

Paper Reading Notes

Xing Mingjie

February 27, 2024

Contents

1	Trade	2
1.1	Akcigit et al. (2018a)	2
1.2	Fernandes et al. (2023)	2
1.3	Martin et al. (2023)	2
1.4	Demidova and Rodríguez-Clare (2009)	2
1.5	Demidova (2017)	2
1.6	Costinot et al. (2020)	2
1.7	Atkeson and Burstein (2008)	2
1.8	Steinwender (2018)	2
2	Industrial Policy	3
2.1	Juhász et al. (2023)	3
2.2	Mazzucato and Rodrik (2023)	3
2.3	Rodrik (2018)	3
2.4	Aiginger and Rodrik (2020)	3
2.5	McMillan et al. (2017)	3
3	Innovation	4
3.1	Aghion et al. (2001)	4
3.2	Prato (2022)	4
3.3	Bahar and Rapoport (2018)	4
3.4	Bai et al. (2023)	4
3.5	Adão et al. (2020)	4
3.6	Liu and Ma (2021)	4
3.7	Kogan et al. (2017)	4
3.8	Aghion et al. (2005)	4
3.9	König et al. (2016)	4
4	Search and Unemployment	5
4.1	Mortensen and Pissarides (1994)	5
4.2	Shimer (2005)	5
4.3	Hornstein et al. (2011)	5
4.4	Lenoir et al. (2022)	5
5	Heterogenous Agents	5
5.1	Aiyagari (1994)	5

5.2	Krusell and Anthony A. Smith (1998)	5
6	Firm Dynamics	5
6.1	Hopenhayn (1992)	5
6.2	Kochen (2023)	5
6.3	Arellano et al. (2012)	5
6.4	Cooley and Quadrini (2001)	5
6.5	Jovanovic (1982)	5
6.6	Klette and Kortum (2004)	6
6.7	Melitz (2003)	6
7	Uncertainty	6
7.1	Arellano et al. (2019)	6
8	Empirical	6
8.1	Diao et al. (2021)	6
8.2	Laplane and Mazzucato (2020)	6
8.3	Rodrik (2016)	6
8.4	Aghion et al. (2018)	7
8.5	Akcigit et al. (2018b)	7
9	Migration	7
9.1	Docquier et al. (2015)	7
9.2	Parsons and Vézina (2018)	7
9.3	BURCHARDI et al. (2019)	7
9.4	COHEN et al. (2017)	8
10	Data	9
10.1	Macro	9
10.2	Medical	9
10.3	Trade	9
10.4	Legal	9
10.5	Innovation	9
10.6	Firm	9
10.7	Transport	9
10.8	Migration	10
10.9	Others	10
	Bibliography	11

1 Trade

1.1 Akcigit et al. (2018a)

1.2 Fernandes et al. (2023)

1.3 Martin et al. (2023)

1.4 Demidova and Rodríguez-Clare (2009)

- Welfare: productivity, terms of trade, variety, curvature (heterogeneity across varieties)
- consumption subsidy, export tax, import tariff allows small economy to deal with two distortions and reach first-best allocation
- export subsidy generates increase in productivity, but negative on other three, decrease welfare
- import tariff improves small economy's welfare

1.5 Demidova (2017)

- Monopolistic competition with heterogeneous firms, endogenous wages, non-separable, non-homothetic quadratic preferences generating variable markups
- optimal level of the revenue generating import tariff is strictly positive
- reductions in cost-shifting trade barriers are welfare-improving
- in both cases, variable markups result in negative pro-competitive effects, reducing gains from trade

1.6 Costinot et al. (2020)

- Large firms tend to export
- country maximizing domestic welfare, self-selection of heterogeneous firms into exports calls for import subsidies on the least profitable foreign firms
- there is no rationale for export subsidies or taxes on the least profitable domestic firms

1.7 Atkeson and Burstein (2008)

1.8 Steinwender (2018)

- Transatlantic telegraph in 1866 lowers average and volatility of the transatlantic price difference of cotton, and increases those of trade flows.
- Efficiency gains 8% of export value
- A partial equilibrium model in which exporters and storage use the latest news about a foreign market to forecast expected prices.
- Newly collected data set on cotton prices, trade and information flows from historical newspapers.

