

Fang, Di (2022)

China as a practitioner of a late developer: its systematic change in the capitalist long cycles

PhD thesis. SOAS University of London

DOI: <https://doi.org/10.25501/SOAS.00037718>

<https://eprints.soas.ac.uk/37718>

Copyright © and Moral Rights for this thesis are retained by the author and/or other copyright owners.

A copy can be downloaded for personal non-commercial research or study, without prior permission or charge.

This thesis cannot be reproduced or quoted extensively from without first obtaining permission in writing from the copyright holder/s.

The content must not be changed in any way or sold commercially in any format or medium without the formal permission of the copyright holders.

When referring to this thesis, full bibliographic details including the author, title, awarding institution and date of the thesis must be given e.g. AUTHOR (year of submission) "Full thesis title", name of the School or Department, PhD Thesis, pagination.

China as a practitioner of a late developer: its systematic change in the capitalist long cycles

Author: **Di Fang**

Student ID: **677091**

Examiners:

Professor Kent G. DENG, LSE; Professor Xinming HE, Durham

Supervisor:

Dr. Dic LO

Word count: 9,9622

Thesis submitted for the degree of PhD

2022

Degree in Development Economics,

Department of Economics, SOAS,

University of London

ACKNOWLEDGEMENTS

The title of this thesis owes great intellectual debt to Professor Kent G. Deng's valuable comments on the original script: 'China as a late developer'. With just a few words adding, the meaning has become clearer substantially due to the very nature of this research. First, China was a global *leading* rather than a late developer until two hundred years ago. The new title 'as a practitioner of a late developer' takes this *fact* into account. Second, China's mixing experiences as a follower of other late developers in modern history presented herself as the unique case among many. Hence, 'practitioner'. Third, the fact that China had been a global leader for a millennium before it struggled through for one way or another in the recent two centuries sheds new light on 'Economic backwardness in historical perspective'. A late developer started late not because of backwardness but its advance in previous periods' entrenched path dependency. Therefore, this study on China alone puts forward a significant paradigm-changing question on the universal Eurocentric frame of reference in which a great world majority fall into this 'late' developer terminology category.

The stimulants posed by the first half of this thesis naturally lead to the second half exploration: China's 'systematic change in the capitalist long

cycles'. This thesis benefits from Professor Xinming He's helpful suggestions during the viva: the 'long cycles' argument should be presented more explicitly and elaborated further. The new title and new structure of this much 'streamlined' thesis cannot be achieved without the two examiners' precious advice, nor can it be accomplished in absence of the engaging and stimulating viva. It is the author's honour and privilege to have these two prestigious scholars as his external examiners. Their guidance is greatly appreciated. Of course, no research is without critics. While the merits of this corrected thesis are partly attributed to the examiners' comments, all of its corresponding debates remain author's own battlefield.

PREFACE

This research studies modern China's development strategies in historical perspective. Four historical horizons are provided: a) China's premodern economy, b) China's modernisation *attempts* since 1800, c) China's modern transformation during the last half century, and d) China's post-Mao growth. In so doing it deviates from the mainstream 'market fundamentalist' *theoretical* propositions that China's miraculous economic take-off rests solely on the opening-up market reforms since 1978. It argues to understand d) one should consider c), to look at c) takes b) into account, and these lead to a). China had long been a vibrant market economy and the world economic centre of gravity in its premodern era. And China failed to industrialise. A thorough and systematic analysis on historical *facts* draws distinctions between capitalism and market economy, capital accumulation and trade & commerce, free trade and free industrialisation. It challenges the theory of natural dynamic comparative advantage shifts, and posits capital formation is crucial to a nation's industrialisation program. The 1800s British Industrial Revolution started its worldwide primitive capital accumulation since the 1500s Atlantic trade. While this historical study acknowledges Marxism in this perspective, the same *factual* analysis falsifies Karl Marx's 'Asiatic model of production' and questions his teleological view of 'historical' stages. This thesis reveals

feudalism is a necessary precondition of rather than a backward negation to capitalist growth. The rent-seeking nature persists from feudal peasant serfs to capitalist urban wage labourers. And communism, instead of being brought *by* forces of production evolution, served as a mobilisational vehicle *to* relations of production changes under Economic ‘backwardness’ perspective.

Imperial China’s state-peasantry alliance, physiocratic government, meritocratic bureaucracy, and Confucian principles created a vast free land-holding peasantry with a highly integrated large domestic market. Accompanied by the Imperial court’s light taxes and high public goods provision, the premodern Chinese economy resembled closest to Adam Smith’s ‘natural progress of opulence’. This self-sufficient private economy was later forced to adapt to the capitalist ‘core and periphery’ world system, and ended up financing its capital formation through artificial ‘self-exploitation’. Paradoxically, a leading developer started early and landed late, and had to become a ‘late’ developer to forge ahead; one had to *retreat backward* in order to leap forward. Rural households’ consumption was sacrificed under Mao’s communist China—private property rights abolished; free peasantry became ‘socialist peasant serfs’—to finance urban heavy industries. Deng’s market reforms aimed to resolve Mao’s disproportions and chaos, and left himself a new structural

bottleneck between the plan and the market. The export-oriented industrialisation strategy worked for East Asian small-open economies as the US market alone was able to absorb their manufacturing products, while at the same time maintaining its own growth. For a large country comprising one-fifth of the world population, however, the same could not happen unless there were drastic changes in the capitalist ‘core and periphery’ world structure. This coincidentally tied into the ‘long cycles’ patterns when capitalist mode of production in each historical cycle switched from productive expansion phase to financial expansion. The structural bottlenecks of China’s internal transformations over the last half century were solved by the global neoliberal turn since the 1970s. China’s domestic comprehensive industrial base met the global demand for manufacturing production networks outsourcing.

China’s post-1970s opening-up miracle was not externally driven and internally started from scratch, but was from the environment provided by the outside enabled what had been available inside to take part in; and the bottleneck was avoided. Globalisation and international trade created room for China’s heavy investment ‘unbalanced growth’. The significance of this research hence becomes self-evident because, though various pieces mentioned have been tackled, it is this ambitious research that binds these cohesively together and applies to a coherent China analysis.

CONTENTS

<i>Acknowledgements</i>	2
<i>Declaration</i>	4
<i>Preface</i>	5
<i>List of figures</i>	12
1 Introduction: problems and a new insight	14
1.1 'The China paradox': explaining China's growth	14
1.2 Paradoxes in Chinese economic history	33
1.2.1 Science & Civilisation in China and the 'Great Divergence' thesis, yet premodern China failed to industrialise	33
1.2.2 From development to underdevelopment: Premodern China's failing modernisation attempts in response to western shocks	45
1.3 Paradox in Western ideology and Chinese reality: communism on the China soil	49
1.3.1 Historical materialism	49
1.3.2 Class struggle	52
1.3.3 Communism as the historical choice	59
1.4 Paradox in the recent global neoliberal turn: growth promised versus stagnation in reality	75

1.5	A new insight	78
2	Reviews	115
2.1	Theories	116
2.1.1	Comparative advantage	116
2.1.2	The ‘invisible hand’ and the ‘pin factory’	129
2.1.3	The dualistic model	134
2.1.4	The neoclassical maximisation framework	147
2.1.5	The ‘Asiatic model of production’	159
2.1.6	The developmental-stages models	169
2.1.7	The ‘high-level equilibrium trap’	172
2.1.8	The Solow growth model	180
2.2	Themes	190
2.2.1	Institution	190
2.2.2	Culture	203
2.2.3	Capital accumulation & TFP	207
2.3	Cases	212
2.3.1	Historical cases of state-led growth and industrialisation from Germany to the Asian tigers	212
2.3.2	The Soviet example	217
2.3.3	The Cold War factor	218

2.4	Patterns	222
2.4.1	‘World system’	222
2.4.2	‘Long cycles’	227
2.4.3	The Soviet Industrialisation Debate, 1924—1928	232
2.5	Data	243
2.5.1	The ‘Great Divergence’ debate	243
2.5.1.1	Wages & GDP per capita	243
2.5.1.2	Agricultural productivity	258
2.5.1.3	Urbanisation	263
2.5.1.4	Involuntary growth	266
2.5.2	Maddison’s data on Mao’s and Deng’s China	271
2.6	Methods	276
3	The Premodern Chinese economy:	289
	market economy prosperity versus European capitalist expansion	
4	China’s failed early modernisation attempts since 1800:	
	decentralisation of the central bureaucracy versus centralisation of the feudal states	334
5	China under Mao: 1949—76	352

6	Deng’s ‘market socialism’: 1978—97	416
7	The Way Out: the incorporation of China’s industrial capacity and labour reserves into the 1970s onwards global ‘long cycles’ financial expansion	455
8	Conclusion: China and the world economy	482

Appendices

A	A critical assessment of game-theoretic explanations to historical facts: ideologies, hypothetic-deductive confirmation, and partial application	502
B	Illustrations on the role of rational expectations theory to monetary and fiscal policy-making	530
C	Theoretical explanations relating to the historical ‘long cycles’	538
	<i>Bibliography</i>	548

Figures

Figure 1	Smithian growth in Imperial China vs. Schumpeterian growth in feudal Europe	133
Figure 2	The Lewis model of self-sustaining growth transition in a two-sector surplus-labour economy	136
Figure 3	The Solow growth model	181
Figure 4	An increase in saving rate moves the economy to a new steady-state level	182
Figure 5	Technological progress in Solow model	183
Figure 6	The march of events towards collectivisation	380
Figure 7	An anatomy of Mao's era: recurring struggles between central planning and administrative decentralisation	415
Figure 8	The 1987—89 'structural inflation'	432
Figure 9	A dissection on Deng's period: the locus of conflict shifted to relations between the plan and the market	454
Figure 10	The Way Out: Globalisation's resolution to China's respective continuing internal systematic bottlenecks under Mao and Deng, and its accompanying problems	481
Figure 11	A sequential game tree: the fundamental problem of exchange (FPOE)	504

- Figure 12 A multilateral reputation commitment scheme: B's defaulting to A would result in retaliations from both A and C, and vice versa to each group member 506
- Figure 13 A bilateral exchange made possible by a third-party enforcement: B's defaulting to A would face punishment from the third-party arbiter, but B's trading with C unaffected by B's relation to A 508
- Figure 14 Comparison between multilateral reputation commitment scheme and third-party enforced bilateral exchange as trade member increases 509
- Figure 15 Relation-based society versus Rules-based society 510
- Figure 16 *Quis custodiet ipsos custodes* (Latin: who watches the watchmen?) 512
- Figure 17 Opening up the third-party 'black box': a comprehensive demonstration of the Genoese way of trading 518
- Figure 18 The 1688 'Glorious' Revolution's credible commitment mechanism: upper-class democracy 522
- Figure 19 The Premodern Chinese state-peasantry alliance, the biggest credible commitment mechanism in world history: 'Grassroots' democracy 526

1

INTRODUCTION:

Problems and a new insight¹

1.1 ‘The China Paradox’: explaining China’s growth

In just over thirty years, China has accomplished a remarkable score in transforming itself from one of the poorest countries in the world into the second largest economy. Its economic growth rates have been the envy of many developing countries, as well as the developed world. Growing at an average of 9.6 percent per annum since the late 1970s ‘opening-up’ market reforms, China has not only doubled its GDP and income every seven to eight years, it has also lifted 660 million people (one-tenth of the world’s population) out of abject poverty.² Indeed, China’s sheer size comprising

¹ The author would like to thank Professor Kent Deng for his valuable side-note comments on the original script that a part of its later chapters should appear right at the beginning to set my ‘road map’. The author also thanks Professor Xinming He for his helpful suggestions during the viva that he feels the identified knowledge gaps in its second chapter are not addressed prominently in the first chapter. These also appear on the joint examiners’ report: “... regarding research contributions, they should be discussed more in accordance with the identified knowledge gaps to clearly demonstrate in what way our understanding has been expanded... They should also be articulated very clearly in an opening chapter along with the gaps, so as to establish the positioning of the whole work.” Chapters are therefore rewritten, joined, trimmed, and restructured. The previous gradual building-up approach is abandoned, and the thesis is set up in a clear argumentative essay manner. And it looks so much better! The value of examiners’ guidance can never be overestimated.

² Following Professor Kent Deng’s high-quality scholarly spirit, data quoted from any secondary source are checked with its original data bases. The joint examiners’ report also states: “the new version of this dissertation needs to demonstrate a better handling of quantitative and qualitative evidence. It is vital for the student to evaluate critically every piece of evidence employed in the dissertation.” Linda Y. Yueh, *China’s Growth: The Making of an Economic Superpower* (Oxford: Oxford University Press, 2013), p.1. Primary sources used: IMF, World Bank, and *China Statistical Yearbook*. There is less disagreement on GDP growth rates in the post-Mao era. The three data bases are largely consistent with each other. Note though the 9.6 percent average is calculated until early 2010s. Recent growth rates are slightly above 6 percent before Covid-19, though Chinese figures are higher. But the fact that the Chinese government objective

one-fifth of the global population and its rapid growth rendered it ‘the global growth engine’. Most of world’s poverty reductions in recent decades were done by China, and East Asia *alone*.³

A proliferation of economics research accompanied China’s economic expansion. The International Monetary Fund (IMF) attributes China’s spectacular rise to its rapid opening up of international trade.⁴ Trade

shifts from maintaining 8 percent (*baoba*) to higher quality economic growth verifies there was indeed a significant slowing down growth trend before Covid-19. However, even 6 percent growth rate is a high figure envy of many; USA and Euro area’s are 1 to 2 percent, and the world average is 3 percent. Moreover, the 9.6 percent average is a conservative estimate. *China Statistical Yearbook* yields impressive consecutive over 10 percent growth rates for two decades since 1990s, and this is also acknowledged in IMF and World Bank data bases. However, the accompanied high inflation episodes in the turbulent 1990s made the IMF calculate another China’s Real GDP growth table. And the average is still at 9 percent.

³ The weighting of this claim derives from Jason Hickel’s data, which the author finds more convincing than the World Bank’s. Jason Hickel, *The Divide: A Brief Guide to Global Inequality and its Solutions* (London: Windmill Books, 2017). The World Bank’s data—world poverty numbers change from a rising trend to a falling one—are unreliable in this regard because quantity versus ratio, the time frame, and the international poverty line were manipulated. The world’s first multilateral agreement to fight global poverty was signed in 1996, and four years later the Millennium Declaration Development Goals were announced. This time absolute poverty numbers were switched to proportions. As long as poverty was not getting worse, it would appear better on account of population growth. Second, the starting point of analysis retreated back from 2000 to 1990. This 10 years accommodating time frame took particular advantage of impressive poverty reduction gains made by China and became the victory for the Millennium Development Goals. Third, the international poverty line was downgraded in real terms. In 2000, the original 1.02 dollars baseline was raised to 1.08 dollars, yet the new line was lower in real terms. This was manifested in the second international poverty line adjustment in 2008 when it was increased to 1.25 dollars and the number of absolute poor went up by 430 million overnight. Taking China out, Hickel’s data calculations find that the global poverty headcount *increased* during the 1980s and 1990s when the World Bank was imposing structural adjustment across the global South. The extreme poverty headcount today is the same as it was in 1981 at over 1 billion people. While World Bank’s data showcase poverty has been decreasing around the world, in reality the only places this holds true are in China and East Asia. And these are some of the only places in the world where ‘market fundamentalist’ policies were not forcibly imposed by the World Bank and the IMF since early 1980s.

⁴ Following Professor Kent Deng and Professor Xinming He’s high standards, “to keep away from repeated citations of the same author”, “on some pages over 5 citations of the same person. A rule of thumb: the same author should appear on the same page no more than twice”, direct quotations are aimed to be kept at a bare minimal in this new thesis. The author then thinks whether it is still necessary to add a footnote quoting if citations and quotations are reduced. Then the author finds the Doctoral Declarations stating that “I also undertake that any quotation or paraphrase from the published or unpublished work of another person has been duly acknowledged in the work which I present for examination.” Hence, for safety caution, footnote quotes are added even if these are paraphrase or acknowledging others’ work. However, the author wants to emphasise the fact that these footnote quotes in no way mean the author’s work are less original. Rather, they mean at a PhD level, the author has done a great amount of PhD workload; and when the author has thought on something, he finds this scholar or thinker also contemplated on the same

reforms and the general opening of the economy that have led to a surge in foreign direct investment (FDI) and increased integration with the global trading system have been key aspects of China's rising prominence in the world economy.⁵ The World Bank elaborates further that starting from a heavily distorted and extremely poor economy, China's remarkable economic performance over the last 30 years resulted from improved incentives in agriculture, phasing out the planned economy and allowing nonstate enterprise entry, opening up the market and to the outside world, reforming state enterprises and the financial sector, and allowing the most appropriate market institutions to emerge that delivered high growth benefitting all.⁶

These explanations are echoed in mainstream academia. Ronald Coase, the 1991 Nobel Laureate, argues a market economy is predicated on well-defined property rights and low transaction costs that permit efficient

issue, and then the author adds a footnote acknowledging this paper for the audience's reference. As Professor Deng once in his seminar put it nicely: "For exam, a great number of scholars' work and names are worth mentioning. You should write a lot. You should impress the marker. You should send these thinkers to fight for you!" Hence, the author wants the audience to think of him as the 'General in command' to order these 'soldiers' on the battlefield. It is the author who controls the thinkers, not the thinkers brainwash the author. Merging all these considerations together, paraphrase and acknowledgments of others' work are footnoted in detail, but direct citations are kept at a bare minimal. Edited by Eswar Prasad, "China's Growth and Integration into the World Economy: Prospects and Challenges," *IMF Occasional Paper 232*, 2004

⁵ Edited by Eswar Prasad, "China's Growth and Integration into the World Economy: Prospects and Challenges," *IMF Occasional Paper 232*, 2004

⁶ A reminder that 30 years was based on the World Bank report written by economists Hofman and Jinglian Wu in 2009. Now it should be 40. But the 2010s did not deliver the same high speed growth as the previous three decades as the economy gradually approached industrial maturity. Bert Hofman and Jinglian Wu, "Explaining China's Development and Reforms," *The World Bank Working Paper No.50*, 2009

exchange to take place.⁷ And China's economy took off exactly due to the lowering transaction costs through the Managerial Responsibility Contract System that ended the monopoly of state planning in coordinating industrial production.⁸ The coexistence of central planning with the market in coordinating production—the 'dual track' system—provided opportunities for the Chinese socialist economy to 'grow out of the plan.' Consequently, China's dominant state sector and its lack of privatisation did not prevent the emergence of a fledgling market mechanism.⁹ Justin Yifu Lin, World Bank's former Chief Economist, asserts China's great success came from abandoning the previous comparative advantage defying strategy and adopting the comparative advantage following path.¹⁰ Heavy industries, which are capital-intensive, require huge initial capital outlays involving tens of billions of renminbi.¹¹ Artificially upgrading the industry and technology structure defied the comparative advantage determined by the existing endowment structure and resulted in distortions and low efficiency.¹² Conversely, a comparative advantage following strategy utilised labour abundance in the East Asian context and profitable light industries were constructed that require less capital investment and earn a faster return. These, combined with China's opening up to the world

⁷ Ronald Coase, "The Nature of the Firm," *Economica* 4/16, 1937

⁸ Ronald Coase and Wang Ning, *How China Became Capitalist* (Palgrave Macmillan, 2012)

⁹ Ronald Coase and Wang Ning, *How China Became Capitalist* (Palgrave Macmillan, 2012)

¹⁰ Justin Yifu Lin, *Demystifying the Chinese Economy* (New York: Cambridge University Press, 2012)

¹¹ Lin, *Demystifying the Chinese Economy*, p.75.

¹² Lin, *Demystifying the Chinese Economy*, p.124.

economy since late 1970s, generated export-oriented economic growth that explain China's miraculous take-off. More importantly, the primary leading source that first navigated China out of the extreme Maoist poverty was the establishment of the Household Responsibility System (HRS) that changed the incentive structure of farming.¹³ The rural communes were decollectivised; private property rights were quasi-established. Farmers were allowed to retain profits and sell their products on the market. As a result, from 1978 to 1984, the agricultural growth rate more than doubled, from 2.9% to 7.7%.¹⁴ China's chronic food scarcity was replaced by modest plenty.

¹³ This is the most prominent reason shared by the common majority economists. See, for instance, Justin Yifu Lin, "The Household Responsibility System Reform in China: A Peasant's Institutional Choice," *American Journal of Agricultural Economics*, Vol. 69, No.2 (May 1987); Louis Putterman, "Group Farming and Work Incentives in Collective-Era China," *Modern China*, Vol. 14, No. 4 (October 1988); Dennis L. Chinn, "Team Cohesion and Collective-labor Supply in Chinese Agriculture," *Journal of Comparative Economics* 3 (1979); James Kai-sing Kung and Justin Yifu Lin, "The Causes of China's Great Leap Famine, 1959—1961," *Economic Development and Cultural Change*, Vol. 52, No. 1 (October 2003). While no one denies the crucial importance of working incentives, the sphere of disagreement lies in whether the Household Responsibility System *alone* was the *sufficient* condition, not just a necessary one, for rapid agricultural growth thereafter for some years, as the author shall argue in due course.

¹⁴ Lin, *Demystifying the Chinese Economy*, p.156. Following Professor Kent Deng and Professor Xinming He's high-standard academic spirits, the author checked Justin Lin's data source. His figures derive from National Bureau of Statistics of China. In a first glimpse, the author felt unsure of whether 7.7 is a bit too high. The author then looked upon the original data himself, and confirmed it is not the case through comparing the growth rate before and after the period. The 1984—87 period showcases a slowdown of agricultural growth rate to 4.1%. This means Chinese statistics on this issue are largely objective because Deng's period shows no exaggeration, such as prolonging the spectacular growth rate. The problem came from the period beforehand. Though the agricultural growth rate during 1952—78 is a low figure which validates the 1978—84 growth figure, the positive sign in 1952—78 itself needs critical caution: 2.9 percent agricultural growth rate. Why is it still positive? It could possibly be due to grain yields were recorded by the National Bureau of Statistics of China. However, the recording itself was inaccurate because it suffers from selection bias problem. China's agricultural strategy during Mao's era was a blind 'grain first' policy (*yiliang weigang*). No wonder grain yields improved, but everything else plummeted. The collectivisation policies pursued contributed to mass slaughtering of poultry and draught animals. Grains were farmed regardless of soil type whether dryland is more suitable for something else instead of wetland paddy fields, or soil quality which is salty field (*yanjian di*) or fine fertile soil, or weather rainfalls, etc. Grains were cultivated to counterproductive ends because the amount of labour inputs devoted could be better utilised in other farming spheres such as fishing. The Chinese diet became spartan in this period. Even worse, grains harvested were for agricultural exports to support capital imports. This means, first, the agricultural growth rate was an illusion on account of other agricultural products apart from grain. Second, even the

These reasonings are often characterised into the category ‘market fundamentalism’.¹⁵ They come from the neoliberal paradigm that has penetrated ubiquitously in political-economic practices and thinking since the 1970s. Neoliberalism, in the first instance, is a theory of political-economic practices that proposes that human well-being can best be advanced by liberating individual entrepreneurial freedoms within an institutional framework characterised by strong private property rights, free markets, and free trade.¹⁶ The role of the state is to create and preserve an institutional framework appropriate to these practices. But beyond these the state should not intervene. Just let the market do the job and everything will be sorted out. In practice, it involves deregulation, privatisation, and withdrawal of the state from many areas of social provision that have been perpetuated by international organisations such as the IMF, the World Bank, and the World Trade Organisation (WTO). Namely, the Washington Consensus. David Harvey observes that neoliberalism has, in short, become hegemonic as a mode of discourse. It has pervasive effects on ways

agricultural growth rate in grain yields itself during this period did not mean people's well-being improvement as they did *not* consume it. The first-hand witnesses'—HU Qiaomu and ZHOU shulian—accounts were more accurate. Even with two years' rural breathing, the average grain consumption of 1978—80 was below that of 1955—57. And Chinese people's all food products' consumption were below world average even after 1980. Hence, ironically, 7.7 is still too low an estimate, what is too high is 2.9.

¹⁵ This neat phrase summary owes intellectual debt to Professor Kent Deng's side-note comments on the author's original script: “These people are market fundamentalists.”

¹⁶ David Harvey, *A Brief History of Neoliberalism* (Oxford: Oxford University Press, 2007)

of thought to become incorporated into the common-sense way many of us interpret, live in, and understand the world.¹⁷

This thesis does not proclaim that these market fundamentalist rationale are wrong to explain China's growth, since the merits of market-oriented reforms are apparent. Production incentives are unleashed, and production & exchange are coordinated efficiently through the market mechanism. But this is the *easy* part of answering the question. Robert Wade, assessing World Bank's *The East Asian Miracle* report which gives similar explanations to the East Asian tigers' economic growth—high growth was achieved by getting the basics right, including macroeconomic stability, low inflation and stable & competitive exchange rates, traded goods closer to international prices, and the application of a set of common, market-friendly economic policies, leading to both higher accumulation and better allocation of resources—as the later Chinese miracle, asks how solid are these conclusions?¹⁸ “Not very, because the report uses standards of inference so elastic that practically anything could be confirmed.”¹⁹ It is interesting that a great number of efforts and talent were devoted to setting up a Walrasian-equilibrium watertight system consisted of necessary

¹⁷ Harvey, *A Brief History of Neoliberalism*, p.3.

¹⁸ A World Bank Policy Research Report, *The East Asian Miracle: Economic Growth and Public Policy* (Oxford; New York; Toronto: Published for the World Bank, Oxford University Press, 1993)

¹⁹ Following Professor Deng and Professor He's spirit, direct citations are kept at a bare minimal, unless they are too good to miss, or better serve the essay flow. Repetitive citations on the same page of the same author are avoided. Robert Wade, *Governing the Market: Economic Theory and the Role of Government in East Asian Industrialization* Second ed. (Princeton, N.J.: Princeton University Press, 2004), p.xix.

axioms that formed a ‘mathematical crystal’ simply acknowledging how a market economy functions.²⁰ The real hard bit is whether these are explanations *in full*.

Trade surely helped China’s growth. The real issue is China enjoyed more than thirty consecutive years of rapid growth that the trade factor seems deficient to explain. Robert Solow, a neoclassical economist himself, questions the linkage between trade and *sustainable* growth. An important distinction needs to be drawn between factors that have growth effects and factors that have level effects. Whether there are any cases of really long-term changes in growth rates as a consequence of trade is uncertain.²¹ Dani Rodrik echoes that some caution needs to be made on ‘globalisation’ and exports as the easy road to economic development.²² Policy makers in developing countries need to formulate a growth strategy that recognises the importance of domestic institutions and domestic investors rather than mistakenly believe that globalisation, by itself, can work miracles for a developing country’s economy.²³ International trade is not a substitute for,

²⁰ Nicholas Kaldor, *Economics without Equilibrium* (The Okun memorial lectures at Yale University: M.E. Sharpe, Inc., 1985)

²¹ Robert Solow’s interview in Brian Snowdon and Howard R. Vane, *Modern Macroeconomics: Its Origins, Development and Current State* (Cheltenham, UK: Edward Elgar, 2005), pp.669-670.

²² The author would like to thank Professor Kent Deng’s valuable side-note comments. Rodrik is mentioned in later chapters of the original script. He advised the author to trim it and join it to the review on literature earlier. Rodrik, D. (1999), *The New Global Economy and Developing Countries: Making Openness Work*, Washington, DC: Overseas Development Council.

²³ Rodrik, D. (1999), *The New Global Economy and Developing Countries: Making Openness Work*, Washington, DC: Overseas Development Council; Rodrik, D. (1999), ‘Where Did All the Growth Go? External Shocks, Social Conflict and Growth Collapses’, *Journal of Economic Growth*, December.

but rather a complement to the domestic economy. For primary sector economies, for instance, booming exports of primary commodities could as well attract an inflow of foreign exchange that push up real exchange rates, thereby making other exports (especially of manufactured goods) less competitive. For manufacturing economies that engage in labour-intensive light industries, if high proportions of imported intermediate inputs are needed, then the ‘export-oriented industrialisation’ strategy amounts to nothing more than an assembly line work. One striking thing on China’s growth is in its first 1980s opening-up TV sets, refrigerators, washing machines and electric fans were exported, while light, labour-intensive manufactures were a fairly modest proportion of China’s exports despite China’s obvious factor endowments.²⁴

Secondly, while FDI no doubt supported China’s economic expansion, this is an *exaggeration* to claim China relied on it for its capital formation. Using city-level data, Wei concludes that FDI contributes to economic growth through technological and managerial spill-overs as opposed to providing new capital.²⁵ This is supported by studies such as Dees, and Sun and Parikh.²⁶ Barry Naughton’s calculations showcase during the

²⁴ Barry Naughton, *The Chinese Economy: Transitions and Growth* (Cambridge, Mass.: MIT Press, 2007), p.393. The author checked his primary sources data base: *China Customs Statistics* from Ministry of Commerce. This should largely be accurate because, unlike economic growth, Great Famine, or other politically sensitive issues, here is a no-harm descriptive measure of exports components.

²⁵ Wei, S.J. (1993). ‘The Open Door Policy and China’s Rapid Growth: Evidence from City-level Data’. *NBER Working Paper*, 4602.

²⁶ Dees, S. (1998). ‘Foreign Direct Investment in China: Determinants and Effects’. *Economics Planning*,

1980s, FDI never exceeded 1% of GDP. After Deng's 1992 'South China Tour', FDI peaked at 6% of GDP in 1994, before averaging 4% of GDP during 1996—2002.²⁷ Bramall points out the fact that foreign trade and foreign investment have been highly geographically concentrated, but the acceleration of economic growth has been a nation-wide phenomenon.²⁸ FDI tended to concentrate in the coastal export processing zones (EPZs) that also possess the highest growth rate. However, there is endogeneity issue. Much if not most of the correlation between FDI and superior

31/2—3: 175—94; Sun, H.S. and Parikh, A. (2001). 'Exports, Inward Foreign Direct Investment and Regional Economic Growth in China'. *Regional Studies*, 35/3, 187—96.

²⁷ Naughton, *the Chinese Economy*, p.404. Following Professor Deng and Professor He's high standards, the author checked his primary data source: *China Statistical Yearbook*. An immediate problem of Naughton's methodology is the FDI/GDP ratio requires comparing the real value of each, as Naughton himself confesses it is the difficult thing to do. The author felt FDI/GDP ratio is a bit too low, and thought what would be the consequence if taking account of exchange rate effects. China's exchange rate by then had been constantly attacked for its deliberate devaluation which suited its exports competitiveness. These, combined with the hot money inflows from foreign investors, mean that RMB's real value should be appreciated to a significant amount. However, these in turn suggest that the FDI in foreign currencies will be transferred to an even *less* amount of domestic RMB, leading to an even *smaller* FDI/GDP ratio. Another perspective one should consider is China's GDP growth was dramatically inflated between 1998 and 2001, the period when China reached yet another downward retrenchment episode after the 1992 'South China Tour' and before China's accession to the WTO. Thomas Rawski, for instance, questions *China Statistical Yearbook's* internal inconsistencies during this period when China was suffering from the top 10 natural disaster floods. See Thomas G. Rawski, "What is happening to China's GDP statistics?", *China Economic Review* 12 (2001), 347—354. The yearbook figures imply that real GDP grew by 24.7% between 1997 and 2000. During the same 3 years, energy consumption dropped by 12.8%. This must mean the efficiency of energy usage increased. But from the same *China Statistical Yearbook* source, the efficiency of energy conversion in producing thermal electricity, coke, and refined oil products all declined, and the 'total efficiency of energy conversion' was no better than the average for 1983/1984. Hence real GDP cannot grow that much, and hence FDI/GDP ratio should be *higher*. Nevertheless, the economist Xianchun XU argues differently. See Xianchun XU, "China's gross domestic product estimation," *China Economic Review* 15 (2004), 302– 322. In 1995 a monumental adjustment to GDP was completed as GDP was calculated *differently*. China's tradition beforehand was Soviet-style accounting, in which GDP was calculated on the production side. However, as China's economy evolves into an increasingly sophisticated market economy, the production side approach cannot fully capture the statistics on the production of nonmaterial services. Since 1995 the expenditure side calculation approach was used. A greater number of economic activities were recorded in the GDP figure. This means GDP was not inflated. In sum, there are counteracting effects in FDI/GDP assessment. But the important thing is, while we are not really sure of what is exactly the ratio, we are sure about the fact that FDI does not consist of a significant amount of GDP and China's source of capital financing did not originate from there. A wide range of studies mentioned above also corroborate on this comparison.

²⁸ Chris Bramall, *Chinese Economic Development* (London: Routledge, 2009)

economic performance is driven by reverse causality. Rodrik, for example, expresses doubts over spill-over effects, suggesting that greater productivity in exports-oriented domestic firms does not necessarily mean spill-overs from foreign investment, since more productive firms, domestic or foreign, tend to locate in export sectors.²⁹ Equally, Wen reports that at least since the mid-1990s, FDI has tended to crowd out domestic investment in the non-coastal regions.³⁰ A similar finding is reported for the early 2000s by Ran, Voon, and Li.³¹

More importantly, despite the gradual establishment of market-supporting institutions (Contract Responsibility System, share issue privatisation, the Bankruptcy Law of 2006, etc.) during its market reforms era, China has been measured against the rule of law and legal origins studies. China is generally not included in studies that argue for a causal relationship whereby good institutions lead to growth (see Acemoglu et al.; Douglass North; Mancur Olson, for instance), and found to be a paradox in having a weak legal system but strong economic growth.³² Later studies however

²⁹ Rodrik, D. (1999), *The New Global Economy and Developing Countries: Making Openness Work*, Washington, DC: Overseas Development Council

³⁰ Wen, M. (2007). 'A Panel Study on China: Foreign Direct Investment, Regional Market Conditions, and Regional Development'. *Economics of Transition*, 15/1: 125—51.

³¹ Ran, J., Voon, J.P., and Li, G. (2007). 'How does FDI affect China? Evidence from industries and provinces'. *Journal of Comparative Economics*, 35/4: 744—99.

³² Daron Acemoglu, Simon Johnson, and James A. Robinson, "The colonial origins of comparative development: An empirical investigation," *American Economic Review*, Vol.91, No.5, 2001; Douglass North, *Institutions, Institutional Change and Economic Performance* (Cambridge: Cambridge University Press, 1990); Mancur Olson, "Dictatorship, Democracy, and Development," *The American Political Science Review*, Vol. 87, No. 3 (Sep., 1993).

point to the importance of *informal* institutions (see Xinming He, for example) that were seemingly sufficient to instil incentives short of well-defined law-based reforms.³³ Informal, trust-based relationships supplant the incomplete legal system, and the enforcement of implicitly created contractually defined rights were executed informally through the social and business relationships channel. Concepts of social capital, trust, reputation, and networks or *guanxi* were relied upon in the informal economic sector to overcome China's underdeveloped legal and financial institutions.³⁴

Nevertheless, Avner Grief using game-theoretic tools showcases reputation and trust-based relationships are in no way a successful substitute to formal impersonal contracts (for a critical assessment of these game-theoretical modelling arguments, see Appendix A).³⁵ Relational governance was thought to be the prime reason that caused financial vulnerabilities during the 1997 Asian crisis.³⁶ China was expected to follow suit at that time.³⁷

It is often observed that China's economic growth had taken place in the

³³ He, X. & Zhang, J. (2018). Emerging Market MNCs' Cross-Border Acquisition Completion: Institutional Image and Strategies. *Journal of Business Research* 93: 139-150; Yan, H., He, X. & Cheng, B. (2017). Managerial Ties, Market Orientation, and Export Performance: Chinese Firms Experience. *Management and Organization Review* 13(3): 611-638.

³⁴ Allen, F., Qian, J., and Qian, M. (2005). 'Law, Finance and Economic Growth in China'. *Journal of Financial Economics*, 77/1: 57—116.

³⁵ Avner Greif, *Institutions and the path to the modern economy: lessons from medieval trade* (Cambridge: Cambridge University Press, 2006)

³⁶ John Shuhe Li, "Relation-based versus Rule-based Governance: an Explanation of the East Asian Miracle and Asian Crisis," *Review of International Economics*, 11(4), 651—673, 2003

³⁷ Walden Bello, *Paper Dragons: China and the Next Crash* (London: Zed Books Ltd, 2019), p.175.

midst of uncertain property rights and arguably high transaction costs, which defies the usual depiction of efficient markets in the traditional Coasian or Walrasian economic sense that cast doubts on its future growth sustainability.³⁸ China's private property law only took momentum in 2004, and 70 years of housing ownership in urban cities (and 30 years of land right for the countryside) made it more like a *lease holding* right than a right on property. This leads Barry Naughton to remark the 'fuzzy' landownership in China nowadays.³⁹ It is despite complicated by the informal institutionalist argument that people's normative expectations on *de facto* property rights serve as constraints on the communal property state that would have severe economy and social-wide disturbing consequences if the government defected.⁴⁰ Nevertheless, the formal establishment of property laws in 2007 and recent continuing reforms signal the limits to a purely informal institutional framework. China's financial system is characterised by 'financial repression' due to the significant diversion of credit to state-owned enterprises via the state-owned banking system, and impacts non-state private firms negatively.⁴¹ The most leading concern is China's unprecedented growth for three decades was associated with

³⁸ Jefferson, G.H. and Rawski, T.G. (2002). 'China's Emerging Market for Property Rights'. *Economics of Transition*, 10/3: 58—617.

³⁹ Naughton, *The Chinese Economy*, p.121.

⁴⁰ Ho, P. (2006). *Institutions in Transition: Land Ownership, Property Rights and Social Conflict in China*. Oxford: Oxford University Press.

⁴¹ Lardy, N.R. (2008). 'Financial Repression in China'. Peterson Institute of International Economics, Washington DC, Policy Brief No.8.

market-oriented reforms, but China is a particularly *bad* example of a well-functioning market economy.

Contrary to the nowadays cherished incremental, pragmatic, and cushiony Chinese ‘dual track’ system, from day one the policies initiated immediately elicited widespread scepticism in international academic circles. Jeffrey Sachs reasoned in a logical manner at that time that “...the transition process is a seamless web. Structural reforms cannot work without a working price system; a working price system cannot be put in place without ending excess demand and creating a convertible currency; and a credit squeeze and tight macroeconomic policy cannot be sustained unless prices are realistic, so that there is a rational basis for deciding which firms should be allowed to close. At the same time, for real structural adjustment to take place under the pressure of tight demand, the macroeconomic shock must be accompanied by other measures, including selling off state assets, freeing up the private sector...”⁴² He concluded China in the long run would suffer from crises graver than the USSR’s.⁴³ The IMF dryly echoed: “ideally, a path of gradual reform could be laid out which would minimize economic disturbance and lead to an early

⁴² Lipton, D. and J. Sachs (1990) ‘Creating a Market Economy in Eastern Europe: the Case of Poland’, *Brookings Papers on Economic Activity*, 1, p.99. Following Professor Kent Deng and Professor Xinming He’s high standards, direct citations are kept at a bare minimal, unless they are important. Here it serves as a prime point of reference. Repeated citations more than twice of the same author on the same page are avoided.

⁴³ Sachs, Jeffrey (1996) “Achieving Rapid Growth in the Transition Economies of Central Europe,” Harvard Institute for International Development, *Development Discussion Paper* no. 544.

harvesting of the fruits of increased economic efficiency. But we know of no such path.”⁴⁴

And the original aim for China’s accession to WTO in 2001 was to use the market forces in its dual track channel to overturn its political sector and bring China to chaos. President Bill Clinton in 2000 proclaimed in a Congressional speech that “by forcing China to slash subsidies and tariffs that protect inefficient industries, which the Communist Party has long used to exercise day-to-day control, by letting our high-tech companies in to bring the Internet and information revolution to China, we will be unleashing forces that no totalitarian operation rooted in last century’s industrial society can control.”⁴⁵ Consensus of the US Congress believed that “economic forces that would be released by free trade, and commerce would overwhelm the forces in China seeking to maintain socialism, repression, and totalitarianism.”⁴⁶ In the year before his death in 2013, Coase still believed optimistically that China’s continuing market growth would “wipe out” the communist rule and a full-fledged free market economy could land on China “only if the traces of socialism were

⁴⁴ IMF. 1990. *The Economy of the USSR: Summary and Recommendations* (New York: International Monetary Fund), p.2.

⁴⁵ US Congress. 2002. “The National Security Implications of the Economic Relationship between the United States and China 2002.” *Report to Congress of the US-China Security Review Commission*, p.60. Accessed at: <https://china.usc.edu/us-china-economic-and-security-review-commission-2002-annual-report-congress-july-15-2002>.

⁴⁶ US Congress. 2002. “The National Security Implications of the Economic Relationship between the United States and China 2002.” *Report to Congress of the US-China Security Review Commission*, p.20.

thoroughly erased.”⁴⁷ If one is sceptical about their intelligence on economic realism, it would however be wrong to assume that they were wholehearted idealists caring Chinese people’s wellbeing. World Bank economists, because there were too many small, inefficient, often state-run firms before the eve of China’s accession, believed that these would die out when facing with direct foreign competition.⁴⁸ Consequently between 3 and 40 percent of China’s employment in auto industry would be lost as estimated by the World Bank’s institute in 2002.⁴⁹ The WTO legal team member on the eve of China’s accession was franker on this: the “so called ‘adjustment’ to new, more competitive market conditions” will mean for many millions of individuals and families, “unemployment and significant ‘displacement.’” And “we can do little more than wish China and its people ‘bon courage’ as they venture down the extremely challenging and tortuous path that stretches before them.”⁵⁰

Yet Chinese output and exports *soared* after WTO accession. It is no exaggeration to say this ‘accomplished’ China. Employment in China’s manufacturing sector reached 160 million in 2000 and 206 million in 2008,

⁴⁷ Ronald Coase and Wang Ning, *How China Became Capitalist* (Palgrave Macmillan, 2012), pp.154-155.

⁴⁸ Ianchovichina, Elena, and Will Martin. 2001. “Trade liberalization in China’s accession to WTO,” *Journal of Economic Integration* 16 (4): 421–45.

⁴⁹ Francois, Joseph, and Dean Spinanger. 2002. “Regulated efficiency, World Trade Organization accession, and the motor vehicle sector in China,” *Tinbergen Institute Discussion Paper* no. TI 2004-049/2. Accessed at: <https://papers.tinbergen.nl/04049.pdf>.

⁵⁰ Gertler, Jeffrey. 2002. “What China’s WTO accession is all about,” *WTO Secretariat* 14; Gertler, Jeffrey. 2003. “China’s WTO accession—the final countdown,” In *China and the World Trading System*, eds. Deborah Cass, Brett G. Williams, and George Barker (Cambridge: Cambridge University Press), pp.66-67.

peaked at 232 million in 2012, before declining to 214 million in 2018.⁵¹ In the decade after joining the WTO, China's unreformed auto market grew tenfold while the market share of Chinese brands in passenger cars rose from 29 percent in 2010 to 40 percent in 2017.⁵² And China continued its economic reform and market transition without democratisation. It is a notable puzzle for those who think that robust institutions are required both in theory and in practice to support markets. The rapid transition experience of many other Soviet economies was in part predicated on the establishment of private property rights and removal of the inefficient state in the sprouting market economy. And they failed, quite miserably.⁵³ Conversely, China's remarkable growth performance was accompanied by the lack of a well-established legal system supporting the increasingly decentralised marketising economy. In the same work, Coase admitted (without naming any names, including his own) that "the rise of the

⁵¹ Primary Data source: Chinese Ministry of Human Resources and Social Security. 2019. China employment: Secondary industry. Accessed at: <https://www.ceicdata.com/en/china/employment/employment-secondary-industry>.

⁵² Data from PWC's 2018 reports. Pricewaterhouse Coopers (PWC) is the world's leading consultancy firm and accountancy institute, headquarter in London, UK. PWC. 2018. The opening up of Chinese automotive industry and its impact. Accessed at: <https://www.pwccn.com/en/automotive/chinese-automotive-industry-opening-up-impact.pdf>.

⁵³ After the Big Bang, the Russian centrally planned economy's output declined by around half. See the recent calculations by Cockshott: Cockshott, Paul. 2020. *How the World Works: The Story of Human Labor from Prehistory to the Modern Day*. New York: Monthly Review Press; The World Health Organisation (WHO) provided data at the time: "There has been a dramatic rise in mortality, which is both unprecedented in a twentieth century industrial nation and exceptionally costly in human terms. Since 1990 Russian male life expectancy at birth has declined by seven years and in 1994 was 57.3, on a par with Pakistan." See World Health Organization. 1998. *Health Care Systems in Transition: Russian Federation*. Copenhagen: WHO Regional Office for Europe.

Chinese market economy did not follow the path suggested by some property rights economists.”⁵⁴

The China experience, however, instead of being the opportunity for these mainstream economists to self-reflect on their criteria and theorems, becomes *an* exception case for them to argue it should not and does not apply to the ‘worldly’ experience. Sachs commented straight that China is an ‘outlier’. The reason why transition big-bangers underperformed and China grew so rapidly is because China was too ‘backward’ beforehand. And poverty & backwardness were an economic advantage. Sachs argued around 80 percent of the Chinese workforce were employed outside the state sector and its lack of development meant that workers could move from the countryside to the market, whereas the transition Soviet economies were over-industrialised.⁵⁵ Yet his logic is dubious. For one thing, backwardness is a *disadvantage* rather than an advantage for a developing nation facing formidable obstacles *before* it sets the momentum to realise its potential. What is more important, China was *not* backward. The following sections will present that traditional China was one of the centres of premodern world and once the leader in technology, institutions, and economic growth.

⁵⁴ Ronald Coase and Wang Ning, *How China Became Capitalist* (Palgrave Macmillan, 2012), p.171.

⁵⁵ Sachs, Jeffrey, and Wing Thye Woo. 1994. Structural factors in the economic reforms of China, Eastern Europe, and the former Soviet Union. *Economic Policy* 9 (18): 102–45.

Hence in another sense, China is indeed an ‘outlier’. China is not included in the studies that argue good institutions cause growth (as it does not have a colonial past with which to establish the exogeneity of its institutions), or into the paradigm of common versus civil law countries (virtually all of which are former European colonies).⁵⁶ China’s modernisation experience is much closer to other transition economies after decades of central planning, yet unlike these countries that transplanted institutions and privatisation from the developed world, China developed a path of its own. China is the ‘outlier’ of all these groupings, and China succeeded. This phenomenal phenomenon is further underlined by the broad historical facts that by the end of 1970s, only a couple of East Asian small economies succeeded in catching up with the developed world.⁵⁷ By the 2000s, with one-fifth of humanity, China has been joining the camp. East Asia, and East Asia *only*, dramatically raised its average income in relation to the West’s, while all other developing regions—Latin America, Africa, West Asia, and South Asia—either fell or remained constant.⁵⁸ By the 2020s, US presidents are worrying about being taken over by China. In this regard, the ‘China Paradox’ is well-made.⁵⁹ If China is an ‘outlier’, it is *the* outlier

⁵⁶ Daron Acemoglu, Simon Johnson, and James A. Robinson, “The colonial origins of comparative development: An empirical investigation,” *American Economic Review*, Vol.91, No.5, 2001; La Porta, R., Lopez-de-Silanes, F., Shleifer, A., and Vishny, R.W. (1998). ‘Law and Finance’. *Journal of Political Economy*, 106/6: 1113—55.

⁵⁷ Justin Yifu Lin, *Demystifying the Chinese Economy*, Preface.

⁵⁸ Wade, *Governing the Market* 2nd edition, Intro.

