malesky and Jonathan London. 2014."The Political Economy of Development in China and Vietnam," *Annual Review of Political Science*. Vol. 17: 395-419

Topics and Papers:

A. Power and Incentives of Government and Economic Development

- Acemoglu, Daron, 2005, "Politics and Economics in Weak and Strong States," *Journal of Monetary Economics*, 52: 1199-1226
- Acemoglu, Daron, Davide Ticchi, Andrea Vindigni, 2011, "Emergence and Persistence of Inefficient States", *Journal of European Economic Association* 9(2): 177-208.

- Besley, Timothy and Torsten Persson. 2009. "The Origins of State Capacity: Property Rights, Taxation, and Policy", *American Economic Review* 99, 1218-1244
- Dixit, Avinash, Grossman, Gene M., Helpman, Elhanan, 1997. "Common Agency and Coordination: General Theory and Application to Government Policy Making". *Journal of Political Economy* 105, 752-769
- Bardhan, Pranab, Mookherjee, Dilip, 2000. "Capture and Governance at Local and National levels." *American Economic Review* 90, 135-139.
- *Yong Wang, 2013, "Fiscal Decentralization, Endogenous Policies, and Foreign Direct Investment: Theory and Evidence from China and India", *Journal of Development Economics* 103: 107-123

B. Institutions, Technology Adoption, and Growth

- Krusell, Per and Victor Rios-Rull, 1996, "Vested Interests in a Positive Theory of Stagnation and Growth", *Review of Economic Studies*, 63: 301-329
- Acemoglu, Daron, Helpman, Elhanan, Antras, Pol, 2007. "Contracts and Technology Adoption". *American Economic Review* 97, 916-943.
- Edward C. Prescott & Stephen L. Parente, 1999. "Monopoly Rights: A Barrier to Riches," *American Economic Review*, vol. 89(5): 1216-1233, December.
- *Acemoglu, Daron, Philippe Aghion, and Fabrizio Zilibotti. 2006. "Distance to Frontier, Selection, and Economic Growth", *Journal of the European Economic Association*, 4: 37-74.

5. Market Failure, Industrial Policies, and Economic Growth

Surveys:

- Harrison, Ann and Andres Rodriguez-Clare. 2009. "Trade, Foreign Investment, and Industrial Policies for Developing Countries." Manuscript prepared for *Handbook of Development Economics*. edited by Dani Rodrik
- Justin Yifu Lin and Celestin Monge, 2010. "Growth identification and facilitation: the role of the state in the dynamics of structural change", *Policy Research Working Paper #5313*, World Bank
- Rodrik, Dani, 2008, "*Normalizing Industrial Policies*", Washington, DC. World Bank Press
- Philippe Aghion and Alexandra Roulet. 2014. "Growth and the Smart State". *Annual Review of Economics*. 913-926.

Papers:

- Krugman, Paul. 1987. "The Narrow Moving Band, The Dutch Disease, and The Competitive Consequences of Mrs. Thatcher". *Journal of Development Economics* 27: 41-55
- Krugman, Paul. 1991. "History Versus Expectations", *Quarterly Journal of Economics* 106(2): 651-667
- Rodriguez-Clare, Andres, 2007. "Clusters and Comparative Advantage: Implications for Industrial Policy," *Journal of Development Economics* 82: 43-57
- Murphy, Kevin M.; Andrei Shleifer and Robert W. Vishny, 1989. "Industrialization and Big Push". *Journal of Political Economy*, 97(5): 1003-1026
- Murphy, Kevin M & Shleifer, Andrei & Vishny, Robert W, 1989. "Income Distribution, Market Size, and Industrialization," *The Quarterly Journal of Economics*, MIT Press, vol. 104(3), pages 537-64, August.