2 Industrial Policy

2.1 Juhász et al. (2023)

2.2 Mazzucato and Rodrik (2023)

- Table of Taxonomy of conditionalities in the case studies
 - Type of firm behavior targeted: access, directionality, profit sharing, reinvestment
 - Fixed versus negotiable/ iterative conditions
 - Risks/ rewards sharing mechanism
 - Measurable performance criteria and monitoring and evaluation
- Embeddedness, autonomy and the development state matrix

2.3 Rodrik (2018)

2.4 Aiginger and Rodrik (2020)

- Chronique of industrial policy definition since 1981

2.5 McMillan et al. (2017)

- Two theories explaining growth: 1) **dual-economy**. draws distinction between agriculture as traditional and industry as modern sectors of economy. Different economic logics are at work within so cannot be lumped together. Accumulation innovation and productivity growth take place in the modern sector, the traditional sector remains technologically backward and stagnant. Labor and other resources migration rate to modern sector decides growth rate. Lewis 1954, Ranis and Fei 1961.
2) **neoclassical growth model**. presumes different economic activity are structurally similar enough to aggregate into a representative sector. growth depends on the incentives to save, accumulate physical and human capital, and innovate by developing new products and processes. Solow 1956, Grossman and Helpman 1991, Aghion and Howitt 1992.
- two challenge: structural transformation and fundamentals. **Former**, ensure resources flow rapidly to high productivity. **Latter**, on broad and long-run growth two driving forces: quality of institutions(governance, law, biz environment) or the level of human capital(education, skills, training). Acemoglu Johnson Robinson 2001, Glaeser et al 2004.
- Results
 - Brazil and Botswana: structural change important in launching into middle-income but tiny role thereafter
 - Vietnam and Ghana: structural change significant contribution
 - India, Nigeria Zambia: structural change different way. less rapid decline in the employment share of low-productivity agriculture, exacerbated by the lack of labor-intensive manufacturing for export.
- Typology of growth patterns: structural transformation \times Investment in fundamentals
- total labor productivity: $P_t = \sum_{i=1}^n \theta_{i,t} P_{i,t}$.

$$\text{Change in total labor productivity } \Delta P_t = \sum_{i=1}^n \theta_{i,t-k} \Delta P_{i,t} + \sum_{i=1}^n \Delta P_{i,t-k} + \sum_{i=1}^n \Delta \theta_{i,t} \Delta P_{i,t}$$

- productivity change as sum of with-in sector change and structural change

$$\Delta P_t = \sum_{i=1}^n \theta_{i,t-k} \Delta P_{i,t} + \sum_{i=1}^n P_{i,t} \Delta \theta_{i,t}$$

3 Innovation

3.1 Aghion et al. (2001)

3.2 Prato (2022)

- Meeting rate

3.3 Bahar and Rapoport (2018)

- Proxy for knowledge diffusion: cross-country productivity spillovers leading to new exports
- 10% increase in immigration from exporters is associated with a 2% increase in the host country exporting in next decade likelihood, especially stronger for highly-skilled migrants.