⁵⁹ This nice phrase capture comes from Professor Kent Deng’s side-notes.

for the mass developing world to learn what a real universal path of development is and should be.⁶⁰

1.2 Paradoxes in Chinese economic history

1.2.1 *Science & Civilisation in China and the 'Great Divergence' thesis, yet premodern China failed to industrialise*

When Joseph Needham, originally a Cambridge biochemist, first published some of his grand series *Science and Civilisation in China* since the 1950s, it was a radical view back then. Needham discovered that “the world owes far more to the relatively silent craftsmen of ancient and medieval China than to the Alexandrian mechanics.”⁶¹ And it took, in William McNeill’s phrase, “a real leap of imagination to recognize China’s primacy.”⁶² With the advancement of Needham’s gigantic work until the 1990s and numerous revisionist studies since the 1970s led by Eric Jones, Mark Elvin, Francesca Bray, Gunder Frank, Janet Abu-Lughod, and Kent Gang Deng, it is commonly accepted now that China was one of the most creative societies and consequently led the world in technology for a long time.

⁶⁰ The author would like to thank Professor Deng for his valuable side-note comments on the original script: “Also, some details are crucial to convince the reader ‘why did China matter?’ in your assessment. This is unclear.” The author also thanks Professor Xinming He who commented on the same issue during the viva: ‘your research motivation, and why your chosen subject of study: China’ needs to be more developed in the opening chapter. These are corrected in this section. The prestigious examiners’ suggestions are highly appreciated.

⁶¹ Joseph Needham, *The Grand Titration* (Toronto: University of Toronto Press, 1969), p.58.

⁶² William H. McNeill, *The Pursuit of Power* (Oxford: Blackwell, 1982), p.29.

Francis Bacon in his *Novum Organum* (1620) states that the three most important world discoveries were printing, gunpowder and the compass. And all three were first invented in China. China's inventions including woodblock printing, paper-making, black gunpowder, the *Luopan* compass, silk, porcelain, and blast furnaces made it seem to have all the important ingredients for further development. Indeed, major characteristics of an incipient industrial revolution were evident in China's Han (202 B.C.—220) and Song (960—1279) periods respectively.⁶³ Iron and steel tools including the heavy plough had already been used in the Han era after China's previous Bronze Age in the Spring and Autumn Period (770—476 B.C.). Blast furnaces were invented. Europe on the other hand still used wooden ploughs.⁶⁴ In China's Song period, coke was added to blast furnaces employed for smelting, something not paralleled in Europe until the eighteenth century.⁶⁵ Iron output went from 32,500 tons per annum in AD 998 to 125,000 tons or more to 150,000 tons in 1078, the level attained in Europe in 1700: the total production of Europe including European Russia was 151,000—185,000 tons.⁶⁶ Eric Jones hence remarks that China

⁶³ Mark Elvin (1973) *The Pattern of the Chinese Past*, Stanford: Stanford University Press.

⁶⁴ Joseph Needham and Francesca Bray, *Science and Civilization in China. Volume 6, Biology and Biological Technology. Part 2, Agriculture* (Cambridge: Cambridge University Press, 1984)

⁶⁵ Eric Jones, *The European Miracle: Environments, Economies and Geopolitics in the History of Europe and Asia* (Cambridge: Cambridge University Press, 1981)

⁶⁶ Hartwell, R.M. (1963) *Iron and Early Industrialism in Eleventh-Century China*, Chicago: University of Chicago Library. Joseph Needham may suggest that Hartwell's iron output data are a little on the high side for the period. See Joseph Needham and Wang Ling, *Science and Civilization in China. Volume 4, Physics and Physical Technology. Part II: Mechanical Engineering* (Cambridge: Cambridge University Press, 1965). Hobson however asserts that even so, they would have to be incorrect by a very large margin to invalidate the conclusion that Song China underwent a massive increase in iron production the likes of which would only be matched by the British some seven centuries later. See John M. Hobson, *The Eastern origins of*

came within a hair's breadth of industrialising later in the fourteenth century.⁶⁷

Yet China's technological leading position ended in the 1400s.⁶⁸ China's historical trajectory from development to stagnation presents itself as a

Western civilization (Cambridge, UK; New York: Cambridge University Press, 2004).

⁶⁷ Eric Jones, *The European Miracle: Environments, Economies and Geopolitics in the History of Europe and Asia* (Cambridge: Cambridge University Press, 1981), p.160.

⁶⁸ Following Professor Kent Deng and Professor Xinming He's high standards, the author even evaluates the years to strive to produce a rigorous high-quality project. The years are a lower bound conservative estimate. This year derives from the Eurocentric scholar Joel Mokyr's estimate. "By about 1200, the economies of western Europe had absorbed most of what Islam and the Orient had to offer." "By 1500, Europe had more or less achieved technological parity with the most advanced parts of the Islamic and Oriental worlds... by that time Europeans already controlled more energy, machinery, and organizational skill than any civilization, ancient or contemporary". See Joel Mokyr, *The Lever of Riches: Technological Creativity and Economic Progress* (New York: Oxford University Press, 1990). Others may disagree. It is a historical *fact* that from 1550s the opening age of Sino-Europe trade sea route to 1800s, China maintained *huge* trade surplus for two and a half centuries, until the introduction of opium to China by the British. This was rare, or rather, the only phenomenon in global history. This phenomenon could *not* be explained by David Hume's famous price-specie-flow theory. In which he speculates that in a metal standard-based world, a balance of payments deficit in one region would contribute to its gold or silver outflow. This means its money supply essentially falls, leading to a fall in domestically produced product prices that raises its export competitiveness. And balance of payments would naturally restore to equilibrium position. Yet that was *not* what happened in Europe. Europe continued to leak silver to China which was mined in Americas. This essentially means silver was the *only* thing that Europe had to offer to China back then, its goods were non-comparable to Chinese products even before they entered Hume's 'price war' stage. Take textiles as an example. China was the production centre of hemp. The 'half-immersing, half-dried' and sulphur steamed techniques were the world's leading product back then. Britain not until 1690s developed hemp and linen products that were sufficient to compete with China's. Chinese silks could sustain the sea wind and never deteriorated in colour. A European merchant back then exclaimed: "none of European product could stay at the same table with Chinese silks." European textiles' style, weaving, patterns, dyeing all immersed in Chinese influences. From sixteenth to eighteenth centuries, there were 236 kinds of different goods exporting to Europe from China, in return for European silver. See Andre Gunder Frank, *ReOrient: Global Economy in the Asian Age* (Berkeley California: University of California Press, 1998). Frank's observations were corroborated by Geo Philips's primary study, *Early Spanish with Chang Cheow*. 南洋资料译丛, 1957(4). (An interesting side-note: when the author studied Economic History at Masters, one course's lecturer was Dr Debin Ma. He at that time made an interesting comment: 'Ming China did not even have its own money. Can you believe this? Thanks to the Spanish higher value high-quality silver mint! The Chinese had currency to use.' Something like that. The author, even still at a primitive level of Economic History back then, found his logic dubious. I raised my hand. He noticed me and gave me the chance. I asked: "So, Dr Ma, you are suggesting silver metal was a higher industrial good than the Chinese porcelain?" In front of over 100 students in the lecture theatre, he stayed numb for about three minutes. I at that time was pretty embarrassed because I did not know this was such a hard question for his level of intelligence. Otherwise I would be kinder to him. He then reacted: "Good question! I will come back to you later." But he never came back to me even after his lecture ended.) Francesca Bray reveals that "the best Chinese agricultural treatises, in our opinion, surpass anything produced before the 18th century in Europe in their systematic presentation of technical detail... Europeans visiting China in the 17th century were impressed by the sophistication of Chinese agriculture and brought Chinese agricultural treatises back to

haunting paradox when compared with European *unilinear* experiences on ‘modernity evolution’. In Mokyr’s book chapters, from ‘Classical Antiquity’ to ‘The Middle Ages’, early medieval Europe managed to break through a number of technological barriers that held the Romans back; from the Ages to ‘The Renaissance and Beyond: Technology 1500—1750’, a flourishing of scientific discoveries and achievements; from the Renaissance to ‘The Year of Miracles: The Industrial Revolution 1750—1830’, science was cashed into technological and industrial breakthroughs.⁶⁹ This neat and smooth transition in Europe from the cradle to the grave makes one cannot help himself contemplating on if there was something *wrong* in China that prohibited its further development. Unfortunately, this line of thought collapses one back into the epistemological, old Eurocentric Weberian view that the Asian political, institutional, and cultural frameworks significantly impeded and retarded its progress; and only Europe and its settlements had ever developed institutions required for the formation of markets and Smithian growth centuries before other continents that ultimately led to its 1800s industrial

Europe to learn from what they could.” See Joseph Needham and Francesca Bray, *Science and Civilization in China. Volume 6, Biology and Biological Technology. Part 2, Agriculture*. A more recent study echoes: “one area in which western Europe possessed an undeniable comparative advantage well before 1800 seems to have been overlooked—namely, violence…western Europe was not wealthier or more developed than rich areas of China, they would acknowledge that its military technology was more advanced.” See Philip Hoffman, “Prices, the Military Revolution, and Western Europe’s Comparative Advantage in Violence,” *The Economic History Review*, 64 (2011). This comparative advantage was arguably a shame rather than a pride. Mokyr’s year verdict hence was by no means non-disputable.

⁶⁹ Joel Mokyr, *The Lever of Riches: Technological Creativity and Economic Progress* (New York: Oxford University Press, 1990)

triumph. Indeed, even Joseph Needham poses a *deficit-approach* puzzle: ‘Why China *failed* to develop modern science?’ And his own answer lies on the anti-merchant social atmosphere in Chinese imperial bureaucracy and Confucian values, in contrast to the European rise of bourgeoisie.⁷⁰

It was not until the publication of Kenneth Pomeranz’s seminal book *The Great Divergence* in the second millennium year that a *paradigm-shifting* framework was established. Pomeranz boldly argues China even got a chance in 1800: Smithian dynamic was operating in all the core regions of the world; England and the Yangzi delta were on roughly similar trajectories and had reached more or less the same levels of productiveness and living standards.⁷¹ In terms of land, labour, and commodity markets, the spread of private property rights and other market institutions & networks, proto-industrialisation, organisation forms, the commercialisation of agriculture and consumption levels, their chance for industrialisation was once equal up to 1800. The retardation of China therefore could not be convincingly attributed to its endogenous traditional culture and institutions, and the rise of real incomes per capita in the West after a certain point of historical *conjuncture* must be added with explanations with reference to contingencies: coal and colonies. Pomeranz

⁷⁰ Kenneth G. Robinson and Joseph Needham, *Science and Civilisation in China. Volume VII, Part II: General Conclusions and Reflections* (Cambridge: Cambridge University Press, 2004)

⁷¹ Kenneth Pomeranz, *The Great Divergence: China, Europe, and the Making of the Modern World Economy* (Princeton, N.J.; Oxford: Princeton University Press, 2000)

asserts that premodern China came closer to being the nearly perfect example of Smithian market growth than West Europe did (for a critical assessment of Eurocentric scholars' vigorous counter-attacks to Pomeranz's thesis, see Chapter 2. Reviews on *Institution* and *Data* sections and Appendix A), and where the North-Western European core advanced and differed was "consistently related to *deviations* from simple Smithian market dynamics—especially to state-licensed monopolies and privileges, and to the fruits of armed trade and colonization."⁷² What ultimately opened the path for England's great divergence from the Yangzi region was the distinctive form of English and European mercantile expansion that made possible the establishment of the raw material and food-processing peripheries using coerced slave labour that enabled England, and later Europe, to transcend the labour-intensive tendencies of other core regions.⁷³ The massive New World resource windfall obtained during the crucial seventeenth to nineteenth centuries rendered England's *sustained* capital-intensive development trajectory possible.

Pomeranz's *Great Divergence* thesis in 2000 triggered further representational histography findings (for a critical review of *theoretical* data objecting Pomeranz, see Chapter 2's *Data* section) that confirm his observational arguments. In an opening sentence 'Does trade cause

⁷² Pomeranz, *The Great Divergence*, p.24.

⁷³ Pomeranz, *The Great Divergence*, pp.206-7, 241.

growth?', Shiue and Keller reject the widely held view that the more efficient markets in Europe explained the Industrial Revolution starting in Europe and not elsewhere.⁷⁴ They provide empirical evidence that on the eve of the Industrial Revolution, the degree of market integration was higher in the Lower Yangzi region than in continental Europe, and only slightly lower than that in England regarding local economic activities in areas of 150 kilometres or less.⁷⁵ Another important paper targets at guilds.

⁷⁴ Shiue, Carol H., and Wolfgang Keller. 2007. "Markets in China and Europe on the Eve of the Industrial Revolution." *American Economic Review* 97(4): 1189–1216.

⁷⁵ A potential problem with Shiue and Keller's data analysis is they compare the actual efficiency of markets using data on the spatial dispersion of grain prices from the 15th to the early 20th century. In essence, they treat the stability of grain price as sign of market integration. But food market in China was interfered by the Chinese state's physiocratic proto-welfare policies such that a granary network was set up at all levels: counties, prefectures, and provinces. Even the imperial officials' salary was desirably paid in kind (food, textiles) rather than by money precisely to avoid fluctuations of market prices and to ensure inflation-adjusted values. Hence, the food 'price' integration across the empire may simply be the well-governed government interference that had no meaning to indicate market prices *per se*. See Plerre-Etienne Will and R. Bin Wong, *Nourish the People: The State Civilian Granary System in China, 1650—1850* (Center for Chinese Studies, The University of Michigan, 1991) and Kent G. Deng & Luca Zan, "Micro Foundations In The Great Divergence Debate: Opening Up A New Perspective," *LSE Economic History Working Papers* No: 256/2017. However, it would be large margins of error to invalidate the conclusion that premodern China possessed robust private market prosperity. Pomeranz shows around 30,000,000 (a cautious conservative estimate that includes only the largest of many grain-trading routes in China) *shi* of grain entered long-distance trade in eighteenth-century China that was enough to feed about 14,000,000 people. This would be 5 times a generous estimate of Europe's long-distance grain trade at its pre-1800 peak. *Great Divergence*, p.34. Bin Wong notices that the Imperial court at heart emphasised light taxation and tried to avoid interfering with commerce. There were few transit taxes in China. "China's internal market dwarfed those of Europe as a whole for millennia." See Roy Bin Wong and Jean-Laurent Rosenthal, *Before and Beyond Divergence: The Politics of Economic Change in China and Europe* (Cambridge, Mass.: Harvard University Press, 2011). Thomas Rawski, in his research on the Chinese economy before WWI, asserts that the pre-modern Chinese economy exhibited a substantial degree of pro-modern integration. The pan-merchandising of vast landholding peasantry generated economies of scale effects in commodity flows networks. Motor trucks and railways faced strong price competition from un-mechanised carriers equipped with sailboats, wheelbarrows, and horse-drawn carts. Foreign merchants complained of the seemingly limitless ability of Chinese rivals to reduce trading margins. See Thomas G. Rawski, *Economic Growth in Prewar China* (Berkeley: University of California Press, 1989). Therefore, Shiue and Keller are right on robust market frequency and efficiency of the Chinese market, yet they are wrong on their methodology to arrive their conclusion. Grain price stability was maintained by the proto-welfare Chinese state. And most markets in China did *not* really have market 'prices'. In contrast to European feudal lords' jurisdictions 'A market cannot be established within 6 and 2/3 miles of another market', within which peasant serfs were bondage men to the manorial landowner and were excluded status to join the market, and merchants naturally flourished as agents connecting markets from each lord, Chinese peasantry were free to form markets on their own that typically involved no merchants' participation. And until 1850, all rural exchanges, the backbone of China's market, were tax-free. See Steven R. Epstein, *Freedom and Growth: The rise of states and markets in Europe, 1300—1750* (London and New York: Routledge Explorations in Economic History,

Guilds was an interesting topic because in traditional Eurocentric scholars' romantic mindset, these represent 'magical' associations in charge of market exchanges and technical innovations that separated Europe from the rest. It was not until Pomeranz's 'Great Divergence' monumental comparison that more studies were prompted to reveal the private rent-seeking nature of these excluding organisations in urban towns and cities.⁷⁶ Later Eurocentric scholars *reconcile* their position to argue guilds serve as important apprenticeship institutions to facilitate knowledge transfer and nurture high-quality artisanship, whose organisational form was unseen in

2000) and Kent G. Deng & Patrick O'Brien, "The Kuznetsian Paradigm for the Study of Modern Economic History and the Great Divergence with Appendices of Literature Review and Statistical Data," *LSE Economic History Working Papers* No.321/2021. Approximately there were as many as 45,000 local markets in Qing China, equalling out dispersion of voluntary village fairs *ganji* spreading out the villages across the empire. So much so that Skinner dubs it 'pan-peasantry commercialisation'. See G. William Skinner, "Marketing and Social Structure in Rural China," *The Journal of Asian Studies* (pre-1986); Nov 1964. Because these market exchanges were conducted by voluntary Chinese farmers themselves, goods were typically directly traded instead of paying market prices in money. King sharply remarks: "in China every monetary transaction was to an extent an exchange transaction." See King, F. H., *Money and Monetary Policy in China 1845—95* (Cambridge, 1965). Therefore, Shiue and Keller get their assessment inaccurate. The nature of Chinese domestic market was built by tens of thousands of village fairs 'dots' across a million villages spreading the empire that in turn supported huge market networks and commodity flows. Because local village fairs did not necessarily have grain prices data or these were disparate & fragmented, Shiue and Keller arrive at the wrong conclusion that in 150 kilometres or less China had a lower market intensity which should be the reverse scenario in reality: intense market transactions exactly happened at China's grass-roots level that supported national commodity flows the level above. Chinese farmers were also active traders. Their mistakes were made because they did not understand the nature of Chinese economy at first, and they really had European markets in mind in which merchants were active traders across each jurisdiction setting up common market prices and monetary payments of exchange and at the grassroots level peasant serfs conducted no trade and commerce, and they used fragmentary Chinese data to confirm their European mindset. Hence the data they got in appearance were England had a higher market intensity at local level, in reality should be the reverse scenario, if market intensity at a macro level of China was no lower, or higher, than the European counterpart, *there is no reason* not to believe that at the grassroots level Chinese market intensity should be even higher. Chinese market in essence is neatly captured by our prestigious scholar Kent G. Deng: "petty production at the household level and great circulation of commodities in the economy" (*xiaoshengchan daliutong*). See Gang Deng, *The Premodern Chinese Economy: Structural Equilibrium and Capitalist Sterility* (Oxon; New York: Routledge Explorations in Economic History, 1999), p.84.

⁷⁶ Sheilagh Ogilvie, "'Whatever is, is right'? Economic institutions in pre-industrial Europe," *Economic History Review*, 60, 4 (2007), pp.649—684; Sheilagh Ogilvie, "The Economics of Guilds," *Journal of Economic Perspectives*, 28, no. 4 (2014).

the East that plausibly explains the later high burst of technicians during the British Industrial Revolution and *not vice versa*.⁷⁷ In other words, the rent-seeking feature was *justified* on grounds of training. Ogilvie, however, showcases that most English apprenticeships could reach up to 4—7 years; from a wide range of recordings and autobiographies by the young apprentice, this was less due to the sophisticated nature of the crafts but more because of the ‘free’ labour needed by their masters.⁷⁸ Van Zanden, in his illuminating *The skill premium and the ‘Great Divergence’*, assesses the efficiency of training institutions on the basis of data on wages of skilled and unskilled construction workers.⁷⁹ This perspective is important because when comparing other regions, say, India, with Europe, Roy argues India’s caste system had made the cost of acquiring knowledge higher in India than in eighteenth-century Europe that explains the origins of divergent technological pathways.⁸⁰ In other words, the skill premium was higher in India than in Europe since India had more obstacles in facilitating knowledge transfer. Roy points to the importance of formal impersonal institutions, such as guilds, in the European context. Nevertheless, this explanation does *not* apply to China. Van Zanden

⁷⁷ S. R. Epstein and Maarten Prak, *Guilds, Innovation and the European economy, 1400—1800* (Cambridge: Cambridge University Press, 2008)

⁷⁸ Sheilagh Ogilvie, “‘Whatever is, is right’? Economic institutions in pre-industrial Europe”

⁷⁹ Wages are a bad proxy for living standards comparison, which shall be elaborated in Chapter 2. Chinese workers did not live on wages. However, here Van Zanden’s conclusions are largely valid because he utilises the differences between wages rather than wages *per se* to compare the efficiency of training institutions.

⁸⁰ Tirthankar Roy, “Knowledge and divergence from the perspective of early modern India,” *Journal of Global History* (2008) **3**, pp.361—387.

strikingly reveals “already in the late medieval period the skill premium in western Europe had fallen sharply and became, from the fifteenth century onwards, much lower than in most other parts of the world economy. Only in Southern China, and perhaps also in nineteenth-century Japan, did the skill premium fall to an equally low level.”⁸¹ Notice nineteenth-century Japan was marching towards modern period, and it was for *centuries* in Southern China. Notice also Japan’s socio-economic structure resembled premodern Europe’s such that artisanal guilds and merchant coalitions were also widespread there.⁸² There is also no reason to believe that Chinese artisans were of inferior quality to their European counterparts, as a majority of global history demonstrates it was Chinese artisanal and industrial goods that flooded the European market, and not vice versa. Among global civilisations, it was China, and China *only*, that remains a political eyesore to Eurocentric activists which accomplished the same (or higher) achievements *in absence of* restrictive monopolistic organisations, as China is *the* eyesore to market fundamentalists today.⁸³

Nevertheless, Pomeranz’s contingent factors explanation to the ‘Great Divergence’ fails to take note of the fact that Qing China also obtained a

⁸¹ Jan Luiten van Zanden, “The skill premium and the ‘Great Divergence’,” *European Review of Economic History* (2009) **13**, pp.121—153.

⁸² Tetsuji Okazaki, “The role of the merchant coalition in pre-modern Japanese economic development: an historical institutional analysis,” *Explorations in Economic History* Volume 42, Issue 2, April 2005.

⁸³ Here the author again achieves Professor Deng’s valuable comments: “Why China matters?” and Professor He’s precious suggestions: “your motivation, why your chosen subject of study: China?”

massive ecological windfall from Manchuria, and land remained in elastic supply throughout the dynastic period, why did such a windfall do so little for China?⁸⁴ This puzzle, together with the historical *fact* established by Pomeranz that Smithian dynamics were operating among all core regions up to 1800, in turn suggests that Smithian growth was not the sufficient condition, perhaps not even a necessary condition, for the European capital-intensive and colonial path of expansion. What Pomeranz significantly contributed in his 2000's seminal work was to found and fortify the *fact* that Smithian growth was not a unique European phenomenon, and Chinese growth in every dimension was on a par with, and in some ways came closer to Smithian features than those of Western Europe. And Pomeranz did mention in areas of European advancement they came from *deviations* to Smithian dynamics. Where he remains weak is to ascribe those to the ecological supply shock alone.

It was hence remarkable that, a year before Pomeranz in 1999, scholar Kent G. Deng already spelled out incoming discoveries and weaknesses in such a prophetic fashion:

“After all, it is the ‘wood’ that made China different from, for example, the capitalist, industrial forerunners of the West in spite of the fact that China’s

⁸⁴ Kent G. Deng, “Book Review: *The Great Divergence*,” *The Economic Journal* 111, no.472 (2001): F491-492.

‘trees’ sometimes appeared strikingly similar to those of their Western counterparts.”⁸⁵

It was European industrial and military triumph in the recent two centuries that caught the world’s imagination that European ‘trees’ were made up of their ‘wood’. In a sarcastic perspective, when some historical researches unfold there were ‘trees’ that resembled the European kind, they become seminal. Pomeranz stops there. It was another social historian and political economist when he devoted his research interests to China, in 2007 the year of his death, dramatically found out that it was the Chinese ‘wood’ that made the Chinese and European ‘trees’—*Adam Smith in Beijing*.⁸⁶ Contrasting orthodox European narrative⁸⁷, Europe thrived from *non-Smithian* ‘wood’ of growth.

⁸⁵ Gang Deng, *The Premodern Chinese Economy: Structural Equilibrium and Capitalist Sterility* (Oxon; New York: Routledge Explorations in Economic History, 1999), p.30.

⁸⁶ Giovanni Arrighi, *Adam Smith in Beijing: Lineages of the Twenty-First Century* (London: Verso, 2007)

⁸⁷ James D. Tracy, *The Political Economy of Merchant Empires: State Power and World Trade, 1350—1750* (New York: Cambridge University Press, 1991)

1.2.2 *From development to underdevelopment: premodern China's failing modernisation attempts in response to western shocks*

If China's failure in industrialisation could be excused by the *caveat* that it simply missed the grab of historical chance, then its second failure in recent embarrassing and humiliating episodes could not stand the same claim. China not only failed in inventing, but also in *copying* the industrialisation process. After the First Opium War in 1840, Wei Yuan's *A Comprehensive Survey of Off-shore Countries (haiguo tuzhi)* was written in 1841. Not until the second disastrous defeat and the burning of Summer Palace in 1860, however, was serious attention devoted to dealing with the imminent threats of survival (*jiuwang tucun*). 'Self-strengthening' and 'Westernising' movements took firm roots after 1860. The first European-style firearms arsenal was built in 1861. 'Government-supervised and merchants-run' (*guandu shangban*) businesses started. Military academics established. Students sent by the Qing court to study abroad. The effects of these efforts nonetheless could be compared with another Asian player encountering the Western shocks.

Wei Yuan's work was introduced to Japan in 1854 and became an instant bestseller. After American General Perry's visit in 1853, Japanese ports were opened. In 1867 the Meiji Restoration began. If one compares China

and Japan in terms of the initial encounter with the West: Commissioner Lin Zexu in fact instructed his officials to collect and translate European knowledge and information into Chinese in 1839, the year he made his decision to burn opium stocks in Humen, before the Opium War. Fairly speaking, Commissioner Lin was an upright Confucian scholar and a competent bureaucrat and did everything he could (*youshi zhishi*) at that time. Japan's encounter was in 1853, and their first knowledge with Europe and its settlements was from translation on Chinese translations in 1854. So, China, 15 years ahead. If one compares their starting reforms: China, 1861; Japan, 1867. Again, China was ahead of the game. This thus turned out to be a national shock in 1895, when China lost its sea war with Japan.

This was just the end of the beginning, not the beginning of the end. In 1900, the Eight-Nations Army (*baguo lianjun*) invaded, again to the empire's capital after 1860. In 1904, Russo-Japanese War, on Chinese soil. In 1911, Qing dynasty toppled. China descended into anarchic Warlords' period. In 1914, WWI began. China was supposed to be irrelevant for this European muscle game. Yet tens of thousands of Chinese workers died on the First War battlefield. And China by chance earned a victorious nation 'ticket' to the Versailles peace conference. When diplomat Gu Weijun made his bottom on the attendance chair, and hoped that Germany could return its sphere of influence jurisdiction on the Shantung Peninsula to China,

Japanese delegates requested the same ruling rights on *China's* territory, and the 'big three' of the Versailles remained in silence. On May Fourth 1919, nation-wide student demonstrations erupted. In 1931, Japan colonised Manchuria. In 1932, Japan attacked Shanghai. In 1937, full-round invasion proceeded.

From any angle, China's experience was brutal. Not so long ago, up to 1800, China took a third of the total world manufacturing output. By 1900, China's share slid to 6.2 percent while the West's rose to 77.4 percent.⁸⁸

⁸⁸ Deng, *The Premodern Chinese Economy*, p.2. Following Professor Kent Deng's spirits, even though his rigorism made his academic work a trustworthy reliable source, the author checked his primary data sources: Samuel P. Huntington, *The Clash of Civilisations and the Remaking of World Order* (New York: Simon and Schuster, 1996), p.86; Paul Kennedy, *The Rise and Fall of the Great Powers* (New York: Random House, 1987), p.149. Notice, the one-third of total world output share is typically attributed to Maddison's works (1998, 2001, 2007) nowadays. But a major problem of Maddison's data is he confusingly uses population estimates as a proxy for output levels. A critical review of Maddison's data shall be elaborated in Chapter 2. Here is to point out that Maddison's methodology to some extent made his work a political correctness trick satisfying Eurocentric ideology because he gave such a high figure for China's output level while *at the same time* made China's GDP per capita drastically *lower* than its European counterpart. His data are founded upon intuitive guess-works which is basically assuming premodern China constantly suffered from Malthusian crisis in essence. And the way his data is constructed reveals his epistemological position that it was Europe that *always* stood above Malthusian subsistence level, after some internal temporary regression periods in 1 AD and returned to its leading position, and consequently led the world to modernity. Perhaps due to concrete historical evidence compiled by the revisionist school, Maddison and other Eurocentric scholars had to reconcile the fact that China was the global leading superpower throughout much of the world history periods. And the way he managed to reconcile was to come up with population estimates, so on one hand, the fact that Chinese abundant goods and goods superiority to flood the European market was acknowledged, on the other hand, because of high population of China hence their GDP per capita was constructed to be lower than European counterpart and hence the future superiority of Europe was also established. Maddison's *theoretical* data trick seems to satisfy both sides well and could accommodate the eyesore facts that premodern China dominated much of the historical periods as well as leaving the ground for Eurocentric ideologists to boast themselves why they came on top in future. Unfortunately, Maddison's delicateness in data *construction* lays his clumsiness at the same time. His revisionist historical facts and his Eurocentric ideology made his reconciliation exercise utterly self-contradictory. If this region produced abundant goods not just for domestic consumption but also after 60% to 70% for self-consumption uses, the rest sold for the domestic market and then leaked to international market, and flooded there, on what grounds was this region to have a *lower living standard* than elsewhere? If a region hopelessly experienced trade deficits and technology and style imports for two and a half centuries, at least, on what grounds were this region to have the *highest* living standard? If a region experienced market prosperity and commercialisation and diversification of agriculture, and the resulting population growth on what grounds was a *Malthusian* phenomenon? If a region has Malthusian-

From the past global ‘superpower’, China has fallen to the very bottom of the developmental pyramid with one of the lowest per capita incomes from the early modern period to 1970s in the contemporary world. From past giant glory to the smashed ‘little boy’, from development to stagnation, from advancement to backwardness, China’s experience is perhaps the greatest enigma in world history.

If one, however, thinks about it carefully, there are at least three contradictions that can be identified. These in turn lead to the question of what enigma are we talking about. First, premodern China pursued the best Smithian policies (including state’s light hands on the huge private economy), so much so that sinologist von Glahn ironically comments: “During the late imperial era, China’s rulers embraced the neo-Confucian ideological abhorrence (not unlike that of neoclassical economics) to state interference in the private economy.”⁸⁹ And premodern China not only

subsistence pressure, on what grounds should it have *population growth*? Should it be the *reverse* scenario? Region that stopped population growth was in *Malthusian*-subsistence state? Maddison however did not have discussions on these in his long-run historical data *construction*, and his position was simply posited, rather than studied. Professor Kent Deng was therefore wise to pick disparate data sources beforehand, even though disperse, the data collected by Huntington and Kennedy however were in genuine historical nature and focuses on output *per se*. Ironically, when Maddison later constructs his systematic history making up data process, he consulted *these same secondary* sources and confusingly combines population to output; a third of output is a fact, a third of output due to Malthusian population pressure is an *opinion*. And Maddison’s opinionated construction after consulting disparate secondary sources which was the nature of the Economic History field and how this world works becomes *primary* data bases nowadays. This must be cautioned by any well-educated reader. See Kent Deng & Patrick O’Brien, “Why Maddison was Wrong: The Great Divergence Between Imperial China and the West,” *World Economics* Vol.2, No.18, 2017.

⁸⁹ von Glahn, R. (2016) *The Economic History of China: From Antiquity to the Nineteenth Century*. Cambridge: Cambridge University Press, p.10.

missed the chance to industrialise but also performed to the bottom when other late-comers at the time strived to catch up. Second, China's recent miraculous economic growth was partially based on policies deviating market fundamentalism. If these two contradictions are not sufficient to convince the Eurocentric activists on the inappropriate benchmark they are comparing with, it is the third contradiction that throws the deadweight on the scale. Third, there is *self-contradiction* on the Chinese experience that past Smithian policies ultimately contributed to premodern China's 'a century of humiliation', China was remade after the Communist One-Party rule that state-led investment steered modern economic take-off. This study on China alone therefore reveals the tremendous gap between the ideology propagated and true faces of the default benchmark: Europe, and the West in general.⁹⁰

1.3 Paradox in Western ideology and Chinese reality: Communism on the China soil

1.3.1 Historical materialism

Karl Marx's view of history was deeply influenced by Hegel. Both thought that history has a purpose and destiny. Marx adds a further element that he

⁹⁰ Here the author again successfully tackles Professor Deng and Professor He's valuable suggestions: "Why China matters?" Also, this thesis identifies the knowledge gaps in existing literature and signals this research's incoming contributions.

sees human society as being fundamentally determined at any given time by its *material conditions*. Marx subsequently identified six successive stages of the development of these material conditions: primitive communism, slave society, feudalism, capitalism, socialism, and communism. He inherited Hegel's teleological dialecticalism that from the beginning, mankind has moved toward its destiny propelled by conflict through a relentless series of stages, each new stage brought into being through a conflict caused by a contradiction or negation of the previous stage, but he emphasised transition from one social formation to another was driven by changes in the *forces of production*:

“At a certain stage of their development, the material forces of production in society come into conflict with the existing relations of production, or – what is but a legal expression of the same thing – with the property relations within which they had been at work before. From forms of development of the forces of production, these relations turn into their fetters. Then comes the period of social revolution.”⁹¹

Changes within the *economic base*, to Marx, caused changes to the *superstructure*. It was the *forces of production* that dictate *relations of production*. Each new stage, to be reached, *must* pass through the previous stage of historical development. *Evolution* of production forces must be

⁹¹ Marx, K. (1859). *A Contribution to the Critique of Political Economy*

mature enough to bring *revolution* in production relations. This line of orthodox Marxism has an important implication: what if production forces are not mature? Then wait and see. Communism would be and should be brought by capitalist societies.

Yet this view rarely matched real-world events. Advanced capitalist world held their tight grips; and relatively primitive societies became the ‘heir’ to the new order. In 1917, the Bolsheviks ‘usurped the throne’. As a consequence, the Soviet Marxists of the twenties had to adapt Marxist theory to tasks for which it had not been designed.⁹² This also applied to China. Long before communists’ takeover in 1949, scholar Zhang Dongsun had already commented on their ideology in the 1920s:

“At present, if capitalism flourishes, and the Bourgeois emerge, these should be considered as a necessary class. It is better to welcome them rather than to refute their entry... It is because China’s current difficult scenario needs the establishment of industries, and the speediest way to open industries is through capitalism.”⁹³

⁹² Alexander Erlich, *The Soviet Industrialization Debate, 1924—1928*

⁹³ *Early modern China’s historical sources on thinking and culture: Marxism in China* Volume II. (Tsinghua University Press, 1983), p.148 and p.151. 《中国近代思想和文化史料：马克思主义在中国》，下册，清华大学出版社 1983 年版，148 页、151 页。“于此之际，苟目睹资本主义兴焉，Bourgeois（资产阶级分子）兴焉，皆当认为当然之阶级，与其拒之不如希其速来…盖中国民不聊生急有待于开发实业，而开发实业方法之最能速成者莫若资本主义。”—张东荪

1.3.2 *Class struggle*

The most famous sentence of Karl Marx is perhaps his declaration in the *Communist Manifesto*: “The history of all hitherto existing society is the history of class struggles.”⁹⁴ But it is very difficult to see whether premodern China even had a concept of *class* at all. James Scott, a leftist himself, however refutes the Marxian generalisation of history after conducting his fieldwork in Southeast Asia. In his classic *The Moral Economy of the Peasant*, Scott investigates the economics and sociology of the subsistence ethic in Southeast Asia and Asian societies in general. The precapitalist agrarian society possesses a ubiquitous form of ‘patron-client’ social insurance ties rather than Marxian universal ‘class struggles.’⁹⁵ A typical peasant village operates on the ‘safety-first’ principle that seeks to avoid the failure to ruins rather than attempting a big, but risky, killing. A typical peasant household instead of profit maximising in terms of neoclassical economics, minimises the subjective probability of the maximum loss. These were evident in their farming methods: the use of more than one seed variety, high-yield land-intensive farming, the village communes periodically redistribute the newly found communal land... Rich peasants were expected to be charitable, to sponsor more

⁹⁴ Karl Marx and Frederick Engels (1848/1998), *The Communist Manifesto* (London: Verso), p.34.

⁹⁵ James C. Scott, *The Moral Economy of the Peasant: Rebellion and Subsistence in Southeast Asia* (New Haven and London: Yale University Press, 1976), Chapter 1.

lavish celebrations, to help out temporarily indigent kin and neighbours...⁹⁶ Quoting Polanyi, Scott argues that “It is the absence of the threat of *individual* starvation which makes primitive society, in a sense, more human than market economy, and at the same time less economic.”⁹⁷ There is a tacit consensus about reciprocity: as soon as a peasant leans on his kin or his patron rather than on his own resources, he gives them a reciprocal claim to his own labour and resources. The kin and friends who bail him out will expect the same consideration when they are in trouble and he has something to spare.⁹⁸ The ‘patron-client’ relationship provides households with social insurance against the ‘normal’ risks of agriculture through an intricate system of social exchange.

Conversely, the colonial period in Southeast Asia was marked by an almost total absence of any provision for the maintenance of a minimal income while, at the same time, the commercialisation of the agrarian economy was stripping away most of the traditional forms of social insurance. Far from shielding the peasantry against the fluctuations of the market, colonial regimes were likely to press even *harder* in a slump so as to maintain their own revenues. The moral village solidarity of the ‘survival of the weakest’ switched to market based ‘freedom’ of the ‘survival of the fittest’.⁹⁹ The

⁹⁶ Scott, *The Moral Economy of the Peasant*, Introduction.

⁹⁷ Polanyi quoted in Scott, *The Moral Economy of the Peasant*, Introduction.

⁹⁸ Scott, *The Moral Economy of the Peasant*, Introduction.

⁹⁹ Scott, *The Moral Economy of the Peasant*, Chapter 2.

‘patron-client’ personal ties changed to depend upon an impersonal economic bargain. The protective, risk-sharing value of the village and kin-group was encroached by capitalist market principles. The relationship of landowners to their tenants or labourers lost much of its protective, *paternalistic* content and became more impersonal and *contractual*. Instead of standing in the minimal needs of the tenant, it began and often ended with the fixed claim of the landholder. Scott observes that “In this sense, the relationship becomes *objectively* more exploitative.”¹⁰⁰ Typically the landholder provided fewer services while demanding the same or more from the tenant or labourer. The creation and deterioration of agrarian class relations, the emergence of landlords, tenants, and wage-labourers, and the eruption of waves of agrarian unrests in the region during 1920s and 30s, were artifacts of the colonial integration.¹⁰¹

Francesca Bray, assessing China’s rice economies, echoes that wet-rice cultivation is unlike the farming system of Northwest Europe that was subject to *enclosure* and land merging pressures. As new techniques and more sophisticated management skills were applied in China and land productivity rose, the position of tenants vis-à-vis their landlords *improved* rather than deteriorated; they acquired more managerial and economic

¹⁰⁰ Scott, *The Moral Economy of the Peasant*, Chapter 3.

¹⁰¹ Scott, *The Moral Economy of the Peasant*, Chapter 3.

independence, and tenurial contracts were modified in their favour.¹⁰² The evolutionary dynamic of the agricultural system of Northwest Europe was the polarisation of rural society into farmer-managers and wage-labourers. China's rice economies in the seventeenth-century Yangzi Delta, in contrast, had rarely large landowners and approximately three-quarters of the land was owned by medium landowners or smallholders.¹⁰³ In industrialising Northern Europe, land conglomeration led to the formation of large capitalist landholders and a large number of landless urban workforce; there was nothing to tie them to the land in pastoral farming. China's rice farming could not permanently separate the peasantry from the land; they were required to come back to it in busy seasons. "Thus there was no proletarianisation of labour, and the basic unit of production remained the family smallholding."¹⁰⁴

Bray's comparison of different social relations in China and Europe and her resort to different respective farming systems are reasonable. Yet she fails to notice predominant wet-rice farming occurred not until the Song era and China also practised dry farming in the Han period.¹⁰⁵ And small landholding peasantry had already been common by then. Ironically, in the

¹⁰² Francesca Bray, *The Rice Economies: Technology & Development in Asian Societies* (Berkeley; Los Angeles; London: University of California Press, 1986), p.205.

¹⁰³ Bray, *The Rice Economies*, Appendix B: The historical experience of China.

¹⁰⁴ Bray, *The Rice Economies*, p.207.

¹⁰⁵ Deng, *The Premodern Chinese Economy*, p.16.

last Appendix of her *same* work on rice economy, Bray acknowledges “over the two centuries leading up to Japan’s early phase of modernization, tenurial relations underwent basically similar changes to those which preceded the Industrial Revolution in England”, *despite* the fact that Japan is also a rice-growing economy.¹⁰⁶ Premodern Japan’s feudal social structure made its rural society consist of *daimyo* landlords and categories of bondsmen akin to the manorial lords and serfs of medieval Europe. Japan experienced similar proletarianisation procedure in its rural industrialisation phase during which a great amount of rural surplus labour was absorbed into rural industries after the Meiji tax reforms. In 1884, 77% of Japanese factories were situated in rural areas, and more than half in 1892.¹⁰⁷ Therefore, farming system is rather the *consequence* of than the cause to social relations. Bray perhaps got the direction of causality wrong. China’s establishment of private property rights and the replacement of previous feudalist chessboard structure and all its social tiers (e.g., regarding feudal lords: *gong*, duke; *hou*, marquess; *bo*, earl; *zi*, viscount; and *nan*, baron) in the Qin era back to 221 B.C. set the institutional path dependency for vast small rural property rights landholders.¹⁰⁸ The wide introduction of wet-paddy rice farming in the Southern Song (1127—1279) period just precipitated this process. Together with the internally consistent

¹⁰⁶ Bray, *The Rice Economies*, Appendix C: The Japanese experience

¹⁰⁷ Bray, *The Rice Economies*, Chapter 4

¹⁰⁸ Kent G. Deng, “Development and Its Deadlock in Imperial China, 221 B.C.—1840 A.D.,” *Economic Development and Cultural Change* 51, no. 2 (2003)

physiocratic state, Confucian ideology, and *Imperial Examinations*, premodern China was a highly mobile and meritocratic society with vigorous pan-peasantry commercialisation.

This fact is corroborated by sinologist Carl Riskin. “First, regarding mobility: unlike Japan, traditional China did not have rigid barriers of status to prevent social mobility.”¹⁰⁹ Also contrasting Japan and Europe, the demarcations between landlord, owner, and tenant in premodern China were anything but rigid. Production relations in the Chinese countryside were extremely complex, the renting in and out of land and the hiring of labour could cover over a wide socioeconomic range. “Many farmers fell simultaneously into two of these categories, and there were even landlords who were also tenants. Moreover, it was not uncommon to find wealthy peasants who owned no land, but rented large holdings which they farmed with the help of hired labourers.”¹¹⁰ The actual complexity and fluidity of Chinese rural class composition perhaps made ‘class composition’ an inappropriate phrase.¹¹¹ More importantly, tenancy rates were the highest in the most fertile, productive, and commercialized regions, e.g. the lower Yangzi valley.¹¹² These facts lead the Maoist scholar Chris Bramall to

¹⁰⁹ Carl Riskin, *China's Political Economy: The Quest for Development since 1949* (Oxford; New York: Oxford University Press, 1987), p.24.

¹¹⁰ Riskin, *China's Political Economy*, p.28.

¹¹¹ For instance, Chairman Mao in his early years conducted a survey on *Analysis of Respective classes in Chinese society*. 《中国社会各阶级的分析》—毛泽东, 01/12/1925.

¹¹² Riskin, *China's Political Economy*, p.26.

concede that “The very fact, therefore, that around 20 percent of the farm population in north China and 40 percent of the farm population in the south during mid-1930s were tenants should be seen in a positive rather than a negative light... it is therefore misleading to focus exclusively on land ownership... in the Chinese countryside.”¹¹³ Premodern Chinese state’s Smithian light taxes policy generally made ‘rent’ an affair between the small landholding landlord and land tenant. Bi-cropping and multi-cropping was popularly practiced in China’s Ming-Qing (1368—1911) period. The first crop was ‘split’ half-half between the tenant and the landlord. The second crop onwards was rent free to the tenant. The tenant also did not bear on tax-paying liabilities. It is therefore sometimes argued that a Chinese tenant could be richer than a Chinese landlord.¹¹⁴ If so, what were the communist land reforms for? Agitation is produced by agitators, not agitators by agitation.

¹¹³ Chris Bramall, *Chinese Economic Development* (London: Routledge, 2009), p.69.

¹¹⁴ Kent G. Deng & Patrick O’Brien, “The Kuznetsian Paradigm for the Study of Modern Economic History and the Great Divergence with Appendices of Literature Review and Statistical Data,” *LSE Economic History Working Papers* No.321/2021.

1.3.3 Communism as the historical choice

When China lost its First Opium War to Britain in 1840, scholar-official Wei Yuan stated in the opening paragraph of his *haiguo tuzhi*: “What is the purpose of this book? Answer: for the purpose of using barbarians to fight barbarians, using barbarians to indulge barbarians with money, studying the power techniques (e.g., guns, cannons, war boats, military tactics) of barbarians to subdue them.”¹¹⁵ The confidence of Chinese civilisation’s self-sense of civilised moral high ground was still evident, even though a war was lost. In China’s numerous historical episodes, barbarians had harassed Chinese borders for many times, invaded Chinese hinterland for some times, and some did manage to conquer. But for all, their final destination was to be homogenised and Sinicised (*guihua*) by the superior civilisation’s culture and customs, values and principles, politeness, laws, institutions, and wealth & prosperity. England, at that time, was thought to be another ‘barbarian’ that possessed comparative advantage in violence, but its power cannot be sustained by the all-round soft power of *the Kingdom of Heaven*. China, as in the past, would remain the master to ‘tame’ these benighted savages. Ironically, England is thought to be the English gentry in well-dressed smart suits in today’s world. But for the world at that time, the gentry were Chinese *junzi*.

¹¹⁵ WEI Yuan, *A Comprehensive Survey of Off-shore Countries*, 1841. 魏源,《海国图志》《原叙》:“是书何以作? 曰: 为以夷攻夷而作, 为以夷款夷而作, 为师夷长技以制夷而作。”

After 1860, when the empire's capital was ruthlessly assaulted for the first time since 1644, threats of 'barbarians' were attached to the Qing court's first priority. 'Self-Strengthening' and 'Westernisation' became the national policy. Not just the buying of guns and cannons beforehand used to fight the Taiping rebellions in the 1850s civil war, but formal western knowledge schools (*yang xuetang*) including physics, chemistry, etc., were also introduced after 1860. The Chinese, for the first time, officially encountered the word: science (*kexue*). However, even at this time, immersed and well-educated in Confucian texts before, the Chinese scholar-officials accepted these improvements with no strict sense of embarrassment, for the self-confidence from this civilisation's long time past glory was still supporting their backbones: 'Chinese knowledge as foundation and Western knowledge for use' (*zhongxue weiti, xixue weiyong*) proposed by scholar-official Zhang Zhidong became the slogan in these initiatives. The manifestation of these common attitudes was more explicit in a memorial to the throne written by Senior Secretary Wo Ren in 1867, worrying about the 'crowding out' of decent orthodox *Imperial Examinations* by these western schools:

"The founding principles of a nation were on righteousness and courtesy rather than sophisticated manipulation; the aims of striving direction were on human heart and mind instead of art crafts. Now the policy is to strive

for the delicacy of an art, and to treat barbarians as teachers, the first problem is whether these cunning figures would give their true knowledge unreservedly. The second problem, more importantly, is even if they teach with genuineness, and if students work with sincere ethos, what to achieve are just a few technocrats. From past history to the present, there is no precedent that a few techniques can rouse a fading situation.”¹¹⁶

A few prominent scholar-officials however were more far-sighted in realising the potential dangerous and difficult scenario the empire was facing when they were conducting Westernisation affairs (*yangwu*). Chancellor Li Hongzhang sharply pointed out: China’s present situation was “of extreme uncertainty unencountered for the empire’s several thousand year history” (*shuqiannian weiyou zhi bianju*). In 1895, his words came true. National self-confidence was shocked. Attention was thereafter extended to Chinese civilisation’s culture and institutions, the used-to-be untouched high ground spheres. Political reforms sat on the agenda. Reformation movements (*weixin*) were boldly carried out, including the abolishment of the thousand-year *Imperial Examinations*. Constitutional monarchy was proposed by scholars Kang Youwei, Liang Qichao, and later, Yang Du.