- Rodrik, Dani, 1996. "Coordination Failures and Government Policy: A Model with Applications to East Asia and Eastern Europe", *Journal of International Economics* 40: 1-22
- Hausmann, Ricardo & Rodrik, Dani, 2003. "Economic Development as Self-Discovery," *Journal of Development Economics*, vol. 72(2), pages 603-633, December.
- Mikhail M. Klimentko, 2004. "Industrial Targeting, Experimentation, and Long-Run Specialization", *Journal of Development Economics* 73: 75 – 105
- Melitz, Marc J., 2005. "When and How should Infant Industries be Protected?" *Journal of International Economics*, 66(1): 177–196.
- Ederington, Josh and Philip McCalman. 2011. "Infant Industry Protection and Industry Dynamics", *Journal of International Economics* 84: 37–47.
- Aghion, Philippe, Dewatripont, Mathias, Du, Luosha, Harrison, Ann E. E. and Legros, Patrick, 2012. "Industrial Policy and Competition." *AEJ: Policy*
- Francisco J. Buera, Ben Moll, and Yongseok Shin, 2013. "Well-Intended Policies", *Review of Economic Dynamics*, Vol. 16, No. 1,
- Oleg Itskhoki and Ben Moll, 2017. "Optimal Development Policies with Financial Frictions", *Econometrica*
- Brooks, W., J. Kaboski, Y. Li (2016), "Growth Policy, Agglomeration, and (the Lack of) Competition," NBER working paper #22947.
- Daron Acemoglu, Ufuk Akcigit, Nicholas Bloom and William Kerr, 2013, "Innovation, Reallocation and Growth", NBER Working Paper #18993
- *Ju Jiandong , Justin Yifu Lin, Yong Wang. 2011. "Marshallian Externalities, Industrial Upgrading, and Industrial Policies", World Bank Working Paper
- Yong Wang and Justin Yifu Lin, 2019. "Structural Change, Industrial Upgrading, and Middle-Income Trap", NSE working paper
- Justin Yifu Lin, Yong Wang and Yi Wen. "Infrastructure Investment and Industrial Upgrading", working in progress
- Liu, E. (2019). "Industrial policies in production networks". *Quarterly Journal of Economics*, 134(4), 1883-1948.
- Kalouptsi, M. (2018). "Detection and impact of industrial subsidies: The case of Chinese shipbuilding". *Review of Economic Studies*, 85(2), 1111-1158.
- Holz, C. A. (2011). "The unbalanced growth hypothesis and the role of the state: The case of China's state-owned enterprises". *Journal of Development Economics*, 96(2), 220-238.
- Hodler, R. (2009). "Industrial policy in an imperfect world". *Journal of Development Economics*, 90(1), 85-93.
- Blonigen, B. A. (2016). "Industrial Policy and Downstream Export Performance". *Economic Journal*, 126(595), 1635-1659.

6. Macro and Growth of China

Surveys:

- Zhu, Xiaodong, 2012, "Understanding China's Growth: Past, Present and Future", *Journal of Economic Perspectives*.
- Kjetil Storesletten, and Fabrizio Zilibotti. 2014. "China's Great Convergence and Beyond." *Annual Review of Economics* 6: 333-362.

- Chenggang Xu, 2011, “The Fundamental Institutions of China’s Reforms and Development,” *The Journal of Economic Literature* 49(4), 1076-1151.

Topics and Papers:

A. Aggregate Growth and Productivities

- Alwyn Young, 2003, “Gold into Base Metals: Productivity Growth in the People’s Republic of China during the Reform Period.” *Journal of Political Economy* 111 (December): 1220-1261.
- Alwyn Young, 2000, “The Razor’s Edge: Distortions and Incremental Reform in the People’s Republic of China.” *Quarterly Journal of Economics* 115 (November): 1091-1135.
- Loren Brandt and Xiaodong Zhu, 2010, ”Accounting for China’s Growth”, University of Toronto Working Paper No. 394.
- *Loren Brandt, Johannes Van Biesebroeck, Yifan Zhang, 2012, ”Creative Accounting or Creative Destruction: Firm Level Productivity Growth in Chinese Manufacturing”, *Journal of Development Economics* 97 (2): 339–351.
- Hsieh, C.T. and Ossa, R., 2016. ”A global view of productivity growth in China”. *Journal of international Economics*, 102, pp.209-224.

B. Factor Markets and Distortions

- Loren Brandt and Trevor Tombe and Xiaodng Zhu, 2013, ”Factor Market Distortions across Time, Space, and Sectors in China”, *Review of Economic Dynamics* vol. 16(1) :39-58
- Ge, Suqin and Dennis Yang, 2014, “Changes in China’s Wage Structure,” *Journal of European Economic Association*.
- Yuk-Shing Cheng and Kim-Sau Chung, 2017. ” Designing Property Rights over Land in Rural China”, *Economic Journal*, forthcoming
- Garriga, C., Y. Tang and P. Wang, 2017, “Rural-Urban Migration, Structural Transformation, and Housing Markets in China,” NBER working paper #23819.
- Trevor Tombe and Xiaodong Zhu, 2015. ”Trade, Migration and Productivity: A Quantitative Analysis of China”, University of Toronto Working Paper No. 542. R&R at the *American Economic Review*.
- Liao, P., P. Wang, Y. Wang, and C. K. Yip (2017), “Educational Choice, Rural-Urban Migration and Economic Development: The Role of Zhaosheng in China,” NBER working paper #23939
- Song, Zheng, Kjetil Storesletten, and Fabrizio Zilibotti. 2011. ”Growing Like China.” *American Economic Review*, 101(1): 196-233.
- Z. Chen, Z. Liu, J.C. Suarez-Serrato and D. Xu. 2018 ”Notching R&D Investment with Corporate Income Tax Cuts in China” working paper
- Cao, Kang Hua, Javier A. Birchenall. 2013. ”Agricultural Productivity, Structural Change, and Economic Growth in Post-Reform China”, *Journal of Development Economics*, 104 (September): 165–180
- Cheng, Y.S. and Chung, K.S., 2018. ”Designing property rights over land in rural China”. *The Economic Journal*, 128(615), pp.2676-2710.