3.4 Bai et al. (2023)

3.5 Adão et al. (2020)

3.6 Liu and Ma (2021)

3.7 Kogan et al. (2017)

- Technological innovation accounts for significant medium-run fluctuations in aggregate economic growth and TFP.
- patent-level estimates of private economic value are positively related to the scientific value of these patents
- Extended data: <https://github.com/KPSS2017/Technological-Innovation-Resource-Allocation-and-G>

3.8 Aghion et al. (2005)

- Competition discourages laggard firms from innovating and encourages neck-and-neck firms. This generates an inverted-U, together with competition on equilibrium industry structure
- average tech distance btw leaders and followers increases with competition
- the inverted-U is steeper when industries are more neck-and-neck

3.9 König et al. (2016)

- Firms endogenously choose between in-house R&D and imitation other firm's tech subject to limits of absorptive capacities to improve productivity based on profit maximization motive
- closer to technological frontier face fewer imitation opportunities, more in-house
- BGE features persistent productivity differences even when starting from identical firms

4 Search and Unemployment

4.1 Mortensen and Pissarides (1994)

4.2 Shimer (2005)

4.3 Hornstein et al. (2011)

4.4 Lenoir et al. (2022)

- Search friction of new customers distort the allocation activities across heterogeneous producers in a Ricardian model of trade.
- Markets with high estimated frictions display less dispersion in sales btw high and low productivity firms
- Increase in the level of search frictions pushes out the least productive exporters while increases export sales at the top of the productivity distribution

5 Heterogenous Agents

5.1 Aiyagari (1994)

5.2 Krusell and Anthony A. Smith (1998)

6 Firm Dynamics

6.1 Hopenhayn (1992)

6.2 Kochen (2023)

6.3 Arellano et al. (2012)

6.4 Cooley and Quadrini (2001)

- Introducing financial-market frictions in a basic model of industry dynamics with persistent shocks
- the combination of persistent shocks and financial frictions can account for the simultaneous dependence of firm dynamics on size (once we control for age) and on age (once we control for size).

6.5 Jovanovic (1982)

- This is the seminal paper to incorporate uncertainty and learning into entrepreneurship and firm dynamics.

6.6 Klette and Kortum (2004)

6.7 Melitz (2003)

7 Uncertainty

7.1 Arellano et al. (2019)

8 Empirical

8.1 Diao et al. (2021)

- The poor employment performance of large firms is related to use of capital-intensive techniques associated with global trends in technology.
- larger firms that exhibit superior productivity performance do not expand employment much
- small firms that absorb employment do not experience any productivity growth.
- Relatively large firms in the manufacturing sectors of Tanzania and Ethiopia are significantly more capital-intensive than what would be expected on the basis of the countries' income levels or relative factor endowments
- Reasons: 1, advanced economies develop labour saving technology; 2, globalization and the spread of global value chains has had a homogenizing effect on technology adoption, and the imperative of competing with production in richer countries at similar quality level makes it difficult to undertake large shifts in techniques
- New panels of manufacturing firms: Tanzania 2008~ 16, Ethiopia 1996~ 2017

8.2 Laplane and Mazzucato (2020)

- Policies that explicitly take into consideration the risk-taking entrepreneurial role of the state, can positively affect reward distributions and favor more equitable public| private partnerships.
- Sharing rewards enables a more portfolio mindset, where the upside is used to cover the downside, and more stable funding to serve citizens' needs. It also signals the value and legitimacy of the state's role.
- Table of existing policy instruments for financing innovation that allow for profit-Sharing
- Table of the legal underpinning of the distribution of rewards in public|private partnerships parasitic versus symbiotic ecosystems

8.3 Rodrik (2016)

- Developing countries only converge to rich country income levels conditional on country-specific disadvantages like institutions or poor geography being overcome.
- Matrix of structural change and investment in fundamentals
- much of recent performance in Africa due to advantageous external context and making up of lost ground
- structural change and industrialization operating at less than full power

- should there be a miracle, it should be agriculture or service led than traditional ones.