¹¹⁶ WO Ren, *The Memorial to the Throne By Senior Secretary WO Ren in Tongzhi emperor’s Sixth year*, Lunar calendar 15/02/1867. 《同治六年二月十五日大学士倭仁折》(1867年): “窃闻立国之道, 尚礼义不尚权谋; 根本之图, 在人心不在技艺。今求之一艺之末, 而又奉夷人为师, 无论夷人诡譎未必传其精巧, 即使教者诚教, 学者诚学, 所成就者不过术数之士, 古今来未闻有持术数而能起衰振弱者也。”

In 1900, however, with the mass massacre of voluntary Boxers' Rebellion (conducted by Chinese people themselves to safeguard Qing and eliminate Western invaders (*fuqing mieyang*)) by the Eight-Nations Army, and the ransacking of capital for another time with the robbery of the Forbidden Palace, China's national self-confidence was effectively destroyed. The previous confident moral high stance to condemn violence degenerated into writer Lu Xun's *A biography of Person Q*'s character: "A laymen besides Person Q did not stop at fooling him rhetorically, and ends up beating Person Q. Person Q is defeated formalistically; his yellow braid was pulled, and his head bumped into walls for four or five times, and the layman was finally satisfied leaving Person Q at the corner. Person Q stood there for a while, and thought himself: 'I was beaten by my bastard son. The world today sucks...' And, like the layman, he also happily walked away."¹¹⁷ Thereafter a tortuous path of self-identity *self-destruction* took momentum and words such as 'despotism' (*zhuanzhi*), 'slavery national-character' (*nuxing*), a corrupt regime with a dwarfed civilisation etc. became popular. The most representative political figure was Sun Yat-sen (Sun Wen), the alleged man who toppled Qing in 1911.

¹¹⁷ ZHOU Shuren, penname: LU xun, *A biography of Person Q*, 1921. 鲁迅,《阿Q正传》:“闲人还不完,只撩他,于是终而至于打。阿Q在形式上打败了,被人揪住黄辫子,在壁上碰了四五个响头,闲人这才心满意足的得胜的走了,阿Q站了一刻,心里想,‘我总算被儿子打了,现在的世界真不像样……’于是也心满意足的得胜的走了。”

Back to 1894, however, in his early years at 28, Sun had high regard on the Qing chancellor Li Hongzhang. Perhaps in hope for getting Li's attention of promotion, Sun wrote Li a letter with an overflow of exaggerated praises as well as his advice to present his value:

“To his Great Preceptor Chancellor Li,

Respectfully in write: I, Wen, come from East Canton, lives in Xiang Yi, and attended examinations of British doctors in Hong Kong. I studied abroad at a young age, and had some knowledge on the West's languages, politics and costumes, astronomy and geography, as well as physics and chemistry. I paid particular attention to their way to be wealthy and powerful... Today's China is in vivid rising, and the nation & Court are striving to improve... I, as a little figure, feel unimportant to disturb the high rank. And happy to see today's China actively gathering wealth and power means, everyday speedy changes, without leisure taken, and the trend is to match Europe very soon. Boats, railways, telegraphs, guns, things westerners used to bully us, we now have them. Other new reforms are also following closely. China's peace both internal and abroad, and far sights on wealthy nation & powerful army, are well-managed by you prestigious ministers. Embassies are also sent everywhere, and foreign countries' moves are all under your eyes. I, a little humble citizen, live in this great era, and am privileged enough to listen to the good news and

dance & sing. How can I have anything to criticise? Only some bits, to add icing on the cake.

I believe the root of European wealth & power is not just at its strong boats and sharp cannons, fortified castles and military might, but also people could realise their talents potential, places could realise their convenience, goods could realise their usage, cargos could be transported smoothly. These four things are the fundamental cause to wealth & power and good governance.”¹¹⁸

It is interesting to note that the four things mentioned by the young Sun Wen which he thought were the cause to European success are revealed by the recent revisionist literature and California School in economic history

¹¹⁸ The author's original script had a few Sun Yat-sen quotes from Professor Kent Deng's classic *China's Political Economy in Modern Times: Changes and economic consequences, 1800—2000* (London: Routledge, 2012). Following Professor Kent Deng's high standards, the author strives to produce a high-quality work, checking primary qualitative sources instead of consulting secondary literature requoted. The author therefore took painstaking efforts in skimming through thousands of pages of collected comprehensive works of Sun Yat-sen. And got the first hand primary historical evidence. Also, unlike the original script, repeated citations of the same author on the same page more than twice for all secondary literature are avoided in this new thesis. Direct citations are kept at a bare minimal, for secondary authors in particular, unless first hand qualitative evidence from the people at that time are needed. First hand historical primary sources serving as prime point of historical evidence reference are gathered and added by the author himself. SUN Yat-sen, *The Comprehensive Works of Sun Yat-sen*, compiled by Shang Mingxuan (People's Press, 2015), Volume II. Articles, *Sending in an memorial to Chancellor Li* (Spring 1894) ,pp.8-9. 《孙中山全集》尚明轩主编 (人民出版社, 2015 年), 第二卷: 文集, 《上李鸿章书》(一八九四年春), 第 8 页、9 页:

“宫太傅爵中堂钧座:

敬稟者: 窃文籍隶粤东, 世居香邑, 曾于香港考授英国医士。幼尝游学外洋, 于泰西之语言文字, 政治礼俗, 与夫天算地舆之学, 格物化学之理, 皆略有所窥; 而尤留心于其富国强兵之道…当今光气日开, 四方毕集, 正值国家励精图治之时, 朝廷勤求政理之日…嗣以人微言轻, 未感遽达。比见国家奋筹富强之术, 日新月异, 不遗余力, 骎骎乎将与欧洲并驾矣。快舰、飞车、电邮、火械, 昔日西人之所恃以凌我者, 我今亦已有之, 其他新法亦接踵举行。则凡所以安内攘外之大经, 富国强兵之远略, 在当局诸公已筹之稔矣。又有轺车四出, 则外国之一举一动, 亦无不周知。草野小民, 生逢盛世, 唯有聆听欢呼、闻风鼓舞而已, 夫复何所指陈? 然而犹有所言者, 正欲于承可为之时…

窃尝深维欧洲富强之本, 不尽在于船坚炮利、垒固兵强, 而在于人能尽其才, 地能尽其利, 物能尽其用, 货能畅其流—此四事者, 富强之大经, 治国之大本也。…”

field to be more apparent in pre-modern China. Regarding rule by meritocracy, even Maddison, still a Eurocentric scholar to some extent, points out that China was a pioneer in recruiting trained public servants on a meritocratic basis starting in the tenth century. For the West, this phenomenon did not begin until Napoleon, more than a millennium later. Yet even so “European bureaucrats have never had the social status and power of the Chinese literati.”¹¹⁹ Chalmers Johnson pinpoints that not until the Meiji Restoration were impartial examinations established in Japan, open to all men to recruit trained experts to the new bureaucracy.¹²⁰ Regarding production of goods, Chinese proto-industrialisation did not suffer from the same restrictions in European urban city areas.¹²¹ Regarding trades and transport, the pan-merchandising of vast landholding peasantry generated economies of scale effects in commodity flows networks. The premodern Chinese private economy exhibited a substantial degree of pro-modern integration particularly in regions around river canals.¹²²

¹¹⁹ Angus Maddison, *Chinese Economic Performance in the Long Run. 2nd ed, rev. and updated: 960—2030 A.D. Vol. Development Centre studies* (Paris: Development Centre of the Organisation for Economic Co-operation and Development, 2007), p.24.

¹²⁰ Chalmers Johnson, *MITI and the Japanese Miracle: The Growth of Industrial Policy, 1925—1975* (Stanford, Calif.: Stanford University Press, 1982), pp.37-38.

¹²¹ Kenneth Pomeranz, “Skills, ‘Guilds’, and Development: Asking Epstein’s Questions To East Asian Institutions,” in *Technology, Skills and the Pre-modern Economy in the East and the West: Essays Dedicated to the Memory of S.R. Epstein* (Leiden: Brill, 2013)

¹²² Thomas G. Rawski, *Economic Growth in Prewar China* (Berkeley: University of California Press, 1989)

Despite these, three years later in 1897 Sun sharply turned to the revolutionary position and advocated French Revolution's *liberté, égalité, fraternité* to end the corrupt Manchu regime: "If this extremely corrupt Manchu government cannot be overturned completely, and establish a government purely self-governed by Chinese people themselves that needs temporary help for several years from European nations, then any political reform ideals cannot be implemented... Because of the corruption of Manchu bureaucracy, it cannot accommodate any upright official. Hence to expect it could be improved with the injection of new blood is a utopia. The Manchu officials are not only incompetent and stupid themselves, but they also try to enslave the mind of commoners."¹²³ Eight years later in 1905 he extended his line of attack to the entire 'despotic' history of China: "I found Europe and America's evolution is due to three ideologies: nationalism, people's rights, and people's living standards... Today's China is poisoned by the thousand-year despotism, the Manchu race torture, foreign nations' threats, hence nationalism and people's rights cannot wait further to be established in China. For people's living standards, China was not as ill as Europe and America, and could be solved in an easier

¹²³ SUN Yat-sen, *The Comprehensive Works of Sun Yat-sen*, compiled by Shang Mingxuan (People's Press, 2015), Volume II. Articles, *China's present situation and its future* (translated version)—*Revolution Party's advocate for Britain's neutrality* (01/03/1897), pp.19-33. 《孙中山全集》尚明轩主编（人民出版社，2015年），第二卷：文集，《中国之现状与未来》（译文）—革命党吁请英国善持中立（一八九七年三月一日），第19至33页：“倘若不能把目前极度腐败的满清政府彻底推翻，并建立一个纯由中国本部人民自行统治，但在初期数年内籍重欧洲国家的建设与协助的良好政府，则任何改良政治的理想，均无法实施。…由于满清官场如此腐败，容不下任何一位操守清廉的官员，是故期望注入新血以使情况好转实无可能，亦无法冀望籍教育加以改变；因为一般满清政府之官吏不仅自身昏庸愚昧，他们更试图使一般百姓也变得愚昧无知。”

manner.”¹²⁴ It is interesting to note that Sun thought China’s living standards were not as bad despite China’s ‘despotism’. In 1908 he ridiculed constitutional monarchists’ ‘natural’ position and asserted a full-fledged revolution was China’s only solution: “These reformists have strived around national affairs for more than ten years, and their motive is to support Qing and exterminate Han. With no reason, and unrealistic thought, they come up with the word ‘natural’. They think the ‘natural’ evolution to constitutional monarchy fits China’s circumstances. Hence, they believe the current scenario that the Manchu race holds four hundred million Chinese people in hand is God-given... The Chinese have been spoiled by more than two thousand years of despotism, and by more than two hundred years of the barbaric Manchu race, their minds are dead numb, indulged into drunk dreams. Although they are hungry and thirsty, they do not know there is food and drink. Unless through revolution to wake them up, drunk to death is their hopeless destiny.”¹²⁵

¹²⁴ *The Comprehensive Works of Sun Yat-sen*, Volume II. Articles, *The Opening word for People's Newspapers* (1905), p.69. 《孙中山全集》尚明轩主编（人民出版社，2015年），第二卷：文集，《民报》发刊词（一九〇五年），第69页：“余维欧美之进化，凡以三大主义：曰民族，曰民权，曰民生。…今者中国以千年专制之毒而不解，异种残之，外邦逼之，民族主义、民权主义殆不可以须臾缓。而民生主义，欧美所虑积重难返者，中国独受病未深，而去之易。…”

¹²⁵ *The Comprehensive Works of Sun Yat-sen*, Volume II. Articles, *Journalist Ping Shi's words are Wrong* (1908), pp.73-76. 《孙中山全集》尚明轩主编（人民出版社，2015年），第二卷：文集，《平实开口便错》（一九〇八年），第73至76页：“意者奔走十余年国事之人，志在扶清灭汉，而持之无其故，言之不成理，缪想天开，不知从何处迷得‘自然’二字，附于之时势之下，以为今日之时势，满人之握中国四万万人之主权、宰制四万万人之死命者，实天数也。…中国人受专制之祸二千余年，受鞑虏之祸二百余年，人心几死，是犹醉梦者，虽饥渴亦不知饮食也，不有唤起之，则醉梦者必长此终古矣！”

Eight years after the 1911 Revolution, however, on October tenth 1919 Sun Yat-sen himself summarised what has been ‘achieved’ after the downfall of Qing in pursuit of his republic freedom, in a confessed tone: “What day is today? The day of incompetent bureaucrats holding sway, crook warlords domineering, cunning politicians mess up, and people suffering.”¹²⁶ As China further descended into the anarchy of warlords’ civil war, in a self-reflective manner, Sun took a sharp U-turn in his 1921 formal treatise *Lectures on the Five Rights Constitution*, arguing premodern China was a liberal tradition civilisation: “The ancient Chinese people, ‘farming land to eat, mining wells to drink’, were pretty free. Lao tzu’s *laissez-faire* also expresses the extent of people's freedom. People at that time had abundant liberty, hence did not know about the value of it. Now the tradition passes on. So, foreigners do not know about this, and they feel strange why Chinese people do not care about freedom. European history was different. After the downfall of Rome, Europe was carved into feudal nations, and people were enslaved. In the recent century many wars broke out there, for the fighting of freedom. I used to advocate revolution, and barely mentioned liberty, because Chinese people only know about political reforms, and not what is liberty. Each Chinese dynasty’s emperors only cared about getting some light taxes and grain collection from the people,

¹²⁶ *The Comprehensive Works of Sun Yat-sen*, Volume II. Articles, *Today, After Eight Years* (10/10/1919), p.149. 《孙中山全集》尚明轩主编（人民出版社，2015年），第二卷：文集，《八年今日》（一九一九年十月十日），第149页：“今日何日？正官僚得志，武人专横，政客捣乱，民不聊生之日也。”

and the rest was passed on to the people so long as his ancestral throne was not affected. Some recent youngster scholars get some new thinking and then know about 'liberty'. But Chinese people do not need to know what is liberty. It is just as the case that you all stand in this room; do you need to know what is air? This room's air is abundant. We do not know the value of it because it has not run out. If a man is trapped in a sealed room, he then knows the air treasure. The common European laymen have no freedom, so they fight for freedom. Chinese people have not run out of liberty, so they do not know about liberty. These two trends, one on despotism, one on liberty, represent the difference between China and Europe.”¹²⁷

Contrasting his previous verdict on the despotic imperial bureaucracy, Sun now praises traditional China's *Imperial Examinations* and constitutions highly: “From my illustration of organisations & arrangements on the premodern Chinese regime, it also had constitutions: power, obligations, and functions of the emperor, examinations, and impeachment... Exam was traditional China's very good institution and a serious affair. In the past,

¹²⁷ SUN Yat-sen, *The Comprehensive Works of Sun Yat-sen*, compiled by Shang Mingxuan (People's Press, 2015), Volume I. Treatises, *Lectures on the Five Rights Constitution* (1921), pp.5-6. 《孙中山全集》尚明轩主编（人民出版社，2015年），第一卷：专论，《五权宪法讲演录》（一九二一年），第5至6页：“中国古代人民‘耕田而食，凿井而饮’，原是很自由的。而老子所说底‘无为而治’，亦是表示人民极自由底意思。当时底人民有了充分底自由，不知自由之可贵，至今此习仍存，故外人初不知其理，甚异中国人民之不尚自由也。若在欧洲底历史，则与此不同。欧洲自罗马亡后，其地为各国割据，以人民为奴隶，在近世纪底时候，有许多战争发生，都是为争自由而战。兄弟从前倡革命，于自由一层，没有什么讲到，因为中国人只晓得讲改革政治，不懂得什么叫自由。中国历代底皇帝，他只晓得要人民替他完粮纳税，只要不妨碍他祖传帝统就好，故外国人批评中国人不晓自由。近来有几个少年学者，得了点新思想，才晓得‘自由’两个字。本来中国人民是不须争自由的。如诸君在此，晓得空气是什么东西。空气要他作什么？我们在这房子里空气是足够的，人之在空气中生活，如鱼在水中生活，鱼离水就要死，人没有空气，亦是要死的。但人不晓得空气之可贵，到底是个什么呢？因为空气不竭也。试将人闭之于不通空气底屋子里，他知空气可贵矣。欧俗人不自由，故争自由。中国人尚不竭自由，故不知自由。这个两种潮流，一专制，一自由，就是中国与欧洲不同底地方。”

when each province held exams, doors were closed, and all corrupt and cheating practices were dealt solemnly... Regarding impeachment, there were Chinese bureaucrats in charge of this function, such as *taijian*, *yushi* who had upright courage and moral strength of character to discipline emperors' wrong doings.”¹²⁸

In his last years, and in his last and most famous treatise *The Three Populist Doctrines* (*sanmin zhuyi*), the previous hard-line freedom fighter and ‘founding father’ of China’s Republican era (*guofu*) shockingly proclaimed China’s problem is too much liberty beforehand and what the Revolutionaries did wrongly in 1911 was to fight for freedom: “When foreigners criticise Chinese, on one hand the Chinese do not understand freedom; on the other the Chinese are a tray of loose sands, they are self-contradicting themselves. The fact that Chinese are a tray of loose sands is a manifestation of sufficient freedom. And it is bad to be a tray of sands, we need to add water and cement in order to bind these into rocks. Then sands cannot move about, and they lose freedom. So Chinese people’s present illness is not lack of freedom... Therefore, foreigners’ saying on Chinese people as loose sands, we accept it, but to say Chinese people do not understand liberty and have weak political thinking then we reject their

¹²⁸ Ibid., *Lectures on the Five Rights Constitution* (1921), p.7. 《五权宪法讲演录》，第7页：“就这个图来看，中国何尝没有宪法：一是君权，一是考试权，一是弹劾权… 考试本是中国一个很好底制度，亦是很严重底一件事。从前各省举行考试底时候，将门都关上，认真得很，关节通不来，人情讲不来，看看何等郑重… 说到弹劾，有专管弹劾底官，如台谏、御史之类，虽君主有过，亦可冒死直谏，风骨凛然。”

claim. Why Chinese people are a tray of loose sands? Because each enjoys too much freedom. Because Chinese people had too much freedom, they need revolution. The motive of Chinese revolution is different to Europe's. Europe had no liberty before, so they revolted, to fight for freedom. We are in a situation of too much freedom, no associations, no immunity, and we become loose sands. Because we are loose sands, we were invaded by foreign imperialism, bullied by mercantilist wars from Western powers, and we cannot resist these forces. For the purpose of resisting them in future, we need to break each individual's freedom, and to form solid rocks. There are liberty ills because of too much liberty for the Chinese at present. In schools, and also in our Revolution Party. So, when we overturned the Manchus in the past, Republic China cannot be established until today, because of the ultimate mistakes on pursuing freedom.”¹²⁹ What China needs now is to exchange personal liberty of each Chinese for the altogether national strength freedom: “At present, how should ‘liberty’ be

¹²⁹ SUN Yat-sen, *The Comprehensive Works of Sun Yat-sen*, compiled by Shang Mingxuan (People's Press, 2015), Volume I. Treatises, *The Three Populist Doctrines* (1924), pp.409-412. 《孙中山全集》尚明轩主编 (人民出版社, 2015年), 第一卷: 专论, 《三民主义》(一九二四年), 第409至412页: “若外国人批评中国人, 一方面说中国人不懂自由, 一方面又说中国人是一片散沙, 这两种批评实在是互相矛盾。中国人既是一片散沙本是很有充分自由的。如果成一片散沙, 是不好的事, 我们趁早就要参加水和土敏土, 要那些散沙和土敏土彼此结合来成石头, 变成很坚固的团体, 到了那个时候散沙便不能够活动, 便没有自由。所以中国人现在所受的病不是欠缺自由……所以外国人说中国人是一片散沙, 我们是承认的; 但是说中国人不懂自由, 政治思想薄弱, 我们便不能承认。中国人为什么是一片散沙呢? 由于什么东西弄成一片散沙呢? 就是因为是各人的自由太多。由于中国人自由太多, 所以中国要革命。中国革命的目的与外国不同, 所以方法也不同。到底中国为什么要革命呢? 直接了当说, 是和欧洲革命的目的相反。欧洲从前因为太没有自由, 所以革命, 要去争自由。我们是因为自由太多, 没有团体, 没有抵抗力, 成一片散沙。因为是一片散沙, 所以受外国帝国主义的侵略, 受列强经济商战的压迫, 我们现在便不能抵抗。要将来能够抵抗外国的压迫, 就要打破各人的自由, 结成很坚固的团体, 像把土敏土参加到散沙里头, 结成一块坚固石头一样。中国人现在因为自由太多, 发生自由的毛病, 不但是学校内的学生是这样, 就是我们革命党里头也有这种毛病。所以从前推倒满清之后, 至今无法建设民国, 就是错用了自由之过也。”

applied? If applied to individuals, then it becomes a tray of loose sands. So, it must no longer be applied to individuals, but to the nation... But to do this, this requires the sacrifice of individual freedom from everyone... China at present is the slave of more than ten masters. Today's nation is unfree. To restore our freedom, we need to combine each individual freedom, into a solid rock... Only when this big association has realised freedom, can each individual of the Chinese civilisation's freedom be achieved.”¹³⁰

In 1924, the year before his death, leader Sun, in his speeches on the First National Conference of Chinese National Citizens' Party (*guomin dang*, this party is the new formation from his previous Revolution Party), openly confessed that the 1911 revolution was a historical retreat, and landed his high hope at the Soviet style: “Since the establishment of Republic of China, political power has been grabbed by anti-revolution reactionaries. Hence despite we, the revolutionaries, had caused damage to China's politics and society, we were refrained from opportunities to construct the nation. Therefore, from any dimension, China has no improvement since the 1911 Revolution, and has retreated instead. This is not what the

¹³⁰ Ibid., *The Three Populist Doctrines* (1924), p.413. 《三民主义》(一九二四年), 第 413 页: “在今天, 自由这个名词究竟要怎么样应用呢? 如果用到个人, 就成一片散沙。万不可再用到个人上去, 要用到国家上去。…要这样做去, 便要大家牺牲自由…中国现在是做十多个主人的奴隶, 所以现在的国家是很不自由的。要把我们国家的自由恢复起来, 就要集合自由, 成一个很坚固的团体… 这一个大团体能够自由, 中国国家当然是自由, 中国民族才真能自由。”

Revolution Party had hoped for. Today Chinese people attribute their all kinds of sufferings to us, and we have to take the blame... and this was primarily due to the wrong methodology we used.”¹³¹ “This time’s restructuring of the Party has two goals: first, to restructure and organise our National Citizens’ Party into a strong party. Second, to use the power of strong party to remodel the nation.”¹³² “There is one thing that can be immediately treated as our role model: Soviet Russia’s Party-state is far more superior than the Anglo-, American, and Franco- republican parties and liberal democracies. Today we even do not have a nation, and we have to start with the party to build one... Hence, we can see, Soviet Russia’s revolution *de facto* fits our *Three Populist Doctrines* perfectly. And the reason for its success is it put the party above the nation.”¹³³

¹³¹ SUN Yat-sen, *The Comprehensive Works of Sun Yat-sen*, compiled by Shang Mingxuan (People's Press, 2015), Volume VII. Speeches, *Speeches on the First National Conference of Chinese National Citizens' Party: The Present Chinese Situation and the Party's Restructuring* (20/01/1924), p.541. 《孙中山全集》尚明轩主编 (人民出版社, 2015 年), 第七卷: 演说, 在中国国民党第一次全国代表大会上的演讲《中国之现状及国民党改组问题》(一九二四年一月二十日), 第 541 页: “自民国成立后, 政权皆操之反革命派手内, 故虽革命党对于政治上、社会上做了种种的破坏, 而苦于无机会以建设。故从各方面看来, 中国自革命后并无进步, 反为退步。但此并非革命党之初心, 今人民皆以此归咎于革命党, 我党亦不能不受。在满洲未倒、革命未成功以前, 革命党之奋斗, 重在宣传其主义于全国之人民, 故人民均急希望革命之能成功, 视革命二字为神圣; 成功后不能如其所期, 顿使失望。此种事实, 谁负其责? 革命党不能不负其责。人民以各种痛苦归咎于我们, 我们实难辞其责, 要皆由于所用方法不对。”

¹³² SUN Yat-sen, *The Comprehensive Works of Sun Yat-sen*, compiled by Shang Mingxuan (People's Press, 2015), Volume VII. Speeches, *The Opening Speech on the First National Conference of the National Citizens' Party* (20/01/1924), p.538. 《孙中山全集》尚明轩主编 (人民出版社, 2015 年), 第七卷: 演说, 《中国国民党第一次全国代表大会开幕词》(一九二四年一月二十日), 第 538 页: “此次国民党改组, 有两件事: 第一件是改组国民党, 要把国民党再来组织成一个有力量有具体的政党。第二件就是用政党的力量去改造国家。”

¹³³ SUN Yat-sen, *The Comprehensive Works of Sun Yat-sen*, compiled by Shang Mingxuan (People's Press, 2015), Volume VII. Speeches, *Speeches on the First National Conference of Chinese National Citizens' Party: On the Explanations of Organising the National Government* (20/01/1924), pp.544-545. 《孙中山全集》尚明轩主编 (人民出版社, 2015 年), 第七卷: 演说, 在中国国民党第一次全国代表大会上的演讲《关于组织国民政府案之说明》(一九二四年一月二十日), 第 544 至 545 页: “现尚有一事可为我们模范, 即俄国完全以党治国, 比英、美、法之政党, 握权更进一步; 我们现在并无国可治, 只可以说以党建国... 可见俄之革命, 事实上实是三民主义。其能成功, 即因其将党放在国上。”

Over the same later year on October ninth 1924, Sun sent a secret letter order to Chiang Kai-shek: “Today’s revolution must study Soviet Russia... The future of our Party must treat Soviet Russia as our teacher, otherwise we cannot achieve anything.”¹³⁴ On March eleventh 1925, he devoted his *Last Words to the Soviet Union*.¹³⁵

Sun Yat-sen is the most important historical figure in China’s early modern history. His writings, speeches, and activities were not just his change of mind or the thought journey-flow, but also a reflection of China’s extremely difficult and turbulent circumstances at that time. From ‘studying the barbarians’ techniques to subdue them’ to ‘Chinese knowledge as foundation and Western knowledge for use’, from military and technological reforms to reforms on politics and institutions, from reforms to revolution, from revolution to remodelling Chinese people’s drunk-dream dead numb minds, from enlightenment to restoring traditional Chinese values and constitutions, from fighting for freedom to arguing there was too much freedom, from vivid passion on ending China’s

¹³⁴ SUN Yat-sen, *The Comprehensive Works of Sun Yat-sen*, compiled by Shang Mingxuan (People’s Press, 2015), Volume V. Letters, *Letter to Chiang Kai-shek* (09/10/1924), p.542. 《孙中山全集》尚明轩主编 (人民出版社, 2015 年), 第五卷: 函札, 《致蒋介石函》(一九二四年十月九日), 第 542 页: “盖今日革命, 非学俄国不可。… 我党今后之革命, 非以俄为师, 断无成就。”

¹³⁵ SUN Yat-sen, *The Comprehensive Works of Sun Yat-sen*, compiled by Shang Mingxuan (People’s Press, 2015), Volume II. Articles, *Last Words to the Soviet Union* (11/03/1925), p.426:

“Politburo of the Soviet Union

Dear comrades,

I am now experiencing a fatal disease. Now I turn my heart to you, to my Party and my nation’s future…”

thousand-year despotism to the confession on historical retreat, from parliamentary democracy to the One-Party state, China's scenarios had nothing relevant to Communism's theory, yet the urgent march of historical events towards Communism served as China's only way-out exit. Why?

1.4 Paradox in the recent global neoliberal turn: growth promised versus stagnation in reality

The 1970s 'stagflation' rendered the Keynesian demand-management policies obsolete. Macroeconomic objectives shifted from full employment to monetarist inflation-targeting. Countercyclical policies, monetary or fiscal, are considered ineffective because people will form rational expectations on these policies and adjust their economic decision-making accordingly (for a theoretical illustration of the time inconsistency problem and policy ineffectiveness proposition, see Appendix B). The so-called 'supply side' economics dominated. National industries and assets were privatised, trade unions dissolved, social security benefits cut, for the sole purpose of liquidation to the 'market clearance'. Institutional reforms also took hold, with the separation of the Central Bank from the government Treasury. Bold reforms under Mrs Margaret Thatcher and Mr Ronald Reagan however failed to bring back the growth rates as before, and the

global neoliberal turn in general contributed not just a decrease in relative growth, but also a fall in *absolute* income across the developing world.

With the exception of East Asia including the tigers, all regions of the underdeveloped world have experienced much worse economic growth performance in the last quarter century than in the third quarter. Growth in GDP per capita fell from an average 4.1 percent in the 1950—73 period to 0.6 percent in 1973—98 period in other parts of Asia, from 2.5 percent to 1.0 percent in Latin America, from 2.1 percent to 0 in Africa, and from 3.5 percent to -1.1 percent in the Soviet bloc excluding China.¹³⁶ For Europe,

¹³⁶ Data from Angus Maddison, *The World Economy: A Millennial Perspective* (Paris: OECD, Development Centre Studies, 2001). Maddison's millennium comparison is not fairly accurate, as shall be elaborated in Chapter 2, he uses intuitive guesses to come up with the GDP per capita in Medieval Ages, in 1990 US dollars. This methodology has epistemological problems of data comparison. He also really just uses secondary sources to construct his systematic data for every historical episode in ancient period. This is not really valid for 'primary' evidence. However, his data on countries' GDP per capita and growth rate in the last half century have done a fairly decent job and his painstaking efforts in primary data collection serve as important reference work used by economists and economic historians. Hence here the author uses his data for the last half century in modern world. Another evaluative comment can be given is that his Maddison project is funded by generous OECD, and his conclusion given is anti-neoliberalism. When his data were published in 2001, it was at that time one of the harshest criticisms to the world's growth rate and a fall in absolute per capita for many countries by then. Hence from a historical source motive perspective, Maddison passed the test. However, one of his problems is he gives a quite high growth rate for the communist world, including Mao's China, in the third quarter of the twentieth century. This is because he only looks at industrial GDP growth and not really focuses on the real living standards of people's well-being. Hence the 3.5 percent growth rate of the Soviet bloc should have some caveats. Having said that, however, his data demonstration of negative growth rate in the fourth quarter was very accurate. Actual GDP per capita for individual countries were far worse than the aggregate average rates. Maddison suggests the proportion of the population in poverty in Ukraine skyrocketed from 2 percent in 1987-88 to 63 percent in 1993-95, for a second-world nation during the previous Cold War. WHO's health observation corroborated Maddison's data compilation. See World Health Organization. 1998. *Health Care Systems in Transition: Russian Federation*. Copenhagen: WHO Regional Office for Europe. More recent data in 2020 suggests a half fall in output during the Shock Therapy period for the transition economies. See Cockshott, Paul. 2020. *How the World Works: The Story of Human Labor from Prehistory to the Modern Day*. New York: Monthly Review Press. World Bank's data report in 2001 also showcases a fall in the growth rates for economies in the fourth quarter. However, these were in a way constructed such that a fall in growth rate was only observed. World Bank also gives a less growth rate in the third quarter than Maddison's data suggests. At a first glimpse, they may appear more accurate than Maddison's. However, they upgraded East Asian growth highly, particularly China's growth since 1970s such that the East Asia and Pacific group as a whole had a high 6 percent growth for the entire fourth quarter, even after the tigers'

a high 3 to 4 percent growth for the consecutive two decades from 1950 to 70 was never re-experienced. Growth shrank by more than a half from late 1970s onwards to 2000.¹³⁷ The paradox is that, given the theoretical underpinnings were so favourable after 1970s, reforms in the Thatcherite and Reaganite era as well as structural adjustment policies carried out by the IMF and World Bank in the indebted third world ‘contributed’ the result of sluggish growth.¹³⁸

These lead to three questions. First, universal economic theories popular today argue for the ineffectiveness of countercyclical policies, but why Keynesian demand-management worked quite well for the consecutive two decades after WWII? Second, universal theories’ implications for the correct measures, given satisfied during Thatcher’s and Reagan’s reforms, brought growth underperformance. Third, why the Keynesian way of policies worked before but not after 1970? These in turn suggest that the ‘universal’ theories constructed for government policies and Keynesian

maturity take-off in the 50s, 60s, and 70s respectively. This automatically raised the growth rate of all developing nations above 0. Maddison’s prospect was gloomy than the World Bank report. Hence to summarise, World Bank underestimated the worsening situation for nations apart from East Asia region, and underdeveloped world in particular. Maddison overshoot the growth rate a bit for the socialist ‘self-exploitation’ model of growth in the third quarter, and he failed to take into account the quality and allocative efficiency improvement in Deng’s China growth, hence a bit below its actual growth rate. Having said that, Maddison’s data for the countries’ respective growth in the last half century are worth relying upon.

¹³⁷ Angus Maddison, *The World Economy: A Millennial Perspective* (Paris: OECD, Development Centre Studies, 2001); Barry Eichengreen, “Chapter 2. Institutions and economic growth: Europe after World War II,” in *Economic growth in Europe since 1945* Edited by Nicholas Crafts and Gianni Toniolo (Cambridge: Cambridge University Press, 1996).

¹³⁸ Ben Fine and Ourania Dimakou, *Macroeconomics: A Critical Companion* (London: Pluto Press, 2016)

thought for ‘big government’, as well as Thatcherism’s and Reaganism’s institutional & market reforms, depend upon the specific ‘economic base’ one is at during a particular historical episode. It was the ‘economic base’ that determines the effectiveness of these institutional and policies ‘superstructure’. One worth noting historical phenomenon behind the neoliberal turn since 1970s was the de-industrialisation of Europe¹³⁹ and ‘premature’ de-industrialisation across low and middle-income countries,¹⁴⁰ except for a small handful of ‘super-exporters’. In the 1970s, South Korea, Taiwan, Hong Kong and Singapore alone accounted for 60 percent of the total manufactured exports of the developing world.¹⁴¹ Later China joined the camp and became the new ‘workshop of the world’. And, against the backdrop of common underperformance, only they had sustainable fast growth rates.

1.5 A New Insight

This thesis argues capital formation is crucial to industrialisation. Unlike premodern China’s orthodox Smithian policies and huge market economy, England’s capitalist model of production proceeded its mercantile and

¹³⁹ Stephen Broadberry and Kevin O’Rourke, *The Cambridge Economic History of Modern Europe: Volume 2: 1870 to the Present* (Cambridge: Cambridge University Press, 2010), p.315.

¹⁴⁰ Antonio Andreoni and Fiona Tregenna, “Stuck in the Middle: Premature Deindustrialisation and Industrial Policy,” *CCRED Working Paper* No. 11/2018

¹⁴¹ Garry Rodan, *The Political Economy of Singapore’s Industrialization: National State and International Capital* (Macmillan International Political Economy Series, 1989), p.1.

agro-industrial expansion that incorporated world regions into its ‘core and peripheries’ production and commerce networks. Its industrial capitalism first started from its agricultural capitalist *enclosure* movements at home that worsened rather than improved its common peasant serfs’ welfare. Hundreds of villages were cleared and millions were expelled into urban areas in impoverishment.¹⁴² The imperial thrust abroad helped ease and reinforced this process; food and raw materials imports including sugar, grain, cotton, timber, etc. from its colonies enabled England to escape the proto-industrial cul-de-sac and to exchange manufactured exports for land-intensive products. This centuries-long furtherance completed the primitive capital accumulation needed and constructed a relation of international systematic ‘prices’ in which each region produces according to its ‘comparative advantage’. On the eve of the Industrial Revolution, over half of England’s population lived in urban settlements.¹⁴³ By WWI, 41% of the workforce in France were rural; while for Britain, only 8%.¹⁴⁴ The steam engine was invented in Britain in the 1800s, not France, the continental centre of Scientific Revolution a century before. Britain had already accomplished structural change before it launched the Industrial Revolution.

¹⁴² Simon Fairlie, “A Short History of Enclosure,” *The Land* Summer 2009.

¹⁴³ Romola J. Davenport, “Urbanization and mortality in Britain, c. 1800—50,” *Economic History Review*, 73, 2 (2020), pp.455-485.

¹⁴⁴ Patrick Karl O’Brien, “Path Dependency, or Why Britain Became an Industrialized and Urbanized Economy Long before France,” *Economic History Review* 49, no. 2 (1996), pp.213-49.

Britain's primitive capital accumulation and its subsequent 'natural' path to industrialisation sparked orderly deviations from that industrialisation in other parts of the world. Artificial means of fiscal capacity were constructed to mobilise domestic resources, in an authoritarian manner, for industrial expansion. Modern China landed its fiscal machinery construction at Soviet communism's Party-state. China under Mao financed its source of capital formation from Soviet style 'self-exploitation'; rural farms were collectivised, and production and materials were siphoned off to urban heavy-industries. Deng's China made the Soviet system more efficient. Markets were allowed in the 'dual-track system' to grow out of the centrally administered core of heavy industries. Production incentives and allocative efficiency improved, and the industrial potential enlarged in the previous 'Big Push' strategy was carried over and pushed forward to new height levels. China's amalgamated industrial capacity during its three decades of heavy industrialisation pursuit was cashed into the demand-driven model provided by the world economy. China's own industrial expansion was supply-driven, with insufficient aggregate demand within the domestic economy. The 1970s neoliberal turn de-industrialised the advanced economies. This, together with the premature stop in industrialisation pursuit of the rest developing world, simultaneously shifted the global production base to and generated global

demand for China. This 1970s global neoliberal turn created the environment for China's sustained unbalanced heavy investment growth since China's 1970s 'opening up market reforms.' This relationship persists today that has created global trade and structural imbalances. As China's living costs including housing bills and wages have been rising, on one hand China could not find the next destination for productive expansion, on another the increasingly sluggish growth and mounting debts in the developed world curtail the world's consumption capability to absorb its own industrial capacity.

The thesis advances its arguments as follows: Chapter 2 reviews on the theories and models applied to China. It evaluates the neoclassical theories on comparative advantage, Smith's 'invisible hand' and 'pin factory', Lewis's dualistic model of transition, neoclassical profit maximisation versus output maximisation, Marx's 'Asiatic model of production', Marx's and Rostow's developmental stages hypothesis, Elvin's 'high-level equilibrium trap' and Malthusian subsistence crisis, and the Solow model. It distinguishes between comparative advantage and absolute advantage, and argues the concept of comparative advantage does not capture dynamic potential. For late-comers situated within the 'core and peripheries' international price structure, they have to 'set prices wrong' to make it right. There is inherent tension between 'invisible hand' and 'pin factory'.

Premodern China's highly competitive vast small-scale workshops as well as specialisation of trade between regions resembled close to 'invisible hand' perfect market competition that did not lead to modern 'factory'. The dualistic model only provides the recipe, but no ingredients. It needs capital industry in urban cities beforehand as well as real 'surplus' labour in the countryside which is self-contradicting itself. The neoclassical profit versus output maximisation is the wrong framework to analyse a peasant economy because the marginal concept is problematic and opportunity cost does not really exist in this setting. Marx completely misunderstood Asia's production function that unfortunately led to Wittfogel's *Oriental Despotism*. Marx's and Rostow's unilinear progression of historical stages does not capture real world economies' experience that could satisfy several stages simultaneously and there was no teleological necessity towards a 'progress' trend. Elvin's Malthusian argument on premodern China's stagnation fails to notice the fact that traditional China possessed a lower mortality rate than that in European towns and cities (and it was not based on disease but poverty). The Solow growth model uses neoclassical production function that fails to understand the very concept of growth.

Chapter 2 further reviews on themes for discussion: institutions, culture, and capital formation & TFP. The Smithian 'Little else is required to carry

a state to the highest degree of opulence from the lowest barbarism, but peace, easy taxes and a tolerable administration of justice; all the rest being brought about by the natural course of things' proves a European utopia.¹⁴⁵ Britain possessed the highest national debt, highest expenditure, and highest taxation across the globe during its phase of Industrial Revolution. The subsequent European mercantilist states' industrialisation process was led by the driving up of fiscal capacity. Qing China's light taxes and less interference with the domestic private economy in general presented itself into cramp fiscal weakness scenario. Weber's culture verdict argues other civilisations' mindset were not conducive to modern growth and asserts the uniqueness of Protestant ethic to capitalist spirit. China's underperformance in its early modern history indeed seemingly testified alleged Confucian overly-rigid reactionary hierarchy. After WWII, however, Confucianism becomes acclaimed culture conducive to

¹⁴⁵ This quote is Dugald Stewart's summary of Adam Smith's position in his classic *Wealth of Nations*. See *Account of the life and writings of Adam Smith* by Dugald Stewart. Following examiners' high standards, the author checked Adam Smith's original text to see whether Smith indeed said similar things. And the author found them. On taxation, "Every tax ought to be so contrived as both to take out and to keep out of the pockets of the people as little as possible, over and above what it brings into the public treasury of the state...", Adam Smith, *An Inquiry into the Nature and Causes of The Wealth of Nations* (1977, University of Chicago Press), Book V: of the Revenue of the Sovereign or Commonwealth. On the repercussions of distorting trade, "People of the same trade seldom meet together, even for merriment and diversion, but the conversation ends in a conspiracy against the public, or in some contrivance to raise prices... But though the law cannot hinder people of the same trade from sometimes assembling together, it ought to do nothing to facilitate such assemblies, much less to render them necessary", *The Wealth of Nations*, Book IV: of Systems of Political Economy. On the ease and natural course of things to perfection, "It is the interest of every man to live as much at his ease as he can; and if his emoluments are to be precisely the same, whether he does, or does not perform some very laborious duty, it is certainly his interest...either to neglect it altogether, or...to perform it in [a] careless and slovenly a manner..."; "Every individual... neither intends to promote the public interest, nor knows how much he is promoting it... he intends only his own security; and by directing that industry in such a manner as its produce may be of the greatest value, he intends only his own gain, and he is in this, as in many other cases, led by an invisible hand to promote an end which was no part of his intention", *The Wealth of Nations*, Book IV: of Systems of Political Economy.

economic growth. Capital formation is argued to be incapable of delivering long run growth, which is solely TFP's matter. However, world experience including Europe's and British Industrial Revolution all started from accumulation of capital inputs. China's growth comes from its extraordinary TFP increase, a result from capital accumulation.

Chapter 2 goes on to review cases and patterns relevant to China experience. It generally surveys historical cases of state-led growth and industrialisation from Germany to the Asian tigers, and points out the statist 'governing the market' approach to 'set prices wrong' for artificial industrial expansion & upgrading. It reminds the Cold War context incorporating these East Asian satellite states, and hence the generous aid enjoyed by them during their industrialisation phases. It hence demystifies the common contrast between these 'market economies' and the Soviet model. It distinguishes between market and market mechanism, and pinpoints these small open economies used the state mechanism to make markets work. China's lack of capital support abroad and its refrainment of colonisation led to its Soviet 'self-exploitation' at start. Later China converged to the East Asian episode. The fact that it is the practitioner of different late developers turns out to be the implication: China experience is the right path for all potential middle and large developing incumbents. It also studies the general historical patterns environment in which China

situated: ‘world system’, ‘long cycles’, and the ‘Soviet industrialisation debate’, and in a cautious tone reveals China experience may not be repeated.

The last reviews are on data and methods. It provides a critical assessment of recent Eurocentric counter-attacks to Pomeranz’s thesis. It argues their proxies chosen— ‘wages’, ‘GDP per capita’, ‘urbanisation’, and ‘agricultural productivity’ etc.—either suffer from measurement errors or conceptual misunderstandings. It concludes confidently that by no means Europe could become developed on its own if disregarding the colonies, as these crafty researches fundamentally imply, and Pomeranz’s observational arguments that both China and Europe arrived at proto-industrial ‘cul-de-sac’ up to 1800s were historical *facts* to start with. It criticises neoclassical micro-foundations to study the macro economy, and argues the ‘deduction-verification’ procedure in no way resembles the ‘induction-deduction-falsification’ scientific method. Hence reaffirming the importance of history discipline.

The rest chapters realise, proceed, and expand this thesis’s research contributions to previous chapters’ identified knowledge gaps in current literature. Chapter 3 starts with the premodern Chinese economy. It unconventionally differentiates capitalism from a market economy.

Despite similarities in terms of trade & commerce in appearance, capitalism is in its nature *qualitatively* different from the concept of market exchange such that most derogative charges against traditional China can be turned upside down towards reverse questions on Europe. The prime point is premodern China had always been actively engaged in trading. The commonly argued Ming China's 1434 sea ban that led to its isolation from the rest of the world and hence its subsequent decline is mistaking paper documents as reality. What Ming court did was rational public withdrawal from its extravaganza patrols, and private trade flourished. For two and a half centuries half of world's silver ended in China. The time passing from Song to Ming, and then to Qing was premodern China's natural evolution according to its own historical trajectory. Taxes were further reduced, and frozen in 1712, and granary system was firmly completed and established at every county village. All rural exchanges, the backbone of China's market, were tax-free. Song China's mercantile prosperity shifted to Qing China's Smithian affluence. Markets were interfered with the least hand in China's last dynasty and emperors themselves were private traders and investors. There was no sign of 'stagnation' or 'decline' in Qing's high periods in orthodox Chinese own views. Tide changed with the encounter to the West, and history is rewritten on behalf of the ancestry. Yet the fact is, when the Spanish and Dutch boasted their Age of Exploration, the affairs they essentially engaged in were businesses of 'global arbitrage'.

And the prime anchor they utilised to build their global trade networks was the premodern Chinese economy. When the English advocated free trade, what they did was unilateral imperialism that immersed world regions into its economic structure such that social relations were reorganised and labour was remodelled to produce commodities for profit. Fiscal states emerged and evolved in the European mercantilist naval wars as they strove towards global capitalist expansion. Governments, far from being private players, *led* the process.

