

The Limits of Economic Prediction: Reassessing the Lin-Yang Debate on China's Dual-Track Reforms

Yiyang Sun

*Department of Anthropology, London School of Economics, London, The United Kingdom
y.sun111@lse.ac.uk*

Abstract. Yang, drawing on his inframarginal economics framework, argued that China's dual-track reforms would fail without constitutional shock therapy, predicting that the absence of proper institutional transitions would lead to corruption and economic stagnation. Conversely, Lin's New Structural Economics advocated for gradual reform based on comparative advantages, arguing that late-comers could benefit by developing industries aligned with their factor endowments. This essay examines the 2002 to 2003 debate between economists Justin Yifu Lin and Xiaokai Yang regarding China's economic reforms and late-comer advantages. Through an analysis of recent empirical evidence (2020-2025), this essay demonstrates that Yang's predictions largely failed to materialize: China's dual-track system succeeded despite lacking constitutional transformation, with state-owned enterprises contributing positively to growth and anti-corruption campaigns improving productivity. However, Lin's framework also proves insufficient in explaining China's success. The paper concludes that economic forecasting necessarily sacrifices scientific rigor in favor of broad generalizations, suggesting that economics should focus on explaining existing phenomena rather than predicting uncertain futures.

Keywords: Late-comer advantage/disadvantage, Constitutional transition, Chinese economy, Dual-track reforms, Empirical revolution

1. Introduction

On 12th June 2002, a Chinese economist, Justin Yifu Lin made a polemical speech in Peking University, debating against the critical and pessimistic stance taken by another Chinese economist, Xiaokai Yang, on the prospects of Chinese economic reformation, Yang had previously made a highly controversial speech at a forum hosted by the Unirule Institute of Economics in 2002. As a response to Lin's criticism, Yang soon published a provocative article on China Economic Quarterly, restating his claims and arguments from his highly influential essay "Economic Reforms and Constitutional Transition (2000)" [1].

Yang claimed that he was inspired by an essay titled Curse to the Late Comers by an American economist named Watson, who appears to have no online presence. On the contrary to Lin's position, Yang asserts that being a late comer brings developing countries troublesome disadvantages, manifested by their slumped economic growth after noteworthy soars. Yang meticulously studied and analyzed this widespread phenomenon, concluding that it is the improper

constitutional transition and its subsequent consequences that lead to stagnating economic growth. As a pioneer in new classical economics, Yang confidently applied his infra-marginal analysis to construct a suitable framework for explaining the latecomer disadvantage.

Look back to the backdrop of this particular debate, which takes place between 2000 to 2003. China had joined WTO on 11th December 2001. The Premier Rongji Zhu's ground-breaking reform of state-enterprises had just begun. Most notably, China maintained a GDP surge of 9.6% on average per year from 1979 to 2005 [2], though this is accompanied with a banking crisis with non-performing loans achieving 30% of portfolios by the late 1990s [3]. In addition, Chinese government's plan of activating energies of small enterprises while enforce total control over large-scale state-companies raised 30 million redundancies [4]. Fortunately, several assess management companies absorbed 169 billion dollars in bad loans [5]. At that stage of grand reformations and development, it had become impossible to evaluate the economic situations as the latter progresses rapidly to the point which leaves no room and time for total reflections.

This essay will first carefully examine the theoretical significance of both thinkers and deduce the necessary logical implications of their arguments. Followed from that, the second part of the essay is going to appropriate their predictive models to examine their plausibility and the feasibility relative to the current states of Chinese economics.

2. Xiaokai Yang, inframarginal economics, and constitutional transition

Yang's life is an epic journey from revolutionary idealist to pioneering economist. During China's Cultural Revolution, while still in high school, Yang published the provocative article *Where is China Going?* (1968), advocating for equality and challenging the bureaucratic Red Family's unequal distribution of power—an act that led to his imprisonment. According to his memoir, published five years after his masterpiece *Economic Reforms and Constitutional Transition* (2000) [1], this experience catalyzed a fundamental shift in his thinking: from moralistic idealism about right and wrong to rational analysis of China's future. This transformation defined his post-Cultural Revolution academic career, where quantifiable concepts like utility, production possibility frontiers, and transaction efficiency replaced the value-laden concerns of his youth, ultimately leading to his development of infra-marginal economics as a framework for understanding institutional transitions.