C. Networks (vertical structure): Policies, Growth and Trade

- *Xi Li, Xuewen Liu, and Yong Wang, 2016. “A Model of China’s State Capitalism”, working paper

- Xin Wang, Yong Wang and Wei Xiang. "Trade Liberalization, Vertical Structure and Firm Markups", working in progress
- Shi-Yuan Pan, Yong Wang and Qi Zhang. "A Political Economy Model of Reforms under Vertical Structure", working in progress
- Liu, Ernest. 2018. "Industrial Policies in Production Networks", working paper.
- Tang, Heiwai, Fei Wang and Zhi Wang. 2018. "Domestic Segment of Global Value Chains in China under State Capitalism", working paper

D. Dynamic Models of Reform and Political Economy in China

- Che, Jiahua. 2009. "A Dynamic Model of Privatization with Endogenous Post-Privatization Performance", *Review of Economic Studies* Volume 76, April, 563-596
- *Wang, Yong, 2015, "A Model of Sequential Reforms and Economic Convergence: The Case of China", *China Economic Review* 32: 1-26
- *Yong Wang, 2013, "Fiscal Decentralization, Endogenous Policies, and Foreign Direct Investment: Theory and Evidence from China and India", *Journal of Development Economics* 103: 107-123
- Li, Hongbin & Zhou, Li-An, 2005. "Political turnover and economic performance: the incentive role of personnel control in China," *Journal of Public Economics* 89(9-10):1743-1762.
- Li, Xing, Chong Liu, Xi Weng, and Li-An Zhou. 2018. "Target Setting in Tournaments: Theory and Evidence from China", *Economic Journal*, forthcoming

E. Demographics and Saving Behavior in China:

- C. Curtis, S. Lugauer and Nelson Mark. 2014. "Demographic Patterns and Household Saving in China", *American Economic Journal: Macroeconomics*
- Taha Choukhmane, Nicolas Coeurdacier and Keyu Jin, 2017. "The One Child Policy and Household Saving", working paper

F. Monetary Policies and Financial Institutions of China

- Kaiji Chen, Patrick Higgins, Daniel F. Waggoner, and Tao Zha, 2018, "Impacts of Monetary Stimulus on Credit Allocation and Macroeconomy: Evidence from China", *American Economic Review*
- Zheng Liu, Pengfei Wang, and Zhiwei Xu, 2017. "Interest-Rate Liberalization and Capital Misallocations", working paper
- Wang, H., H. Wang, L. Wang, and H. Zhou, 2016. "Shadow Banking: China's Dual-Track Interest Rate Liberalization," Unfinished Manuscript, Tsinghua University.
- Luo, Jie and Cheng Wang, 2015, "China's Financial System in Equilibrium." working paper

G. Trade of China

- Autor, David H., David Dorn and Gordon H. Hanson. 2013. "The China Syndrome: Local Labor Market Effects of Import Competition in the United States", *American Economic Review*.
- Kyle Handley, Nuno Limao. 2017. "Policy Uncertainty, Trade, and Welfare: Theory and Evidence for China and the United States", *American Economic Review*.

- Caliendo, Lorenzo, Maximiliano Dvorkin, and Fernando Parro. 2015. "Trade and Labor Market Dynamics: General Equilibrium Analysis of China Shock." NBER Working Paper No. 21149.
- Khandelwal, Amit K., Peter K. Schott, and Shang-Jin Wei. 2013. "Trade Liberalization and Embedded Institutional Reform: Evidence from Chinese Exporters." *American Economic Review* 103 (6): 2169-2195.
- Loren Brandt, Johannes Van Biesebroeck, Luhang Wang, Yifan Zhang, 2017. "WTO Accession and Performance of Chinese Manufacturing Firms", *American Economic Review* 107 (9): 2784–2820.
- Kee, Hiau Looi and Heiwai Tang. 2016. "Domestic Value Added in Exports: Theory and Firm Evidence from China", *American Economic Review*, 106(6): 1402-1436
- Dan, Lu, 2012. "Exceptional Exporter Performance? Evidence from Chinese Manufacturing Firms", University of Rochester working paper
- Dai, Mi & Maitra, Madhura & Yu, Miaojie, 2016. "Unexceptional exporter performance in China? The role of processing trade," *Journal of Development Economics*, Elsevier, vol. 121(C), pages 177-189.
- Yu, Miaojie, 2015. "Processing Trade, Tariff Reductions and Firm Productivity: Evidence from Chinese Firms," *Economic Journal* 125(585): 943-988, June.
- Mark J. Roberts, Xiaoyan Fan, Daniel Xu and Shengxing Zhang, 2017. "The Role of Firm Factors in Demand, Cost, and Export Market Selection for Chinese Footwear Producers", NBER Working Paper 17725, *Review of Economic Studies*, forthcoming