Chapter 4 presents the early modern China in crisis. It analyses the factors behind its failing modernisation attempts in response to Western shocks. Premodern China's establishment of private property rights originated from nation Qin's empire building during the Warring States Period (475—221 B.C.). This naturally led to the dominating adoption of Confucianism in Han China, and subsequently sparked creation of *Imperial Examinations* in the Sui-Tang period (581—907), which formally entrenched traditional imperial China's path dependency from then on. China's private property rights created vast free small landholding peasantry, and Confucian doctrines spawned physiocratic policies that reinforced each other. The emphasis on peace and harmony (*hexie*), and people as the foundation (*minben*) made the 'top down' benevolent state: light taxes, less interference from the economy, and proto-welfare

measures including ever-green granary system to ease famine crisis (*zhenzai*), managing floods (*zhihe*), and new introduction of farming seeds. However, the systematic equilibrium was also fundamentally ‘bottom up’ in nature. The ultimate credible threat came from the vast free peasantry themselves to replace the incumbent state with a new dynasty if social stability was not maintained that was part of the grand ‘state-peasantry alliance’. The commonly denounced reactionary anti-merchant (*zhongnong yishang*) policies were not the deliberate oppression from Chinese emperors themselves, but rather society consensus of and political mandates fulfilment to the vast peasantry public. Land agglomeration (*tudi jianbing*) and potential loss of people’s rights to farm and till (*liuli shisuo*) were always on top of the political agenda. Qin’s private property rights replaced the old feudalist social structure with the ‘prefecture-county’ system; various social tiers and manorial lords were superseded by a sea of rural farming villages spreading as ‘dots’ across the expanding agrarian empire. This laid the seeds of the later ‘loose tray of sands’, ‘no associations’, ‘no immunity to resist’ diagnosis by Sun Yat-sen. At the time of China’s rise, however, the unrestricted liberty of Chinese peasantry and their multi-functional fulfilments as farmers, artisans, soldiers, bureaucrats, and active traders endowed the premodern Chinese economy with great market prosperity and liveness, and made Medieval China the economic centre of global gravity. The ‘state-peasantry alliance’ fostered rule by

meritocracy through examinations selecting the best educated peasant-sons to run the country. Yet the higher cost of administrative running than rule by blood made customary rules and village autonomy become common place at the grassroots level. Bureaucrats were assessed by how few lawsuits they handled in any given period as an indicator of their moral leadership in local communities. The majority part of China was governed by self-policing villages (*wangquan bu xiaxiang*). China's general macro historic trend was therefore increasing decentralisation and diluting from its central bureaucracy established at the Qin time. Commercialised peasant economy was given the least hand possible from state interference that corresponded best to Smithian growth & affluence, particularly culminated in China's last Qing dynasty. And where the state bureaucracy intervened, they were for the purpose of shifting energy back to agrarianism and restoring the social equilibrium & stability such that there was land to farm and till and equal opportunity of passing the imperial exam *for all*. China's economy was therefore made up of small land owner-tillers at the grassroots level, high commercialisation and diversification of agriculture in between, economies of scale effects in large commodities flows among regional & national networks, and a central 'small government' bureaucracy on top. This highly flexible way of governance could easily accommodate new territories, as peasants were constantly searching for new land for cultivation from government's encouraging

policies (*quannong*) and the incentive effects of institutional private property rights, and *Imperial Examinations*' centripetal forces, which generated 'economies of scope' in the empire's ever growing domestic large economy and persistent territorial expansion reaching its climax in the Qing era.

This highly delicate system design had created premodern China's millennia glory. It was the same regime and socio-economic structure that pushed early modern China to the far opposite end in the wrong direction. The European and Japanese feudal worlds systematically allocated resources through decentralised rent-seeking; the majority peasant serfs were excluded from feudal markets 'protected' by the lords and licensed to merchants. Smithian growth was constrained. Their historical transition was political centralisation of sovereignty and abolishment of decentralised rent-seeking based on social class, and the establishment of individual property rights. It is interesting to note that their property rights formation was in fact the proletarianisation of farmers into wage-dependent labourers either in European urban factories or during rural industrialisation under Japanese context. The concept of private property rights involves 'of what' and 'to whom'. The English propaganda-sense cherishing of property rights trickily focuses on the 'of what' scenario that indeed could preserve well a manor property up to a millennium. But the term— 'private'

property rights—ultimately comes down ‘to whom’ the property is endowed. Chinese property rights were endowed to every rural owner-tiller; a household father’s property was carved and divided by peasant sons (*fenjia*) when they grew up and needed to start a new family. This self-perpetuating pattern explains, first, why premodern Chinese empire was always searching for unsettled new land, and second, a persistent replicable small rural household economy (*xiaonong jingji*). Conversely, England’s primogeniture system kept feudalist structure intact and well preserved the status and power of the first-son manorial lords; this laid the capital formation mechanism for the later mercantile expansion. The establishment of ‘private’ property rights consolidated the feudal lords’ landholding power, and evicted rural households out of their territory. To this extent Douglass North’s private property rights that create personal incentives to produce is contrary to Europe’s real scenario but more applied to China. The abolishing of bondsmen and the unleashing of market power in Europe’s early modern history made their exclaimed Smithian growth. But as Sun Yat-sen’s analogy implied, Europe was constrained from Smithian dynamic in its Middle Ages, hence they cherished Smithian growth. China was always not short of Smithian growth, hence the economic classic recorded was *On the State Monopoly of Salt and Iron* (*yantie lun*). Europe’s Smithian appearance in its early modern history hid its *qualitative* capitalist nature of growth carried over from its feudalist

socio-economic structure. Karl Marx's verdict on capitalism's pure negation to feudalism— "There is no doubt... that in the 16th and 17th centuries the great revolutions, which took place in commerce concurrently with the geographical discoveries and which speeded the development of merchant's capital, constitute one of the principal elements in the transition from the feudal to the capitalist model of production. The sudden expansion of the world-market, ... the competitive zeal of the European nations, ... and the colonial system—all contributed materially toward destroying the feudal fetters on production."—fails to emphasise the fact that capitalism is the son of feudal society.¹⁴⁶ Eurocentric scholars such as Steven Epstein's emphasis on the rise of sovereign modern states to European *Freedom and Growth* or Douglass North's singling out of private property rights to *The Rise of Western World* all fail to notice the specific historical context they draw their 'universal' analysis upon: feudalism.¹⁴⁷

Feudal Europe and Japan's political centralisation of decentralised rent-seeking stood in sharp contrast to Imperial China's decentralisation of centralised administration. The gradual diluting of this central small and cheap state to the Qing episode even lost the function of maintaining

¹⁴⁶ Karl Marx, *Das Capital*/Vol. III: The Process of Capitalist Production as a Whole (Penguin classics, 1992), Chapter 20. Historical Material on Merchant's Capital.

¹⁴⁷ Steven R. Epstein, *Freedom and Growth: The rise of states and markets in Europe, 1300—1750* (London and New York: Routledge Explorations in Economic History, 2000); Douglass C. North and Robert Paul Thomas, *The Rise of the Western World: A New Economic History* (Cambridge: Cambridge University Press, 1973)

domestic peace. The breakout of Taiping rebellions exposed the ‘no association’ weakness among the million spread-out fragmented autonomous villages at the grassroots level. China was largely irrelevant to the historical episodes of European and later Japanese modern states formation and presented itself into a crippled fiscal weakness scenario, failing to organise effective responses for national defence purposes or for self-strengthening industrial building. Traditional China’s private property rights also made it so hard to separate the vast peasantry from the land for an alternative path of development; the entire social structure was simply not for proletarian wage-labour industrialisation. The self-perpetuating inheritance pattern also created a state of dilemma that rural Chinese households did not run out of surpluses, but they lacked the endogeneity mechanism for capital formation. The historical ‘wheels of fortune’, blessings for a long past, this time were against the Smithian imperial state in every dimension so that it had to retreat all the way back to its civilisation cradle in order to industrialise. The central imperial ‘Middle Kingdom’ broke up into pieces and fought each other that mimicked military feudalism for the purpose of regional fiscal states creation, and then to recentralise them again. The historical transition from Qing to Republic of China, then to the Warlords’ ‘dark ages’, and then to the ‘Northern Expedition’ initiative (*beifa*) fit this judgement. The general state of affairs

in early modern China was instability and turmoil. The modern sector throughout this period was enclaved tiny hubs within a vast rural sea.

Chapter 5 demonstrates China under Mao. The immense and urgent pressure of challenges accumulated when the empire was ruthlessly ransacked for one wave after another since 1840 provoked the most ferocious response capable of terminating this thankless status: the almighty Soviet One-Party state. The power sovereign was unified. The power tentacles for the first time in Chinese history penetrated into every village. Fiscal capacity, finally, was driven up. Despite awareness of the Soviet famine and conscious avoidance at start to preserve the ‘rich peasant’ (*funong*) economy, Maoist China’s artificial mobilisation of domestic resources, first through voluntary Cooperatives scheme, then to direct farm goods procurement, then to reconciliatory ‘Three-fix’ policy, eventually landed at the same Soviet collectivisation. People’s Communes, ironically, in an unconscious but fatalistic way, solved the age-old obstacles in China’s previous episodes: land was confiscated from the peasantry and merged together, vast free peasants were separated from their land and re-joined into ‘socialist peasant serfs’ blocs working for the state, surpluses were directly channelled into capital accumulation of urban industry, and rural labour liquidated into small-scale local industries. People’s living standards, consumption in particular, were drastically reduced during the

program of society-wide restructuring for the sake of industrialisation. The disconnection of peasantry's production incentives from private landholding, ideological mobilisation as opposed to rational planning, and over liquidation of labour to rural industries, rendered the 1958 Great Leap Forward disastrous. The Great Famine lasted three years. Tens of millions perished.¹⁴⁸ And it was one of the episodes from the Stalinist over-centralisation to anarchic administrative decentralisation. The dynamic potential of capacity was enlarged, and the unbalanced industrial structure was planted, as the economy was dragging along the constant pendulum swings between the two poles. This testifies Mao's *dialectical materialism* correction to Marx's *historical materialism*: 'Where there is a will, there is a way' (*weiyou xisheng duozhuangzhi, ganjiao riyue huanxintian*).

Chapter 6 illustrates Deng's 'balance readjustments.' Macroeconomic objectives shifted from the pure 'Big Push' to living standards enhancement. Markets were allowed outside the administrative channel once state quotas were fulfilled. *De jure* Deng reversed everything that Mao did, yet *de facto* he successfully cashed in the industrial potential and legacies that Mao left behind. The reason why Lewis's dualistic *theory* could run so smoothly in reality since Deng's 'opening up' was due to industries founded in urban cities and the huge 'disequilibrium' gap left in

¹⁴⁸ Frank Dikotter, *Mao's Great Famine: The History of China's Most Devastating Catastrophe, 1958—62* (London; Berlin; New York; Sydney: Bloomsbury, 2011)

People's Communes such that labour could be transferred out without affecting agricultural production. The introduction of Household Responsibility System restored the traditional farm household economy; and private incentives served as the final 'icing' to the big agricultural potential 'cake' expanded before: hybrid rice variety, irrigation projects, etc. The springing-up of light consumer industries such as the production of electric fans, fridges, washing machines, motors... drew upon the industrial goods and capital produced from heavy industry accumulated for three decades. Deng's market reforms greatly enhanced economic prosperity, and left himself with a new dilemma between the plan and the market. The revival of rural markets ceased the previous 'scissors gap' that had supported urban industrial development; rural products and raw materials were priced higher, and transmitted to urban inflation. The sudden massive new cash earnings held by rural peasants and rising consumerism in urban cities posed great demand pressure on urban light industrial capacity that risked 'goods famine'. It was against this context that TVEs (township and village enterprises) took the lead which again drew from the institutional legacy of Maoist local collectives. The introduction of markets to profit, and socialist cushion to bankruptcy, created an inherent contradiction within 'market socialism': 'soft budget constraint'. A mass local proliferation of investment projects in light industries and the insufficiency of heavy and key construction projects led

to frequent energy blackouts from 1980s to 90s. The ‘investment hunger’ and the subsequent unsaleable stocks and productive overcapacity exposed the deep-seated maladjustments within the socialist market economy. Market decentralisation and administrative recentralisation became the new pendulum swings.

Chapter 7 investigates the role of global environment to China’s growth. The virtuous mutually reinforcing high profitability, high productivity, and high investment growth model during post-war Europe’s ‘Golden Age’ disintegrated in the 1970s; productive expansion shifted to the financial expansion phase that brought forth the neoliberal turn, first in Anglo-American spheres, and then spreading across the global south. China’s timing happened to coincide with this historic juncture. China under Mao and Deng was facing respective internal bottlenecks when period-specific transformations were pushed for. And it was ‘solved’ by the global neoliberal turn. Global production base was relocated to cheaper areas. China’s ‘unbalanced’ industrial structure had the opportunity, provided by the global ‘living space’, to be maintained and completed. However, whether the benefits outweigh the costs is a matter of concern. China grows rich, but not necessarily to the people; and what these more than thirty years of ‘miracle growth’ really entail are open to question. The frequent ‘China rise, West decline’ message delivered on Western media perhaps

mistakes victims as victors, and vice versa. Surely, China took US jobs. But there is a tremendous gap between 'stealing jobs' and taking jobs one does not want. China belongs more to the later. China's convergence to East Asian developmental states since its opening up artificially created an abundant mass supply of relatively cheap but well-trained workforce. Trade unions rebels were not allowed, and labour cost was deliberately lowered, to compete on the world markets. When views of 'China threat', 'China buying up the world', 'US owes a lot of debts to China' become popular in the West, one simple question remains: what are China's mass foreign reserves for?

With hard lessons learnt from the late 1990s Asian financial crisis, East Asian and Southeast Asian governments pursued the policy of accumulating abundant foreign dollar reserves as a safety cushion against foreign capital volatility. And this essentially means 'seigniorage'. In this strange phenomenon when developed world issued national debts with a proliferation of financial intermediaries 'invention' in private sectors, investment banking became desirable career destinations for bright brains graduates, and 'hot subjects' including MBAs, management, finance dominated in universities since 1980s, China's massive trade surplus and accumulation of foreign reserves buying up US national debts simply exposes the cruel fact that China served as bottom labour producing for the

Western world in exchange for 'IOU' papers. China only took a small share of the surplus generated during this period. And a smaller part to its people. The exports-driven model that Deng Xiaoping articulated when he drew a circle around Southern Guangdong as Special Economic Zones contributed to China's distinct 'dualistic' sectors of the economy made up of labour-intensive downstream market sector and capital-intensive upstream heavy state-owned enterprises (SOEs), and in so doing transitioned China into 'neo-authoritarian capitalism' from 'market socialism'.

The mass labour employed in downstream coastal areas that offered abundant poorly-paid and no protection jobs for low-skilled exports products generated the 'nutrients' needed for upstream capital-deepening industrialisation and sufficient efficiency & activeness in the general economy. This was far from the 'market economy' picture painted by both mainstream neoclassical Western economists and Chinese government. Markets were utilised to keep the Soviet industrial structure going which was painstakingly established out of historical necessity as the only viable means to capitalist industrial growth under historical 'backwardness' perspective. China's deviation does not specify China's awkwardness but rather the universal regularity to modern growth because none of the advanced economies got developed through the neoclassical 'market economy'. Capitalism, as Chapter 3 has argued, is a qualitatively different

concept from market exchange. When Lewis drew his neoclassical ‘dualistic model’ of growth with starting assumptions such as zero marginal product of labour, rural surplus labour, etc., he failed to notice the fact that agriculture and its handicraft proto-industries diversification served as an inseparable organic economy in the past, and his rural-urban dualism at present is an anachronistic mis-conceptual combination of two very different kinds of economy contrasted and mingled together. And hence through his ‘smooth’ transition of dualistic growth he has hidden important historical episodes relating to colonialism, and his dualistic *theory* has created China’s dualistic sectors of the economy in reality.

The Household Registration System (*hukou*) launched in Mao’s era to keep peasantry away from job-deficient heavy industry cities carried over to Deng’s period for easing the cities’ living space pressure. Hence while mass rural-migrant workers flooded Chinese cities and significantly pushed up the urbanisation ratio that in appearance resembled the textbook example of Lewis’s dualistic transition, they were simply low cost-units of production to support city constructions, labour-intensive exports growth, and upstream mass industrialisation drive. Without which the ‘miracles’ could not be completed, and with which the urban cities cannot afford. *Hukou*, the unintended consequence of Mao’s setting to alleviate high urban unemployment and to stop rural-urban migration during the Great

Famine, served well this purpose during Deng's era. These two China episodes particularly matched two processes of Britain's historic development up to its industrialisation: the sustained food and raw materials imports that enabled England to trade capital-intensive goods for land-intensive products, the process of primitive capital accumulation diverted to home; at abroad, the transporting of African slaves to work on the American continents to produce these surplus raw materials, the process of colonisation. If measures taken under Mao's period to siphon off rural surpluses to urban industries can be described as 'self-exploitation', then the enormous unprotected cheap labour utilised to 'lubricate' the general economy and to facilitate tedious labour-intensive production tasks for both foreign and domestic upstream sectors in exchange for the value gained much less than they were supposed to earn, may be termed 'self-colonisation'. Together they completed the 'China miracle'.

The study on China growth is therefore one of paramount importance because it reveals the experience when a sizeable economy pursues capitalist industrial growth on its own. It exposes the real mean face of capitalism which most influential European thinkers, from Smith to Malthus, to Marx and Weber—they either talked about something else, such as 'the invisible hand', or attributed other regions with endogenous

‘flaws’ such as overpopulation pressure to subsistence level, or finally formally tackled the capitalism word but treated it as ‘emancipation’ or progression forces—all ignore. None of them really spells out the detailed systematic processes as capitalism unfolds, since they occurred mostly outside Europe and only good parts as unique European characteristics remain (this made Karl Marx, even as a conventional critic, devote himself into ‘exploitation’ within European perspective. And ‘emancipation’ to others). And this ideology still dominates today: Allen’s well-known British ‘high wages’ and labour scarce thesis, and his total neglect of slavery and plantations involving two mass continents: Africa and America, which simply witnessed large scale labour at work coerced without wage-earning.¹⁴⁹ The China experience presents the integral picture of capitalist expansion. And this experience travelled poses the question of whether it was worth having. Challenges persist today. The static cash-in process of Deng’s urbanisation for three decades relaunched Mao’s ‘walking on two legs’ like dynamic potential enlargement policies considering the economy as a whole recently. ‘New rural village construction’ (*xinnongcun jianshe*)

¹⁴⁹ Kenneth Pomeranz took this crucial factor into account, and hence his coming up of ‘Great Divergence’ thesis. Sadly, he was never in the same level of popularity as Robert Allen like figures in orthodox Western Economic history courses. See for instance, “...A crucial part of this complementarity, up through the early industrial era, was the result of slavery. Slaves were purchased from abroad by New World plantations, and their subsistence production was often limited. Thus, slave regions imported much more than, say, eastern Europe and southeast Asia, where the producers of export crops were born locally, met most of their own basic needs, and had little cash with which to buy anything else. The plantation zone also differed in critical ways from free labor peripheries such as the Chinese interior. Exporters of rice, timber, and raw cotton in east Asia had more purchasing power than did peasants in regions of coerced cash cropping and had greater flexibility and incentives to respond to external demand.” *The Great Divergence* (2000), pp.20-21.

and ‘rural revival’ (*xiangcun zhenxing*) slogans regain popularity. The continued expansion of urban mega-cities and rising housing bills increasingly push up the living costs that made the old labour-intensive exports-driven model obsolete. Meanwhile, rural-to-urban migration continually flood cities. China’s market reforms essentially widened the rural-urban gap; urban areas witnessed day-to-day changes, sky-rocketed buildings one block after another, the metropolitan middle-class life-style, consumerism and hedonism, while rural regions remain stagnant and left-out that ironically fit what Arthur Lewis had designated. The new generation youngsters would all rather stay at big cities even though these have all become increasingly saturated and lack of opportunities, while rural areas continue ‘hollowing out’ (*kongxin hua*) that risks putting the entire economy into a halt. Issues relating to agriculture, rural areas, and farmers (*sannong wenti*) become the top national priority, which are exempt from Lewis’s neoclassical assumptions right at start.¹⁵⁰

Chapter 8 to conclude: the China impact on the world economy, what China experience teaches us, and policy implications to the future. The 1970s neoliberal turn is the most recent, and perhaps, final ‘long cycle’ of the

¹⁵⁰ In 2022, the First Document of Central Politburo focuses on ‘the new rural revival’ plans and enforcement. This is the 19th First Document since 21st century focusing on the Three Agricultural Problems (*sannong wenti*) which were first put forward in the 1990s by a Chinese low-rank official to Premier Zhu Rongji. 2022 年 2 月 22 日,《中共中央、国务院关于做好 2022 年全面推进乡村振兴重点工作的意见》,即 2022 年中央一号文件发布。这是 21 世纪以来第 19 个指导“三农”工作的中央一号文件。

general capitalist ‘long cycles’ pattern in macro-history that first started from Genoa, then passed on to the Dutch, fully developed in British hands, and left over to America. From each cycle’s turn, a general redirection from productive expansion to finance was observed. The capitalist world map was enlarged during this process. China is one of the last recent major geographical areas incorporated as the American ‘long cycle’ turned to financial expansion since 1970s. This intuitive sharp capture from direct reading of history itself is important because it helps clarify our thinking from dazzled advice and theories put forward by prominent economists nowadays. Whereas they may have spotted some connections between regions and current global macroeconomic imbalances, they come up with wrong diagnoses that mistake effects as causes.

China’s rapid global integration & remarkable growth and its exports of a range of manufactures have resulted in substantial price falls which generated a favourable terms-of-trade shock producing lower than expected levels of inflation in the global economy.¹⁵¹ The price effect boosted American and Western consumption since imports were less costly, and the easy task of maintaining price stability freed up the hand of Western central banks to simultaneously lower interest rates which supported

¹⁵¹ Rogoff, K. (2006). ‘Impact of Globalization on Monetary Policy’, paper presented at the symposium sponsored by the Federal Reserve Bank of Kansas City on ‘The New Economic Geography: Effects and Policy Implications’, Jackson Hole, Wyoming, August 2006.

economic growth. The 2000s ‘dot com’ crisis and 2008’s financial crisis exposed this unsustainable credit boom, and in turn, shifted the economists’ attention to emerging markets. Ben Bernanke asserts there is a global ‘saving glut’ from emerging economies that ultimately led up to the US crisis.¹⁵² Caballero, Farhi, and Gourinchas likewise argue that the United States is uniquely placed to receive such investment earnings due to asymmetric financial development around the world as other countries specialise in manufacturing/commodities.¹⁵³ In particular, China. Some not uncommon comic views from a Western perspective therefore advocate the setting-up of state pensions system and welfare security networks by the Chinese government so as to unleash Chinese people’s ‘high savings’ potential, and to invest less such that China’s GDP compositions could have a more balanced consumption growth.¹⁵⁴

To be sure, this ‘high savings, high investment’ model was first established in Germany’s continental banking system that then spread to East Asian tiger economies. This artificial organisational form was a remedy to insufficient finance & capital and combined limited national resources together for productivity-transforming investment purposes. China’s ‘high

¹⁵² Bernanke, B. (2005). ‘The Global Saving Glut and the U.S. Current Account Deficit’. Sandridge Lecture, Virginia Association of Economics, Richmond, Virginia, Federal Reserve Board, March 2005.

¹⁵³ Caballero, R.J., Farhi, E., and Gourinchas, P.-O. (2008). ‘An Equilibrium Model of “Global Imbalances” and Low Interest Rates’. *American Economic Review*, 98/1: 358—93.

¹⁵⁴ Linda Y. Yueh, *China’s Growth: The Making of an Economic Superpower* (Oxford: Oxford University Press, 2013)

savings' are not a manifestation that Chinese people are rich, but because they are poor. Zhang Jun's data evaluation reveals China's low consumption is a myth and Chinese people, at their respective income *per capita*, have already contributed the best as they can.¹⁵⁵ More importantly, China is not just the target of mainstream neoclassical Solow or reformist Keynesian positions, but also the criticised object from more radical leftist stance. Pettis and Klein's recent popular book tackles the topic on trade wars and links them to class wars. It argues rising inequality within countries heightens trade conflicts between them. China and Germany, and predominantly China, are responsible for unaffordable housing, debt crises, and job losses in America.¹⁵⁶ Therefore, unfortunately, all of these researches whether from mainstream neoclassical position, or Keynesian reformism, or radical Marxism, suffer from isolationist Eurocentric perspective.

They lack a global systematic view and long history perspective. They fail to consider interactions between regions, and take an ahistorical cross-sectional assessment lack of historical evolutions consideration. China has been subdued into global capitalism since its long cyclical turn in the 1970s, and has silently dedicated to keeping the capitalist system going for another

¹⁵⁵ Jun ZHANG and Tian ZHU, "Poor Economic Statistics Fuel China's Low Consumption Myth," *World Economics* Vol. 14, No.2, April-June 2013.

¹⁵⁶ Matthew C. Klein and Michael Pettis, *Trade Wars are Class Wars: How Rising Inequality Distorts the Global Economy and Threatens International Peace* (New Haven & London: Yale University Press, 2020)

half century. Recent decades witnessed great contributions from China to the world's and America's economic stability. And now US media are saying China 'stole' American technology and American jobs. What they do not consider is when America applied middle and low technologies to China, the continuous profits gained for American companies to upgrade their technology levels and competitiveness. Globalisation has created massive wealth for America and the Western world in general, but when their middle-class societies they used to feel proud of degenerate into plutocracy, is it the consequence caused by China or the hands of their own?¹⁵⁷

China's 'long march' to the present is extremely hard-earned. Its experience shows a Smithian imperial economy is not even close to modern capitalist growth. Capital accumulation is not brought by the 'wood' of market trading. Artificial authoritarian measures need to be taken to remodel the 'wood' into anti-market forced investment, and hence to arrive at the European 'trees'. Yet even these are not enough. Catching-up is a remarkably difficult task. And few nations have succeeded. Not so long ago, most nations were engaging in the 'Big Push' or import substitution industrialisation strategy in the third quarter of the last century. And China

¹⁵⁷ ZHENG Yongnian, "America's popular domestic attitudes on Sinophobia," interview on ifeng news, 18/05/2022. <https://news.ifeng.com/c/8G7hROWCWTO> Assessed on: 21/05/2022. 郑永年：美国国内的对华集体恐慌，凤凰网

remains today. Global contingencies are also important. It is not just the ‘wood’ that makes the ‘tree’, but also the space provided by the global conjunctures ‘forest’.

China’s incorporation carried forward the global capitalist system smoothly for some decades since 1970s, and intensified the evolution of capitalist structure in respective Western domestic economies. The continuing ‘hollowing out’ of their domestic industries and huge profits reaped from their big Multinational companies’ outsourcing financial expansion in world’s low-cost regions polarised their socioeconomic structure. The exogenous Covid-19 shock exposed weaknesses in the current global commodity chains, and precipitated the process of *de-globalisation* populist policies. This poses two problems. First, with the retreat of foreign capital, the developing world despite the advancement of their production forces for three generations after WWII, are lack of the purchasing power to absorb their production capacity.¹⁵⁸ Scholar Kent Deng’s 2020 prediction comes true when China talked about “In the midst of rising protectionism, crippled world economy, shrinking global markets, we must thoroughly exploit the mega-scale China market advantages, and through prospering the domestic economy, smoothing the domestic great

¹⁵⁸ Kent G. Deng, “Insights from expert: the Covid-19 shock exposes weaknesses in the current global commodity chains,” *Elite Newspaper for High rank’s attention (cankao xiaoxi)*, 14/07/2020. http://ihl.cankaoxiaoxi.com/2020/0714/2415621_4.shtml Assessed on 21/05/2022. 邓钢, 专家文章: 新冠疫情暴露全球化产业链痛点, 《参考消息》14/07/2020 期

circulation, our domestic economy can be reactivated, and hence to revive the world”¹⁵⁹ in 2020, two years later in 2022 Premier Li just announced: “China is fully determined to open up to the world, will remain the hot land for foreign investment and world markets.”¹⁶⁰ Second, it is perhaps wishful thinking that the developed world can benefit from de-globalisation either. Historical trends are from productive expansion to financial expansion, high-cost regions to low-cost regions (hence the recurring and expanding ‘long cycles’ phenomenon). Once a region’s economy has grown to some extent, its accompanying rising cost of production from wages, rent, environmental protection will inevitably lower profitability, and consequently search for other lost-cost regions. The reason why the rate of profit tends to fall is due to the unequal distribution of income gains within the domestic capitalist model of production. As the economy is growing and productive capacity is expanding, workers functioning as consumers’ purchasing power earn less than the rate of economic growth. Hence lack of sufficient domestic aggregate demand would let the tendency of long-term profit rate to fall once rising costs of

¹⁵⁹ President Xi Jinping, “Prosper the domestic economy, Smooth the Domestic Great Circulation,” *People’s News (Renmin wang)*, 23/07/2020’s report on 21/07/2020. 习近平: “繁荣国内经济、畅通国内大循环”, 人民网 23/07/2020 期报道 21/07/2020 企业家座谈会。习近平在座谈会上强调: “在当前保护主义上升、世界经济低迷、全球市场萎缩的外部环境下, 我们必须充分发挥国内超大规模市场优势, 通过繁荣国内经济、畅通国内大循环为我国经济发展增添动力, 带动世界经济复苏。”

<http://hi.people.com.cn/n2/2020/0723/c231187-34178608.html> Assessed on 22/05/2022.

¹⁶⁰ Premier Li Keqiang, “Li’s attendance on the 70th Anniversary of China’s Ministry on International Commerce,” *China News (Xinhua wang)*, 20/05/2022. 李克强出席中国国际贸易促进委员会建会 70 周年, 新华网 20/05/2022 期。李克强在座谈会上强调: “中国坚定不移扩大对外开放, 持续打造世界的大市场、外商投资的热土。” http://www.news.cn/politics/leaders/2022-05/20/c_1128669769.htm Assessed on 22/05/2022.

production from land, living bills, and environment begin to take momentum. Financial expansion abroad and geographical incorporation is the direct result of this lack of demand from the unequal distribution of income within the capitalist model of production. The *de-trending* artificial measures taken by the developed world aim to restore the mass manufacturing jobs for domestic workers, hence to relieve issues of domestic unemployment and mounting household and national debts, and to establish a self-sufficient worker working, worker producing, worker earning, worker consuming economy.¹⁶¹ The fundamental problem is Western common laymen are used to the cheap Chinese products for decades when they could not afford their own goods prices since 1970s. The anti-historical ‘long cycles’ restoration of manufacturing jobs needs to consider whether mass consumers could afford their own products to begin with. And the answer is apparent when the newly appointed British Chancellor of Exchequer Rishi Sunak in 2022 searches for the ‘fundamental reversal’ to the China relationship: relaunching the important commerce cooperation meetings with China that have been suspended for two years since 2020. “No matter whether ministers like it or not, they cannot ignore the opportunities (and necessity [author added]) to trade with China.”¹⁶²

¹⁶¹ Klein and Pettis, *Trade Wars are Class Wars* (2020)

¹⁶² Rishi Sunak, “British Chancellor searches for the restoration of economic cooperation with China,” *Cancao Xiaoxi* 31/01/2022 reporting on the *Daily Telegraph*’s article on 29/01/2022.

<http://www.cankaoxiaoxi.com/china/20220131/2467970.shtml> Assessed on 22/05/2022. 英媒报道：英大

These also prove the deficiency of other conjectured policies that become popular recently. The interesting modern monetary theory (MMT) proposes that the ‘national debts’ impression in Western economies is a myth because in modern fiat era these governments can never run out of money.¹⁶³ And hence governments should not be refrained from austerity plans to tackle the accumulating debt issues but to spend boldly. This theory rose to prominence as Senator Bernie Sanders was debating with Mike Braun and advocating policy implications on it.¹⁶⁴ What the Western policymakers have to understand is the root of today’s problems are not just another round of lavish government spending or to get the ‘stolen’ jobs back from China, which are rather the consequence of than the cause to their domestic inequalities. What global policymakers (Chinese and Western in particular) need to realise is international inequalities first spawned from domestic uneven distribution in the developed world, and China’s ‘miracle growth’ faces severe challenges both from fierce domestic inequalities created from its exports-driven global competitiveness model and international inequalities to which it was subdued. Global

臣寻求重启对华经贸关系，参考消息网 31/01/2022 期：据英国《每日电讯报》网站 1 月 29 日报道，英国财政大臣苏纳克寻求与中国关系的“彻底转变”，重启已停摆约两年的重要贸易会议。“大臣们认识到，无论他们喜欢与否，都不能忽视与中国的贸易机会。”

¹⁶³ Stephanie Kelton, *the Deficit Myth: Modern Monetary Theory and the Birth of the People's Economy* (New York: Public Affairs, 2020)

¹⁶⁴ Bernie Sanders Debates Mike Braun on MMT: Modern Monetary Theory gets hashed out on the Senate floor, 12/05/2021. <https://www.c-span.org/video/?c4962723/user-clip-bernie-sanders-debates-mike-braun-mmt> Assessed on 22/05/2022.

policymakers, together with international cooperation, need to respectively seriously address a comprehensive nation-wide social reengineering such that there is Common Prosperity for All (*gongtong fuyu*). This also suggests why Pomeranz's historical studies are important and relevant today because the 'Great Divergence' comparison poses an alternative significant emphasis on *living standards* rather than capitalist 'production function' *per se*. Ultimately, it is the standard of consumption of each that counts.

And that is the lesson from traditional Chinese history.¹⁶⁵

¹⁶⁵ This thesis would like to thank Professor Kent Deng for his helpful side-note comments on the original script: "'historical background of my case in history' should appear right in the beginning of your dissertation", "Ch.1: *Historical background* (be it China as a late developer of capitalism) to highlight why, how, when and to what extent capitalism should be relevant to China", "Chapter I is dense and has with things... (3) debate on post-Mao China. This chapter will read better if these three headings are added", also joint examiners' report: "(1) to maintain 'China' at the very centre of each and every chapter of the dissertation...". The author would also like to thank Professor Xinming He for his precious suggestions during the viva: 'research motivation, knowledge gaps and corresponding contributions should appear right at the start. These are not clear. Chapter II's significance and novelty should be in Chapter I. Also, the thesis structure.' The joint examiners' report also states: "Firstly, regarding research contributions, they should be discussed more in accordance with the identified knowledge gaps to clearly demonstrate in what way our understanding (and the specific literature) has been expanded, how novel and meaningful they are, and why this is the case. They should be articulated very clearly in an opening chapter along with the gaps, so as to establish the positioning of the whole work." The author has therefore thought very hard in an extremely painful scenario on how to write a good beginning satisfying all these requirements. One day he got his inspiration from Professor Deng's early work when he also did his PhD, it is like a splash of lightening breaking the age-long darkness. The author got his age of Enlightenment from then on, and pens cannot stop writing. To quote Sir Isaac Newton: "If I have seen further, it is by standing on the shoulders of giants." In Professor Deng's classic *The Premodern Chinese Economy* he starts his introduction as '(two)problems and a new insight.' The author inherits this idea and puts forward greatly expanded four sections paradoxes right at the start. The first paradox tackles debate on post-Mao growth. The second section paradoxes focus on historical background of China. The third paradox focuses on the transitional early modern period, China's historical background and its dilemma, and communism on China soil. The fourth paradox looks at the recent world trend and its consequent interactions with China. In this beautiful and delicate interweaved design, they automatically identified knowledge gaps in existing literature and common knowledge and naturally call for the final part research contributions: a new insight and draw out the thesis's title. The old 'jumble' gradual building up approach— exposition of various country cases and dazzled discussion of theories and then arrive at China for several paragraphs in the intro—is abandoned, all country cases and theories are cleared (satisfying joint examiners' report: "(2) to cleanse out all irrelevant discussions on theories and country cases no matter how interesting they may look like") such that China is maintained at the full focal point. Four sections paradoxes on China are put forward right at the start and 1.5's research contributions are articulated very clearly and thoroughly in the opening chapter such that the positioning of the whole work is fully established. China is at the very centre of research right at the beginning and the argumentative clear expositions thesis structure carries forward the China analysis throughout the whole thesis, satisfying "(1) to maintain 'China' at the very centre of each and every chapter

of the dissertation." This thesis unconventionally distinguishes the qualitative nature differences between capitalism and market economy, which enables it to surpass, or to argue differently from most research on China right at the start. No matter whether emerging middle-aged mature well-known studies such as Justin Lin's *Demystifying the Chinese Economy* (2012), and the head of Oxford University's Research Centre on China, Linda Yueh's *China's Growth* (2013), or the influential big-names Western Sinologists and China experts, including Barry Naughton's *The Chinese Economy: Transitions and Growth* (2007), Nicholas Lardy's *China's Unfinished Economic Revolution* (1998) and *Markets over Mao: The Rise of Private Business in China* (2014), Dwight Perkins's *Routledge Handbook of the Chinese Economy* (2015), and Loren Brandt & Thomas G. Rawski's *China's Great Economic Transformation* (2008), their China explanations all focus on market growth deviating from the previous Mao's era, and their eye horizons remain mainly limited on the post-Mao period and hence essentially argue the reason why it is so different because it starts so differently there, hence unable to explain the thesis's 1.2 second section puzzles why Qing China, a least-interfered private market economy failed to industrialise even through a copying process. This thesis, in contrast, treats Mao and Deng's respective episodes as a contradictory and coherent whole (*duili yu tongyi*). It argues China's 'miracle growth' since 1970s originate both from market deviations and deviations to the market. Far from an unfinished cumbersome burden and remaining ills, China's spectacular growth is not just based on market reforms to the administrative planning, but also on the existence of China's state economy component itself. Through linking the post-Mao China growth paradox to paradoxes in Chinese economic history and hence Pomeranz's historical studies, it also proceeds the novel thesis development where Pomeranz stops: that Europe thrived from a different 'wood' nature that manifested itself as sharing the same Chinese Smithian 'trees'. Building upon the basis of unconventional differentiation between capitalism and market exchange, the thesis goes on to innovatively turn communism upside down; instead of being a natural evolution stage brought by forces of production, it serves as a mobilisational vehicle to relations of production revolutions so as to change production forces. Recent revisionist literature since 1970s and 1980s either from a Western perspective to check the universal Marxian historical stages, or from a Chinese perspective to see whether orthodox Chinese communism description since 1949 fits the actual Chinese history, all point to the facts that Marxian theory is Eurocentric and communism is nothing relevant to China. Whereas they convincingly demonstrate the irrelevance of communism on China soil and perhaps to the rest of developing world, they however in their static historiography representational findings leave the dynamic trend of urgent march of historical events towards communism as China's only way-out exit blank. This research fulfils this crucial, if not most important, gap. It combines the prestigious scholar Professor Kent G. Deng's solid researches on the premodern Chinese economy as a point of departure, with Economic history's 'late industrialisation' catching-up literature—Professor Alexander Gerschenkron's investigation on catching-up European economic history—and literature on global capitalism from a Western perspective that crystallise as 'world system' and 'long cycles', to present a comprehensive and thorough application to China's transformation. It sketches the backbone skeleton out of the various premodern Chinese economy's phenomena revealed by the recent revisionist literature: rice-economies, proto-industrialisation, less proletarianisation, rural prosperity rather than urbanisation, cooperative *hangs* rather than restrictive guilds, etc., and point to the root of these appearances is the difference in China and Europe's socio-structures. China's establishment of private property rights and central bureaucracy created vast free landholding multi-functional peasantry. This created immense economic scale and power and Smithian growth in the world's medieval times. This also in turn presented as formidable obstacles in early modern period such that the resort to communism to remodel the structure remains the only option. So far, to his own knowledge, this is the first systematic and coherent research on China's growth and problems through such a 'long history' perspective. The advantages are self-evident. For instance, there have been numerous sporadic studies charges on China's *hukou* system or presentations of the serious Three Agricultural Problems (*sannong wenti*). Most of them, however, see these on the face appearance. Either they present these as Chinese government anti-human liberty restrictions and provoke equal rights and liberty on rural-migrant workers' living and their off-springs' education in cities that converge these studies into preaching on the top of the mountain 'public intellectual' (*gongzhi*) style, or reveal these as the 'left-out' dark sides that are against Chinese government's major Great Rehabilitation (*weida fuxing*) meta-narrative hence showcasing the incompetency of its rule (which implies there is room for improvement and it can be improved). All these, however, fail to notice the fact that these issues are deeply *ingrained* in the simultaneous Chinese development. They exist *for* the China 'growth'. And Chinese government itself, instead of being the major agent to take the blame, in fact is also the *product* together with all these issues

and growth created out of history. This thorough study through 'long history' perspective debunks the ideological positions that common researches frequently rely upon, and exposes the cruel economic realism through direct historical analysis. The common acclaimed 'free' labour creation in orthodox European narrative (even in Marxian writings as an 'emancipation' from feudal fetters) were nothing more than impoverished refugees expelled to cities to struggle a living recorded in Dickens' hellish workshops. In early industrialisation phase workers' living standards would have been better if having a peasant serf rural retreat (see chapter 2 data sections). Liberal democracies nowadays were in fact the class-conscious creations by capitalism and an evolved end product of feudal state to upper-class democracy then to universal suffrage. Bear in mind these are just domestic episodes of these advanced economies, their imperialism abroad was far harsher. China's modern history fit this capitalist industrial growth pattern that mutatively consisted of 'self-exploitation' and 'self-colonisation', which in turn is fiercely attacked by democratic values nowadays that are fairy-tale castles built in the sky in the common strange memory losses of how they got there in reality. *Enclosure*, for instance, was barely mentioned and was in turn superseded by Glorious Revolution and agricultural productivity growth (shall be tackled in chapter 2 data sections, also see Appendix A's footnote on collective memory loss on the historiography of enclosure movements. Enclosure studies even nowadays remain still far less than the agricultural productivity growth work including Stephen Broadberry's and Lynn White's that ironically start with no proper data, while proper anecdotal grievances and revolts persecuted that are right in direct history itself are turned a blind eye). This distinctive comprehensive study from starting off on the capitalism and Chinese Smithian market growth distinctions to systematic analysis on premodern China to early modern China episodes, to China's artificial communist transformation, to China's socialist market economy, arrives at the interactions of global economy with China's systematic change. It heretically and convincingly argued against the 'China threat'. 'China problem' narrative by all positions including neoclassical Solow, neoclassical comparative advantage and free trade, reformist Keynesian, and radical Marxist Eurocentric stance, and demonstrated China's problem is an extension of their own domestic problems transmitted by the global 'long cycles' pattern. This thorough, systematic, comprehensive, and coherent analysis investigated China's all ins and outs (*lailong qumai*) from its cradle to the grave. To his own knowledge, this is the first systematic research so far on China through such a comprehensive and in-depth 'long history' horizon and sharp eye sights' spotting broad interactions under global settings. It spells out China's growth and issues thoroughly in such a clear, comprehensive, and consistent manner. It is the author's honour and privilege to have the prestigious Professor Kent G. Deng and Professor Xinming He as his external examiners; I also hope that this research to which the author devoted his immense blood, toil, tears and sweat shall also become their supervised high pride.

2

Reviews¹⁶⁶

¹⁶⁶ The setting-up of this chapter would like to thank Professor Kent Deng's helpful comments on the original script. The original script spreads out various country cases and theories discussions throughout, which risks losing the China focus. This problem is sharply pointed out by Professor Deng's side-note comments in online system: "In its current form, this dissertation embodies a huge amount of work across theories, country cases including China. This body of text is very dense which makes it often hard to tell where a multifaceted argument is heading for." Professor Deng in turn provides his very helpful side-note suggestions in original script: 'This part deals with historical cases of state-led growth and industrialisation from Germany to the Asia tigers. They should be trimmed and joined to the earlier discussion. Rather than putting them here. You should tackle China now'; 'This heading belongs to your earlier discussion of theories (Adam Smith and so forth)'; 'This part should either put it in your footnote or join it to your review on general theories earlier'; 'These pages are full of details of various authors. The best way to go about a review here is (1) to group authors, (2) to name their strengths and weaknesses, (3) link their works to Asia/China'; 'The whole mathematical modelling below needs to go to a footnote or appendix as a review should avoid repeating others' works. Rather, we summarise and criticise. Thus, Solow needs to be done within one page.' This new amended thesis thus clears all discussions on general theories and country cases and trims them into Chapter 2. Reviews section. The China focus is hence fully maintained *throughout* this research project. For Chapter 2, reviews of sections are also constructed in a way such that China is the focal centre. Researches are summarised and criticised, hence Chapter 2 sections are *critical* reviews, as Professor Deng also points out "critically assess rather than they first appeared", and their works are linked to Asia/China. Professor Deng also helpfully pinpoints the original script's issues: "the handling of peoples' views/theories/opinions are mixed with historical facts. One has the sense that the author treats views/theories/opinions as a form of 'facts' which may be OK for economics but rather unacceptable in economic history. So, the author has to make a vital decision whether he wants to test peoples' views/theories/opinions with facts (and hence going with what economic historians do) or critically assess peoples' views/theories/opinions free-standing in order to build his own, i.e., new tested theorems (*a la* economists). Either will do; but one should not straddle in-between." All theories are therefore cleansed out, and trimmed & joined to Chapter 2. Reviews section so as to maintain a sound historical work satisfying Professor Kent Deng's overarching side-note comments: "This dissertation tackles 'how unique China has been as a development case in a capitalist dominant world after the Industrialisation in Britain'. It thus intends to be an economic history, be it comparative, of China." Also, for Chapter 2's review of theories, simple listings are avoided such that 'treat opinions as facts' issues are cleared, theories are evaluated and criticised with better rationale, and most importantly, theories and opinions are *falsified* with concrete historical facts such that "test peoples' views/theories/opinions with facts (and hence going with what economic historians do)" is fully maintained and satisfied. Theories, cases, patterns, and themes relevant to China (either directly relevant at a first glimpse through China name, or context not explicit at first but has crucially important implications for the subsequent Chinese historical development striving for modernity to be drawn into) are discussed in Chapter 2. Other useful theories are included in appendices, an idea also coming from Professor Kent Deng's helpful suggestions. The title and structure of this chapter also owes great intellectual debt to Professor Deng's advice: 'Ch. 2: Three reviews: (1) pure theories and studies of China, (2) plus a review of theories preferred by the current project and: (3) a review of available data (primary sources) for the current case (be it China).' This chapter inherits this advice and greatly expanded the reviews sections into six parts: 2.1 theories; 2.2 themes; 2.3 cases; 2.4 patterns; 2.5 data; and 2.6 methods. The value of examiners' guidance can never be overestimated.

2.1 Theories

2.1.1 *Comparative advantage*

The concept of comparative advantage comes from David Ricardo. Trade is desirable because it enables each market participant to enjoy the bundle of goods beyond its own production possibility frontier. Each trader should specialise in the task that it has the lowest opportunity cost (the next best alternative foregone, it is different to the concept of accounting cost which shall be addressed below) to do, and trade for each other's goods over the market. If a player is better at everything, there is still room for trade because it will end up being better if it specialises in what it does best and trades for everything else.

This rationale is often mixed with venerable master Adam Smith's 'invisible hand' and used in today's world as a conceptual *tool* to justify free trade *globally*. Each nation should produce according to his comparative advantage compared to other nations. If a country specialises in natural resources, it should focus on resource exports. If a country has cheap labour, it should supply labour in the international assembly-line production. If a country has advanced industries and technologies, it should keep innovating.

The immediate problem, however, is Smith's emphasis on the dynamic effects of the expansion of trade was largely lost after Ricardo shifted the focus to static efficiency gains based on comparative advantage. Smith's consideration is mainly based on domestic setting. Smith had noted a larger internal market would increase the potential for greater specialisation, i.e., the economies of scale effect. Ricardo's thinking is situated in international circumstances when he was refuting Malthus's dire prophecy of human population growth eating off any rise in income per capita.¹⁶⁷ Ricardo acknowledges that continued economic growth would press on more and more marginal lands of the soil. To get out of the Ricardian stationary state, Ricardo advocates for technological innovations, where the falling trend of profit rate is checked by machinery improvements, science discoveries, and international trade, where a country could import food and raw materials to prevent diminishing returns in its own primary producing sectors.¹⁶⁸ Hence his strong advocacy on the international free trade policy for the UK.