Inframarginal economics, developed by Yang, represents a new analytical framework that 'is a combination of marginal and total cost-benefit analysis' [6]. This approach differs significantly from traditional neoclassical economics, which focuses on marginal adjustments within given structures. Yang's framework reveals that 'as transaction efficiency improves, the equilibrium level of division of labour jumps from autarky to partial division of labour' and then to complete division of labour [6]. These are not smooth transitions but discontinuous jumps between different economic structures. The significance of this approach lies in how it explains structural changes—Yang shows that "the infra-marginal analysis also allows us to study how productivity levels change as general equilibrium structure shifts" [6]. Unlike conventional economics that takes organizational patterns as given, Yang's inframarginal analysis investigates how these patterns emerge and change based on transaction costs. This framework successfully formalizes Adam Smith's classical insights about specialization and the division of labour, showing that 'transaction efficiency determines the equilibrium level of division of labour' [6].

Constitutional transition is crucial in Yang's inframarginal examination because it fundamentally shapes the evolution of division of labour. According to Yang's analysis, 'rivalry between the Chinese and Russian communist parties was an important driving force of Mao's big shock to the central planning system' [1], showing how political competition drives institutional change. His

research on China's reforms reveals a critical problem: 'the dual track approach developed under market-oriented reforms in the absence of constitutional order institutionalizes corruption and opportunistic behavior by government officers' [1]. This means that without proper constitutional foundations, economic reforms can actually create new obstacles to development. Yang argues that 'the credible commitment mechanism to constitutional order is essential for long-term economic development' [1] as it provides the institutional framework necessary for the development of a complex division of labour. His analysis demonstrates that 'the institutional constraint imposed by the communist Constitution generates dilemma between justice and efficiency' [1]. Through this framework, Yang shows that constitutional rules determine whether economies can achieve the discontinuous jumps to higher levels of specialization that are essential for sustained economic growth.

In general, Yang argues that the reduction of transaction cost plays the most decisive role in establishing a sustainable economic entity, in achieving which a set of properly designed and firmly enforced constitutions are required. Nevertheless, it is justifiable to question the original deduction that laid the foundation of the whole edifice of Yang's entrenched belief in the importance of constitutional transition. In *Economic Reform and Constitutional Transition* (2000) [1] and *Notes on a Hundred Years of Chinese Economic History* (it is never published), Yang frequently invokes the original motivation behind the development of his analytical framework for decoding economic development: a rather straightforward observation that the UK outperformed all other countries during the age of imperialism. By comparing the institution of the UK and that of France in the 18th century, followed by further investigations into the consequences stemmed from that, Yang draws the conclusion that the UK's economic complete victory should be largely attributed to its superiority in its constitutional design. Moreover, observing that the UK successfully established its constitution through a single revolution, which is the Glorious Revolution, Yang draws another conclusion that if the best constitution ever was established by a shock therapy, a developing state wishing in to become developed need to mimic the means to the ends as well.

By listing a series of other reformations exemplified mostly by the rising powers in Asia after World War II, Yang proudly discovers that the clamped growth of these economic entities is able to be addressed perfectly by lack of complete constitutional transition to that of the UK or the USA. Whatever it may be, Yang makes a fatal logical fault at the very beginning of his expansion of analytical framework, which is, the best performing constitution so far does not mean that it is the best constitution forever. By insisting upon the latter claim, Justin Yifu Lin dreams big. He does not only strive for justifying the Chinese economic and constitutional order, but as well its specificity and superiority.

3. Justin Yifu Lin, factor endowment, and latent comparative advantage

While Yang focused on transaction costs and constitutional transitions, Lin developed his New Structural Economics through studying China's actual development experience. His core argument centers on comparative advantage, the notion that developing countries should build on what they already possess, rather than immediately copying the development models of advanced economies.

Lin argues that 'the precondition for a country to make proper use of that advantage is to align with the comparative advantage determined by its own factor endowment in the process of industrial upgrading and technological innovation' [7]. This directly challenges Yang's call for constitutional shock therapy. For Lin, the key problem is not missing institutions, but the failure to recognize and use existing advantages. The concept of "latent comparative advantage" is central to Lin's framework. He defines this as 'an industry in which firms have low factor costs of production

because of the industry's congruence to the comparative advantage determined by the country's endowment structure' [8]. This means that countries should develop industries that match their current resources, labour-intensive industries for labour-rich countries, gradually moving to capital-intensive ones as capital accumulates.