8.4 Aghion et al. (2018)

- inventor collect 8% of total private return
- entrepreneurs get over 44%
- blue-collar get 26%
- the rest goes to white-collar workers
- entrepreneurs have negative returns prior to patent application but subsequently become highly positive
- Finland data

8.5 Akcigit et al. (2018b)

- Higher taxes negatively impact the quantity and the location of innovation, but not average innovation quality.
- state-level elasticities to taxes are large and consistent with the aggregation of the individual level responses of innovation produced and cross-state mobility
- corporate taxes have special effect on corporate inventor's innovation production and mobility
- personal income tax affects quantity of innovation and mobility of inventors.
- panel of patent inventors since 1920
- historical state-level corporate tax database with corp tax rates and tax base information
- existing: state-level personal income taxes

9 Migration

9.1 Docquier et al. (2015)

- Complete liberalization of cross-border migration increase world GDP by 11.5-12.5% in benchmark model, and 7.0-17.9% in robustness analyses.

9.2 Parsons and Vézina (2018)

- The exodus of Vietnamese Boat People to US evidence that migrant networks promote trade by reducing trade costs because they have knowledge of their home country's language, regulations, market opportunities and informal institutions. Migrants mostly facilitate bilateral trade with developing countries.
- Doubling migrants leads to 45% to 138% increase in state exports.
- First evidence of positive link between migration and trade with a natural experiment.

9.3 BURCHARDI et al. (2019)

- Doubling the number of residents with ancestry from a given foreign country relative to the mean increases the probability that at least one local firm engages in FDI with that country by 4 percentage points.

- This effect is primarily driven by a reduction in information frictions, and not by better contract enforcement, taste similarities, or a convergence in factor endowments.

9.4 COHEN et al. (2017)

- Firms are significantly more likely to trade with countries that have a large resident population near their firm headquarters, and that these connected trades are their most valuable international trades
- Firms are also more likely to acquire target firms, and report increased segment sales, in connected countries

10 Data

10.1 Macro

- Groningen Growth and Development Centre: indicators of growth and development <https://www.rug.nl/ggdc/>

10.2 Medical

- Medical Expenditure Panel Survey <https://meps.ahrq.gov/mepsweb/>
- FDA Orange book <https://www.fda.gov/drugs/drug-approvals-and-databases/approved-drug-product>

10.3 Trade

- GlobalTradeAlert <https://www.globaltradealert.org/>
- Cboe Trade Alerts <https://www.cboe.com/services/analytics/tradealert/institutions/>
- UN Comtrade: product level bilateral trade data <https://comtradeplus.un.org/TradeFlow>

10.4 Legal

- LobbyView <https://www.lobbyview.org/>
- QuantGov <https://www.quantgov.org/>

10.5 Innovation

- Orgiin IP Solutions <https://orgiin.com/>
- PATENTS-ICRIOS DATABASE <https://icrios.unibocconi.eu/resources/databases/patents-icrios-database>
-

10.6 Firm

- FactSet Supply Chain Relationships <https://wrds-www.wharton.upenn.edu/pages/about/data-vendors/factset/>
- Cortellis <https://access.clarivate.com/login?app=cortellis>
- Westlaw Edge <https://legal.thomsonreuters.com/en/products/westlaw-edge>
- MIDAS <https://www.iqvia.com/solutions/commercialization/brand-strategy-and-management/market-measurement/midas>
- Namsor <https://namsor.app/>
- GGDC 10 Sector database
- expanded africa sector database
- UNIDO's Indstat2

10.7 Transport

- TUD19: multi-city traffic dataset <https://utd19.ethz.ch/>; <https://github.com/ambuehl1/UTD19>

10.8 Migration

- Gallup Global Research <https://www.gallup.com/analytics/318875/global-research.aspx>
- Gallup Country Data Set <https://www.gallup.com/services/177797/country-data-set-details.aspx>
- Bilateral migration data Artuç et al. (2014)

10.9 Others

- GeoDist on bilateral relationships such as common coloniser, colony-coloniser, common language, religion. http://www.cepii.fr/CEPII/en/bdd_modele/bdd_modele_item.asp?id=6