The problem is Ricardo's international trade recipe is only available to those countries that have a comparative advantage in manufactures and would import primary products, i.e., England in Ricardo's time. For

¹⁶⁷ Thomas R. Malthus, *An Essay on the Principle of Population* (1798, Printed for J. Johnson, in St. Paul's Church-Yard)

¹⁶⁸ David Ricardo, *The Principles of Political Economy & Taxation 1772—1823* (Mineola, New York: Dover Publications, Inc., 2004)

countries that have a comparative advantage in agriculture or minerals and would export them, free trade could actually cause their real wages and profit rates to fall, because agricultural or mineral production are subject to diminishing returns. Neoliberal economists nowadays however argue this is not an issue because open trading developing economies would display much greater dynamism in changing their export structure from primary commodities to manufactures. The economy was argued to follow its shifting comparative advantage over time.¹⁶⁹ As Balassa asserts: “this process is exemplified by Japan that shifted from unskilled-labor intensive exports to skill-intensive and to physical-capital intensive exports and is increasingly expanding its technology-intensive exports.”¹⁷⁰

Neoliberal economists’ resort to East Asian economies as examples of natural dynamic comparative advantage shifts is anachronistic because these economies’ comparative advantage shifts were anything but ‘natural’. Alice Amsden, studying post-war Korea, observes that every major shift in industrial diversification in the decades of the 1960s and 1970s was instigated by the Korean state.¹⁷¹ Robert Wade echoes that the Taiwanese government already ‘led’ rather than ‘followed’ comparative advantage in

¹⁶⁹ Balassa, Bela (1977) “A Stage Approach to Comparative Advantage,” Staff Working Paper no. 256, World Bank. Reprinted in B. Balassa (1981) *The Newly Industrializing Countries in the World Economy*. New York: Pergamon Press.

¹⁷⁰ Balassa, B. (1981) “The Process of Industrial Development and Alternative Development Strategies,” in B. Balassa (1981) *The Newly Industrializing Countries in the World Economy*. New York: Pergamon Press, p.22.

¹⁷¹ Alice H. Amsden, *Asia’s next Giant: South Korea and Late Industrialization* (New York: Oxford University Press, 1989), p.80.

heavy and chemical industries during the 1950s and 1960s.¹⁷² Towards the end of the 1970s so rapid was Singapore's industrialisation through low value-added, labour-intensive production that continued rapid industrial expansion along this channel became problematic. The Singaporean state launched the radical 'Second Industrial Revolution' for capital-intensive, higher value-added industries investments.¹⁷³ Postwar Japan's heavy and chemical industries were inherited from the wartime economy and reinitiated in the 1950s due to the Korean War.¹⁷⁴ From a historical perspective, the *dynamic* stages evolution of shifting comparative advantage was not 'natural'; it was man-made wonder.

More importantly, from a theoretical perspective, it is quite a jump from a starting basis of international free trade regime in which each country produces according to its comparative advantage to natural dynamic comparative advantage shifts *for all*. The comparative advantage theory itself does not specify a causal mechanism linking comparative advantage to higher growth, because it is inherently a static concept. A number of studies, such as Stephen Redding's *Dynamic comparative advantage and the welfare effects of trade*, have tackled this. He uses the 'endogeneity of

¹⁷² Robert Wade, *Governing the Market: Economic Theory and the Role of Government in East Asian Industrialization* Second ed. (Princeton, N.J.: Princeton University Press, 2004), p.303.

¹⁷³ Garry Rodan, *The Political Economy of Singapore's Industrialization: National State and International Capital* (Macmillan International Political Economy Series, 1989), p.142.

¹⁷⁴ Kamekichi Takahashi (1969) *The Rise and Development of Japan's Modern economy: the Basis for "Miraculous" growth*

comparative advantage' general equilibrium model inherited from the neoclassical economist Robert Lucas, and perhaps, against his own intention, he arrives at concrete conclusions mentioned in the abstract right at start: "Hence, specialization according to current comparative advantage under free trade may be welfare reducing. Selective intervention may be welfare improving, both for the economy undertaking it, and for its trade partner."¹⁷⁵ The clear contradictions of his arguments to his own title:

¹⁷⁵ Stephen Redding, "Dynamic comparative advantage and the welfare effects of trade," *Oxford Economic Papers* 51 (1999), 15—39. This paper's citing benefits from Professor Kent G. Deng's valuable side-note comments on the author's insights that static concept of comparative advantage cannot explain dynamic industrial upgrading in the original script: "Someone has tackled this. Please cite Stephen Redding 'Dynamic Comparative Advantage and the Welfare Effect of Trade' *Oxford Economics Papers* 51 (1999)." This important side-note comment appears twice in author's original script, one at the start and one near the end. The author originally thought that it would be a tough theoretical paper from the neoclassical position to attack the author's position, and Professor Kent Deng's high requirements for the author to not attacking the strawman and consequently his encouragement to the author to increasingly fortify his position through tackling this paper. The author hence read this paper in detail, and this paper turns out to be so interesting that in fact the publication of it self-evidently supports the author's argument. Its title "dynamic comparative advantage" "welfare effects of trade", and its methodology are all neoclassical positions: "This paper investigates these ideas within a general equilibrium model of endogenous growth..." "The endogeneity of comparative advantage is examined within a particularly tractable general equilibrium model of endogenous growth and international trade between two large economies that builds on Krugman (1987) and Lucas (1988)." And Stephen's abstract right at the start summarises this paper's positions as "Developing economies may face a trade-off between specializing according to existing comparative advantage (in low-technology goods), and entering sectors in which they currently lack a comparative advantage, but may acquire such an advantage in the future as a result of the potential for productivity growth (in high-technology goods) ... Hence, specialization according to current comparative advantage under free trade may be welfare reducing. Selective intervention may be welfare improving, both for the economy undertaking it, and for its trade partner" which are totally against what this paper's title suggests, and ironically provide a robust neoclassical mathematical theoretical proof to the author's conceptual analysis position. This is strengthened by the fact that they start from the endogenous assumptions of dynamic comparative advantage and arrive at the impossibility of it. The author then thinks whether Professor Deng asks the author to cite this paper in support of his arguments, but either way the author's position is strengthened. The author also thinks it is a pity that, perhaps due to Professor Deng's humbleness, his works that are too good to miss are much better than this confusing Stephen's paper. The author hence cites them here: in his 2019 EH446 lectures Week 19. Post-war Asia Tigers, Professor Deng puts his sharp insights on slide 38: "4. State-led growth. State-led growth really means leaders in a non-democratic society. Neo-mercantilism and neo-Keynesianism: to get prices wrong in order to create Smithian 'absolute advantage' artificially." On slide 43: "Why an indigenous and 'right' price structure was 'wrong'? 1. Abundant and cheap labour (due to the success of farming, or path dependency). 2. Shortage in capital (due to low level surplus) and technology (due to the absence of industrialisation). 3. The market alone will not automatically deliver industrial growth. It can deliver agricultural growth (due to the specific production function and production possibility frontier). 4. One country cannot change the world market. 5. Reason: the comparative advantage in the world system determines a country's strength and weakness *ex ante*." On slide 44: "State-led price manipulation: why were 'wrong prices' so 'right'? ISI under the state

tariff protection (no change in the original price structure). This is the least a modern state can do. There is no competition from the world market. EOI with the state pro-active support (fundamentally changing the original price structure) by 'getting prices wrong'. So, the capital and technology become artificially cheaper. This leads to 'man-made absolute advantage' (often called 'dynamic comparative advantage') to compete in the world market. As a result, more investment in modern growth and economic take-off."

Professor Deng also passionately distinguished the differences between comparative advantage and absolute advantage and corrected the mistakes which most mainstream neoclassical economists fell upon, which plant the seeds of the author's thinking and this PhD project, in his email sent to EH446 students on 10/03/2019 at 13:12: "Dear all, This is to follow up what we did on last Friday. Absolute advantage is (1) always based on 'accounting cost' of production, and (2) always through an international comparison. Hence, absolute advantage really means one thing: the lowest accounting cost of production internationally whereby one country is able to capture a market internationally. The best example is Foxconn in China to employ the cheapest waged labourers. Comparative advantage is (1) always based on 'opportunity cost' of production, and (2) always through a domestic comparison. Hence, comparative advantage really means one thing: relative savings to be made via domestic specialisation. The best example is British specialisation in Rolls-Royce aero engines instead of producing air crafts. Currently, the vast majority economists (I would say over 95% of all) have clearly misunderstood 'comparative advantage', i.e., when they talk about comparative advantage, they really mean the lowest accounting cost internationally. If so, they have become illiterate in classic economics. We thus MUST correct such a misconception for the sake of Adam Smith and David Ricardo. Kent." In one of his recent influential expert interviews conducted by China's high rank elite newspapers, Professor Kent Deng sharply debunks these frequently used archaic outmoded neoclassical concepts supporting free trade that are disguised displacement of what this world really is, the positions of which this PhD project's detailed layout arguments couldn't agree more: "What is globalisation all about? Very few have seriously pondered on this. Most views are talking about the saving of transaction costs, and they quote their footings from the archaic outmoded Adam Smith's 'absolute advantage', or the subsequent David Ricardo's 'comparative advantage'. In fact, the globalisation nowadays in essence is the capital expansion of the advanced economies aiming at profiteering to the maximal extent, and the integration of cheap labour and resources from the developing world. The developed care about returns to capital, the developing care about technology and employment. This trans-nations integration is often called 'commodity chains', or 'value chains'. No matter what one calls it, the centre is 'chains'. This is very different to the Adam Smith's and David Ricardo's coarse goods exchange in the 18th and early 19th centuries. They were clear national economies, which are incompatible with 'chains' economies. Therefore, Adam Smith's and David Ricardo's theories are all outdated. 'Chain economies' in essence are the transnationalisation of capitalist production function, so as to get the optimum of capital efficiency. To the side-consequences of developing world's benefitting from this, this is just the externality spill-over effect, not what the 'chain economy' intends. With no doubt, this 'chain economy' with its externalities spill-over have bred the East Asian tigers and tiger cubs and emerging markets, and we easily forget what das capital really is: the never-ending greed of profit chasing." Kent G. Deng, "Insights from expert: the Covid-19 shock exposes weaknesses in the current global commodity chains," *Elite Newspaper for High rank's attention (cankao xiaoxi)*, 14/07/2020. http://ihl.cankaoxiaoxi.com/2020/0714/2415621_4.shtml Assessed on 21/05/2022. 邓钢, 专家文章: 新冠疫情暴露全球化产业链痛点, 《参考消息》14/07/2020 期: "其次, 我们说新冠疫情"暴露了全球化产业链的痛点"。现在人们众口一词, 赞扬战后出现的新一轮全球化。但是, 全球化到底化的是什么呢? 很少有人深究。多数观点是谈交易成本的节省, 而且绝大多数人援引的是老掉牙的英国古典经济学中的亚当·斯密的"绝对成本学说", 或者是继亚当·斯密之后的大卫·李嘉图提出"相对成本学说"。其实, 人类当前这一轮全球化是以发达国家的资本在全球最大限度套利为动力, 以发展中国家积极提供廉价劳动力和廉价资源为依托的经济跨国融合过程。发达国家关心的是资本回报, 而发展中国家关心的是技术和就业。这种经济跨国融合过程通常被称作"产业链"、"产品链"或者"价值链"。不论如何称呼, 核心概念是"链"。这和 18 世纪末 19 世纪初亚当·斯密和大卫·李嘉图关注的国与国之间的制成品之间的那种粗糙的物物交换行为在内涵与外延都截然不同。可以说亚当·斯密的"绝对成本学说"和大卫·李嘉图提出的"相对成本学说"所关注的是以明确国界划分的"块式经济"。"块式经济"排斥凌驾于国界之上的"链式经济"。所以, 亚当·斯密和大卫·李嘉图的理论今天均已过时。"链式经济"其实是生产函数的跨国链条化, 以便获得资本经营效率最优。至于资本经营效率最优顺便也拉了发展中国家一把, 那绝对不是资本启动"链式经济"的初衷。经济学有一专门概念叫"外部性"或"外部经济收益", 是资本经营效率的一种福利外溢而已。毫无疑问, 这种"链式经济"和它的福利外溢在风调雨顺的年景哺育了亚洲四小龙、亚洲四小虎、新兴市场国家等等, 以至于我们常常忘记了资本追逐最大利润的永恒属性和永不衰减的贪婪。" It is building

“Dynamic comparative advantage” and “welfare effects of trade” specify the contrast between his neoclassical ideology and world facts in reality, as well as the inappropriateness of ‘endogenous comparative advantage shifts’ modelling assumption that proves the impossibility of it in conclusion. The fundamental reason is comparative advantage’s backbone is ‘opportunity cost’. What David Ricardo’s cleverness had sharpened on the difference between comparative advantage and absolute advantage that we once all learnt and got a headache in elementary economics courses might turn out to be his utmost clumsiness. John Maynard Keynes, in a meaningful way, comments similarly: “Ricardo offers us the supreme intellectual achievement, unattainable by weaker spirits, of adopting a hypothetical world remote from experience as though it were the world of experience and then living in it consistently. With most of his successors common sense cannot help breaking in—with injury to their logical consistency.”¹⁷⁶

Ricardo sharpened the concept of trade to the fullest extent, that trade happens not only when each is better at something respectively, but also when one is better at everything, such that ‘accounting cost’ is extended to ‘opportunity cost’, and ‘absolute advantage’ polished to ‘comparative

on these that the author comes up with his neat sharp capture: the ill-made phrase of ‘dynamic natural comparative advantage shifts’ is outside the very static concept of comparative advantage itself. To quote Sir Isaac Newton: “If I have seen further, it is by standing on the shoulders of giants.”

¹⁷⁶ John Maynard Keynes, (first published in 1936) *The General Theory of Employment, Interest and Money* (palgrave macmillan, 2018), Appendix to Chapter 14. Appendix on the Rate of Interest in Marshall’s *Principles of Economics*, Ricardo’s *Principles of Political Economy*, and elsewhere, p. 169.

advantage'. He used this argument vividly debating in the Parliament when England at that time was pondering: whether 'let everything else go' and concentrate in manufacturing or maintain energy and resources devoted to agriculture which England also had a higher productivity than everywhere else (this is a flawed concept, see *data* section for a detailed discussion). Ricardo convinced the Parliament to fully commit to manufacturing and laid the foundation of 'free trade' rhetoric that Britain utilised to defend its acts as establishing international free trade regime.

The ultimate problem, however, is that 'opportunity cost' is a concept related to one's *own* choice bundles. When I decide to do something, it is not just the cost of doing this (i.e., accounting cost), but also the cost of the next best alternative forgone. It is the opportunity lost in *my* perspective. Yet this concept is extrapolated to everyone else trading with me and joining my choice bundling. This is inappropriate for a simple given *fact* that Britain's commitment to manufacturing is based on its next best choice alternative forgone—agriculture. Yet for other regions traders, how do they know what is their next best alternative? Their full choices *potential* has not been realised yet! Hence the whole international free trade regime proclaimed as each producing according to its comparative advantage is the world leaned to Britain's *own* comparative advantage in essence. The alleged free trade 'comparative advantage' cooperative international

regime disguises the ‘core and periphery’ world system in reality. Based on the next choice alternative forgone, ‘comparative advantage’ already assumes resources are fully utilised.¹⁷⁷ And in so doing it excludes *dynamic* potential elements right at start, and crystallises itself into a static perfect equilibrium setting. ‘Comparative advantage’, in its very own nature, *cannot* be shifted.

Adam Smith was *different*. Smith’s dynamic expansion of trade and enlarged market potential for greater specialisation put him more into a domestic economy setting. And when he considered international realm, it was for the purpose of serving the domestic market:

“Between whatever places foreign trade is carried on, they all of them derive two distinct benefits from it. It carries out that surplus part of the produce of their land and labour for which there is no demand among them, and brings back in return for it something else for which there is a demand. It gives a value to their superfluities, by exchanging them for something else, which may satisfy a part of their wants, and increase their enjoyments. By means of it, the narrowness of the home market does not hinder the division of labour in any particular branch of art or manufacture from being carried to the highest perfection. By opening a more extensive market for

¹⁷⁷ The prominent economist Joan Robinson argued similarly: “The macro setting of the analysis of ‘scarce means with alternative uses’ is very vaguely sketched. It appears to rely upon Say’s Law, for the scarce means are always fully utilized.” See Joan Robinson, *What are the Questions? And Other Essays: Further Contributions to Modern Economics* (New York: M.E. Sharpe, Inc., 1980), p.5.

whatever part of the produce of their labour may exceed the home consumption, it encourages them to improve its productive powers, and to augment its annual produce to the utmost, and thereby to increase the real revenue and wealth of society.”¹⁷⁸

Smith’s ‘vent for surplus’ theory of international trade is hence in sharp contrast to Ricardo’s ‘comparative advantage’ theory. Ricardo’s theory assumes that the resources of a country are given and fully employed *before* it enters into international trade. The function of trade is then to *reallocate* resources more ‘efficiently’. Export production can only be rearranged and increased only at the cost of domestic restructuring and reducing the domestic production. The ‘vent for surplus’, in contrast, assumes that each possesses a surplus productive capacity of some sort. The function of trade here is not so much to reallocate the given resources as to provide the new effective demand for the output of the surplus resources which would have remained unused in the absence of trade. International markets are there to *facilitate* the domestic flourishing on-going process through an ever-widening market enlargement, rather than to remodel the domestic economy. And by widening the extent of the market, international trade also improves the division of labour and raises the general productivity within the country.

¹⁷⁸ Adam Smith, *An Inquiry into the Nature and Causes of The Wealth of Nations* (1977, University of Chicago Press), Book IV: of Systems of Political Economy, p.582.

Ricardo's 'comparative advantage' specialisation merely means a movement along a static production possibility frontier constructed on the *given* resources and techniques of the trading country. Conversely, 'vent for surplus' looks upon international trade as a *dynamic* force which enables the trading country to enjoy ever-changing increasing returns by widening the extent of the market and hence the scope of the division of labour. Adam Smith's world is hence a transitional state rather than a fully employed static equilibrium. This leads to three corrections: first, when neoliberal economists talk about comparative advantage shifts through international open trading, what they really mean is absolute advantage shifts. Second, Ricardo is often attributed as Smith's refined disciple, but their arguments are *qualitatively* different in nature. Third, nowadays neoliberal doctrine's frequent credit of 'free trade' and comparative advantage reasoning to Adam Smith is ungrounded. Arguments such as 'resource-abundant nations serve as primary exports sectors, labour-abundant regions work on labour-intensive industries, and capital-abundant & technology-advanced parts supply high industrial products' ignore the dynamic part of Smithian market growth, and thereby fail to 'increase the real revenue and wealth of society'. The majority periphery nations supply raw materials and labour for several core nations' advanced industrial goods. The great technological gap between them could lead to

10 tons of timber for several iPhones' value, or a Chinese worker working in Foxconn day and night for 3 months for one iPhone's value. Free trade is not free industrialisation.¹⁷⁹

On the eve of China's WTO accession, perhaps all the prominent Western China experts warned against China's resources misallocation and hoped that the opening up market forces could bring China 'back on track'. Nicholas Lardy argued that there was over investment and excess capacity in China's steel industry; annual capacity was 190 million metric tons (mmt), while China's output was 116 million in 1998.¹⁸⁰ Thomas Rawski complained that China's steel investment represents the wasteful investment system in general and a major obstacle to China's future growth.¹⁸¹ Barry Naughton earlier on attributed this additional useless productive capacity building to the incomplete reforms on commercial and market forces, which was in turn due to "the political system is simply not adequate to cope with the challenges that confront it."¹⁸² Their neoclassical criticisms of Chinese development and trade policy revolved around the axis of comparative advantage. Justin Lin, later World Bank's

¹⁷⁹ This neat capture owes intellectual debt to Professor Kent Deng's valuable side-note comments on the original script: "Good. Free trade but not free industrialisation."

¹⁸⁰ Lardy, Nicholas. 2000. When will China's financial system meet China's needs? *Stanford King Center on Global Development Working Paper* no. 55. Accessed at:

<https://siepr.stanford.edu/research/publications/when-will-chinas-financial-system-meet-chinas-needs>.

¹⁸¹ Rawski, Thomas. 2002. Will investment behavior constrain China's growth? *China Economic Review* 13 (4): 361–72.

¹⁸² Naughton, Barry. 1995. *Growing Out of the Plan: Chinese Economic Reform, 1978–1993*. Cambridge: Cambridge University Press, p.310.

chief economist, in 2000 maintained if China's investments had been guided by market forces, China would have exported labour-intensive products and imported capital-intensive products. WTO accession would free market competition until the Chinese government abandons the "attempt to accelerate the growth of capital-intensive industry in a capital-scarce economy", until then "reform in China will remain incomplete."¹⁸³ By 2019, however, China's overinvestment in steel grew a further 858 percent in output; its crude steel production reached 996.3 mmt, and China's share of global crude steel production took a staggering 53.3 percent.¹⁸⁴ In 2019 China produced more steel than in the 1990s, the decade it had built 'too much'. The allocation of investment according to neoclassical comparative advantage 'efficiency' would have precluded China's thirty years of infrastructure boom. In 2014, Rawski, in another scholarly work entitled 'from great divergence to great convergence' reflecting on his earlier views and those of his colleagues, confesses that "these deeply knowledgeable authors (and many others) underestimated the strength of China's unconventional system."¹⁸⁵ They had clearly "failed to comprehend China's dynamic potential."¹⁸⁶

¹⁸³ Lin, Justin. 2000. Economic reform and development strategy in China. In *China's Entry to the WTO: Strategic Issues and Quantitative Assessments*, eds. Peter Drysdale and Ligang Song, 35–52. London: RoutledgeCurzon, p.52.

¹⁸⁴ WSO. 2020. Global crude steel output increases by 3.4 percent in 2019. World Steel Organization. Accessed at: <https://www.worldsteel.org/media-centre/press-releases/2020/Global-crude-steel-output-increasesby-3.4--in-2019.html>.

¹⁸⁵ Brandt, Lauren, Debin Ma, and Thomas Rawski. 2014. From divergence to convergence: Reevaluating the history behind China's economic boom. *Journal of Economic Literature* 52 (1): 45–123, p.112.

¹⁸⁶ Brandt, Lauren, Debin Ma, and Thomas Rawski. 2014. From divergence to convergence: Reevaluating the

2.1.2 *The 'invisible hand' and the 'pin factory'*

The most famous and perhaps the only things that common people know about Adam Smith are his 'invisible hand' and 'pin factory' analogies. The market, through its price signalling role, would automatically allocate supply and demand efficiently to everyone's benefit, despite everybody is selfish to rationally calculate for his/her own good. Hence the 'invisible hand'. And through trade and exchange, everyone could specialise in one task, hence the 'pin factory', and produce goods more efficiently, and trade other goods with the good he has produced. Through market exchange: the 'invisible hand' and hence division of labour: the 'pin factory', everyone would become better off.

Neoliberal successors often use Smith's 'invisible hand' and 'pin factory' analogy reasoning to argue that economic growth would naturally unfold from market exchange. Trade and exchange would render division of labour possible, which in turn generates technology progress. Hence technology progress depends on the extent of specialisation, which is limited by the extent of the market. The greater the market, the greater the extent of specialisation, and the higher the technology growth.

history behind China's economic boom. *Journal of Economic Literature* 52 (1): 45–123, pp.112–113.

The fundamental problem is whether market exchange, no matter how wide the market gets enlarged, would deliver the extent of division of labour acted in Charles Chaplin's *Modern Times*, and the extent of industrialism and high-tech witnessed in modern era. Crucially, at the time when he wrote the *Wealth of Nations* in 1776, Adam Smith did *not* anticipate the British Industrial Revolution afterwards. In Smith's world, we would see a shoemaker trading with bakers, how guild members divide their tasks and cooperate to make pins, etc. The technology each market player used was relatively stagnant handicraft at a similar level, though Smith foresaw technical change from division of labour, which was in turn from the extent of the market. The level of division that Smith had in mind when he penned the 'pin factory' really means the pin factory: vibrant, small-scale, and handicraft trade with relatively primitive specialisation of tasks and dividing procedures fulfilled by respective labour, rather than any connotations one may associate with the word 'factory'.

The reason why the Industrial Revolution was an unforeseen accident is due to the inherent tensions within Smith's two analogies. 'Invisible hand' specifies the price signalling role of the market that serves as the automatic mechanism to allocate resources efficiently. In a Smithian world, a shoemaker trades a pair of shoes for one week's bread from the baker. The

baker then could either sell off the shoes or wear the shoes himself. Another market transaction begins. And there are lots of small-scale shoemakers and bakers and other handicraft guild professions in towns and cities. To Smith, these economic activities are coordinated perfectly through the ‘invisible hand’ of the market. In today’s standard Microeconomics textbook, the market itself determines the price of goods. Each shoemaker or baker in Smith’s world is a price-taker. And it is called *Perfect Competition*. Perfect competition necessarily assumes Constant Returns to Scale, for each market player’s profits just cover the opportunity cost to leave, and either increasing or decreasing the scale of production would raise the cost of production for firm to leave the market. The room for further gains in specialisation has already been exhausted. ‘Pin factory’, on the other hand, specifies the division of labour and specialisation gains from the economies of scale effect. A larger market renders further specialisation possible that generates further productive efficiency gains, i.e., Increasing Returns to Scale. And increasing returns to scale needs market competition to be *imperfect*.

It is therefore unclear why ‘invisible hand’ would necessarily lead to ‘pin factory’ or beyond. Kenneth Pomeranz reveals that traditional Chinese economy manifested robust perfect competition features but lack of big factories ‘economies of scale’. Jiajing region’s paper-making, where

production was scattered among many small workshops that were unlikely to involve significant economies of scale, generated an intense low-price market competition that kept a constant technology of production for hundred years.¹⁸⁷ Each market player becomes Smithian ideal price-taker solely determined by the ‘invisible hand’. Traditional China’s commercial organisations also showcased more freedom to entry and more frequent & widespread market exchange than Europe’s deliberate restrictions for some niche markets. Contrasting feudal Europe’s urban guilds, many China’s *hang* did not see economic regulation as their most important task.¹⁸⁸ Urban organisations in China were native-place based for community cooperation in a new city rather than trade-exclusive based against outsiders entering the city in Europe. This could result in a single city having three or four *hang* from different native-place origins for a single trade that created intense low-price perfect competition, a phenomenon unseen in Europe.¹⁸⁹ Europe’s small group of high-end industries such as horology and weapons were not price-sensitive.¹⁹⁰ The crucial function that China’s *hang* lacked was patents protection. European guilds ensured temporary monopoly rents for innovations that incentivised innovators, generating the *unintended consequence* of Schumpeterian growth for non-

¹⁸⁷ Kenneth Pomeranz, “Skills, ‘Guilds’, and Development: Asking Epstein’s Questions To East Asian Institutions,” in *Technology, Skills and the Pre-modern Economy in the East and the West: Essays Dedicated to the Memory of S.R. Epstein* (Leiden: Brill, 2013), pp.125-126.

¹⁸⁸ Pomeranz, “Skills, ‘Guilds’, and Development”, p.102.

¹⁸⁹ Pomeranz, “Skills, ‘Guilds’, and Development”, p.103.

¹⁹⁰ Pomeranz, “Skills, ‘Guilds’, and Development”, p.126.

price sensitive sectors in weapons industry. Schumpeterian technological progress then spilled over from military weapons sector.¹⁹¹ China's less overall interference with markets generated weaker 'infant industry' protection.¹⁹² China's institutions helped it stay on the production possibility frontier but failed to shift that frontier forward.

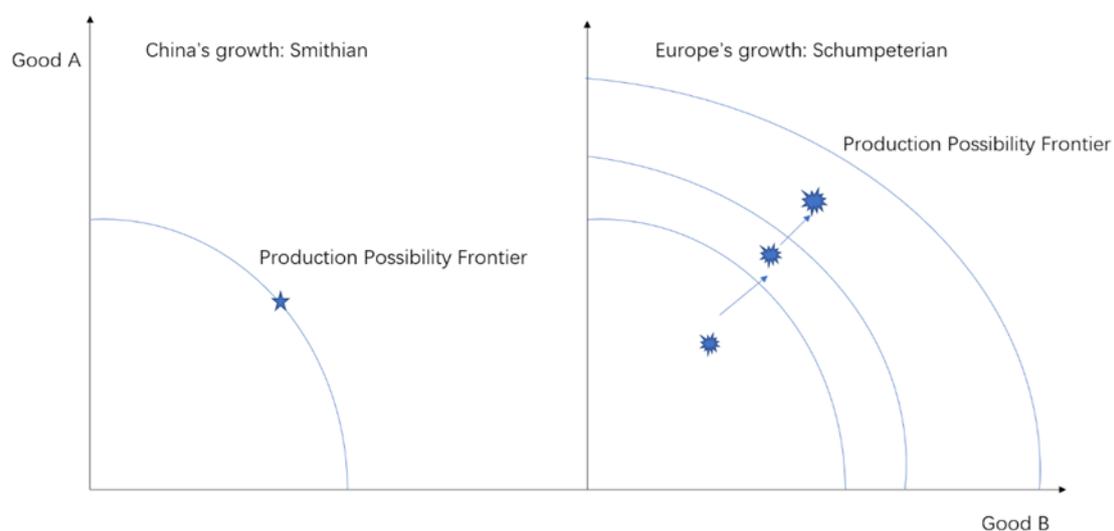


Figure 1 Smithian growth in Imperial China vs. Schumpeterian growth in feudal Europe

Adam Smith's specialisation of tasks from greater market spheres also applies more to the regional specialisation from greater territorial expansion in Ming-Qing China. More unsettled land was cultivated after China recovered from the Mongols' conquest and enlarged its territory. The Lower Yangzi region, traditionally associated with rice farming in Song period (960—1279), switched to become the centre of cotton farming and

¹⁹¹ Philip Hoffman, "Prices, the Military Revolution, and Western Europe's Comparative Advantage in Violence," *The Economic History Review*, 64 (2011), p.57.

¹⁹² Pomeranz, "Skills, 'Guilds', and Development", p.96.

weaving in Ming (1368—1644), and imported soybeans and bean cakes from the newly settled Manchuria in Qing period (1644—1911).¹⁹³ The division of labour was spatial expansion from market expansion, rather than increasing social alienation of machine-parts like tasks in *Modern Times*. The level of division that Smith had in mind when he penned the ‘pin factory’ corresponds more to the regional specialisation reached in traditional China’s Ming and Qing periods than to the modern factory itself.

2.1.3 *The dualistic model*

Arthur Lewis characterises agriculture in a least developed country as a source of surplus labour. At low levels of development, marginal product of labour (MPL) in agriculture is zero, while MPL in industry is higher.¹⁹⁴ These are his premises. He therefore argues that, perhaps any society, in a painless manner, could be transformed from a non-industrial traditional society into a modern industrial one. An economy with dual sectors self-generates growth and structural change by siphoning labour from less productivity farms to higher productivity factories without loss of output in agriculture. This is an endogenous voluntary process, as higher productivity capitalist industries also offer much higher wage rates than the

¹⁹³ Kent G. Deng, *Mapping China's Growth and Development in the Long Run, 221 BC to 2020* (Singapore: World Scientific, Imperial College Press, 2016), pp.112-118.

¹⁹⁴ Lewis, A. (1954). Economic Development with Unlimited Supplies of Labor. *The Manchester School*, 22, 139-191.

traditional agrarian sector, attracting surplus labour from the countryside (Lewis assumes it was 30% higher in urban industries, and in neoclassical assumptions, real wage equals marginal product of labour). The surplus labour, which was not generating any marginal productivity, will generate profits when they are shifted to the industrial sector. Supply of labour to industry is effectively elastic, industry can pay the same wages as before and be profitable. When the profit is reinvested in innovative machines and tools, the per labour productivity will increase and profits will boost. Reinvested profits raise MPL, leading to increase in demand for industrial labour. Thus, a cycle of re-investments and profit increments is created which results in self-sustainable growth process. This self-sustaining growth ends when all rural surplus labourers are absorbed into the industrial sector. Marginal product of labour is no longer zero, and the economy gets transferred from agrarian society to industrial nation.

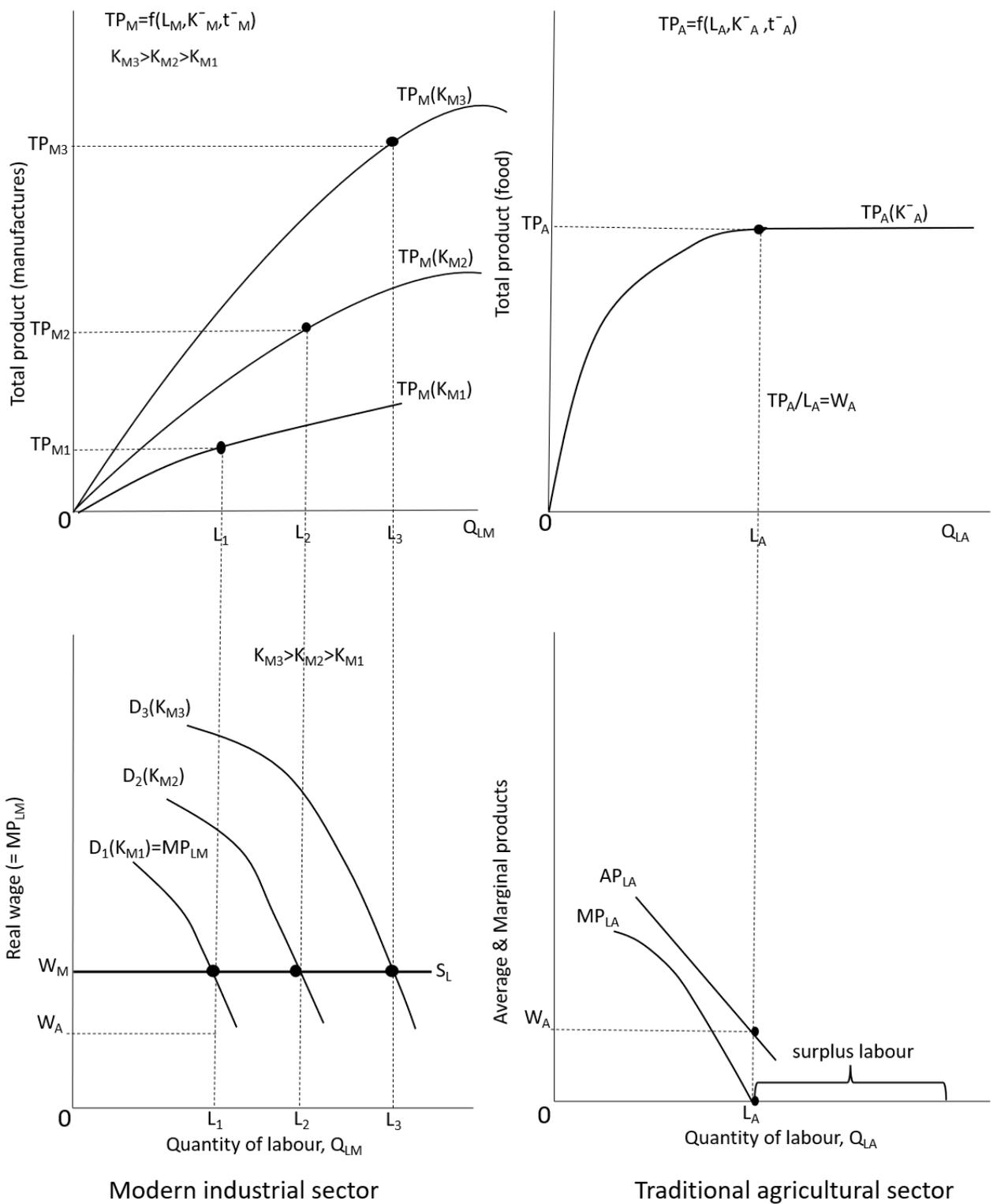


Figure 2 The Lewis model of self-sustaining growth transition in a two-sector surplus-labour economy

The Lewis model provides a simple and powerful recipe but no ingredients. Such a smooth ‘natural’ portrayal of happy-ending industrialisation & structural change process is not only against the real-world experiences of world’s first industrialiser and its subsequent deviators,¹⁹⁵ but also unfit for the mass developing world which are facing formidable obstacles in kicking the industrialisation take-off.¹⁹⁶ The fundamental reason is the interesting parts are all missing by Lewis’s assumption. For the Lewis model to function, a sizeable modern capitalist industrial sector must exist in the economy at first; and Lewis in essence combines two very different worlds in his dualistic model together, the traditional agrarian sector to him is a monotonous society stuck in zero marginal product of labour. This is untrue for most traditional societies, or for developing world at present. China had a long history of traditional industries and commerce—commercial cropping, petty commodity handicraft production and other vast rural diversification and commercialisation of the peasantry economy—that yielded much higher returns than those from farming.¹⁹⁷ Yet there is no evidence of any Lewisian industrialisation transition even

¹⁹⁵ Jane Humphries, “The lure of aggregates and the pitfalls of the patriarchal perspective: a critique of the high wage economy interpretation of the British industrial revolution,” *Economic History Review*, 66, 3 (2013); Alexander Gerschenkron, *Economic Backwardness in Historical Perspective: A Book of Essays* (Cambridge, Mass.: Harvard University Press, 1962); Chalmers Johnson, *MITI and the Japanese Miracle: The Growth of Industrial Policy, 1925—1975* (Stanford, Calif.: Stanford University Press, 1982); Meredith Jung-En Woo-Cumings, “Chapter 14. National security and the rise of the developmental state in South Korea and Taiwan,” in Henry S. Rowen, *Behind East Asian Growth: The Political and Social Foundations of Prosperity* (London; New York: Routledge, 1998)

¹⁹⁶ Ha-Joon Chang, *Kicking Away the Ladder: Development Strategy in Historical Perspective* (London: Anthem, 2002)

¹⁹⁷ Francesca Bray, *The Rice Economies: Technology & Development in Asian Societies* (Berkeley; Los Angeles; London: University of California Press, 1986)

during the Han and Song economic revolutions.¹⁹⁸ Eric Jones reveals growth in Song, China's high tide in technology and iron production—"That it was achieved by traditional methods of production, by the division of labour, by regional specialisation"¹⁹⁹ (exactly what Adam Smith specified in the user manual for *Wealth of Nations*), magnifies the fact that more intensive use of labour in proto-industries (handicraft manufacturing for the market rather than home use) does not necessarily lead to industrial triumph.

This tells two things. First, the traditional agrarian sector was a vibrant *organic* economy on itself. Agricultural diversification in seasonality patterns—land preparation, sowing and harvesting in busy seasons, and by-employments taken in idle times—hardly make any marginal product of labour zero and hence the 'surplus labour' concept meaningful.²⁰⁰ Second, Lewis's dualistic sectors model is an anachronistic invention. There was no inherent historical or evolutionary necessity that agricultural sector growth would feed into modern industrial capitalist expansion in a self-sustainable manner. The direction of causality is perhaps reversal. A sizeable modern industrial sector must exist *beforehand* that is the cause to

¹⁹⁸ Gang Deng, *The Premodern Chinese Economy: Structural Equilibrium and Capitalist Sterility* (Oxon; New York: Routledge Explorations in Economic History, 1999)

¹⁹⁹ Eric L. Jones, *Growth Recurring: Economic Change in World History* (Economics, Cognition, and Society. Ann Arbor: University of Michigan Press, 2000), p.82.

²⁰⁰ Joseph Needham and Francesca Bray, *Science and Civilisation in China. Volume 6, Biology and Biological Technology. Part 2, Agriculture* (Cambridge: Cambridge University Press, 1984)

rather than the consequence of the Lewisian dualistic transition. These explain the *fact* that why Lewis's model failed to predict the persistence of many traditional forms of employment in the present day least developed countries (LDCs). The formal-informal dichotomy is paramount in the present day LDCs, and there is no sign of disappearance for years to come. The size of informal economy of the United States is 7% of GDP, and the average for the developed world such as Japan, 9.6 %; UK, 10.3%; Germany, 11.2%, etc., is roughly 10%. Informal economy in LDCs, on the other hand, could take up as much as a half of GDP in the economy—India, 52.4%; Nigeria, 57.7%; Zimbabwe, 64.1%; Paraguay, 46.5%. China is a unique example as still being a developing nation, the size of its informal economy is 12.7%, both for its socialist economy beforehand and representative example of Lewisian transition since Deng's marketisation; while for the previous second world country like Ukraine the informal economy size could take up to 44.2%.²⁰¹ All these suggest that traditional

²⁰¹ Hassan, M. and F. Scheider (2016). Size and development of the shadow economies of 157 worldwide countries: updated and new measures from 1999 to 2013. *Journal of Global Economics* 4, 3. The author also checked other papers that showcase broad corroboration on data description. For instance, Gyomai, G. and P. van de Ven (2014). The non-observed economy in the system of national accounts. Statistics Brief No. 18. OECD, Paris, 2014; Henderson, V. J., A. Storeygard and D.N. Weil (2012). Measuring economic growth from outer space. *American Economic Review* 102, 2; and Medina, L. and F. Schneider (2018). Shadow economies around the world: what did we learn over the last 20 years? IMF Working Paper WP018, (Washington, DC: International Monetary Fund). India is an interesting scenario and more representative as the case for mass LDCs in years to come. It is the developing economy which displays promising growth apart from China (although not as impressive), yet there is not any sign of modern transformation or structural change as majority of its economy is still dominated by traditional forms of employment or new forms of non-standard types of employment in urban cities slums. The half of GDP size could still be a conservative estimate due to the methods of National Accounting that is difficult to capture the real comprehensive informal economy operating in the general economy. And it is still growing on the upward trend. See Murthy, S.V.R (2019). Measuring Informal Economy in India. Washington, DC: International Monetary Fund. All these suggest informal economy is a global persistence phenomenon that is far from the Lewisian conjecture. See Williams, C. C. and F. Schneider (2016). Measuring the Global Shadow

employment sector (as nowadays informal economy) would not naturally disappear and feed into capitalist modern sector in the present day mass developing world; and China's Lewisian transition (no persistence of informal economy since the opening-up market reforms) is the anomaly rather than the norm.

More importantly, the Lewis model implicitly assumes that the rate of labour transfer and employment creation in the modern capitalist sector is directly proportional to the rate of capital accumulation. The faster the rate and more of capital accumulation, the higher the growth rate of the modern sector and the faster the rate of job creation. But what if profits generated are reinvested in more sophisticated labour-saving capital equipment rather than just duplicating the existing capital? This is a predominant common issue as far as a nation's industrialisation is concerned. Apart from premodern rural handicraft industries or present-day lower assembly line work outsourcing (that pretty much has very limited 'capital' involved), industry is *inevitably* labour-saving by its very nature (as what Robert Allen argued Britain's unique high wages and abundance of coal enabled capital-

Economy: The Prevalence of Informal Work and Labour (Cheltenham: Edward Elgar). *Unless* artificial measures taken, economies would *not* naturally structurally transfer by themselves. This is true even for a previous second world nation—Ukraine. As the economy gets turmoiled and no sign of any improvement and lack of job opportunities, informal segments are what the majority fall a living upon. They are a sign of stagnation or declining rather than self-generating transformation growth. Ukraine is just one representative example. Most Soviet transitional economies, including Russia, after the 'Big Bang' fall into this situation.

intensive path of Industrial Revolution).²⁰² Capital-intensive is a synonym for labour-saving. Lewis did not consider this inherent contradiction among his dual sectors. Labour abundance economies in the past were considered as ‘God’s left-out kids’ as far as industrialisation is concerned.²⁰³ This issue is especially prominent if a nation pursues ‘Big Push’ heavy industry industrialisation. Under Mao’s rule, China’s modern industrial workforce never exceeded 60 million or 7 percent of China’s total population.²⁰⁴ From 1968 to 1978 an estimated 16 million urban students were sent to the countryside, in the midst of heavy industrialisation capital growth.²⁰⁵ Lewisian urban full employment is hence a conjectured fairy-tale myth. This problem persists today even neoliberal paradigm has greatly modified the heavy industrialisation strategy since 1970s. Yet urban unemployment is a permanent eyesore in the developing world. Globally 1 billion people live in urban slums, who consist of a quarter of the world’s urban population.²⁰⁶ And this figure is

²⁰² Robert C. Allen, *The British Industrial Revolution in Global Perspective, Vol. New approaches to economic and social history* (Cambridge: Cambridge University Press, 2009)

²⁰³ Henry Higgs, in his 1931 writings *Essai sur la Nature du Commerce en Generale* (London, 1931), stated that "the Increase of Population can be carried furthest in the Countries where the people are content to live the most poorly and to consume the least produce of the soil." Again, untrue Eurocentrism was on its way especially considering premodern China’s prosperity. Yet they were right at that time that most labour abundant economies were on a non-capitalist path of development.

²⁰⁴ Kent G. Deng (2010). Globalisation, China’s Recent Miracle Growth and Its Limits, *Globalization - Today, Tomorrow*, Kent Deng (Ed.), ISBN: 978-953-307-192-3, InTech, Available from:

<http://www.intechopen.com/books/globalization--today--tomorrow/globalisation-china-s-recent-miracle-growthand-its-limits> Primary data base: *China’s Labour Statistical Year Book* (1998), p.81; *China Statistical Year Book* (1986), p.91.

²⁰⁵ Kent G. Deng (2010). Globalisation, China’s Recent Miracle Growth and Its Limits. Primary data base: Liu Xiaomeng, *Zhongguo Zhiqing Shi (A History of ‘Educated Youngsters’ in China)* (Beijing: Contemporary China Publishing House, 2008), pp. 178–9.

²⁰⁶ World Economic Forum, 2016. Assessed at: <https://www.weforum.org/agenda/2016/10/these-are-the-worlds-five-biggest-slums/>

rising fast. The United Nations defines slums as areas within a city periphery lacking clean water, sanitation, adequate housing or security. Slums spread across Cairo, Cape Town, Manila, Mumbai, Mexico City, and Karachi from Pakistan, etc.²⁰⁷ In India, for instance, slums are found in 65 percent of the Indian towns. Four out of every 10 slum dwellers do not get treated water.²⁰⁸ Contrasting Lewisian transition mechanism, *unless* through the presence of a sizeable modern capitalist industrial sector *and* abundant light industries generated from the restructuring of heavy industrial capital goods, employment opportunities in urban sectors will remain *limited* that may require additional restrictive measures such as, ironically, the frequently attacked China's *hukou* system.

Moreover, Lewis's model relies on the implicit neoclassical production function that assumes supply creates its own demand. The profits made will be reploughed back to investment savings that automatically create labour demand. This is an inappropriate assumption because it does not consider the fact that it is not only about products made, but also products sold. In Lewisian model it is not an issue because it assumes unlimited demand for the products made in urban industrial capitalist sector, hence an unlimited demand for labour in essence. This is problematic because the

²⁰⁷ US News, 2019. Assessed at: <https://www.usnews.com/news/cities/articles/2019-09-04/the-worlds-largest-slums>

²⁰⁸ DowntoEarth, 2022. Assessed at: <https://www.downtoearth.org.in>

traditional agrarian population surely do not have the purchasing power to consume the products made in urban industrial sector (given the fact that urban wages are higher and higher labour productivity, and a constant flow of profits are generated through labour transfer). Demand for urban industrial manufacturing then *must* come from the foreign outside. This is problematic either because there is no inherent reason why this should be the case, *unless* foreign powers take the initiative to unilaterally dissolve their ‘industrial armour’ and transfer their manufacturing to elsewhere. Yet even so it does not get close to ‘the unlimited demand for labour’ requirements as consumers in the developed world ultimately face the problem of where do they get income from as well. This ‘unlimited demand for [developing world] labour’ assumption is surely *not* the case in Europe’s ‘Golden Age’ high growth period when a virtuous cycle of high productivity, high profitability, and high investment from previous ‘disequilibrium’ wartime conditions self-generated demand for European manufacturing labour and self-consumed manufacturing products.²⁰⁹ Western industrial economies’ trade and output growth was especially marked in manufactures, and export shares of OECD as a whole increased from 9.0 % in 1950 to 16.8% in 1973.²¹⁰

²⁰⁹ Peter Temin, “The Golden Age of European growth reconsidered,” 2002 Cambridge University Press, *European Review of Economic History*, 6, pp.3-22.