Lin's evidence comes from successful East Asian economies. As he notes, these countries "did not follow the approaches proposed by the dominant development thinking of that time" [7]. Instead, they adopted a gradual, dual-track approach: maintaining stability while advancing the reform of their economies at a steady pace in light of their evolving comparative advantages. China's own experience supports this 'with the rapid economic growth and capital accumulation, most capital-intensive industries, including cars and machine building, have become China's comparative advantages' [9]. Most importantly, Lin reverses Yang's logic about late-comer disadvantage. He argues that when developing countries try to jump directly to advanced industries, 'their economies became uncompetitive, growth was unsustainable and led to frequent crises' [10]. The disadvantage is not inherent to being a late comer; instead, it stems from the adoption of an inappropriate development strategy. Countries that recognize their comparative advantages can actually benefit from being late comers by borrowing technology and learning from others' experiences.

This pragmatic approach offers a middle path between pure market forces and heavy state intervention. Lin argues that 'industrial policy is a useful instrument for a state to facilitate structural transformation' [11], but only when it supports industries aligned with the country's comparative advantages. The government should provide support for infrastructure development and coordination efforts, rather than forcing economic development to run counter to market realities.

Unfortunately, some of the above-mentioned Lin's responses to Yang could be properly addressed by the latter. For example, according to the quantitative research that Yang has illustrated in *Economic Reforms and Constitutional Transition* (2000) [1], the quick success at the very beginning of Asian countries' economic reformations is always accompanied with an abrupt recession after a relatively equal period of time, effectively ripostes Lin's unjustifiable praise for Asian developed economies.

Nevertheless, after Yang passed away, the world has witnessed the rise of a new global power. One of Yang's core predictions of Chinese economy is that the 'adverse effect of the dual track approach may well outweigh its positive effect' [1]. Whatever it maybe, updated empirical studies published within the last five years have resolutely refuted Yang's prediction of dual-track reformations. A study done by Zhang and Rodríguez-Pose in 2024 effectively challenges Yang's supposition that the non-existence of division of power will result mostly in state opportunism and the suppression of innovation. China not only launched and implemented a government agency reform between 2009 to 2016, which are often stereotypically dismissed as impossible to be happened, but the study has shown that the reform significantly improved innovation performance in Chinese city-regions, with particularly strong effects in medium to high innovation areas [12].

A study finished by Franklin Allen in 2022 has vindicated the positive correlation between percentage of government ownership and the rate of development. He finds out that firms with up to 10% central government ownership grow 48% faster than private firms, but those with 10 to 30% ownership climb up even more rapidly with a rate of 73% faster [13]. This study fundamentally challenges Yang's analysis that the existence of SOE constitutes a direct threat to growth rate. Whether state-owned enterprises (SOEs) increase transaction costs and distort the efficient allocation of resources remains unproven, but at least their potential adverse effects do not outweigh the benefits of the dual-track reform.

The high likelihood of state opportunism which Yang predicts stemming from the non-division of power, suppose that it exists, does not affect in reality pervasively. On the contrary, Chinese government even proposed an anti-corruption campaign lasts until the present, which, according to time-efficient research, improves the corporate productivity by approximately 18.43% [14]. Scholars have noted that state opportunism persists and is relatively widespread in certain regions of the country. However, the self-reflexive anti-corruption campaign — an occurrence that would seemingly be highly improbable given the relevant institutional context — not only took place but also significantly invigorated the Chinese economy.

Lastly, conforming to Lin's analytic framework of factor endowment, the dual-track reformation of institutions is rather successful. Starting from approximately a decade ago, Chinese economy is naturally transforming itself from a labour-intensive to a capital-intensive economy. Consider that the latter is manifested through the gradual development of innovation and technology industries as well as to which the increasingly allocated funds and investments, China has performed supremely well in terms of its rising from the 20th to 10th during the last decade[15].

4. Conclusion

After the scrupulous analysis of Lin's and Yang's hidden and explicit dogmas, supplemented with the empirical evidences newly published in the last five years. This essay exposes the complete failure of Yang's structure working as a predicative apparatus, but it does not imply that Lin's version, which is in contrary with Yang's, is proved to be effective. By examining the case studies presented at the end of the previous section, it has been found that Yang's analytical framework can only accommodate the last case, and none of those discussed earlier.

It is none of coincidence that both predictive apparatuses proposed are fatal. It is an inherent character lies within such models serving for predetermining the fate of whatever economic entities; in order to achieve which, the models necessarily sacrifice its accuracy, reliability, and feasibility for "hard" and immense presuppositions.