Bibliography

- Adão, R., Beraja, M., and Pandalai-Nayar, N. (2020). Technological transitions with skill heterogeneity across generations. Working Paper 26625, National Bureau of Economic Research.
- Aghion, P., Akcigit, U., Hyytinen, A., and Toivanen, O. (2018). On the returns to invention within firms: Evidence from finland. *AEA Papers and Proceedings*, 108:208–12.
- Aghion, P., Bloom, N., Blundell, R., Griffith, R., and Howitt, P. (2005). Competition and Innovation: an Inverted-U Relationship*. *The Quarterly Journal of Economics*, 120(2):701–728.
- Aghion, P., Harris, C., Howitt, P., and Vickers, J. (2001). Competition, imitation and growth with step-by-step innovation. *The Review of Economic Studies*, 68(3):467–492.
- Aiginger, K. and Rodrik, D. (2020). Rebirth of industrial policy and an agenda for the twenty-first century. *Journal of Industry, Competition and Trade*, 20:189–207.
- Aiyagari, S. R. (1994). Uninsured idiosyncratic risk and aggregate saving. *The Quarterly Journal of Economics*, 109(3):659–684.
- Akcigit, U., Ates, S. T., and Impullitti, G. (2018a). Innovation and trade policy in a globalized world. Working Paper 24543, National Bureau of Economic Research.
- Akcigit, U., Grigsby, J., Nicholas, T., and Stantcheva, S. (2018b). Taxation and innovation in the 20th century. Working Paper 24982, National Bureau of Economic Research.
- Arellano, C., Bai, Y., and Kehoe, P. J. (2019). Financial frictions and fluctuations in volatility. *Journal of Political Economy*, 127(5):2049–2103.
- Arellano, C., Bai, Y., and Zhang, J. (2012). Firm dynamics and financial development. *Journal of Monetary Economics*, 59(6):533–549.
- Artuç, E., Docquier, F., Özden, , and Parsons, C. (2014). *A Global Assessment of Human Capital Mobility: The Role of Non-OECD Destinations*. The World Bank.
- Atkeson, A. and Burstein, A. (2008). Pricing-to-market, trade costs, and international relative prices. *American Economic Review*, 98(5):1998–2031.
- Bahar, D. and Rapoport, H. (2018). Migration, knowledge diffusion and the comparative advantage of nations. *The Economic Journal*, 128(612):F273–F305.
- Bai, Y., Jin, K., and Lu, D. (2023). Technological rivalry and optimal dynamic policy in an open economy. Working Paper 31703, National Bureau of Economic Research.
- BURCHARDI, K. B., CHANEY, T., and HASSAN, T. A. (2019). Migrants, ancestors, and foreign investments. *The Review of Economic Studies*, 86(4 (309)):pp. 1448–1486.
- COHEN, L., GURUN, U. G., and MALLOY, C. (2017). Resident networks and corporate connections: Evidence from world war ii internment camps. *The Journal of Finance*, 72(1):207–248.
- Cooley, T. F. and Quadrini, V. (2001). Financial markets and firm dynamics. *American Economic Review*, 91(5):1286–1310.
- Costinot, A., Rodríguez-Clare, A., and Werning, I. (2020). Micro to macro: Optimal trade policy with firm heterogeneity. *Econometrica*, 88(6):2739–2776.
- Demidova, S. (2017). Trade policies, firm heterogeneity, and variable markups. *Journal of International Economics*, 108:260–273.
- Demidova, S. and Rodríguez-Clare, A. (2009). Trade policy under firm-level heterogeneity in a small economy. *Journal of International Economics*, 78(1):100–112.
- Diao, X., Ellis, M., McMillan, M. S., and Rodrik, D. (2021). Africa’s manufacturing puzzle: Evidence from tanzanian and ethiopian firms. Working Paper 28344, National Bureau of Economic Research.
- Docquier, F., Machado, J., and Sekkat, K. (2015). Efficiency gains from liberalizing labor mobility. *The Scandinavian Journal of Economics*, 117(2):303–346.
- Fernandes, A. M., Klenow, P. J., Meleshchuk, S., Pierola, M. D., and Rodríguez-Clare, A. (2023). The intensive margin in trade: How big and how important? *American economic journal. Macroeconomics*, 15(3):320–354.
- Hopenhayn, H. A. (1992). Entry, exit, and firm dynamics in long run equilibrium. *Econometrica*, 60(5):1127–1150.
- Hornstein, A., Krusell, P., and Violante, G. L. (2011). Frictional wage dispersion in search models: A quantitative assessment. *The American Economic Review*, 101(7):2873–2898.
- Jovanovic, B. (1982). Selection and the evolution of industry. *Econometrica*, 50(3):649–670.