²¹⁰ Andrew Glyn, Alan Hughes, Alain Lipietz, and Ajit Singh, “Chapter 2. The Rise and Fall of the Golden Age,” in S. Marglin and J. Schor(editors) *The Golden Age of Capitalism* (Oxford: Clarendon Press, 1990), pp.42-43. Primary data base: OECD National Accounts 1950—68 and 1960—84; United Nations Report 1972.

Last and fundamentally, Lewis assumes a persistent wage gap between the urban industrial sector and rural agrarian economy. This is self-contradictory because to undertake smooth labour transfer, the agricultural sector *must* produce sufficient food surplus to feed the growing urban population at all times. This means marginal product of rural labour is *substantially* above zero. And to assume zero marginal labour productivity in rural areas necessarily means self-subsistence level of living, and hence food shortage once rural surplus labourers get transferred to cities. Food shortage will push up the food price and so will the real wage of farmers, closing the rural-urban wage gap. Either way, under equilibrium conditions, persistent rural-urban income gap and zero marginal product of rural labour violates each other.

In sum, post-Mao China is commonly celebrated as the textbook example of Lewis's dualistic transition.²¹¹ China has experienced a rapid and continuous hand-in-hand process in economic growth and urbanisation since its reform and opening-up; the urban population increased from 172.45 million in 1978 to 771.16 million in 2015, the corresponding

²¹¹ Nazrul Islam and Kazuhiko Yokota, "Lewis Growth Model and China's Industrialization," *Asian Economic Journal* 2008, Vol. 22 No. 4, 359—396; Trautwein, Hans-Michael, "On the Application of the Lewis Model to China," *Research in the History of Economic Thought and Methodology: Including a Symposium on 50 Years of the Union for Radical Political Economics*, 2019, pp. 173-80.

urbanisation level increased from 17.92% to 56.10%.²¹² China has completed both industrialisation and structural change, the millennia dominated agricultural economy ended in just several decades. China's unique path to urbanisation has avoided many of the pitfalls existing in the developing countries in other parts Asia, South America, and Africa. So much so that Nobel laureate Joseph Stiglitz once commented China's urbanisation is one of the two transformative forces that will most impact global prosperity in the 21st century (the other: technological innovation in the US). This verdict is a non-exaggeration if one puts China's urbanisation achievements in world perspective. According to the 2014 revision of the World Urbanization Prospects produced by the UN Population Division, the global urbanisation level increased from 39.4% in 1980 to 51.6% in 2010 (developed world and China included), in which China's urbanisation level alone increased from 19.4% to 49.2%.²¹³ Jason Hickel hence comments, in an attack to World Bank, world's poverty reductions in the past few decades were contributed by China, and China only.²¹⁴ These facts demonstrate that the *universal* Lewisian theory is a *unique* Chinese phenomenon realised by a combination of contingency factors that fulfil the important ingredients excluded by the theory recipe: (1) there exists a

²¹² Xingliang Guan, Houkai Wei, Shasha Lu, Qi Dai, Hongjian Su, "Assessment on the urbanization strategy in China: Achievements, challenges and reflections," *Habitat International* 71 (2018) 97–109. Primary data base: *China Statistical Yearbook* (NBSC, 2016).

²¹³ The United Nations, 2014 revision of the World Urbanization Prospects, Assessed at: www.un.org/zh/desa/2014-revision-world-urbanization-prospects

²¹⁴ Jason Hickel, *The Divide: A Brief Guide to Global Inequality and its Solutions* (London, 2017)

sizeable modern industrial sector beforehand in urban cities, (2) massive light industries are enabled and generated from the sizeable industrial sector, and capitalist market forces are unleashed to ensure enough job creation for sustainable rural-to-urban migration, (3) *disequilibrium* conditions must exist beforehand (which are not available under a normal organic agrarian economy in which even if a peasant has allegedly low marginal product of labour, it is never zero. And in equilibrium he is both a producer and consumer and the rural economy cannot function without him) such that (a) rural labour is redundant (the only scenario this can happen is not in a normal functioning rural economy but in abnormal People's Communes where people were acting rather than producing, and freeriding on others' efforts). The transfer out of labour not only increased by-side rural industrial products or commercial crops, and the later rural-to-urban migrant workers, but also left direct agricultural production intact (agricultural production in fact soared for several years after the introduction of Household Responsibility System when less people were in agriculture in the same period). And (b) rural income was greatly suppressed beforehand such that even by allowing a market to function and taking a low-wage job would greatly improve people's livelihood and generate internal aggregate demand for products made in urban light industrial industries (this cannot happen in Lewis's dualistic model. The rural sector has no purchasing power to consume urban products by its very

construction of assumptions), and hence a self-sustaining growth process is kicked off. (4) Despite some internal aggregate demand generated from both relaxation on rural markets and rise of urban consumerism, for the continuous dualistic transition to proceed, the ‘demand for unlimited labour’ *must* come from the outside since the dualism transition is ultimately labour supply-driven (internal demand is only a short-term temporary bounce-back relief from previous suppression). These factors only coincided with China’s transition from Mao to Deng and global neoliberal turn since 1970s onwards.

2.1.4 *The neoclassical maximisation framework*

Recent revisionist literature in the past few decades and earlier studies at the time facing late catching-up have all concluded that the farming system, and the moral economy in general, in the developing world (advanced parts with settled agriculture) were drastically different to those of Northwest Europe. Despite the sympathy and non-Eurocentric angle, these researches unconsciously used the neoclassical maximisation framework that inevitably added *backward* and inferior connotations to their research subjects, as opposed to the more advanced European model of production. James Scott, for instance, though pinpointing there is no ‘class struggle’ in Asian societies, commented: “the peasant household has little scope for the

profit maximization calculus of traditional neoclassical economics... In decision-making parlance his behavior is risk-averse; he minimizes the subjective probability of the maximum loss.”²¹⁵ So as to “produce the most stable and reliable yield possible under the circumstances.”²¹⁶ Francesca Bray, despite her high regard on ‘The history of Asia’s rice economies shows that even without chemicals and laboratory-bred seeds, intensive rice-farming has the potential to provide a lasting basis for a diversified rural economy, feeding and providing employment for large populations’,²¹⁷ still contrasting it with the more *superior* ‘But in Europe many of the most striking advanced increased the productivity of human labour by substituting animals or machines, taking advantage of the essentially extensive nature of the farming system to introduce economies of scale.’²¹⁸ A.V. Chayanov (1888—1939), the Soviet economist who proposed the distinct concept of ‘peasant household economy’ to wage-labourer that has been central to development ideas, still draws on the neoclassical profit maximisation benchmark for comparison. A typical peasant family farm, to Chayanov, was non-profit driven.²¹⁹ The marginalist theory explaining the behaviour of a capitalist entrepreneur in

²¹⁵ James C. Scott, *The Moral Economy of the Peasant: Rebellion and Subsistence in Southeast Asia* (New Haven and London: Yale University Press, 1976), p.4.

²¹⁶ Scott, *The Moral Economy of the Peasant*, p.2.

²¹⁷ Francesca Bray, *The Rice Economies: Technology & Development in Asian Societies* (Berkeley; Los Angeles; London: University of California Press, 1986), Preface.

²¹⁸ Bray, *The Rice Economies*, Chapter 2.

²¹⁹ A.V. Chayanov, *The Theory of Peasant Economy* translated version into English (University of Wisconsin Press, 1986)

his choices cannot be transferred to a peasant family unit, for in this type of farm the decreasing returns of the value of marginal labour do not hinder the peasant's activity so long as the needs of his family are not satisfied. Decreasing returns do not stop work until an equilibrium between needs and the drudgery of effort has been achieved. In other words, peasant households produced as much as they could and to them there was neither a question of rent nor of profit. The peasant was simultaneously a producer and a consumer for his own uses. In this type of economy there was no progressive elements (market sales, profits, savings, investment) involved such that Chayanov's theory is sometimes called 'perpetuation of the peasant economy'.

Despite good will, these revisionist work either earlier or recent, ironically through advocating the diversity and plurality of different socio-economic systems (Chayanov's self-producing and self-consuming Russian peasant economy that is unfit for Marxian surplus value analysis; Scott's 'patron-client' relations as opposed to universal 'class struggle'; Bray's labour intensification of rice-cultivation contrasting capital inputs of Western grain-farming), arrive at the inferiority of them to Northwest European model of production. The ultimate problem is the powerful Chayanovan output maximisation (the derivative of total product=marginal product of labour=0) versus profit maximisation associated with European production

(marginal revenue equals marginal cost, or derivative of marginal product of labour is 0) yardstick they have in mind such that all those Southeast Asian rural household features to Scott come down to the ‘subsistence ethic’ forces at play and all advantages of rice farming to Bray cannot avoid the eventual pitfall of lack of labour productivity growth. These revisionist projects in the end tie back to the Eurocentric Weberian view (they very much intended to correct at first) that the socio-economic structures and cultural frameworks within which economic activities in Asia were embedded significantly impeded its progress. The profit-maximisation and output-maximisation contrast essentially supported Weber’s rationalisation hypothesis that explains the rise of the West. Modern Western people are characterised by their superior rationality evolved from the Protestant Reformation.²²⁰ The revisionists’ implicitly assumed benchmark also suggests European people rationalised and optimised their production patterns so that they would withhold and re-allocate their efforts to something else once their devoted tasks run to counter-productive ends (hence profit-maximisation), while the rest blindly produced to their death until there is nothing coming out of the soil (hence output-maximisation).

The first problem is whether this is indeed the case and whether these neoclassical maximisation terms are really appropriate to a peasant

²²⁰ Max Weber, *The Protestant Ethic and the Spirit of Capitalism* (Oxford University Press, 2011)

economy, which was the predominant episode in world history (the West included). Again, as pointed out in previous *comparative advantage* section, neoclassical frameworks already assume resources are fully utilised, and economic problems are studying alternative uses of scarce resources. But the real world is in a transitional state rather than under equilibrium conditions. At any moment, certainly, resources are scarce, but they have hardly any range of alternative uses.²²¹ The question is not about Pareto's optimality in which the output of one commodity cannot be increased without reducing the output of any other in a timeless equilibrium state, but on human agents or entrepreneurs exploiting new production possibilities that get more idle resources employed to the unknown future. This was essentially what a typical rural household was doing, and this was *perfectly* rational. When he could crop three plots of land there is no reason why he would only crop one plot because his opportunity cost of cropping is essentially zero and not to let his resources, i.e., his labour power, lie idle is his utmost *rational* thing to do. The distinction between output-maximisation and profit-maximisation is therefore clear nonsense because to a typical peasant household output-maximisation *is* profit-maximum. This does not mean one would blindly stick to mono-agriculture and not exploring other possibilities. The diversification of agriculture was the millennia long Chinese traditional

²²¹ Joan Robinson, *What are the Questions? And Other Essays: Further Contributions to Modern Economics* (New York: M.E. Sharpe, Inc., 1980), p.8.

economy phenomenon. In slack seasons by-employments flourished and handicraft proto-industries & petty commodity trade took the lead. The fact that a typical peasant maximises his agricultural output during busy seasons and by-employs himself in idle times showcases his *super*-rationality to optimise his seasonality of production according to the seasonality of crops and to exploit the full possibilities under respective time setting. In busy seasons when he is tied to direct agricultural production he would crop to his fullest and would immediately adjust himself to something else when his time lies idle. He is, in fact, always optimising & rationalising and exploiting opportunities to the fullest extent at any moment in the time flow where today is an ever-moving break between the irrevocable past and the fundamentally uncertain future.

Chayanov's description also implies rural production in a peasant economy was largely for the rural households' own consumption, and hence only profit-maximisation profit-driven agriculture would render market prosperity possible. This is surely against historical evidence. Premodern China's physiocratic core fostered its market prosperity. Kent Deng reveals that the rural population occupied some 80% of premodern China's total population and produced about two-thirds of the country's GDP. Yet at least 60% of the total products (70%—80% as the norm) were not subject to

market sale.²²² Even so, the private property rights incentives and well-fed peasantry unleashed great production initiatives such that even a percentage leakage of ‘output maximisation’ would produce a staggering output for sale that paled Europe as a whole. Pomeranz observes that around 30,000,000 (a cautious conservative estimate that includes only the largest of many grain-trading routes in China) *shi* of grain entered long-distance trade in eighteenth-century China that was enough to feed about 14,000,000 people.²²³ This would be 5 times a generous estimate of Europe’s long-distance grain trade at its pre-1800 peak.²²⁴ Nor was a peasant economy purely self-sufficient on its own with no need for foreign trading. The common view assumes long-distance trade in pre-modern times was confined to luxuries, and long-distance staple trade was a phenomenon not until Europe’s great Age of Exploration and is a feature of the modern capitalist world.²²⁵ Kent Deng demystifies that it was in fact a common medieval phenomenon. Among Song China’s imports, horses headed the list. In seventy percent of the cases, luxuries were not involved. Livestock, mainly horses, and ordinary goods were by far the most important.²²⁶ In return, Song China exported its currency (copper coins),

²²² Kent G. Deng, “Development and Its Deadlock in Imperial China, 221 B.C.—1840 A.D.,” *Economic Development and Cultural Change* 51, no. 2 (2003)

²²³ Kenneth Pomeranz, *The Great Divergence: China, Europe, and the Making of the Modern World Economy* (Princeton, N.J.; Oxford: Princeton University Press, 2000), p.34.

²²⁴ Pomeranz, *The Great Divergence*, p.34.

²²⁵ Immanuel Wallerstein, *The Modern World-System* (New York: University of California Press, 1974)

²²⁶ Gang Deng, “The Foreign Staple Trade of China in the Pre-Modern Era”, *The International History Review*, Vol. 19, No. 2 (May, 1997)

tea, silk, porcelain, etc.

More importantly, on what grounds can one claim Europe's economic system was profit-maximisation throughout much of its history? The first problem is on the operational prospects of profit-maximisation. The rate of profit is always *ex post* while the search for profit is *ex ante*.²²⁷ Second, a majority of European peasants in history did not have the freedom to make production decisions, let alone profit maximisation. Peasant serfs were bondsmen to the feudal lords. Due to lack of decision-making power, rewards and punishments were asymmetrical such that European peasant serfs were largely passive. Peasantry would rather remain the status quo than trying out new farming methods, for staying mediocre would satisfy the lord's specified quota while trying out new things would pose a risk too much to handle because they were farming on lands not their own.²²⁸ The nature of feudalism also put too many veto players in the decision-making of production process. Each new farming method needed the consensus agreement of most peasant serfs, and then the final decision was passed onto the lord from the village council. Conversely, premodern China's physiocratic state and vast free landholding peasantry were always eager to search for new farming technology and techniques as well as new crop

²²⁷ Joan Robinson, *What are the Questions? And Other Essays: Further Contributions to Modern Economics* (New York: M.E. Sharpe, Inc., 1980), p.xi.

²²⁸ Lynn T. White, *Medieval technology and social change* (London: Oxford University Press, 1962)

varieties. The Song court discovered early-ripening Champa rice from Vietnam. The Kangxi emperor in Qing invented new ‘Emperor’s rice crop’ (*yu daomi*). Pamphlets and agricultural treatises were always promoted by the state to every county village and best rural farmers were appointed as lower rank officials to guide the ‘grassroots’ agricultural production that was treated as the nation’s foundation. Together with the private property rights initiatives that enabled active Chinese peasantry to always search new land for cultivation and produce as much as they could, farming technology in medieval China was always the most updated and its transmission soon spread out across the empire as a whole.²²⁹ Therefore, the withholding of producing initiatives in European context was not due to individual rational calculation *per se*, but because of the rent-seeking on the rural peasantry that prevented the realisation of their full production potential. If it was profit-maximisation, it was profit-maximisation from the perspective of feudal lords at the expense of vast peasant serfs to the detriment of whole economy’s underproduction. That may be better described as ‘rent-seeking’ than ‘profit-maximising’. Pomeranz echoes that the later European wonder “can be partly explained by western Europe’s own ‘advantages of backwardness,’ ... domestic resources left unexploited because of institutional blockages that were only relieved in the nineteenth

²²⁹ Angus Maddison, *Chinese Economic Performance in the Long Run. 2nd ed, rev. and updated: 960-2030 A.D. Vol. Development Centre studies* (Paris: Development Centre of the Organisation for Economic Co-operation and Development, 2007), p.26.

century and that, at that point, kept the import needs of some industrializing areas from being even larger.”²³⁰ Neoclassical fairy-tale ‘profit maximisation’ disguised the true faces of ‘unexploited backwardness’ due to ‘institutional blockages.’ This also applies to Meiji Japan. Hayami and Yamada point out that in its earlier periods when industrial capital had not yet been accumulated (and before its foreign encroachments on China and receipt of war reparations), Meiji Japan was able to finance industrialisation by mobilising agricultural surpluses. However, this was less due to the technological improvements *per se* but more because of the backward potential accumulated over the preceding 300 years of the Tokugawa period.²³¹ The restraints of the feudal system had suppressed the diffusion of new techniques so that the actual shift in the aggregate production function was much slower than the potential shift. Japanese peasant serfs in general were not allowed to leave their villages except for pilgrimages, and barriers which divided the nation into feudal territories interrupted nationwide communications. Meiji Japan’s initial agricultural take-off was predominantly due to the backlog inherited and the abolition of such feudal constraints that released the suppressed energy from the people. Interestingly, the advanced techniques Meiji Japanese peasantry

²³⁰ Kenneth Pomeranz, *The Great Divergence*, p.295.

²³¹ Hayami and Yamada, “Chapter 5. Technological Progress in Agriculture,” in Lawrence R. Klein, *Economic Growth: the Japanese Experience since the Meiji Era* Vol. A (Publication of the Economic Growth Center, Yale University. Homewood, Ill: R. D. Irwin, 1968)

used derived from China's Song period some eight hundred years before.²³²

Most importantly, what European 'profit-maximisation' means was in 1582, when the Italian Jesuit Matteo Ricci set foot in China and was impressed by the dynamism in Nanjing— 'they say there are two hundred thousand weavers here'—and elsewhere, the Chinese 'now weave a cloth made entirely of silk'. He, too, noted the 'exceedingly large number of books in circulation... and the ridiculously low prices they are sold', whose observations were confirmed by the Portuguese Jesuit Alvaro Semedo: the vibrant 'traffic and commodities' in China in the 1620s—30s; how commercialisation was sweeping across Ming China.²³³ Such that the low-price and high-quality Chinese silk & hemp textiles flooded the European market and greatly impacted Italian textiles industry. Britain not until 1690s developed hemp and linen products that were sufficient to compete with China's. This trend carried on. Later from the 16th to 18th centuries, there were 236 kinds of different goods exporting to Europe from China, in return for European silver only.²³⁴ If this is the contrast between 'profit maximisation' and 'output maximisation' in neoclassical theory, then it was European *parasitic*-like global-arbitrage on the lucrative Chinese economy

²³² Mark Elvin (1973) *The Pattern of the Chinese Past*, Stanford: Stanford University Press

²³³ Frank Trentmann, *Empire of Things: How We Became a World of Consumers, from the Fifteenth Century to the Twenty-First* (Harper, 2016)

²³⁴ Andre Gunder Frank, *ReOrient: Global Economy in the Asian Age* (Berkeley California: University of California Press, 1998). Frank's observations were corroborated by Geo Philips's primary study, *Early Spanish with Chang Cheow*. 南洋资料译丛, 1957(4).

in blunt historical reality.

These tie into the last fundamental point: the ‘profit maximisation’ versus ‘output maximisation’ yardstick and Weber’s rationalisation thesis in general treat world regions as ‘economic islands’ in essence. In historical realities however it was European socio-economic blockages that withheld its peasantry’s ‘output maximisation’ potential, and its later ‘profit maximisation’ capitalist expansion was enabled by the ‘output maximisation’ resources contributed by *others*. Weber and so on (ironically revisionists included) then treated these world system connections as individualistic *endogenous* ills. The failure of a peasant economy to develop was due to the perpetuating ‘output maximisation’ pattern, while the rise of the West is explained by the progressive ‘profit maximisation’. This ideological flavour persists today. One well-known example is Acemoglu et al.’s ‘North America’s good inclusive institutions generate economic growth, South America and other Western settlements’ bad extractive institutions legacy contribute to today’s poverty’.²³⁵ Gareth Austin, in his evaluative comment, shoots a silver bullet: “their papers do not develop further and more explicitly the theoretical implications of this insight in to the relationship between coercion in the colonies and the rise

²³⁵ Daron Acemoglu, Simon Johnson, and James A. Robinson, “The colonial origins of comparative development: An empirical investigation,” *American Economic Review*, Vol.91, No.5, 2001; Daron Acemoglu and James A. Robinson, *Why Nations Fail: The Origins of Power, Prosperity, and Poverty* (London: Profile Books, 2012)

of ‘good’ institutions—and the origins of modern economic growth in Europe.’²³⁶ This links us back to Pomeranz’s ‘Great Divergence’.

2.1.5 *The ‘Asiatic model of production’*²³⁷

Karl Marx, in addition to his universal invariant historical stages of development conjecture under European context, had to deal with three-quarters of the non-western humanity then. He therefore vaguely defined a term ‘Asiatic model of production’ for the most populated Asian continent at the time.²³⁸ Yet his view was influenced by the political tradition from Montesquieu to Hegel, which saw the Asian continent as characterised by political despotism and socioeconomic stagnation.²³⁹ The societies were agricultural and the great majority of the people lived in villages. Until colonialist intrusions, the villages had changed little from prehistoric times. Private ownership was poorly developed. Ownership of the means of production, land included, rested in the village or the overarching identity above (the state). Productivity was low, trade was primitive, networks

²³⁶ Gareth Austin, "The 'reversal of Fortune' Thesis and the Compression of History: Perspectives from African and Comparative Economic History," *Journal of International Development*, 20, no. 8 (2008), p.1018.

²³⁷ This part benefits from Professor Kent Deng's helpful suggestions during the viva that the author should include Karl Marx's 'Asiatic model of production' in his Reviews section.

²³⁸ Karl Marx, *On Colonialism: Articles from the New York Tribune and Other Writings* (1853). New York: Internat. Publ., 1972; *Grundrisse* (1857-1858); *Das Capital* Vol. I (1867). (Penguin classics, 1992)

²³⁹ Montesquieu. 1989. *The Spirit of the Laws* (1748). Translated by Anne M. Cohler, Basia C. Miller, and Harold S. Stone. Cambridge: Cambridge University Press; Hegel, Georg F. W. 1979. *Werke 18, Vorlesungen über die Geschichte der Philosophie* (first published 1833—36) (Works 18, Lectures on the History of Philosophy). Frankfurt am Main: Suhrkamp.

linking villages as well as upper levels or broader world were poorly developed. Political power was absolute; a despotic centralised state in charge of public works, especially irrigation. And huge surplus was extracted, mainly through coercion of armed forces, from the peasantry to the state such that the vast majority were in the state of ‘general slavery’ while the monarch lived opulently.

Marx’s comments on the Asiatic model of production dealt mainly with India, and to a lesser extent with China. It was Karl Wittfogel who extended Marx’s impression to China solely and came up with the term: *Oriental Despotism*.²⁴⁰ It is interesting to note that Wittfogel employed Marx’s original formulation as a polemical indictment of the Soviet state, in which he had the experience to witness big dams and other public infrastructure during the Stalinist period, and he characterised it as a manifestation of totalitarianism akin to China’s ‘hydraulic civilisation.’ His study subject was on traditional China but what he had in mind was modern Soviet Russia. Because traditional China grew rice, he thought it must be a ‘hydraulic society’ with big public water projects controlled by a Soviet style-like state apparatus. This is bizarre, if not academically criminal. Despite these, he claimed boldly right at start: “... observers saw that Eastern absolutism was definitely more comprehensive and more

²⁴⁰ Karl August. Wittfogel, *Oriental Despotism: A Comparative Study of Total Power* (1957). 1st Vintage Books ed. (New York: Vintage Books, 1981)

oppressive than its Western counterpart. To them ‘Oriental’ despotism presented the harshest form of total power.”²⁴¹ Wittfogel goes on: “The classical economists particularly were impressed by the large water works maintained for purposes of irrigation and communication. And they noted that virtually everywhere in the Orient the government was the biggest landowner.”²⁴² In an entertaining way, Wittfogel indeed noticed there was no class struggle in Asian societies (as the later revisionist literature have solidly corrected the Marxian historical view), but he argued it was due to “Such attitudes precluded political mass action (class struggle) as a legitimate form of social protest... they rarely led to open and political mass action. The history of hydraulic society suggests that class struggle, far from being a chronic disease of all mankind, is the luxury of multicentered and open societies.”²⁴³ And he analysed when some promising groups finally managed to compete, the ‘despotic’ Oriental monarch was so powerful that “There the rise of propertied classes—artisans, merchants, and landowners—did not involve the rise of competing upper classes... They did not compete because they had no opportunity to engage in a substantial political struggle. Neither at the start nor later did these holders of independent small or large property succeed

²⁴¹ Following Professor Kent Deng and Professor Xinming He's high standards, direct citations are kept at a bare minimal, unless they are important. Here Wittfogel's quotes serve as a prime point of reference to be criticised and evaluated. These are first hand historical or textual evidence. All second-hand quotes on the same page of the same author more than twice are entirely avoided throughout this dissertation.

Wittfogel, *Oriental Despotism*, Introduction, p.1.

²⁴² Wittfogel, *Oriental Despotism*, Introduction, p.1.

²⁴³ Wittfogel, *Oriental Despotism*, pp.328-329.

in coordinating their forces into a national and politically effective rival organization.”²⁴⁴

The first immediate objection is that the much-cited Chinese projects for irrigation were a myth. Most (70 percent) of China’s main water-related public works aimed at transport and flood control.²⁴⁵ And premodern China’s irrigation was predominantly small-scale and arranged by the local village communities. Even so, by the 1930s, the ‘heavily irrigated’ pockets accounted for only 14.7 percent of all the acreage under irrigation or 7.5 percent of land in China proper.²⁴⁶ There has been no nationwide integrated irrigation system throughout China’s history, not until the ‘manoeuvring river water from the south to the north’ (*nanshui beidiao*) completed project after 2000. Marx and Wittfogel’s ‘hydraulic agriculture leading to a centralised state’ is therefore ungrounded. The fact that China’s irrigation systems had been highly localised instead of being centrally controlled would make China have a decentralised political system according to Marx’s own logic. The influential economic historian Eric Jones has commented on the same issue: “Remote from the conception of a colossus of hydraulic despotism envisaged by Wittfogel, most of the

²⁴⁴ Wittfogel, *Oriental Despotism*, pp.366-367.

²⁴⁵ Kent G. Deng, *Mapping China's Growth and Development in the Long Run, 221 BC to 2020* (Singapore: World Scientific, Imperial College Press, 2016)

²⁴⁶ Gang Deng, *The Premodern Chinese Economy: Structural Equilibrium and Capitalist Sterility* (Oxon; New York: Routledge Explorations in Economic History, 1999), p.104. Primary data base: Buck, J.L. (1937) *Chinese Farm Economy*, Nanking: The University of Nanking and the China Council of the Institute of Pacific Relations, p.137.

irrigation schemes were put in on a modest scale under the managerial supervision of local gentry, for peasant clients.”²⁴⁷

Second, there has been a general consensus in recent decades among China specialists that according to traditional China’s historical evolution the imperial state was a thin layer upon a vast population. Jones observes Chinese villages were self-policing.²⁴⁸ Feuerwerker comments that traditional Chinese state’s control of or influence over only a very low percentage of gross national product at the very least limited negative interference with the private sector was where the most remarkable Ming—Qing economy achievements originated.²⁴⁹ Rawski points out that the *fundamental* reason why China, the traditional global economic centre of gravity, had such a disappointing poor performance in modern history requires analysis not of foreign influence but of the small size Chinese state. China failed not because its state was too strong, but too weak.²⁵⁰ These recent decades’ proper classic Chinese studies find echoes in updated research. Johnson and Koyama, in their 2017 paper, argue against the literature tradition inspired by Montesquieu (1748), Marx (1853), and Wittfogel (1957) that attributes the failure of economic development in

²⁴⁷ Eric Jones, *The European Miracle: Environments, Economies and Geopolitics in the History of Europe and Asia* (Cambridge: Cambridge University Press, 1981), p.208.

²⁴⁸ Eric Jones, *The European Miracle* (1981), p.206.

²⁴⁹ Albert. Feuerwerker, "The State and the Economy in Late Imperial China," *Theory and Society* 13, no. 3 (1984): 297-326.

²⁵⁰ Thomas G. Rawski, *Economic Growth in Prewar China* (Berkeley: University of California Press, 1989)

Asia to despotic states that taxed excessively and made property rights insecure. China's imperial bureaucracy served more as a tax-auditing office than a tax-collecting agent, for reasons of a tiny bureaucracy relative to China's population.²⁵¹ The image of 'Asiatic model of production' that huge surplus from the population was coerced by the state's armed forces is again ungrounded. The premodern Chinese state was not only passive in collecting taxes, but also proactive in tax exemptions. Scholar Kent Deng through his careful reading of *the Comprehensive draft of Qing history (qing shigao)* demonstrates that from 1644 to 1819 the Chinese state filed 20 percent more relief reports than the actual number of disasters themselves, and the relief expenditure often amounted to several times the state annual tax extracted from recipient regions.²⁵² China's state was not almighty in despotism, but small in Confucian doctrines.

This ties to the third point that Chinese peasants in fact possessed secure property rights in land.²⁵³ The well-behaved benevolent Smithian imperial state was not from the incredible self-disciplinary morality, but due to the credible state-peasantry alliance (for a detailed novel game-theoretic discussion, see Appendix A). Wittfogel's 'open and political mass action as

²⁵¹ Noel D. Johnson and Mark Koyama, "States and economic growth: Capacity and constraints," *Explorations in Economic History* 64 (2017), pp.1-20.

²⁵² Kent Deng, *China's Political Economy in Modern Times: Changes and economic consequences, 1800—2000* (London: Routledge, 2012), p.21.

²⁵³ Pomeranz, *The Great Divergence* (2000)

a luxury' cannot be more wrong. In sharp contrast, the open mass peasant rebellions in world history were a *unique* Chinese phenomenon. Compared to other civilisations, the Chinese rebellions were massive, extensive, frequent, and long-lasting. A comprehensive survey on a global scale would first exclude those hunter-gatherer societies (primitive tribes) without settled agriculture. This leaves us with several main civilisations on the Euro-Asian continent: Europe, the pseudo-Europe Slavic civilisation (Russia), India, Middle East, Japan, and China. Notice Europe (Russia included) and Japan were feudalist, and the Middle East and India were ruled by religion, and India through the caste system in particular. Popular rebellions in theory were difficult in those societies, because peasant serfs were bondsmen to their lord masters in feudal Japan and Europe, and the bottom mass Shudras layer were discouraged in belief to overturn their superior Brahmins or Kshatriyas classes in India. And these also turned out to be the case in reality. Massive rebellions were rather rare in places except China. In Meiji Japan, the rural protesters in a major event amounted only to 3,00 to 10,000.²⁵⁴ During the 1773—4 Cossack rebellion in Russia, the rebels numbered between 15,000 and 42,000.²⁵⁵ The French rural revolts in 1637—41 had a peasant army of a mere 8,000 men.²⁵⁶ In

²⁵⁴ Bowen, R.W. (1980) *Rebellion and Democracy in Meiji Japan*, Berkeley: University of California Press, p.16, p.30, p.50.

²⁵⁵ Landsberger, H.A. (ed.) (1974) *Rural Protest: Peasant Movements and Social Change*, London: Macmillan, p.231, p.245.

²⁵⁶ Bercé, Y.-M. (1990) *History of Peasant Revolts: The Social Origins of Rebellion in Early Modern France*, Cambridge: Polity Press, p.114, p.322.

England, the number involved in the 1381 peasant rebellion is more impressive, between 20,000 and 100,000.²⁵⁷ They were however dwarfed by the Chinese. In a major incident the Chinese rebels easily numbered several hundred thousand, sometimes several million. In terms of the violent conflict directly at the government, the closest case in Europe was the Russian 1773—4 ‘Great Cossack Peasant Uprising’ against the troops of the tsar. Yet this was anecdotal throughout their history, but a *recurring* phenomenon throughout Chinese history since 221 B.C. More importantly, in no single case in Europe, Japan, or India did peasant rebels succeed in replacing a regime. In Europe and Japan, most ‘rebellions’ from peasant serfs were at best a form of petition to inform the lords about their grievances. In premodern China, however, under Confucian legitimate ruling principles—the land under heaven was governed by the righteous (*tianxiazhida weiyoudezhejuzhi*)—peasant uprisings were encouraged to fulfil the heavenly mandate (*titian xingdao*) if the old regime lost its ‘right to rule’ due to poor governance.

The mass popular uprisings by Chinese peasantry were a manifestation of the enormous political and economic power this class possessed, a result of the prevailing private landholding and landowning and the sheer number of peasants in society as producers, traders, soldiers, tax-payers, and

²⁵⁷ Dobson, R.B. (1983) *The Peasants' Revolts of 1381*, London: Macmillan, p.160, p.244, p.263, p.381.

bureaucrats. Marx was hence also wrong about ‘the lack of private property rights.’ Despite the *de jure* emperor’s proclamation that ‘every inch of land under heaven is mine’ (*putianzhixia mofeiwangtu*), Chinese emperors since Qin’s abolishment of Zhou (1046—256 B.C.)’s ‘chessboard fields system’ (*jingtian zhi*) never possessed the *de facto* power to own the territory. The state-peasantry alliance in fact prompted the domination of Confucianism in Han and physiocratic policies, and they became the state’s entrenched path-dependency priority from then onwards. Pomeranz lists an interesting facts comparison: the primogeniture inheritance pattern and the feudalist legacy in England made 50 percent of its all land even in the 19th century was covered by unsaleable settlements.²⁵⁸ Whereas the Chinese Crown itself had an estate of about 700,000 acres in Qing times. But even on paper, all such land never amounted to more than 3,500,000 acres, or perhaps 3 percent of total arable.²⁵⁹ Yet even this land left came to be treated as private property anyway, with hereditary tenants selling or mortgaging it and protesting indignantly when the government later tried to make them pay to formally remove it from state ownership.²⁶⁰

Wittfogel was not only wrong about ‘there was no political mass action in China’, but also on the ascribe of lack of class struggle to state oppression

²⁵⁸ Pomeranz, *The Great Divergence* (2000), p.73.

²⁵⁹ Pomeranz, *The Great Divergence* (2000), p.71.

²⁶⁰ Pomeranz, *The Great Divergence* (2000), p.71.

from above. He failed to notice the fact it was in fact the grassroots vast peasantry public who were the dominant power in oppressing the centrifugal tendencies and perpetuating the state-peasantry alliance. Officialdom and farming functioned like two magnetic poles constantly attracting the merchant class through the peaceful process of integrative social mobility. Individual merchants' ultimate goal was still to purchase land to become the peasantry, so as to join the official club in future. As Joseph Needham puts it: "Wealth as such was not wisdom, and in China affluence carried comparatively little prestige. The ideal of every merchant's son was to become a scholar, to enter the imperial examination and to rise high in the bureaucracy."²⁶¹

China's model of production also hardly matched Marx's prehistoric times stagnation portrayal. The three great inventions that Francis Bacon specified all originated in China. Han China used iron steel already, while Europe still used wooden plough at that time. China's Song era exemplified the world's first intensive economic revolution. Structural change, mercantilism, technological progress, credit and money facilities, as well as iron production all soared. China's Ming—Qing period continued the Smithian market expansion. The regional specialisation pattern newly incorporated Northern regions and turned the Lower Yangzi delta from

²⁶¹ Needham, J. (1969) *The Grand Titration*, London: Allen and Unwin, p.202.

previous rice farming region into the centre of cotton farming and handicraft workshops. Trade flourished and networks were dense. The 1,794 km-long Grand Canal was the oldest man-made waterway in the world that helped integrate China's national economy together. Chinese market in essence is neatly captured by prestigious scholar Kent G. Deng: "petty production at the household level and great circulation of commodities in the economy" (*xiaoshengchan daliutong*).²⁶² In short, Marx's 'Asiatic model of production' and its corresponding Wittfogel's *Oriental Despotism* refinement have to go.

2.1.6 *The developmental-stages models*²⁶³

Karl Marx classifies history into five stages of development: (1) primitive communism, (2) slavery society, (3) feudalism, (4) capitalism, and a stage he attached a teleological end to, (5) communism. Later, Walt Rostow overturned Marx's ideological view of human history and came up with his own developmental stages: (1) the traditional society, (2) the preconditions for take-off, (3) the take-off, (4) the drive to maturity, and (5) the age of high mass-consumption.²⁶⁴ What Marx and Rostow have in common is the

²⁶² Gang Deng, *The Premodern Chinese Economy: Structural Equilibrium and Capitalist Sterility* (Oxon; New York: Routledge Explorations in Economic History, 1999), p.84.

²⁶³ This part benefits from Professor Kent Deng's helpful suggestions during the viva that the author should include Marx's and the corresponding variant Rostow's stages of development in the Reviews section.

²⁶⁴ W. W. Rostow, *The stages of economic growth: a non-Communist manifesto* (Cambridge: Cambridge University Press, 1960)

viewpoint that there is a unilinear pattern dictating economic development everywhere in the world. Marx and Engels explicitly said in the Communist Manifesto that "... consequently the whole history of mankind (since the dissolution of primitive tribal society, holding land in common ownership) has been a history of class struggles, contests between exploiting and exploited, ruling and oppressed classes..."²⁶⁵ Rostow in his non-Communist Manifesto claimed in a similar tone: "It is possible to identify all societies, in their economic dimensions, as lying within one of five categories..."²⁶⁶

Unfortunately, such a universal unilinear pattern conjecture did not fit world regions' development in historical reality. China has not had a history of slavery since prehistoric times.²⁶⁷ The 'chessboard' system under the Zhou period also did not produce mass peasant-serfs commoners as Western society did, which made it at best be termed as 'semi-feudal'. China consequently has not had feudalism as a dominant system in the past three thousand years. China's two millennia old private property rights since 221 B.C. Qin empire had also not put it into the capitalism stage which Douglass North characterised as the private property rights

²⁶⁵ Karl Marx and Frederick Engels (1848/1998), *The Communist Manifesto* (London: Verso)

²⁶⁶ W. W. Rostow, *The stages of economic growth: a non-Communist manifesto* (Cambridge: Cambridge University Press, 1960), Chapter 2. The five stages-of-growth-a summary

²⁶⁷ HUANG Xianfan, *Chinese history has no slavery society—by-assessing the ancient slaves and socio-structure in other parts' world history* (Guangxi Normal University Press, 2015). 《中国历史没有奴隶社会—兼论世界古代奴及其社会形态》，史学大家黄现璠遗著（广西师范大学出版社，2015年出版）

establishment that destroyed the feudal fetters.²⁶⁸ Instead, China was entrenched into the path of agrarian economy development. Similarly, Rostow's hypothesis is unable to accommodate a traditional economy like China with extensive and vibrant trade activities that acted against Rostow's primitive traditional society stage with limited productivity and market exchange. Consumption, at a mass level, is also not a luxury enjoyed by Rostow's teleological end stage exemplified by USA during the Cold War. Bray observes in Sung and Ming China, "compared with medieval or early modern Europe consumer goods were plentiful, some of extremely high quality, but most designed for popular consumption."²⁶⁹ Traditional China consequently had institutions and market intensities more like early modern Western Europe while put its feet stamp on the precapitalist agrarian economy. Moreover, Marx and Rostow's unilinear stages of development treated development as a one-way direction flow process where individual societies flourished from one stage to another until they are perfected in the final stage. Economic growth in real world history however was a *recurring* phenomenon. Most promising societies including China, Europe, and Japan were constantly checked and frustrated, and often travelled another *circle* back to have another try, and very few

²⁶⁸ Douglass C. North and Robert Paul Thomas, *The Rise of the Western World: A New Economic History* (Cambridge: Cambridge University Press, 1973)

²⁶⁹ Joseph Needham and Francesca Bray, *Science and Civilization in China. Volume 6, Biology and Biological Technology. Part 2, Agriculture* (Cambridge: Cambridge University Press, 1984), p.612.

eventually broke through.²⁷⁰

2.1.7 *The 'high-level equilibrium trap'*

Mark Elvin tries to use a Malthusian argument to explain China's later 'decline'. He argues that Chinese family's obsession with male heirs to extend the family lineage encouraged early marriage despite deteriorating economic conditions, leading to a rapid expansion of population.²⁷¹ The expansion of cultivated land cannot catch up with the rate of population expansion. This resulted in unfavourable man-to-land ratio. Population increasingly became subsistent. Less agricultural surplus per capita shifted demand from higher value-added non-agricultural goods to agricultural goods. This populous 'high-level equilibrium' trapped China into stagnation for further technological change.

Yet throughout premodern China's history, its population experienced only two growth spurts: in Song and Qing periods. Population in the rest of the time of the total lifespan of the Chinese empire (2,132 years, 221 B.C.—1911) remained relatively stable or regressed downward during interjacent chaotic war times. During the first population growth spurt in Song,

²⁷⁰ Eric L. Jones, *Growth Recurring: Economic Change in World History* (Economics, Cognition, and Society. Ann Arbor: University of Michigan Press, 2000); Eric Jones, *The European Miracle: Environments, Economies and Geopolitics in the History of Europe and Asia* (Cambridge: Cambridge University Press, 1981)

²⁷¹ Mark Elvin (1973) *The Pattern of the Chinese Past*, Stanford: Stanford University Press.

China's population level jumped from 50 to 120 million.²⁷² And Song China was simultaneously a period of *intensive* economic growth (a rise in income per capita) recognised by most China specialists or leading economic historians, including Mark Elvin himself.²⁷³ Over the same period Song's territory shrank by a half owing to northern invasions, and its population doubled after shifting southward with the popular convert to wet-paddy rice farming.²⁷⁴ It is no doubt that Song China was heavily populated, with one of the most intensive economic growth in Chinese and world history. China's subsequent Ming—Qing evolution, and with the incorporation of fertile Manchuria in the Qing period in particular, hardly made Elvin's 'high-level equilibrium trap' due to running out of land reasonable. The *fact* is throughout imperial China's 2,132 years of history the territory consisted of a stable core and *moving* frontiers. For example, China's territory frontiers expanded in the north, northeast, northwest, and southwest directions in the Tang, Song, and Qing dynasties. This means the

²⁷² Kent Deng, 'Unveiling China's True Population Statistics for the Pre-Modern Era with Official Census Data', *Population Review* 43/2 (2004), Appendix 3.

²⁷³ Joseph Needham, *The Grand Titration* (Toronto: University of Toronto Press, 1969); Mark Elvin (1973) *The Pattern of the Chinese Past*, Stanford: Stanford University Press; Eric Jones, *The European Miracle* (1981); Angus Maddison, *Chinese Economic Performance in the Long Run* (2007); John M. Hobson, *The Eastern Origins of Western Civilization* (Cambridge: Cambridge University Press, 2004); Kent G. Deng, *Mapping China's Growth and Development in the Long Run, 221 BC to 2020* (2016). This fact was also acknowledged by prominent Eurocentric scholars. See, for instance, Joel Mokyr, *The Lever of Riches: Technological Creativity and Economic Progress* (New York: Oxford University Press, 1990); David S. Landes, *The Wealth and Poverty of Nations* (London: Little, Brown, 1998). Interestingly, the more important point is that compared with periods before and long after, and compared with other parts of the world, descriptions of the Song economy was very productive indeed. The clearest synthesis of work on the subject proves not to be by a China specialist at all, but by the influential world historian W. H. McNeill in his classic study *The Pursuit of Power* (Oxford: Blackwell, 1982) setting up China as a peaceful prosperous counterfactual against European imperialism violence.

²⁷⁴ Maddison, *Chinese Economic Performance in the Long Run* (2007), p.23. For evaluation of Maddison's GDP per capita data *conjecture*, see Data section.

land supply was *elastic* until as late as the Qing dynasty. Consequently the per capita acreage after Song until the mid-17th century was in fact *higher* than that at the end of 11th century. If Song is considered as a period of high-tide intensive growth in Chinese history, then there is no reason to believe China's Ming—Qing period until mid-17th century was stuck in high-level populated equilibrium trap.

Mark Elvin's thesis is in fact a variant Malthusian argument that is lenient to premodern China's growth. Elvin does not suggest China was caught in a Malthusian crisis; in fact, he insists that continuous technological change in late imperial China was a stabilising factor allowing the Chinese to cope with population pressure.²⁷⁵ What he is suggesting is traditional China's later population ran into a high-level equilibrium that took China's energy away from intensive growth. His predecessor, Thomas Malthus in 1798, was far harsher: "*Best criterion of a permanent increase of population – Great frugality of living of one of the causes of the famines of China... - Famine, the last and most dreadful mode by which nature represses a redundant population*".²⁷⁶ This Malthusian impression is one of the most frequently used Eurocentric arguments to explain China's past from then on.

²⁷⁵ Mark Elvin (1975) 'Skills and Resources in Late Traditional China', in D.H. Perkins (ed.) *China's Modern Economy in Historical Perspective*, Stanford: Stanford University Press, pp. 85-113.

²⁷⁶ Thomas R. Malthus, *An Essay on the Principle of Population* (1798, Printed for J. Johnson, in St. Paul's Church-Yard), Chapter 7, p.36.

Malthus argues food production increases arithmetically, while human production increases exponentially. At some point food crisis is inevitable. Any technological gain in human history unfortunately would be directly ‘consumed’ by population growth, leaving living standards per person unchanged. For Malthus, human history had been in constant subsistence crisis; and the only way to navigate out of this scenario is through lower population, by self-regulating fertility control. Malthus thought Europe at that time was more on the ‘preventive check’ side, and the Far East—China—was the best example of uncontrollable population growth leaving them “the redundant population... must be repressed by occasional famines”; “China seems to answer to this description... the lower classes of people are in the habit of living almost upon the smallest possible quantity of food and are glad to get any putrid offals that European labourers would rather starve than eat.”²⁷⁷

The immediate problem of Malthus’s argument, even leaving his logic aside, is it suffers from identification issues that became self-contradictory with reality. For one thing, how would one interpret population growth? According to Malthus’s own logic, human beings had been in constant state of struggle for living, and any anecdotal promising technological change

²⁷⁷ Thomas R. Malthus, *An Essay on the Principle of Population* (1798, Printed for J. Johnson, in St. Paul’s Church-Yard), p.19, p.41.

would only push up the population level, restoring back to the state of subsistence. If so, then population growth should be a luxury for human history that constantly suffered from Malthusian subsistence crisis. And population growth *signalled* the fact that at least in the transitional state this region's people had been living relatively better off that could afford them a population expansion. Conversely, the region that was in constant rigid level of population may well be the fact that it was suffering from subsistence crisis instead of falling to the 'preventive check' category. Campbell et al., in their detailed population and living conditions comparative study, exactly point out this common fallacy that scholars typically take Malthus's passive check portrayal of China for granted in their interpretations of China's population.²⁷⁸ 18th and 19th centuries Chinese population are often studied (Chao 1986; Huang 1990; Elvin 1973) under the assumption of overpopulation and a 'high-pressure' regime to start with, and the conclusion simply ends with 'overpopulation' remarks with 'supporting' evidences such as famines, wars, and epidemics (that in fact also existed in the West).²⁷⁹

Making use of robust population register communities data assembled for

²⁷⁸ Cameron Campbell, Tommy Bengtsson, James Z. Lee, et al., *Life under Pressure: Mortality and Living Standards in Europe and Asia, 1700—1900* (London: The MIT Press, 2004), chapter 3.