Supposing that economics studies are scientific, they aim to explain ready-formed economic phenomena, rather than predicting future as the latter necessarily sacrifice the scientificity of the very forecasts they aim at.

In addition to their methodology, this essay is going to point out another deficiency embodies in their studies, which are the spontaneous ignorance of the political significance in contributing to the success of China's dual-track reformations. In his self-claimed "most profound" work, Steven Cheung, another great mind in the realm of economics, discovers in his *The Economic System of China* (2014) [16], the gist of Chinese-styled division of power, which has been dismissed in Yang's works altogether. Cheung argues that it does not matter whether a proper constitution is strictly enforced or not, the only thing matters is the establishment of property rights in every single section of social, economic, and political sector, implying that the gist of contract is not specific to economics; it is maintained and ordered by pervading to every section of society. For example, a rational man is not only motivated by the money-seeking and capital-preserving desire, but as well the power-seeking and power-preserving willingness. By distinguishing the property rights and political powers endowing to each class of public servants, governors from each layer of the system will be striving to earning and keeping their interests, intensifying the competition of land economy and industries importations. In the end, the whole economy is vitalized.

References

- [1] Sachs, J. D., Woo, W. T., & Yang, X. (2000). Economic reforms and constitutional transition (CID Working Paper No. 43). Center for International Development at Harvard University.
- [2] Holz, C. A. (2008). China's economic growth 1978–2025: What we know today about China's economic growth tomorrow. *China Economic Review*, 19(1), 54-65.
- [3] Reserve Bank of Australia. (2014). Financial reform in Australia and China (RDP 2014-10). Retrieved from <https://www.rba.gov.au/publications/rdp/2014/2014-10.html>
- [4] World Bank. (2019). The World Bank in China's state-owned enterprise reform since the 1980s (Report No. 134778). World Bank Group.
- [5] Podpiera, R. (2006). Progress in China's banking sector reform: Has bank behavior changed? (IMF Working Paper WP/06/71). International Monetary Fund.
- [6] Cheng, W. L., Sachs, J. D., & Yang, X. (1999). An infra-marginal analysis of the Ricardian model (CID Working Paper No. 13). Center for International Development at Harvard University.
- [7] Lin, J. Y., & Rosenblatt, D. (2012). Shifting patterns of economic growth and rethinking development. *Journal of Economic Policy Reform*, 15(3), 171-194. <https://doi.org/10.1080/17487870.2012.700565>
- [8] Lin, J. Y., & Wang, X. (2022). Dual circulation: A new structural economics view of development. *Journal of Chinese Economic and Business Studies*, 20(4), 303-322. <https://doi.org/10.1080/14765284.2021.1929793>
- [9] Lin, J.Y., 2019. China's Growth Deceleration: Causes and Future Growth Prospect. *Frontiers of Economics in China*, 14(1).
- [10] Lin, J.Y., 2016. The latecomer advantages and disadvantages. *Diverse development paths and structural transformation in the escape from poverty*, 43.
- [11] Lin, J. Y., & Wang, Y. (2020). Structural change, industrial upgrading, and middle-income trap. *Journal of Industry, Competition and Trade*, 20, 359-394.
- [12] Zhang, M., & Rodríguez-Pose, A. (2024). Government reform and innovation performance in China. *Papers in Regional Science*, 103(3), Article 100023. <https://doi.org/10.1016/j.pirs.2024.100023>
- [13] Allen, F., Cai, J., Gu, X., Qian, J., Zhao, L., & Zhu, W. (2022). Centralization or decentralization? The evolution of state-ownership in China (SSRN Working Paper No. 4283197). Stanford Center on China's Economy and Institutions. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4283197
- [14] Tao, M., Dagestani, A. A., Goh, L. T., & Zheng, Y. (2023). Do China's anti-corruption efforts improve corporate productivity? A difference-in-difference exploration of Chinese listed enterprises. *Socio-Economic Planning Sciences*, 87(Part B), Article 101624. <https://doi.org/10.1016/j.seps.2023.101624>
- [15] Santacreu, A. M., de Soyres, F., Fisgin, E., Gaillard, A., & Young, H. L. (2025). China's role in global innovation is changing. *Federal Reserve Bank of St. Louis On the Economy*. <https://www.stlouisfed.org/on-the-economy/2025/aug/china-role-global-innovation-changing>
- [16] Cheung, S. N. S. (2014). The economic system of China. *Man and the Economy*, 1(1), 1-49. <https://doi.org/10.1515/me-2014-0008>