- Juhász, R., Lane, N. J., and Rodrik, D. (2023). The new economics of industrial policy. Working Paper 31538, National Bureau of Economic Research.
- Klette, T. and Kortum, S. (2004). Innovating firms and aggregate innovation. *Journal of Political Economy*, 112(5):986–1018.
- Kochen, F. (2023). Finance over the life cycle of firms. Job market paper, CEMFI.
- Kogan, L., Papanikolaou, D., Seru, A., and Stoffman, N. (2017). Technological Innovation, Resource Allocation, and Growth*. *The Quarterly Journal of Economics*, 132(2):665–712.
- Krusell, P. and Anthony A. Smith, J. (1998). Income and wealth heterogeneity in the macroeconomy. *Journal of Political Economy*, 106(5):867–896.
- König, M. D., Lorenz, J., and Zilibotti, F. (2016). Innovation vs. imitation and the evolution of productivity distributions. *Theoretical Economics*, 11(3):1053–1102.
- Laplane, A. and Mazzucato, M. (2020). Socializing the risks and rewards of public investments: Economic, policy, and legal issues. *Research Policy*, 49:100008. Articles initially published in Research Policy: X issue 2.
- Lenoir, C., Martin, J., and Mejean, I. (2022). Search Frictions in International Goods Markets. *Journal of the European Economic Association*, 21(1):326–366.
- Liu, E. and Ma, S. (2021). Innovation networks and r&d allocation. Working Paper 29607, National Bureau of Economic Research.
- Martin, J., Mejean, I., and Parenti, M. (2023). Relationship Stickiness, International Trade, and Economic Uncertainty. *The Review of Economics and Statistics*, pages 1–45.
- Mazzucato, M. and Rodrik, D. (2023). Industrial policy with conditionalities: A taxonomy and sample cases. September 2023.
- McMillan, M., Rodrik, D., and Sepulveda, C. (2017). Structural change, fundamentals and growth: A framework and case studies. Working Paper 23378, National Bureau of Economic Research.
- Melitz, M. J. (2003). The impact of trade on intra-industry reallocations and aggregate industry productivity. *Econometrica*, 71(6):1695–1725.
- Mortensen, D. T. and Pissarides, C. A. (1994). Job creation and job destruction in the theory of unemployment. *The Review of Economic Studies*, 61(3):397–415.
- Parsons, C. and Vézina, P.-L. (2018). Migrant networks and trade: The vietnamese boat people as a natural experiment. *The Economic Journal*, 128(612):F210–F234.
- Prato, M. (2022). The global race for talent: Brain drain, knowledge transfer, and growth. Ssrn working paper.
- Rodrik, D. (2016). An african growth miracle? *Journal of African Economies Advance Access*. Revised version of the paper written for the Center for Global Development, Richard H. Sabot Lecture, on April 24, 2014.
- Rodrik, D. (2018). What do trade agreements really do? *Journal of Economic Perspectives*, 23(2):73–90.
- Shimer, R. (2005). The cyclical behavior of equilibrium unemployment and vacancies. *American Economic Review*, 95(1):25–49.
- Steinwender, C. (2018). Real effects of information frictions: When the states and the kingdom became united. *The American Economic Review*, 108(3):657–696.