²⁷⁹ Chao, Kang (1986) *Man and Land in Chinese History: An Economic Analysis*, Stanford: Stanford University; Huang, P.C.C. (1990) *The Peasant Family and Rural Development in the Yangzi Delta, 1350—1988*, Stanford: Stanford University Press; Mark Elvin (1973) *The Pattern of the Chinese Past*, Stanford: Stanford University Press.

locations in five different regions of Eurasia—eastern Belgium, north-eastern China, northern Italy, north-eastern Japan, and southern Sweden—spanning two continents, two to three centuries 1700—1900 (notice this was China’s *Qing* dynasty, the frequent episode attacked by Eurocentric scholars for its most backward decline), and five countries, Campbell et al. strikingly reveal that a 10% increase in food prices contributed to 14% to 18% death rate even in certain regions of advanced Western Europe, while 10% increase in food prices contributed to 0.8% to 1% death rate in their sample of China: Liaodong region.²⁸⁰ Notice this was *not* the wealthiest Yangzi Delta or the capital Peking that comparative studies typically refer to, hence one should be relatively confident that this could be China’s common phenomenon. They hence conclude that “At least in the short term, mortality response to price increases were much more pronounced in our Western communities than our Eastern ones.”²⁸¹ The ‘high pressure regime’ should instead be the West, not the East.

The prominent reason for these divergent performances is imperial Chinese state’s proto-welfare practices. Active government set up granary systems across the empire, which were also maintained by communitarian family and village ties that ensured social insurance solidarity. Campbell et al.

²⁸⁰ Cameron Campbell, Tommy Bengtsson, James Z. Lee, et al., *Life under Pressure: Mortality and Living Standards in Europe and Asia, 1700—1900* (London: The MIT Press, 2004), the author checked their data base and construction, pp.10-20, their results findings are from pp.61-84.

²⁸¹ Campbell et al., *Life under Pressure*, p.70.

argue these were missing in medieval and early modern Europe, more of ‘survival of the fittest’ and individualistic mentality.²⁸² The first public granary was not set up in London until 1440, while China’s granary appeared as early as c.200 A.D. For England’s history as a whole, there was no real centralisation of storage facilities or networks. China, on the other hand, had state-controlled storage policies and facilities for essentially the whole period of c.800—c.1800.²⁸³ There is hence no wonder that Western Europe’s significant death rates were selective in socio-economic status and concentrated in the lower stratum.²⁸⁴ It was not until the 16th century that England, rather late compared with China, introduced a body of state policies (though limited in scale) to address the poor’s grievances. Even so, in an ironic scenario, Malthus wrote his *Theory of Population* precisely to protest against the English Poor Law: “*Evil tendency of... Mr Pitt’s Poor Bill*”.²⁸⁵

One may argue instead that the European phenomenon was the ‘natural’ state of affairs while Chinese scenario was an artificial creation by the government (which implies merely postponing an ever-greater famine in future), and this leads to one’s assessment on Malthus’s logic of analysis.

²⁸² Campbell et al., *Life under Pressure*

²⁸³ Plerre-Etienne Will and R. Bin Wong, *Nourish the People: The State Civilian Granary System in China, 1650—1850* (Center for Chinese Studies, The University of Michigan, 1991)

²⁸⁴ Campbell et al., *Life under Pressure*, pp.61-84.

²⁸⁵ Thomas R. Malthus, *An Essay on the Principle of Population* (1798, Printed for J. Johnson, in St. Paul’s Church-Yard), Chapter 7.

Malthus merely treats demography as a dependent variable from technological change, agricultural conditions, etc. Boserup argues Malthus got the direction of causality wrong. Population growth should be regarded as an independent variable which is in turn a major factor determining development.²⁸⁶ Pomeranz in his introduction stated that “population density will turn out to be extremely important” in assessing the most developed regions to be included in the ‘Great Divergence’ tier because for elaborate specialisation to be developed “there is ultimately no substitute for having many people within an affordable physical and cultural distance.”²⁸⁷ Bray, in a Boserupian manner, argues before the Industrial Revolution China could be considered technically and economically in advance of Europe. It was only in densely populated areas that commercialisation networks, transport facilities, access to labour, and manufactures were feasible at the time. Changes in the Yangzi Delta from early medieval periods to Song, Ming, and Qing show clearly how density of population and economic advance may go hand in hand.²⁸⁸ This Boserupian logic of analysis *also* applied to Europe. It was economic historian Franklin Mendels who first came up with the term ‘proto-industry’ in 1972. He argued ‘proto-industrialisation’ was an important cause of factory industrialisation and hence the whole transition to capitalism.

²⁸⁶ Boserup, E. (1965) *The Conditions of Agricultural Growth*, London: Allen and Unwin.

²⁸⁷ Pomeranz, *the Great Divergence* (2000), pp.26-27.

²⁸⁸ Bray, *the Rice Economies* (1986), Chapter 4.

Proto-industrialisation was marked by market-oriented rural industries and accompanied by changes in the spatial organisation of the rural economy that paved the way for the later factory industrialisation.²⁸⁹ And these were all due to the *fertility driven population explosion* in Europe's late medieval and early modern episodes that generated more rural industry, sectoral specialisation, market links, and surplus labour required.²⁹⁰ Though traditional China failed to enter the industrial stage, its extraordinary population growth in Song and Qing periods should hence be viewed as a *growth* phenomenon.

2.1.8 *The Solow growth model*²⁹¹

The Solow model starts off with a neoclassical aggregate production function that assumes constant returns to scale (such that diminishing marginal returns with respect to individual input) and treats technology as

²⁸⁹ Franklin F. Mendels, "Proto-Industrialization: The First Phase of the Industrialization Process," *The Journal of Economic History*, Vol. 32, No. 1, The Tasks of Economic History (Mar., 1972), pp.241-261.

²⁹⁰ Franklin F. Mendels, "Proto-Industrialization: The First Phase of the Industrialization Process"

²⁹¹ This part benefits from Professor Kent Deng and Professor Xinming He's helpful suggestions during the viva. The original Solow-related materials are an individual Chapter 4. Both examiners have said it is too long. Another problem is why Chapter 4 is still a review of literature which makes the original script have supra-long reviews that risk losing the focus on China. All review chapters are therefore trimmed to Chapter 2 and all irrelevant materials cleansed to maintain a full China focus. For Chapter 2, all theories and other perspectives are also directly targeted at China. Professor Kent Deng also provided his valuable side-note comments on the original script that Solow model's derivations are not needed. Just a short summary is enough. Putting the rest either in a footnote or an appendix. The joint-examiners' report also states please avoid 'copy and paste' from textbooks. The author therefore decides to cut the Solow model into a short summary and maintain a critical analysis right at start, and not set up another appendix to show Solow's derivations because these are all available in any college-level textbook. Only the best parts are included in this thesis and appendices. Again, the accomplishment of this high-quality research owes great debt to the two prestigious examiners' precious guidance.

an exogenous factor:

- The fundamental differential equation without technology:

$$\hat{k} = sf(k) - (\delta + n)k$$

where $\hat{k} = K_{t+1}/L - K_t/L$ is the change of capital input per worker, and $sf(k) = sy = sY_t/L$ is saving/investment per worker. $\delta k = \delta K_t/L$ is the investment needed per worker to counterbalance the depreciation so as to keep the capital—labour ratio constant. n is the rate of population growth.

- There exists a steady-state equilibrium level k^* such that:

$$sf(k^*) = (\delta + n)k^*$$

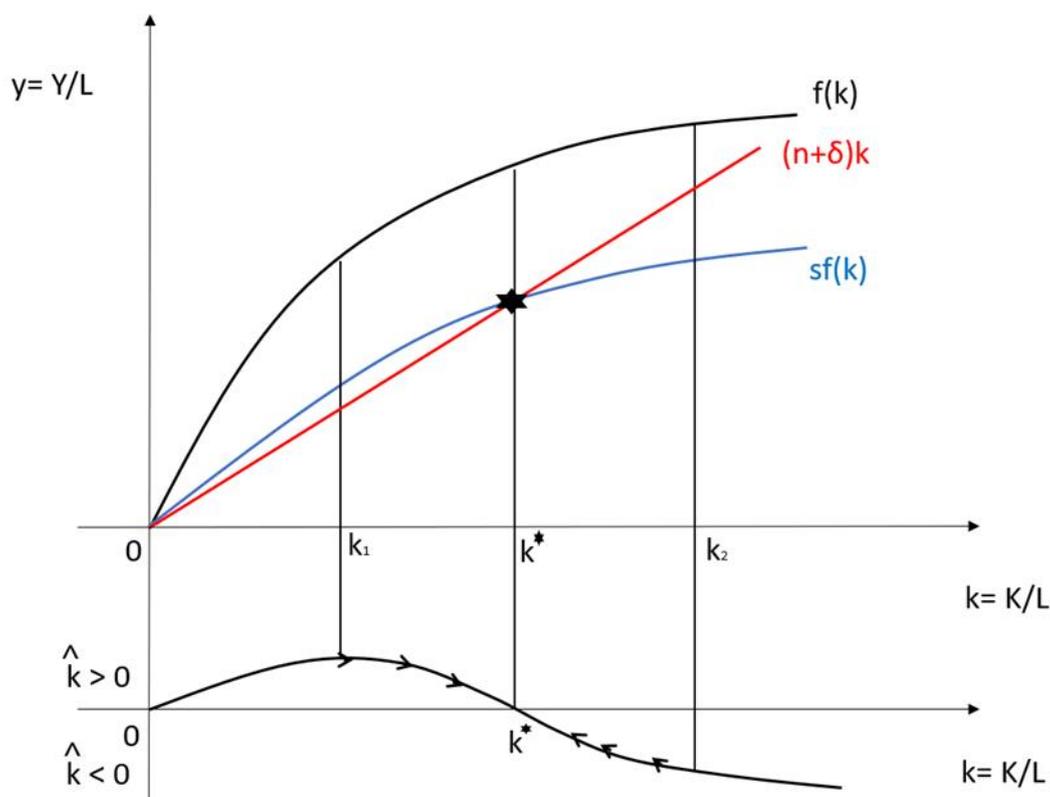


Figure 3 The Solow growth model

Notice one implication in the Solow model is that an increase in the savings ratio cannot permanently increase the long-run rate of economic growth. A higher savings ratio will temporarily increase the growth rate and permanently increase the level of output per worker. This is the level effect.

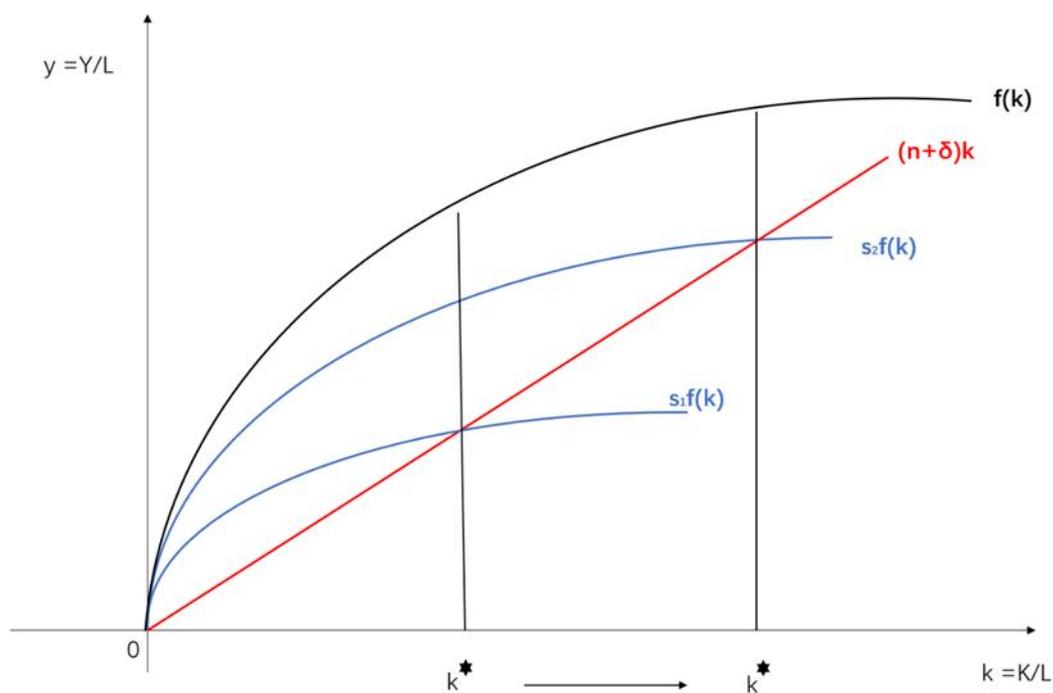


Figure 4 An increase in saving rate moves the economy to a new steady-state level

In order to have a sustained continuous increase in output per worker, bring in the assumption so far that has been left out: technological progress, A_t .

The neoclassical production function in its Cobb-Douglas form:

$$Y = A_t K^\alpha L^{1-\alpha}$$

where α and $1-\alpha$ are weights reflecting the share of capital and labour in the national income. Assuming constant returns to scale, output per worker

is not affected by the scale of output, and for a given technology A_{t0} , output per worker is positively related to the capital—labour ratio (K/L , capital accumulation) but at diminishing returns. Rewrite the production function in terms of output per worker:

$$Y/L = A_{t0}K^\alpha L^{1-\alpha}/L = A_{t0}\left(\frac{K}{L}\right)^\alpha$$

Hence, $y = A_{t0}k^\alpha$

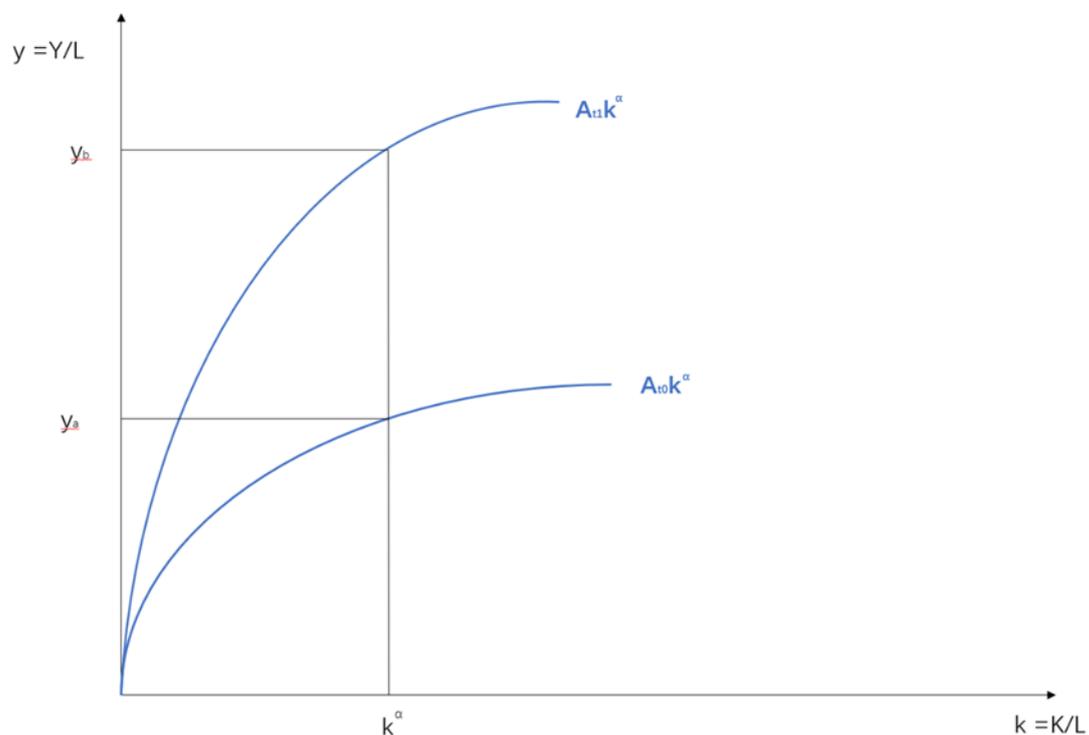


Figure 5 Technological progress in Solow model

Continuous upward shifts of the production function, caused by an exogenously determined growth of knowledge, provide the only mechanism for long run steady-state economic growth in the neoclassical model. The Solow model makes several important implications about the growth process:

- 1) In the long run an economy will gradually approach a steady-state equilibrium with y^* and k^* independent of initial conditions. The Solow model hence has convergence properties. If countries are similar with respect to structural parameters, then poor countries tend to grow faster than rich countries and converge towards them in the long run.
- 2) In the steady-state equilibrium, the rate of growth of output per worker depends solely on the rate of technological progress.
- 3) The impact of an increase in the savings/investment rate on the growth of output per worker is temporary. A higher rate of saving, or more capital accumulation, has no effect on the long-run sustainable rate of growth. Hence the Solow model emphasises the need for balanced growth that does not exclude present consumption.

An immediate problem is for the two decades after the ‘Golden Age’ of European growth the world witnessed divergence rather than convergence. This scenario emerged along with drastic ‘improvements’ in economic policies according to mainstream thinking—big rises in trade and investment to GDP, developing countries’ governments shifted away from state planning towards markets-friendly policies, away from import-substitution towards free trade, away from state setting-prices ‘wrong’ towards market liberalisation setting-prices ‘right’—that should have increased a developing country’s growth. The developing world’s median

per capita growth instead fell from 2.5 percent in 1960—79 to 0.0 percent in 1980—1999.²⁹² So much so that Easterly terms it ‘the lost decades.’ Mainstream neoclassical economists then modified the Solow model so that it no longer predicts ‘convergence’. Paul Romer, for instance, brings technology A directly into the production function:

$$Y = F(K, L, A)$$

Technology now appears as an ‘endogenous’ input into the model so that it is called ‘endogenous’ growth model as opposed to Solow’s ‘exogenous’ growth model. In the original Solow model ‘convergence’ properties are based on diminishing marginal returns to capital input, and ‘knowledge’—the long run TFP that is assumed away from the model building—is a public good for all. Now Romer brings this into the model so that it no longer becomes a public good but is specific to one particular economy. A is the expansion of aggregate knowledge that results from learning externalities among firms. So, while a firm’s production function still exhibits constant returns to scale and diminishing returns to capital accumulation, the aggregate production function will exhibit increasing returns to scale.

²⁹² William Easterly, “The Lost Decades: Developing Countries’ Stagnation in Spite of Policy Reform, 1980—1998,” *Journal of Economic Growth*, Jun., 2001, Vol. 6, No.2, pp.135-157. William Easterly’s data is his own correction of the *World Development Report* of the World Bank that tends to treat average as 0 with the significant growth from China. Easterly uses the median proxy as 0, meaning a significant number of developing world experienced negative growth during the last two decades of the twentieth century. Maddison’s *The World Economy: A Millennial Perspective* (Paris: OECD, Development Centre Studies, 2001) corroborates Easterly’s results, despite his millennia *conjecture* comparison is largely ungrounded. But his data *recordings* for the last century are largely accurate.

One may wonder what is the substantial contribution of the ‘endogenous’ growth model to the ‘exogenous’ Solow framework? By incorporating the factor that is previously excluded to establish the framework and then to explain the factor using the framework, it cannot avoid losing both the insights established from before and the emptiness of the ‘endogenous’ technology/knowledge factor apart from the fact it now formalistically sits in the equation. Even Solow himself criticises: “that sort of stuff went nowhere and added no real insights”.²⁹³ And Nicholas Kaldor criticises Solow on the fact that it is no good starting off a model with the kind of abstraction which initially excludes the influence of forces that are mainly responsible for the behaviour of the economic variables under investigation; and when finding results contrary to the theory, attributing this to the factors that have been assumed away to start with.²⁹⁴

This leads to the second critique: technical progress is *embodied* in capital accumulation. It is difficult to disentangle the change due to the movement along the curve from the change due to the shift of the curve in real scenario of two different positions at two different points of time. The neoclassical production function possesses a ‘Hicks-neutral’ assumption that the slope

²⁹³ Robert Solow’s interview in Brian Snowdon and Howard R. Vane, *Modern Macroeconomics: Its Origins, Development and Current State* (Cheltenham, UK: Edward Elgar, 2005), p.669.

²⁹⁴ Nicholas Kaldor, “Chapter 10. Capital Accumulation and Economic Growth,” in *The Theory of Capital*, edited by D.C. Hague (international economic association conference volumes No.8, 1961)

of functions remains unchanged along any radius from the origin. This makes the whole set-up a circular argument pitfall since an assumption of constant rate of profit to be consistent with a constant rate of growth, and a constant relationship between capital and output is necessary to determine the slope of the production function, and then any change cannot be explained by the movement setup is then attributed to the shift of the curve.²⁹⁵ Instead, production output and productivity change in factor inputs should be a mutually reinforcing two-way causal process. This cumulative causation generates *dynamic increasing returns* that could explain increasing inequalities between the developed and developing world, a fact excluded in Robert Solow's steady-state equilibrium.

These direct one's evaluations to Solow model's final implication that advocates 'balanced growth'. It is important to be clear that this thesis does not argue against 'balanced growth', but it is even more worthy to first drill upon the meaning of 'balanced' before any useful discussions could proceed. Solow's static treating of 'balanced' has misunderstood the very concept of 'growth'. The underlying assumption of optimal growth in equilibrium is troubling. Solow model's assumption for simplicity that the economy consists of one sector producing one type of commodity that can be used for either investment or consumption purposes does not fit the real

²⁹⁵ Kaldor, "Chapter 10. Capital Accumulation and Economic Growth"

multi-sector, multi-product economy that is never actually in equilibrium. Solow may respond that there is no problem to change his aggregate one-sector model into multi-sector ones, but it is unnecessary to do so.²⁹⁶ The logic of each sector remains the same. It does not matter for an economy to specialise in the production of computer chips or potato chips, what is important is the comparative advantage. Not just one sector, but each sector in the general economy also simultaneously engages in the steady-state optimal equilibrium path and generates dynamic comparative advantage shifts. Multi-sectoral structure shifts as a whole are then catalysed from respective optimum equilibrium.

This defence however has misapprehended ‘structural change’ in multi-sectoral approach. An economy has different sectors, and different sectors grow at different speeds. Economic development comes from the dynamics of different sectors’ inter-dependence. A multi-sectoral approach focuses on the composition of the economy. Equilibrium almost never happens, because equilibrium—an essentially ontological static view—is in fact *freezing* the dynamics of this composition change. In Robert Solow’s framework continuous growth can only be thought of as a steady state, where everything grows in exact proportion. This is wrong when tested with an illuminating example. China is frequently attacked on grounds of

²⁹⁶ Robert M. Solow, “A Contribution to the Theory of Economic Growth,” *Quarterly Journal of Economics*, 1956, pp.65-66.

Solow-like arguments that it sacrifices present consumption for overinvestment. According to official statistics, both domestic and abroad, consumption makes up only 48% of China's GDP, while the United States is at 88% and the European Union at above 80%.²⁹⁷ China's consumption ratio is also much lower than India's official stats that puts household consumption at 57%, with 52.4% of informal economy (mainly service and production by-employments sectors for self-consumption and self-employment purposes) non-counted that should have pushed up the consumption ratio higher to 71.7%.²⁹⁸ China's real consumption, however, due to its much faster economic growth rate, grew at 8.6% from 1999 to 2010, while India saw its consumption grow at an average annual rate of 5.8% in the same period.²⁹⁹ Consequently China's global consumption share has surpassed India's, and Chinese consumer spending represented 31% of global household consumption growth from 2010 to 2017.³⁰⁰

²⁹⁷ Jun ZHANG and Tian ZHU, "Poor Economic Statistics Fuel China's Low Consumption Myth," *World Economics* Vol. 14, No.2, April-June 2013. The author checked their primary data base: *China Statistical Yearbook* and IMF reports.

²⁹⁸ India's official stats of 57% consumption to GDP ratio is from India's national newspaper: <https://www.thehindu.com/business/Economy>; India's large informal economy size is from Murthy, S.V.R (2019). *Measuring Informal Economy in India*. Washington, DC: International Monetary Fund, and Hassan, M. and F. Scheider (2016). *Size and development of the shadow economies of 157 worldwide countries: updated and new measures from 1999 to 2013*. *Journal of Global Economics* 4, 3. A simple rederivation of India economy's approximate real consumption to GDP is calculated as: $(0.57+0.524)/(1+0.524)=0.71784$ Due to the previous socialist nature and the persistent *hukou* segregation, China's informal economy size is at a similar level as a developed country, drastically lower than the common developing world.

²⁹⁹ Jun ZHANG and Tian ZHU, "Poor Economic Statistics Fuel China's Low Consumption Myth," p.14. Primary data base: *China Statistical Yearbook* and IMF world economy reports.

³⁰⁰ Johnny Ho, Felix Poh, Jia Zhou, Daniel Zipser, *China consumer report 2020* (Mckinsey & Company). Mckinsey & Company is the world's leading consultancy firm, established in 1926, USA. It currently has over 80 affiliations companies over more than 40 countries around the world. The author checked their data sources. This 2020 report not only draws on *China Statistical Yearbook* and other Chinese official stats from China Customs house, etc., World Bank and IMF reports, but also conducted a nationwide China Consumer Survey from May to July 2019. The survey sample included 5,400 respondents from 44 cities.

Paradoxically, China's comparatively low consumption rate is precisely the reason that the growth of China's consumption has been so high (and consequently a higher consumption level). Growth is about dynamic change, not static balance.

2.2 Themes

2.2.1 *Institution*

'Institution' is probably the mostly well-heard word in the whole social science field that is simultaneously a Eurocentric self-image construction between the 'good' and 'bad' mentality. Its connotation is 'good institutions generate economic growth', which means Western democracies and liberty values in essence. From the old English classical liberals such as John Locke's 'natural rights of life, liberty, and property' and 'minimalist night-watchman state',³⁰¹ John Stuart Mill's "The worth of a State, in the long run, is the worth of the individuals composing it... a State which dwarfs its men, in order that they may be more docile instruments in its hands even for beneficial purposes—will find that with small men no great thing can really be accomplished",³⁰² and Adam Smith's 'natural progress of

³⁰¹ John Locke, *Two Treatises of Government*. Edited by Peter Laslett. (Cambridge Texts in the History of Political Thought: Cambridge University Press, 1988)

³⁰² John Stuart Mill, *Utilitarianism and On Liberty, Including Mill's 'Essay on Bentham' and selections from the writings of Jeremy Bentham and John Austin*. Second Edition. Edited with an Introduction by Mary Warnock. (Oxford: Blackwell Publishing, 2003), p.180.

opulence' through peace, easy taxes, and 'invisible hand',³⁰³ to the present-day public choice theory that treats government as a collection of self-interested politicians and puts the research question as "the solution to a principal-agent problem between citizens and government",³⁰⁴ the real world history is turned, in Eric Wolf's words, "in to a moral success story... a tale about the furtherance of virtue, about how the virtuous [i.e. the West] win out over the bad guys [the rest]."³⁰⁵

This belief is manifested in some economists and political scientists' unsophisticated (or deliberate) readings on history. Acemoglu et al. argue that the predominant reason for *Why Nations Fail* is 'inclusive institutions reward talents and generate economic growth, and extractive institutions when a small group of people stay in power inhibit growth.'³⁰⁶ Mancur Olson, from his reading on Chinese Warlords period in the 1920s, comes up with an ideological tale—'roving bandits' and a 'stationary bandit'—that provides his summing up of Chinese history.³⁰⁷ Under anarchy, uncoordinated competitive theft by 'roving bandits' destroys the incentive

³⁰³ Adam Smith, *An Inquiry into the Nature and Causes of The Wealth of Nations*

³⁰⁴ Timothy Besley, *Principled Agents? : The Political Economy of Good Government* (Oxford: Oxford University Press, 2007), pp.1-4.

³⁰⁵ Eric R. Wolf, *Europe and the People Without History* (Berkeley: University of California Press, 1982)

³⁰⁶ Daron Acemoglu, Simon Johnson, and James A. Robinson, "The colonial origins of comparative development: An empirical investigation," *American Economic Review*, Vol.91, No.5, 2001; Daron Acemoglu and James A. Robinson, *Why Nations Fail: The Origins of Power, Prosperity, and Poverty* (London: Profile Books, 2012)

³⁰⁷ Mancur Olson, "Dictatorship, Democracy, and Development," *The American Political Science Review*, Vol. 87, No. 3 (Sep., 1993), pp.567-576.

to invest and produce, leaving little for either the population or the bandits. Both can be better off if a bandit sets himself up as a dictator—a ‘stationary bandit’—who has an encompassing interest in his domain that leads him to provide a peaceful order and other public goods that increase productivity, and who monopolises and rationalises theft in the form of taxes accordingly.³⁰⁸ Recent work using public choice game-theoretic modelling follow this trend, a revival of *Oriental Despotism*.³⁰⁹ Consequently, apart from common evil ones, good autocracies will rarely have good economic performance for more than a generation, and only a lasting democracy can provide the necessary conditions—the security of property and contract rights—that generate economic growth.³¹⁰ This portrayal of ‘good institutions generate economic growth’ and exclusive image to the West is most well-known with the 1993 Nobel Laureate, Douglass C. North. North from his reading on the Middle Ages argues population growth made the previous relatively abundant land scarce, and the subsequent competition struggle changed the land structure. A new institutional scheme emerged: private property rights. These bred strong economic incentives because people would only have strong desires to produce if they produce for

³⁰⁸ Mancur Olson, “Dictatorship, Democracy, and Development,” *The American Political Science Review*, Vol. 87, No. 3 (Sep., 1993), pp.567-576.

³⁰⁹ Debin Ma (2013) State capacity and great divergence, the case of Qing China (1644—1911), *Eurasian Geography and Economics*, 54:5-6, 484-499, DOI:10.1080/15387216.2014.907530; Debin Ma and Jared Rubin, “The Paradox of Power: Understanding Fiscal Capacity in Imperial China and Absolutist Regimes,” London School of Economics and Political Science Department of Economic History Working Papers No. 261—March 2017.

³¹⁰ Mancur Olson, “Dictatorship, Democracy, and Development”, pp.567-576.

themselves. That led to *The Rise of the Western World*.³¹¹

North's argument and these quasi-historical studies in general are criticised by the prominent economic historian Eric Jones as 'lack of historical realism'.³¹² For one thing, the actual unfolding of historical relationship between population and socio-structure was *inverse* to North's dissection. High levels of population had made land and food expensive, landlords more powerful and peasants weak, strengthened serfdom and demesne farming, and primed the boom in cathedral buildings in the 12th and 13th centuries.³¹³ Not until the Black Death in the 14th century did population collapse and the relative scarcity of people triggered the downfall of serfdom and movements of *enclosure*.³¹⁴

More importantly, historically, taxes were higher in regimes that called themselves representative than in regimes called by them as absolutist. Britain possessed the highest national debts, highest expenditure, and highest taxes during its industrialisation at that time in the world.³¹⁵

³¹¹ Douglass C. North and Robert Paul Thomas, *The Rise of the Western World: A New Economic History* (Cambridge: Cambridge University Press, 1973); North, D.C. (1981) *Structure and Change in Economic History*, New York and London: W.W. Norton.

³¹² Eric L. Jones, "Institutional determinism and the Rise of the Western World" (1974-03)

³¹³ Mark Bailey and John Hatcher, *Modelling the Middle Ages: The History and Theory of England's Economic Development* (Oxford University Press, 2001)

³¹⁴ Bailey and Hatcher, *Modelling the Middle Ages*

³¹⁵ This *fact* is a general consensus among economic historians. See John M. Hobson, *The Eastern origins of Western civilization* (Cambridge, UK; New York: Cambridge University Press, 2004); Peer Vries, "Public Finance in China and Britain in the Long Eighteenth Century," *Working Papers No. 167/12*, Department of Economic History, London School of Economics, August 2012; Alexander Gerschenkron, *Economic Backwardness in Historical Perspective: A Book of Essays* (Cambridge, Mass.: Harvard University Press,

Between 1688 and 1815 Britain's accumulated public debt stood at 180 percent of national income.³¹⁶ This record was unbroken even a century later: the Tsarist Russia's national debt was 47 percent of national income in 1914, while Wilhelmine Germany's was 9 percent in 1913.³¹⁷ Britain's war expenditures and interest payments alone exceeded 10 percent of national income during its industrialisation phase at 14 %, while all other nations: France, Germany, Italy, Austria and Russia never surpassed 10% criterion either at the time or later in their respective industrialisation phases.³¹⁸ Britain's average tariff rates stood at 40% during its industrialisation phase, surpassing France's 10%, Germany's 7%, Austria-Hungary's 12%, Italy's 11%, and Russia's 26%.³¹⁹ Total tax revenues in China's Qing dynasty, on the other hand, were 1—5% of its total national GDP.³²⁰ John Atkinson Hobson therefore proclaims that “The Pax Britannica, always an impudent falsehood, has become a grotesque

1962). Interestingly this is also noted by leading Eurocentric scholars but with their 'liberal' twist: Douglass C. North and Barry R. Weingast, "Constitutions and Commitment: The Evolution of Institutions Governing Public Choice in Seventeenth-Century England," *The Journal of Economic History* 49, no. 4 (1989)

³¹⁶ Hobson, *The Eastern Origins of Western Civilization*, p.247. Data source: Linda Weiss and John M. Hobson, *States and Economic Development* (Cambridge: Polity, 1995), p. 115.

³¹⁷ Hobson, *The Eastern Origins of Western Civilization*, p.247. Data source: Linda Weiss and John M. Hobson, *States and Economic Development* (Cambridge: Polity, 1995)

³¹⁸ Hobson, *The Eastern Origins of Western Civilization*, p.247. Data source: John M. Hobson, *The Wealth of States* (Cambridge: Cambridge University Press, 1997), pp. 284–90.

³¹⁹ Hobson, *The Eastern Origins of Western Civilization*, p.249. Data sources: Britain: Weiss and Hobson, *States*, p.124. Germany and Russia: Hobson, *Wealth of States*, pp. 284–90. France: J. V. Nye, 'The Myth of Free-Trade Britain and Fortress France: Tariffs and Trade in the Nineteenth Century', *Journal of Economic History* 51 (1) (1991). Austria-Hungary and Italy: Brian R. Mitchell, *International Historical Statistics: Europe, 1750–1993* (London: Macmillan, 1998).

³²⁰ Kent G. Deng, *Mapping China's Growth and Development in the Long Run, 221 BC to 2020* (Singapore: World Scientific, Imperial College Press, 2016), p.19. Data sources: Chung-li Chang, *The Income of the Chinese Gentry* (Seattle: University of Washington Press, 1962), p. 296; Albert Feuerwerker, *The Chinese Economy, 1870–1949* (Ann Arbor: Center for Chinese Studies of the University of Michigan, 1995), p. 16; Liu Foding, Wang Yuru and Zhao Jin, *Zhongguo Jindai Jingji Fazhanshi (A History of Economic Development in Early Modern China)* (Beijing: Tertiary Education Press, 1999), p. 66.

monster of hypocrisy.”³²¹

Some Eurocentric scholars however responded by adopting a game-theoretic framework so as to revert back to the ahistorical ‘liberal’ view. North and Weingast turned England’s 1688 Glorious Revolution into a first-born fiscal machinery interpretation, and argued it was exactly because of Britain’s liberty that enabled it to possess such an unparalleled high tax-raising and debt financing capability.³²² Before 1688, the English king borrowed heavily and sometimes defaulted, interest rates were high. In 1617, for instance, James I raised £ 100,000 in London at 10 percent for the period of one year.³²³ He paid the interest at the end of the year but refused to pay the principal, demanded the loan to be renewed and defaulted subsequently. After 1688, parliamentary sovereignty was established. England financed its debt in the name of Parliament rather than king himself. North and Weingast argued this served as a credible commitment mechanism that prevented debt defaulting. Interest rates plummeted; the market rate charged fell from 14 percent in the early 1690s to 3 percent by the 1730s.³²⁴ And borrowing capacity soared; the size of government debt, which grew during the nine years of war with France

³²¹ John Atkinson Hobson (1902), *Imperialism, A Study*, Chapter I, Part II.

³²² Douglass North and Barry Weingast, "Constitutions and Commitment: The Evolution of Institutions Governing Public Choice in Seventeenth-Century England," *The Journal of Economic History* 49 (1989)

³²³ North and Weingast, "Constitutions and Commitment", pp.803-32. Primary data source: David Hume, *The History of England* (Indianapolis, 1983), appendix to "The Reign of James I."

³²⁴ North and Weingast, "Constitutions and Commitment", pp.803-32. Primary Data source: P. G. M. Dickson, *The Financial Revolution in England* (New York, 1967), tables 2, 3, and 22.

(1688—1697) from £ 1 million to nearly £ 17 million, was approximately 40 percent of GNP that was previously unattainable.³²⁵ By 1720 government debt had been over fifty times the 1688 level and on the order of GNP.³²⁶ Consequently the English won the nine years' war with France from 1688 to 1697, and the next one (1703—1714). Ma, on the other hand, argues that the reason why Chinese Imperial government had such a low tax is because it was despotic so that it could not tie up its hands from confiscating the masses' wealth, and hence low tax was the only option and possibility (for a detailed game-theoretic critique, see Appendix A).³²⁷

The first immediate objection is premodern China since its empire formation in 221 B.C. *did* achieve a staggering tax level unprecedented in history. Empire Qin taxed at a level more than 50% such that hardworking male tillers could not get enough to eat; non-resting female weavers could not afford dress coverage.³²⁸ The corvee labour was thirty times the

³²⁵ North and Weingast, "Constitutions and Commitment", pp.803-32.

³²⁶ North and Weingast, "Constitutions and Commitment", pp.803-32. Primary data sources: post-1688: Mitchell, *British Historical Statistics*, chap. 11, table 7. 1618: David Hume, *The History of England* (Indianapolis, 1983), "Appendix to the Reign of James I." mid-1630s: Derek Hirst, *Authority and Conflict: England, 1603-1658* (Cambridge, MA, 1986), p. 174. 1688: H. Fisk, *English Public Finance* (New York, 1920), p. 93.

³²⁷ Debin Ma (2013) State capacity and great divergence, the case of Qing China (1644—1911), *Eurasian Geography and Economics*, 54:5-6, 484-499, DOI:10.1080/15387216.2014.907530; Debin Ma and Jared Rubin, "The Paradox of Power: Understanding Fiscal Capacity in Imperial China and Absolutist Regimes," London School of Economics and Political Science Department of Economic History Working Papers No. 261—March 2017.

³²⁸ Following Professor Kent Deng and Professor Xinming He's high standards, for Chinese historical data the author took painstaking efforts in reading primary ancient texts themselves rather than from sometimes unrigorous secondary researches. Professor Deng has commented "most of the academics who engaged in

previous level and taxes (including on iron and salt) were twenty times more.³²⁹ This demonstrates China's later light taxes episodes and Qing in particular were more a result of policy choice than institutional incapability (see appendix A for a novel game-theoretic discussion). In 1712, Qing emperor Kangxi issued the edict of 'freezing the tax amount forever' (*yongbu jiafu*). Ma also got wrong on the fact that it was in fact the strong Qin state, instead of confiscating the masses' wealth, that pushed for the consolidation of the masses' property protection. Lord Shangyang founded his legalist policy on establishment of owner-tillers and abolishment of 'chessboard system' (*jingtian zhi*) serfs in preparation for war (*gengzhan*).³³⁰ Private property rights, backed by the state, were created for the rest of Chinese history.

that debate cannot read classical Chinese sources..." in his Patrick O'Brien & Kent Deng, "Quantifying the Quantifiable: A reply to Jan-Luiten van Zanden and Debin Ma," *World Economics* • Vol. 18 • No. 3 • July–September 2017. Professor Deng has also commented "there is a long tradition in China of using sources written in classical Chinese, a skill that most Chinese economists of the younger generations lack" in Kent Deng & Patrick O'Brien, "China's GDP Per Capita from the Han Dynasty to Communist Times," *World Economics* • Vol. 17 • No. 2 • April-June 2016. The author thus hopes this thesis could please the examiners and set up a precedent role model for the younger generation. This figure and information come from *the Book of Han dynasty* written by the Han scholar BAN gu. BAN gu, *the Book of Han dynasty*, Volume XXIV, *Recordings on Food and Goods* (China's Book Press, 2021), p.159. (汉)班固,《汉书》,卷二十四,食货志第四上,(中华书局,2021)第159页:"至于始皇,遂并天下,内兴功作,外攘夷狄,收秦半之赋,发闾左之戍。男子力耕不足粮饷,女子纺绩不足衣服。竭天下之资财以奉其政,犹未足以澹其欲也。海内愁怨,遂用溃畔。"

³²⁹ Following Professor Kent Deng and Professor Xinming He's high standards, the author directly drew data from ancient Han classic texts, showcasing his ability, diligence, and rigor. BAN gu, *the Book of Han dynasty*, Volume XXIV, *Recordings on Food and Goods* (China's Book Press, 2021), p.162. (汉)班固,《汉书》,卷二十四,食货志第四上,(中华书局,2021)第162页:"至秦则不然,用商鞅之法,改帝王之制,除井田...又颍川泽之利,管山林之饶...又加月为更卒,已,复为正一岁,屯戍一岁,力役三十倍于古;赋,盐铁之利,二十倍于古。"

³³⁰ Following Professor Kent Deng and Professor Xinming He's high standards, the author read the millennia old classic to obtain his primary first-hand qualitative evidence. So that every piece of evidence employed in the dissertation, quantitative and qualitative, are critically evaluated and checked to the fullest rigor. SHANG Yang, *the Book of Lord Shang*, Volume XXV Obeying Laws (China's Book Press, 2015), p.198. 商鞅,《商君书》,慎法第二十五,(中华书局,2015)第一九八页:"彼民不归其力于耕,即食屈于内;不归其节于战,则兵弱于外。...故吾教令:民之欲利者,非耕不得;避害者,非战不免。境内之民莫不先务耕战,而后得其所乐。...能行二者于境内,则霸王之道毕矣。"

Bin Wong also demonstrates that the premodern Chinese state was certainly able to tax more had it wanted. From 1700 to pre-1840 central government officials collected few transit taxes and limited the ability of local authorities to do so; the predominant tax form was from the land. There were few transit taxes or other tariffs within China. This picture has completely changed since China's defeat in the First Opium War. Expenditure levels had remained in the range of 30 to 40 million tales between the 1720s and the early 1840s, a running of balanced budget when Kangxi froze annual revenues to 30 million tales in 1712.³³¹ They were then doubled to 70 to 80 million tales annually between the 1860s and the early 1890s, accompanied by the rise of revenues to more than 77 million revenues—the increase largely due to a quadrupling of commercial revenues through maritime customs and domestic trade.³³² These increases were dwarfed by the nearly 302 million tales of revenue gathered in 1911, the final year of the dynasty, of which commercial taxes alone brought in 207 million.³³³ Unfortunately, the 1895 Japanese indemnity equalled a full year's receipts, and the 1900 Boxer indemnity was one and one-half times as large.³³⁴ The Smithian Chinese empire beforehand was

³³¹ Roy Bin Wong and Jean-Laurent Rosenthal, *Before and Beyond Divergence: The Politics of Economic Change in China and Europe* (Cambridge, Mass.: Harvard University Press, 2011)

³³² Roy Bin Wong and Jean-Laurent Rosenthal, *Before and Beyond Divergence*, p.201. Primary data source: Hamashita, T. 1989. *Chugoku kindai keizaishi kenkyu* (Studies on modern Chinese economic history). Tokyo, p.66.

³³³ Roy Bin Wong and Jean-Laurent Rosenthal, *Before and Beyond Divergence*, p.202.

³³⁴ Roy Bin Wong and Jean-Laurent Rosenthal, *Before and Beyond Divergence*, p.202. Primary data source:

then *made* poor.

These facts force one to rethink on the ‘liberal’ and ‘absolutist’ terminology and the conceptual & theoretical framework those Eurocentric studies are based on. Chinese influential intellectuals at the time, after witnessing the continuously deteriorating scenarios since China’s encounter with the West, like Sun Yat-sen reconciled their position in later years. Liang Qichao, the intellectual who first introduced Chinese ‘slave-like’ national character (*nuxing*) to nationwide popularity, in his last years regretted that the millennia old Chinese civilisation in fact had realised political equality long before the Europeans did. “Recent establishment of representative regimes, in essence, were upper-class elite democracy based on classes differential. China had no classes. And to introduce upper-class elite democracy’s representative regime to the state-peasantry alliance’s ‘grassroots’ democracy is destined to fail (for a novel detailed game-theoretic illustration, see Appendix A).”³³⁵ Zhang Shizhao, Minister of Education, who had specialised in western political thoughts in his early

Wei, G. 1986. “*Qingdai houqi zhongyang jiquan caizheng tizhi de wanjie*” (*The collapse of the fiscal system of central authority in the late Qing*). *Jindaishi yanjiu* 1: 207– 230. The author also checked Baba and Tatemoto, “Chapter 6. Foreign Trade and Economic Growth in Japan: 1858—1937,” in Lawrence R. Klein, *Economic Growth: the Japanese Experience since the Meiji Era* Vol. A (Publication of the Economic Growth Center, Yale University. Homewood, Ill: R. D. Irwin, 1968) that confirms Bin Wong’s data base.

³³⁵ Following Professor Kent Deng and Professor Xinming He’s high standards, the author took painstaking efforts to read historical figures’ writings at the time so as to gather first-hand primary qualitative evidence instead of secondary literature’s views. LIANG Qichao, “*On the Chinese revolution failure in history and future opportunities*”, *the Comprehensive works in Yinbing Room*, Volume XXXVI, (Beijing: China’s Book Press, 1989), p.30. 梁启超, 《历史上中华国民事业之成败及今后革进之机运》, 《饮冰室合集》, 卷 36, 北京: 中华书局, 1989 年, 第 30 页: “近世代议制度之建议, 实以阶级精神为中坚, 既未能发明更优于代议制度之政制, 而我以我绝无阶级根据之国向人效颦, 势必以失败终了。”

years, in his later episodes proclaimed: “China had no classes since its birth, did not emphasise on inequality status differentials”; “China had no representative regime, and people now attack it as non-democratic. They do not know China’s millennia old *Imperial Examinations* that could survive dynasty by dynasty, was the most *de facto* regime in democratic values. Everyone could become high-class scholar official, isn’t it the most equal principle? Now it is abruptly abolished, stupid.”³³⁶ Yan Fu, the translator of Montesquieu’s *L’Esprit des lois*, who claimed Chinese knowledge “too outdated to begin learning” early on, in the midst of Late Qing’s dazzling reforms episode emphasised that Mencius is above Rousseau: “from the ancient past to the present who argued for people’s rights, is there anything more valued on this than ‘People as the foundation, next is the country, the last is the monarch’?”³³⁷

It is hence a great historic pity that the traditional European continental centre, which was also acknowledged in North and Weingast’s pro-English writings as “Recent research that has significantly upgraded France’s economic performance before the French Revolution has led to an

³³⁶ ZHANG Shizhao, *the Comprehensive writings of Zhang Shizhao*, Volume II. (Shanghai: the press of writings collection, 2000), p.598. 章士钊, 《章士钊全集》(第2卷), 上海: 文汇出版社, 2000年, 第598页: “苟国中夙无阶级, 不重尊卑上下之分”; “中国向无代议政治, 人以非民主少之, 不知历代相沿之科举制, 乃与民主精神深相契合, 盖白屋公卿人人可致, 岂非平等之极则。贸然废之, 可谓愚矣。”

³³⁷ YAN Fu, *Wirings of Yan Fu* (China’s Book Press, 1986), Volume III., p.516; Volume II., p.241. 严复, 《严复集》(中华书局, 1986年), 第三册, 第516页; 第二册, 第241页: 而先通西学的严复虽然自谓于“中学”一面“晚学无师”, 却在清末新政百度更张之日申言孟子比卢梭高明。其警句曰: “问古今之倡民权者, 有重于‘民为贵, 社稷次之, 君为轻’三语者乎?”

overhauling of traditional interpretations of British as well as French economic history... England and France were almost at parity in economic performance”,³³⁸ had experienced the most fierce revolution episodes in early modern history since its loss of wars with the after-1688 English. The *fermiers-generaux* were depicted as rapacious and tyrannical and guillotined in 1794.³³⁹ This was despite the fact that in 1788 the ratio of taxes to GNP was 6.8% in France, much less than that of Britain.³⁴⁰ Ironically, in the name of freedom and abolishment of previous ‘absolutist’ monarch, the French Revolution resulted in mass blood and European wide full-fledged wars. And it did achieve one thing: the raising up of its fiscal capacity after 1789. French revenues doubled to 10 gold grams per head in 1810.³⁴¹

After France was Prussia. The Prussian Parliament directly copied Britain’s fiscal machinery in 1848: revenues increased from 4 gold grams per capita to more than 7 gold grams, and reached nearly 30 grams per capita by

³³⁸ North and Weingast, “Constitutions and Commitment”, pp.803-32.

³³⁹ Eugene N. White, “From privatized to government-administered tax collection: tax farming in eighteenth-century France,” *Economic History Review*, LVII, 4 (2004), pp.636-663.

³⁴⁰ White, “tax-farming in eighteenth-century France,” pp.636-663. Primary data source: Weir, D. R., ‘Tontines, public finance, and revolution in France and England, 1688-1789’, *J. Econ. Hist.*, 49 (1989), p.96.

³⁴¹ Mark Dincecco, *Political Transformations and Public Finances: Europe, 1650-1913* (Cambridge: Cambridge University Press, 2011), p.52. Primary data source: Bonney, R. (2010) “French Ordinary Revenue and Expenditure, 1727-1814.” European State Financial Database, administered by D. Coffman and A. Murphy, <http://esfdb.websites.bta.com/Default.aspx>.

1913.³⁴² Japan directly copied Germany.³⁴³ The 1868 Meiji Restoration was neither a benevolent progressive story of a rising business class, nor was it a democratic revolt transferring political power to representatives of the masses.³⁴⁴ The Meiji Parliament was a group of military bureaucrats from the previous *samurai* class in essence. Both Germany and Japan as latecomers constructed state machinery to accomplish national unification and state-led development, and both slid to military nationalism afterwards. And the USSR was the extreme; the frequent problem of struggling enough revenues for railroad infrastructure and industrialisation pursuit faced by the Tsar under the backward peasantry serfdom was solved under ‘socialist construction’.³⁴⁵ Rather than being the ‘liberal enlightenment’, the success to Britain alone sparkled off waves of turbulence to others in modern world history.

China’s foremost and prominent task under this broad historical context was, therefore, constructing an effective modern state-machinery. Contrasting Mancur Olson's ‘one generation lasting’ conviction, premodern China’s ‘stationary bandit’ had generated the world centre of

³⁴² Mark Dincecco, *Political Transformations and Public Finances*, pp.61-62. Primary data source: Mauersberg, H. (1988). *Finanzstrukturen deutscher Bundesstaaten zwischen 1820 und 1944*. St. Katharinen: Scripta Mercaturae Verlag.

³⁴³ W.G. Beasley, *Japanese Imperialism 1894—1945* (Oxford: Clarendon Press, 1987; 1991), Introduction; Chalmers Johnson, *MITI and the Japanese Miracle*, p.36.

³⁴⁴ William W. Lockwood, *The Economic Development of Japan: Growth and Structural change, 1868—1938* (Princeton, N.J.: Princeton University Press, 1954), Chapter 1, Section: Restoration and Reform.

³⁴⁵ Alexander Gerschenkron, *Economic Backwardness in Historical Perspective: A Book of Essays* (Cambridge, Mass.: Harvard University Press, 1962)

economic gravity for at least a millennium. The prominent Harvard sinologist Albert Feuerwerker echoes that imperial China from the tenth century to the nineteenth experienced in world perspective a remarkable millennium of premodern economic growth that was brought by the actions of the state. The Confucian state's very least limited interference whenever possible with the private sector was where the centuries long Ming—Qing market economy achievements and great expansion originated. "But the distancing... of the state from the private economy, while it may have facilitated premodern growth, could be a negative rather than a positive asset for a 'backward' country seeking economic growth in the twentieth century..."³⁴⁶ It is not good institutions that generate economic growth; it is bad guys that make it right.

2.2.2 *Culture*

For all its fame, *The Protestant Ethic* is an opinion. Weber argues capitalism originates from rational organisation of formally free labour. That in turn implies two things: a disciplined labour force, and the regularised investment of capital.³⁴⁷ Each contrasts profoundly with traditional types of economic activity, for the regular reproduction of

³⁴⁶ Albert. Feuerwerker, "The State and the Economy in Late Imperial China," *Theory and Society* 13, no. 3 (1984): 297-326.

³⁴⁷ Max Weber, *The Protestant Ethic and the Spirit of Capitalism* (Oxford University Press, 2011)

capital involves the continual accumulation of wealth for its own sake, rather than for the material rewards it can serve to bring. For Weber, this quality is uniquely associated with the kind of Calvinist doctrine that involves the performance of ‘good works’ in worldly activity to be accepted as the medium of demonstration to the God, while at the same time conjoined to a positively frugal life-style.³⁴⁸ This, according to Weber, is the essence of the spirit of modern capitalism.

Weber proceeds his analysis by arguing these qualities are absent in other civilisational beliefs. Hinduism involves the doctrines of reincarnation and compensation (*Karma*), each tied in closely to the caste system. This, in Weber’s term, is ‘other-worldly’; directed towards escaping the difficulties of the material world rather than, as in Puritanism, towards the rational mastery of the world itself in demonstration to the God. While the character of Confucianism, as Weber portrays it, is a ‘this-worldly’ religion, but not one which embodies ascetic values. The Calvinist ethic involves an activism into the believer’s approach to worldly affairs, which are lacking in Confucianism. Confucian values do not promote such rational instrumentalism, instead they set ideal the harmonious adjustment of the individual to nature itself.³⁴⁹

³⁴⁸ Max Weber, *The Protestant Ethic and the Spirit of Capitalism* (Oxford University Press, 2011)

³⁴⁹ Max Weber, *The Protestant Ethic and the Spirit of Capitalism* (Oxford University Press, 2011)

Weber, in a refrained tone, was kind to other religions and beliefs by simultaneously pointing out pluralism in this world, and unique elements of certain Protestant ethic. His successors were far caustic, including Chinese themselves at the time. Feng Youlan argued Confucian philosophy was inherently inward looking that not only precluded active search for capitalist development, but also lacked curiosity for scientific progress.³⁵⁰ Qian was far harsher. China was ruled by one dominant Confucian ideological system backed by absolute unified bureaucracy that made Chinese thinking uniformly rigid—*the Great Inertia*.³⁵¹ Needham, even as a ‘Sino-fan’, concluded that China’s bureaucracy inhibited the development of and attracted the brightest from commerce.³⁵² The system diverted the nation’s intellectual efforts to bureaucratic activity which was conservative in nature. A view not uncommon among China specialists such as John Fairbank.³⁵³ These ‘verdicts’ were not limited to China, but extended to the whole East Asian Confucian circle.

Since the rise of Asian tigers and the coming up of ‘East Asian miracle’, together with China’s decade later spectacular growth after its opening-up reforms, attention has shifted to Confucian virtues. Thrift, temperate, hard

³⁵⁰ FENG Youlan, *A History of Chinese Philosophy* (1934)

³⁵¹ Wen-yuan QIAN, *The Great Inertia: Scientific Stagnation in Traditional China* (London; Dover, N.H.: Croom Helm, 1985), pp.25-26.

³⁵² Kenneth G. Robinson and Joseph Needham, *Science and Civilisation in China. Volume VII, Part II: General Conclusions and Reflections* (Cambridge: Cambridge University Press, 2004), p.53.

³⁵³ Fairbank, J.K. (1980) *The Cambridge History of China*, New York: Cambridge University Press.

work, emphasis on education have made East Asian culture particularly conducive to economic growth: savings for investment, disciplined labour force, and human capital enhancement.³⁵⁴ One may wonder whether these were the qualities that Weber had talked about Puritanism before. Even bureaucracy, the long-time associated evil, turns to be a good sign. Bardhan in his research on corruption argues it is a feature unexempt for human society, Western proclamation of ‘transparent’ institutions merely distorts the picture. But he emphasises the kind of corruption one talks about is extremely important. In centralised strong states, corruption serves as ‘lubricant oil’ that smooths the efficient running of the economy, in contrast to the fragmented and anarchic cases that further impair the awful performance. And Bardhan is comparing East Asian states with slum democracies in Africa, and possibly, India. He argues the East Asian strong autocratic states are a long tradition of this region’s central bureaucracy.³⁵⁵ Culture is hence an important factor that everyone talks about its importance in the midst of fickle interpretations malleable to ever-changing circumstances—that ultimately demonstrates its hindsight ‘big talk’.

³⁵⁴ Geert Hofstede and Michael Harris Bond, “The Confucius connection: From cultural roots to economic growth,” *Organizational Dynamics*, Volume 16, Issue 4, Spring 1988, Pages 5-21; Harold W. Stevenson, “Chapter 7. Human capital: how the East excels,” in Henry S. Rowen, *Behind East Asian Growth: The Political and Social Foundations of Prosperity* (London; New York: Routledge, 1998)

³⁵⁵ Pranab Bardhan, “Corruption and Development: A Review of Issues,” *Journal of Economic Literature* 35, no. 3 (1997): 1320–46, <http://www.jstor.org.gate2.library.lse.ac.uk/stable/2729979>.

2.2.3 Capital accumulation & TFP

The Solow model leaves an important legacy to mainstream neoclassical economists: $\frac{\Delta A}{A} = \frac{\Delta Y}{Y} - \left[\frac{\alpha \Delta K}{K} + \frac{(1-\alpha)\Delta L}{L} \right]$. The change of output that is not explained by capital and labour inputs changes, also called the Solow residual. Neoclassical economists interpret this as total factor productivity (TFP) growth (a rise in output per unit of input, not just with respect to specific individual input subject to diminishing marginal returns), the only way for an economy to have sustained income per capita growth.

Paul Krugman used this conceptual framework to attack the Asian tigers in 1994, three years before the Asian crisis. He argued these Asian miracles were based on the growth of perspiration rather than inspiration. Similar to the previous USSR, Asian growth was merely achieved by extraordinary growth in inputs like labor and capital rather than by gains in efficiency.³⁵⁶ This inevitably is subject to diminishing returns. Alwyn Young's Solow accounting exercise confirms Krugman's reasoning. Factor accumulation alone explains their remarkable growths, not productivity growth. Excluding "rising participation rates, intersectoral transfers of labor, improving levels of education, and expanding investment rates", Young concludes that the productivity residual performance of the East Asian

³⁵⁶ Paul Krugman, "The Myth of Asia's Miracle," *Foreign Affairs*, Vol. 73, No. 6 (Nov. - Dec., 1994), pp.62-78.

NICs (Newly Industrialised Countries) plummeted “from the top of Mount Olympus down to the plains of Thessaly.”³⁵⁷

An immediate problem is there was internal inconsistency among Young’s researches. In his earlier paper on the sole comparison between Hong Kong and Singapore, Young argues while Singapore has experienced more rapid accumulation of both physical and human capital than Hong Kong did, its total factor productivity growth is next to nil.³⁵⁸ He asserts that Singapore is a victim of its own targeting policies, driving the economy beyond its maturity into the production of goods in which it has lower and lower productivity.³⁵⁹ In his later mingled study on the Asian tigers in general, however, Young finds “South Korea exhibits even more capital deepening than Singapore... the larger labor share and faster growth of output per effective worker”, and South Korea’s total factor productivity residual is “considerably larger” at 1.7 percent.³⁶⁰ Notice the TFP poor performance in Singapore was due to fast accumulation of factor inputs, here South Korea’s accumulation is even larger, and Young’s resort to ‘larger labor share’ and larger size of the Korean economy to explain Korea’s positive TFP is unconvincing because the scale effect to explain this scenario is

³⁵⁷ Alwyn Young, “The Tyranny of Numbers: Confronting the Statistical Realities of the East Asian Growth Experience,” *The Quarterly Journal of Economics*, Vol. 110, No. 3 (Aug., 1995), pp.641-680.

³⁵⁸ Alwyn Young, “A Tale of Two Cities: Factor Accumulation and Technical Change in Hong Kong and Singapore,” *NBER Macroeconomics Annual*, 1992, Vol. 7 (1992)

³⁵⁹ Alwyn Young, “A Tale of Two Cities”

³⁶⁰ Alwyn Young, “The Tyranny of Numbers: Confronting the Statistical Realities of the East Asian Growth Experience,” *The Quarterly Journal of Economics*, Vol. 110, No. 3 (Aug., 1995), pp.641-680.

against the very constant returns to scale assumption of the Solow framework he has relied upon.

These suggest that the Solow residual accounting device is an arbitrarily redundant concept, for capital accumulation is organic to TFP and the residual can be anything. Peter Temin reveals Europe experienced unconventionally fast economic growth and TFP growth for over two decades after World War II from *one* predominant factor: structural change.³⁶¹ This golden growth was due to overdue allocation of resources away from agriculture. Crafts and Toniolo's findings confirm Temin's argument. In 1950, UK had already completed structural transfer; it had the lowest agricultural employment share in Europe, at 5.3 percent. Germany still possessed 23.2 percent in agriculture, France 31.5 percent and Italy 42.2 percent. From 1950 to 1973 throughout the 'Golden Age' period, UK's real GDP per capita growth was 2.42 percent, West Germany's was 5.02 percent, France's was 4.04 percent and Italy's was 4.95 percent. Countries that had higher agricultural employment share before experienced faster economic growth after. Between 1960 and 1970 West Germany's TFP growth rate was 2.03 percent, France's was 2.62 percent, and Italy's 3.50 percent. UK, just as its economic growth rate, had a lower TFP growth rate

³⁶¹ Peter Temin, "The Golden Age of European growth reconsidered," 2002 Cambridge University Press, *European Review of Economic History*, 6, pp.3-22.

at 1.24 percent.³⁶²

Equally, Crafts finds that using traditional Solow growth accounting, during the primitive phase of the British Industrial Revolution that arguably had the highest ‘acquisition for knowledge’ and ‘innovative ideas’, total factor productivity growth was stunningly zero from 1760 to 1780.³⁶³ During Britain’s major industrial phase 1831—1873, capital accumulation took the major role, while TFP growth was a negligible 0.35 percent.³⁶⁴ After the ‘Golden Age’, European output growth came to a halt with the substantial reductions in capital deepening (with the median growth halved to 1.0 percent), and TFP plummeted from the median 2.5 percent growth to 0.9 percent.³⁶⁵ This was despite increased G-7 spending on R&D. Technological communications and internet revolutions have been sweeping across since 1980s and 90s but ‘you could see the computer everywhere except in the Solow residual’.³⁶⁶ These suggest structural

³⁶² Nicholas Crafts and Gianni Toniolo, “Chapter 12. Aggregate growth, 1950—2005,” in Stephen Broadberry and Kevin H. O’Rourke, *The Cambridge Economic History of Modern Europe Volume 2, 1870 to the Present* (Cambridge: Cambridge University Press, 2010). Primary data bases: Bairoch, P. 1968. *The Working Population and Its Structure*. Brussels: Institut de Sociologie; OECD. 2001. *Historical Statistics*. Paris; OECD. 2005. *OECD in Figures*. Paris.

³⁶³ N.F.R. Crafts, “Exogenous or Endogenous Growth? The Industrial Revolution Reconsidered,” *The Journal of Economic History*, Dec., 1995, Vol.55, No. 4.

³⁶⁴ N.F.R. Crafts, “Exogenous or Endogenous Growth? The Industrial Revolution Reconsidered”. Primary data source: Matthews, Robin C. O., Charles H. Feinstein, and John C. Odling-Smee. *British Economic Growth, 1856-1973*. Oxford: Clarendon Press, 1982.

³⁶⁵ Nicholas Crafts and Gianni Toniolo, “Chapter 12. Aggregate growth, 1950—2005,” p.317. Primary data source: Barry P. Bosworth and Susan M. Collins, “The Empirics of Growth: An Update,” *Brookings Papers on Economic Activity*, 2:2003.

³⁶⁶ Robert U. Ayres and Benjamin Warr, *The Economic Growth Engine: How Energy and Work Drive Material Prosperity* (UK: Edward Elgar, 2009)

change and capital accumulation are necessary (but not necessarily sufficient) conditions for TFP growth. And when capital accumulation declined, TFP came to a halt.

China's performance represents the best example of the relationship between capital accumulation and TFP growth. Zhu Xiaodong finds that "perhaps surprisingly, given China's well-documented sky-high rates of saving and investment, I will argue that China's rapid growth over the last three decades has been driven by productivity growth rather than by capital investment."³⁶⁷ His data calculations illustrate from 1978 to 2007, China's TFP growth was a stunning high 3.16 percent, taking up a major proportion of 77.89 percent contribution to per capita GDP growth.³⁶⁸ Zhu is not alone. Bosworth and Collins in their earlier paper also reveal that "China stands out for the sheer magnitude of its gains in total factor productivity" at 3.6 percent growth from 1978 to 2004, with the industrial sector including manufacturing, construction, public utilities, and mining "consistently accounted for about half of GDP."³⁶⁹

³⁶⁷ Xiaodong ZHU, "Understanding China's Growth: Past, Present, and Future," *Journal of Economic Perspectives*, Volume 26, Number 4, Fall 2012.

³⁶⁸ Xiaodong ZHU, "Understanding China's Growth: Past, Present, and Future," p.108. Primary data sources: Authors calculations: decomposing China's per capita GDP growth into contributions from growth of labour participation rate, capital/output ratio, average human capital, and total factor productivity. The data on GDP per capita, GDP per worker, and labour participation rate are taken from the Penn World Table (PWT7.0). The average level of human capital is constructed using the average schooling years reported in the Barro and Lee (2010) dataset. Barro, Robert J., and Jong-Wha Lee. 2010. "A New Data Set of Educational Attainment in the World, 1950–2010." *NBER Working Paper* 15902.

³⁶⁹ Barry Bosworth and Susan M. Collins, "Accounting for Growth: Comparing China and India," *The Journal of Economic Perspectives*, Vol. 22, No. 1 (Winter, 2008). Primary data base: text. For China, the output data are the official series of the national accounts for agriculture and services, and the series for industry is

2.3 Cases³⁷⁰

2.3.1 *historical cases of state-led growth and industrialisation from Germany to the Asian tigers*

Professor Alexander Gerschenkron, in his influential *Economic Backwardness in Historical Perspective* study on European history, spells out Britain's two unique industrialisation conditions which were not available to other late-comers: first, Britain's considerable accumulation of capital, first from earnings in overseas trade and colonisation, and later from modernised agriculture and industry itself. The industrialisation of England as a consequence "had proceeded without any substantial utilization of banking for long-term investment purposes."³⁷¹ Second, Britain established the world's first modern fiscal state after 1688. Other late-comers, whereas could copy Britain to satisfy the second condition, had no way to satisfy the first. They had to use the state power to fulfil the 'missing' prerequisites of modernisation.³⁷² This "gave rise to the

based on the alternative price deflator discussed in the text.

³⁷⁰ This section benefits from Professor Kent Deng's valuable side-note comments on the author's original script: put all the country cases under 'historical cases of state-led growth and industrialisation from Germany to the Asian tigers' heading and trim them to the earlier chapter discussion instead of spreading them all over the thesis. The author has corrected this according to the requirements so that the full China focus is maintained.

³⁷¹ Alexander Gerschenkron, *Economic Backwardness in Historical Perspective: A Book of Essays* (Cambridge, Mass.: Harvard University Press, 1962), p.14.

³⁷² Gerschenkron, *Economic Backwardness in Historical Perspective*, pp.48-49.

divergent development in banking over large portions of the Continent as against England.”³⁷³ Germany experienced rapid concentration movement in banking in the late 19th century so as to better channel its limited funds to heavy strategic industries. Consequently, although Germany had a late arrival in the field of industrial development having been preceded by England, because of its specific methods used in the catching-up process, it in the end caught up with England.³⁷⁴

Gerschenkron observes similar developments took place in Austria, in Italy, in Switzerland, in France, in Belgium, and in other countries.³⁷⁵ And the general historical trend was the more backward an economy is, the greater the role of state is to *artificially* mobilise resources to fulfil these missing prerequisites. “So viewed, the industrial history of Europe appears not as a series of mere repetitions of the ‘first’ industrialization but as an orderly system of graduated deviations from that industrialization.”³⁷⁶

Gerschenkron’s ‘late industrialisation’ thesis from his study on European industrialisation history was later expanded to East Asian ‘developmental states’ literature. Or, put it differently, European state-led growth was successfully mimicked by post-WWII East Asian states so that throughout

³⁷³ Gerschenkron, *Economic Backwardness in Historical Perspective*, p.14.

³⁷⁴ Gerschenkron, *Economic Backwardness in Historical Perspective*, p.16.

³⁷⁵ Gerschenkron, *Economic Backwardness in Historical Perspective*, p.21.

³⁷⁶ Gerschenkron, *Economic Backwardness in Historical Perspective*, p.44.

world history only East Asia successfully managed to catch up with the Western powers. Amsden suggests the more backward the country, the harsher the justice meted out by market forces. Countries with low productivity require low interest rates to stimulate investment, and high interest rates to induce people to save; they need undervalued exchange rates to boost exports, and overvalued exchange rates to minimise the cost of importing capital goods which poor countries alone cannot produce; they must protect their new infant industries from foreign competition, but they need free trade to meet their import needs and to promote exports for foreign reserves.³⁷⁷ Under such *dis-equilibrating* conditions, one needs, in Chalmers Johnson's phrase, the role of *developmental state* to mediate market forces.³⁷⁸ Insofar as the state has intervened to establish multiple prices in the same market, the state cannot be said to have gotten relative prices 'right', as dictated by supply and demand, but rather has set relative prices deliberately 'wrong' in order to create profitable investment opportunities.³⁷⁹ In short, one needs state in late industrialisation to *make* markets work.

When Singapore's Lee Kuan Yew took power, he effectively dissolved

³⁷⁷ Alice H. Amsden, *Asia's next Giant: South Korea and Late Industrialization* (New York: Oxford University Press, 1989), p.13.

³⁷⁸ Chalmers Johnson, *MITI and the Japanese Miracle: The Growth of Industrial Policy, 1925—1975* (Stanford, Calif.: Stanford University Press, 1982), p.viii.

³⁷⁹ Amsden, *Asia's next Giant*, pp.13-14.

trade unions in 1969 and tightened employment conditions through the 1968 Employment Act.³⁸⁰ Wages were hence forced down by the government to internationally competitive levels. Likewise, the government replaced the market to force a high saving rate through the Central Provident Fund.³⁸¹ Similar measures were taken in Korea under Park Chung Hee, and in Taiwan under Chiang Kai-shek. Following the military coup of 1961, Park Chung Hee weakened trade union labour movements through the Korea Central Intelligence Agency.³⁸² For all persons employed in manufacturing in 1984, 73% of men and 62% of women worked at least fifty-four hours per week.³⁸³ Park Chung Hee also controlled and nationalised all commercial banks, so as to help channel already limited national funds “toward accumulating capital rather than toward seeking rents.”³⁸⁴ In Taiwan, Chiang Kai-shek established a militarised society. Interest groups and popular views were restricted, and military notions of discipline, authority and vigilance were inculcated throughout the society.³⁸⁵ The banking system was also publicly owned and tightly controlled.³⁸⁶ Compulsory primary and secondary education were introduced by these governments. East Asian countries had primary

³⁸⁰ Garry Rodan, *The Political Economy of Singapore's Industrialization: National State and International Capital* (Macmillan International Political Economy Series, 1989), pp.91-92.

³⁸¹ Rodan, *The Political Economy of Singapore's Industrialization*, p.95.

³⁸² Amsden, *Asia's next Giant*, p.324.

³⁸³ Amsden, *Asia's next Giant*, p.205.

³⁸⁴ Amsden, *Asia's next Giant*, pp.16-17.

³⁸⁵ Wade, *Governing the Market*, p.253.

³⁸⁶ Wade, *Governing the Market*, p.165.

and secondary school enrolment rates way above the worldwide norm.³⁸⁷ For instance, South Korea had a far higher secondary schooling enrolment rate than Brazil in the early 1970s when Brazil's income was higher and its teachers less well paid than Korea's (implying a lower cost of schooling).³⁸⁸ An abundant mass supply of relatively well-educated but cheap, thrifty and high-savings, hardworking and disciplinary work force was in fact shaped and created by these East Asian authoritarian states.

It was also the East Asian *developmental states* that played the crucial role of promoting *dynamic* comparative advantage shift, i.e., promoting industrial upgrading, in these East Asian economies.³⁸⁹ Creating rents above normal market returns by distorting markets through industrial policies were essential to induce more than free market investment in activities that the government had agreed more important for the economy's transformation. Industrial policies were articulated by Japan's Ministry of International Trade and Industry (MITI), Singapore's Economic Development Board, Korea's big industrial enterprises—*chaebols*—that were always 'disciplined' by government's forward-looking strategies, and Taiwan's private businesses which were under Chiang Kai-shek government's economic supervision. The whole process

³⁸⁷ Rowen, *Behind East Asian Growth*, pp.22-23.

³⁸⁸ Rowen, *Behind East Asian Growth*, p.23.

³⁸⁹ Wade, *Governing the Market*, p.xvii.

of East Asian industrialisation was therefore defined, created, and promoted by the East Asian developmental states.

2.3.2 *The Soviet example*

The Soviet central planning was so thorough that it presented a unique historical episode in world history in which market activities are eliminated completely. Even a primitive tribal society would have exchange phenomenon regulated by cultural beliefs.³⁹⁰ Researches such as scholar Xinming He's comparative study therefore put China and Korea differently.³⁹¹ The Chinese government under Mao exploited surpluses from the agricultural sector to urban heavy industries. Government-administered pricing system and national prioritised plan for industries overtook the role of profits calculation and market signals. To ensure all the national economy's surplus was channelled to heavy industries, all private enterprises had to be nationalised.³⁹² Had the enterprises been privately owned, the retained profits would have been used in more profitable light industries, since they require less investment and earn a faster return.³⁹³ Moreover, since the role of market and competition was

³⁹⁰ Karl Polanyi, *The Great Transformation: The Political and Economic Origins of Our Time* (Boston: Beacon Press, 1944, 1957, 2001 by Karl Polanyi)

³⁹¹ He, Xinming; Yuan, X.; Shin, S.; and Kim, S. Y. (2016). Innovation Capability, Marketing Capability, and Firm Performance: A Two-Nation Study of China and Korea. *Asian Business & Management* 15(1): 32-56.

³⁹² Justin Yifu Lin, *Demystifying the Chinese Economy* (New York: Cambridge University Press, 2012)

³⁹³ Justin Yifu Lin, *Demystifying the Chinese Economy*

gone, it was dangerous for managers to have a say in running the business. They might abuse their power for private gains. All these led to the trinity of Mao's economic system: government-administered prices of inputs and outputs, centrally planned allocation of resources, and powerless managers (puppets of the government) at the micro-level. This is the best institutional arrangement available, if scarce resources have to be used to the utmost to prioritise capital-intensive heavy industries. All production and allocation were not subject to consumer demands and market signals, but to central planning.

2.3.3 *The Cold War factor*

East Asian tigers therefore are often utilised as role-model free market economies in contrast to the Soviet bloc and other ISI (Import-substitution industrialisation) countries. Milton Friedman visited Singapore in 1980 and exclaimed for its liberal free market.³⁹⁴ Jeffrey Sachs asserted the East Asian open economies and the economic dynamism generated helped them converge to the rich club, contrasting the disappointing closed regimes.³⁹⁵

The significant problem of this view is the fact that East Asian economies

³⁹⁴ Linda Y.C. Lim, "Singapore's Success: The Myth of the Free Market Economy," *Asian Survey*, Vol. 23, No. 6 (Jun., 1983)

³⁹⁵ Jeffrey D. Sachs and Andrew Warner, "Economic Reform and the Process of Global Integration," *Brookings Papers on Economic Activity*, Vol. 1995, No. 1, 25th Anniversary Issue (1995)

were far from open free-market. But that in turn leads to the question of how to reconcile the East Asian type with other state-led ‘closed’ cases? One prominent issue in theoretical literature is their failure to incorporate historical context. East Asian economies were the *frontiers* battleground between the liberal camp and the communist camp during the Cold War. Before the Korean War and after WWII, General Douglass MacArthur launched land reforms in Japan.³⁹⁶ Land ownership was transferred from Japanese big landlords to tillers of soil. Land reform in Japan demolished Japan’s old class structure, intentionally making Japan become another agricultural Qing China economy with a majority of individual small-scale owner tillers.³⁹⁷ The Korean War made USA decide to revive Japan’s industry. The famous Japanese car company, Toyota, started its car-making industry as military Jeeps producer for the US army during the Korean War.³⁹⁸ The US essentially gave its transistor technology for free to Japan.³⁹⁹ After the Korean War, with the threat of Vietnam War, both Taiwan and South Korea were seen by the US as important bulwarks against communism: their survival warranted a massive infusion of

³⁹⁶ Toshihiko Kawagoe, “Agricultural Land Reform in Postwar Japan: Experiences and Issues,” *World Bank Policy Research Working Paper* 2111 (May 1999), pp.1-54.

³⁹⁷ Kawagoe, “Agricultural Land Reform in Postwar Japan”, p.2; Gang Deng, *The Premodern Chinese Economy*, p.54.

³⁹⁸ https://www.motoraauthority.com/news/1123642_75-years-of-imitation-the-original-jeep-has-been-copied-in-form-and-function-the-world-over

Assessed on: 1:12, 2021/1/25, Beijing Time.

³⁹⁹ <https://www.sony.net/SonyInfo/CorporateInfo/History/capsule/12/>

Assessed on: 1:19, 2021/1/25, Beijing Time;

<https://www.allaboutcircuits.com/news/a-page-in-the-history-of-transistors-ingenuity-in-post-war-japan/>

Assessed on: 1:26, 2021/1/25, Beijing Time.

capital—especially relative to their small economies.⁴⁰⁰ From 1946 to 1976, the United States provided 12.6 billion dollars in American economic and military aid to South Korea, and 5.6 billion dollars to Taiwan.⁴⁰¹ To put this in perspective, South Korean and Taiwanese per capita GNPs in 1965 were about 100 dollars, while per capita aid amount was 600 dollars for Korea and 425 dollars for Taiwan at that time.⁴⁰² USA's per capita aid to Taiwan and South Korea far exceeded its Marshall Aid per capita amount to Europe after WWII.⁴⁰³ Moreover, even in the 1980s the US alone still bought an average of over 40% of Taiwan's exports.⁴⁰⁴ The United States absorbed on average 35.7 per cent of total South Korean exports annually.⁴⁰⁵ One may thus wonder, with such generous aid, guaranteed exports market, and essentially free technology transfer, who can't industrialise?

In the context of aid non-availability from abroad and the refrainment from

⁴⁰⁰ Meredith Jung-En Woo-Cumings, "Chapter 14. National security and the rise of the developmental state in South Korea and Taiwan," in Henry S. Rowen, *Behind East Asian Growth: The Political and Social Foundations of Prosperity* (London; New York: Routledge, 1998), p.328.

⁴⁰¹ Woo-Cumings, "National security and the rise of the developmental state in South Korea and Taiwan", p.328. Primary data source: Woo, Jung-en (Meredith Woo-Cumings) (1991) *Race to the Swift: State and Finance in Korean Industrialization*, New York: Columbia University Press, p.44.

⁴⁰² Woo-Cumings, "National security and the rise of the developmental state in South Korea and Taiwan", pp.328-329. Primary data source: Woo, *Race to the Swift*, p.44.

⁴⁰³ Barry Eichengreen, *Globalizing Capital: A History of the International Monetary System* Second Edition (Princeton and Oxford: Princeton University Press, 2008), p.102.

⁴⁰⁴ <https://www.nationsencyclopedia.com/economies/Asia-and-the-Pacific/Taiwan-INTERNATIONAL-TRADE.html>

Assessed on: 14:10, 2021/1/25, Beijing Time.

⁴⁰⁵ R. R. Krishnan, "South Korean Export Oriented Regime: Context and Characteristics," *Social Scientist*, Vol. 13, No. 7/8 (Jul. - Aug., 1985), pp.90-111.

colonising others, China financed its capital formation through ‘self-exploitation’. And that led to its Soviet style at start. Later China converged to the East Asian developmental type. This presents an interesting contradictory and coherent whole on the basis of different symptoms according to different circumstances but a consistent nature throughout. Deng’s China inherited Mao’s industrial base and economy structure, and investment share climbed to new heights under the dual-track coexisting market system. This subtlety is neatly captured by scholar Xinming He’s analysis on economic nationalism: “economic nationalism as a crucial institutional factor may do better than the over simplified dichotomy of liberalism and protectionism in explaining business activities and performance from a broader sense, given that it may take either perspectives depending on the then national interests and conditions.”⁴⁰⁶ This rationale explains China’s transition from Mao to Deng, as well as the distinction between market and market mechanism in East Asian ‘market economies’. Lee Kuan Yew, in his 1986 speech during Singapore National Day Rally, proclaimed that “And I say without the slightest remorse, that we wouldn’t be here, we would not have made economic progress, if we had not intervened on very personal matters – who your neighbor is, how you live, the noise you make, how you spit, or what language you use. We

⁴⁰⁶ He, Xinming and Zhang, Jianhong (2014). Economic nationalism and foreign acquisition completion: the case of China. *International Business Review* 23(1): 212–227.

decide what is right. Never mind what the people think.”⁴⁰⁷ These economies were not governed by market mechanism, but were inherently statist to make use of and govern the market. In their nature, as privately confessed by a Japanese MITI official, Japan was different to a ‘open market economy’ and was closer to the experience of another set of countries—the centrally planned economies.⁴⁰⁸

2.4 Patterns⁴⁰⁹

2.4.1 ‘World system’⁴¹⁰

⁴⁰⁷ The statesman who talked tough, Lee Kuan Yew

<https://www.mfa.gov.sg/overseas-mission/abu-dhabi/mission-updates/2015/03/the-statesman-who-talked-tough->

⁴⁰⁸ Chalmers Johnson, *MITI and the Japanese Miracle: The Growth of Industrial Policy, 1925—1975* (Stanford, Calif.: Stanford University Press, 1982), p.31.

⁴⁰⁹ This word benefits from Professor Kent Deng’s side-note comments in the online system: “Ch. 4: *Historical experiences or patterns* relevant to China as a late developer of capitalism (e.g. a high level equilibrium trap, the Westernisation reforms, the Soviet Model, Deng’s reforms, and so forth).” The author after writing the sections on Theories and Cases was thinking on what word would describe the real-world situation that is not national cases based but of a broader trend such as world system, long cycles etc. Then this Professor Deng’s enlightenment came to mind! Yes, ‘patterns’ is the word! Again, the author thanks Professor Deng for his precious guidance. All aspects of Professor Deng’s suggestions are addressed, and the author made some modifications. Mark Elvin’s ‘high level equilibrium trap’ is his opinion which does not necessarily fit premodern China’s scenario hence I put Elvin into the theories section for a critical discussion. The Soviet model is rephrased as Soviet example for a light brush into the cases section. The author added the Soviet Industrialisation Debate in 1920s Soviet Russia which is the situation facing by all sizeable nations aiming to get industrialised by themselves, including Mao’s and Deng’s China, into the Patterns section. Moreover, Professor Kent Deng in his other side-note comments which are on the author’s original script suggested: “This part deals with how the Stalinist growth model performed in China under Mao’s rule. This should be an independent chapter on its own if the title of this thesis stays.” “This chapter deals with how the post-Mao’s growth. One option is to see this period as China following the Asian tigers after WWII. This should be an independent chapter on its own.” The author hence put Mao China and Deng China as two independent chapters in Chapters 5 and 6. And “Westernisation reforms” is dealt with in chapter 4. The layout may not be the same as Professor Kent Deng’s side-note comments in the online system but all suggestions are dealt with and expanded to eight chapters from his 6 chapters suggestion. Again, the author thanks for his patient advice and warm support.

⁴¹⁰ Professor Kent Deng also mentioned another crucial aspect which the author did not pay enough attention to in the original script: “I have noticed that you use ‘world system’ when referring to Wallerstein. In fact, he says ‘world systems’ (plural). Please perform a universal ‘find and replace’.” The author then checked Wallerstein’s argument in his four thick World-System volumes literature in detail and found that it is exactly Wallerstein’s problem! Thanks for Professor Deng’s sharp insights which the author managed to

Immanuel Wallerstein conjectured the existence of a developmental hierarchy in a super-macro system concerning the entire world. A holistic system and process that created, shaped, and guided how individuals within it interact with each other, i.e., the core and periphery ‘world system’. Wallerstein suggests whenever a ‘vertical integration’ of any two links on a commodity chain occurred, an even larger segment of the total surplus was shifted towards the core than had previously been possible.⁴¹¹ And

find another novel perspective discovery! When Wallerstein talked about world system, he was inferring a special kind, the European ‘core and periphery’ capitalist world system and how it swept across the globe since the 1500s Age of Exploration. How other world regions were incorporated into this structure as peripheries that served Europe’s benefits as core regions and later enabled Europe to manage to have technological breakthroughs. His whole four thick volumes were describing this systematic process: the endogeneity of Europe’s capitalist model of production, how it gradually swept across and incorporated other world regions into this ‘core and periphery’ structure, and the nature of world system’s interactive connections and how each individual region acted under this overarching holistic systematic relation, and the carrying on and formation of today’s world structure in which a majority of primary sector peripheries and secondary labour-intensive exports economy semi-peripheries serve a group of industrial few. Wallerstein’s historical observation and insights however could be easily confused with and intermingled with trade connections in the medieval world economy. And this was in fact what Wallerstein’s successors were doing. Janet L. Abu-Lughod pushed the world system back to 1250—1350 A.D. and argued during this hundred year an international trade economy was developing that stretched all the way from north-western Europe to China. She had a ‘Muslim-centric’ perspective that during this high-tide it was the Middle East that served as the channel connecting West and East. She therefore came up with several ‘subsystems’: European, Mediterranean, and the Black sea subsystem linking Constantinople to China, etc. See Janet L. Abu-Lughod, *Before European Hegemony: The World System A.D. 1250—1350* (Oxford, UK; New York: Oxford University Press, 1991). Gunder Frank pushed the world system formation even further back to 1000 A.D. and argued it was Song China that served as the origin of world system. See Andre Gunder Frank, *ReOrient: Global Economy in the Asian Age* (Berkeley California: University of California Press, 1998), Preface. They however all fail to note in Wallerstein’s original text of the ‘world system’ it explicitly said that for centuries China was the centre of the ‘tributary’ system it initiated between its neighbouring states to the far seas. However, Wallerstein emphasised that the extreme generosity of Chinese gifts supported his distinction between precapitalist disguised form of trade and capitalist ‘core and periphery’ expansion. See Immanuel Wallerstein, *The Modern World-System* Volume I. (New York: University of California Press, 1974), pp.60-62. The author therefore inherits this terminology ‘world system’ as a specific referral to the European capitalist ‘core and periphery’ system. However, the author would also like to emphasis Professor Deng’s insights that it was *not* Europe that brought the world into connection. World trade had always existed. But rather it was Europe that managed to reap the benefits of trading networks set by China and other world civilisations and turned it into a capitalist nature of ‘core and periphery’ structure that served its own benefits.

⁴¹¹ Immanuel Wallerstein, *The Modern World-System* Volume I. published in 1974; Volume II. published in 1980; Volume III. published in 1989; Volume IV. Published in 2011 (New York: University of California Press); Immanuel Wallerstein, *Historical Capitalism with Capitalist Civilization* (London: Verso, 1995).

Wallerstein argues this ‘vertical integration’ was initiated by Europe. The shift of surplus towards the European core concentrated capital there and rendered further mechanisation and ever newer rare products possible. The concentration of capital in core zones created both the fiscal base and the political motivation to create relatively strong state-machineries, which in turn could pressurise greater specialisation in tasks lower down the hierarchy of commodity chains.⁴¹² Thus did historical capitalism actually create the so-called historical levels of wages which have become so dramatically divergent in different zones of the world system.⁴¹³ This pattern carries forward today in which a majority of primary sector peripheries and secondary labour-intensive exports economy semi-peripheries serve a group of industrial few. Wallerstein’s analysis was later expanded to the Latin American literature. The ‘dependency school’ argue the reason for the Third World underdevelopment is because of the presence of the imperialist and colonialist powers’ present-form super industrial capacity that make it impossible for late-comers to pursue industrialisation under the context of subdued ‘core and periphery’ relationship.⁴¹⁴

⁴¹² Immanuel Wallerstein, *The Modern World-System* Volume I. published in 1974; Volume II. published in 1980; Volume III. published in 1989; Volume IV. Published in 2011.

⁴¹³ Ibid.

⁴¹⁴ The author would like to thank Professor Deng’s suggestions in his side-note comments to add the Latin American citation: “For a Latin American model, please consider the well-known ‘Dependency Theory’, see Cardoso, F. and Enzo Falleto, *Dependency and Development in Latin America*. Berkeley: University of California Press, 1979.”

While Wallerstein's general brush on the modern world system structure is largely accurate, his description of this systematic process formation needs some historical details refinement. For instance, he talked about the 'vertical integration' of global commodity chain where the high-end products originated in Europe. He also said the pressurisation and specialisation of tasks down the global hierarchy created low wages elsewhere and the high wages started in Europe. Yet as discussed in previous discussions, the high production incentives and initiatives of the Chinese economy created the 'output-maximisation' pattern such that it was the large variety of Chinese goods including silks, cotton and other textiles, porcelain, rice, tea, etc., that flooded the European market and damaged the textile 'high-ground' of Florentine and Flemish industries back then. Chinese products were high-end and cheaper price. The only thing that Europe ran surplus to balance its centuries-long trade deficit at that time was silver. It was not Europe that started with the high-end products and thereby accumulated surplus to become the core, but rather it reaped the free-lunch network benefits of forcing African labour on the American land to get the high-end Asian products. And later it 'stole the throne' & overturned the global 'rules of the game' to its own favour. Moreover, none of the economy in the rest of the world was a wage economy as Europe. To say Chinese labour had lower wages forced by the higher wage European economy is incorrect because Chinese peasantry did

not live on wages and the high wages in Europe was in fact a compensation for low living conditions (see the *Data* section). Chinese ‘low wages’ had long started before European Age of Exploration and it was not bestowed by Europeans but an inherent characteristic of the Chinese free peasantry market economy that produced ‘high living standards’ at the time and simultaneously flooded the European markets with abundantly cheap and high-quality products.⁴¹⁵ Rather, Europe’s ‘high wages’ feature was from its unexploited institutional blockage backwardness. And it was later maintained by the pure exploitation of mass ‘zero-wage’ labourers in the American plantations that was far from the economics’ lenient way of saying specialisation of tasks down to the global hierarchy and commodity chain. China and Europe were both at the proto-industrial labour-intensive cul-de-sac at the time, and Europe was later relieved by the New World.⁴¹⁶

What is more, East Asian tigers managed to become top dogs from underdogs. This is against what the fatalistic dependency theory suggests. However, the broad ‘iron law’ of the dependency school may still hold because Latin America consists of sizeable continental economies. While the world structure could absorb another one-twentieth of the population (East Asian satellite states altogether) to climb up to the top ladder with no problem, to absorb any population or size of the economy bigger than this

⁴¹⁵ Pomeranz, *the Great Divergence* (2000)

⁴¹⁶ Pomeranz, *the Great Divergence* (2000)

is a completely different scenario. The China rise has been frequently attacked as stealing Western jobs, a portrayal largely unheard of during the previous phase of tigers' 'East Asian miracle'. The general pattern of Wallerstein's 'core and periphery' world system is solidly pre-programmed. China's industrial development is not only argued to send a deflationary impulse across the world that it contributed to Western world's 'twin deficits' and credit expansion, but also terminated the opportunities for other world parts to pursue industrialisation.⁴¹⁷ China is also increasingly stuck in the running out of 'population dividends' and rise of living costs to a level such that there is nationwide labour shortage in factories, and China's domestic consumption capability cannot accommodate its supply-side productive power that is easily vulnerable to exports volatility from increasingly fatigue external driven demand. And this leads to the next section.

2.4.2 *Long cycles'*

Wallerstein's sweeping process of world system formation did not finish in one go. Rather it took the form of successive European states' centuries long attempts to gradually incorporate the entire world territory. Each state led the European era for a while, and passed the centre to others. First was

⁴¹⁷ Wade, *Governing the Market*, p.xlvi; Antonio Andreoni and Fiona Tregenna, "Stuck in the Middle: Premature Deindustrialisation and Industrial Policy," *CCRED Working Paper* No. 11/2018

the Spanish and Portuguese great 'Age of Exploration'. Then was the 1648 Westphalia inter-states world system established by the Dutch. The British culminated the European episode into an Industrial Revolution and possessed the largest empire in world history. Arrighi further distilled their differences and distinguished the capitalist logic of power from the territorialist logic. The Iberian Peninsula was guided by the territorialist logic, they occupied Americas purely for the bullion mining. The Dutch was governed by the capitalist logic, they monopolised Asian spices trade network through joint-chartered VOC. Arrighi argues this capitalist logic originated from the 15th century Genoa.⁴¹⁸ The strict adherence to capitalist logic of power enabled the Dutch to beat Iberian territorialism, but made them fail to compete effectively in the struggle for commercial supremacy with the British.⁴¹⁹ The British distinguished itself from its predecessors with a Genoese-Iberian capitalist-territorialist complex that bestowed capitalist logic a transformative power: colonialism.⁴²⁰ Here one saw the historical 'long cycles' pattern in European (then world) history: the Genoese cycle, from the 15th to the early 17th centuries; the Dutch cycle, from the late 16th century through most of the 18th century; the British cycle, from the latter half of the 18th century through the early 20th century; and the US cycle, which began in the late 19th century and has

⁴¹⁸ Giovanni Arrighi, *The Long Twentieth Century: Money, Power, and the Origins of Our times* (London; New York: Verso, first published in 1994, this version republished in 2010)

⁴¹⁹ Ibid.

⁴²⁰ Ibid.

continued into the current phase of financial expansion. Notice this was not a concept of short-term business cycle in Economics. Rather a long trend historical phenomenon that manifested itself as productive expansion phase to financial expansion, and hence from one cycle to another that not necessarily resulted in the realised state of economic recession but an economic boom. This was because the internal secular decay was counteracted by the 'spatial fix' when the capitalist logic turned from production to finance and found promising opportunities elsewhere. Hence, from one historical 'long cycle' to another, geographic expansions had been a major mechanism through which the system brought in new areas of low costs that helped to check the secular tendency of rising pressure on profitability. This created the endogenous mechanism for the systematic formation of modern world system.

The nature of 1970s Western world's neoliberal turn could be determined as the financial expansion phase of the 20th century US long cycle. Europe had just experienced 20 years of stable 'Golden Age' growth since the end of WWII, from 1950 to 1973. The two World Wars stimulated the significant technological progress during the 1920s and 1930s: internal combustion engine, mass motorisation, advanced in chemical and electrical engineering...⁴²¹ These, together with the 'arrested industrialisation'

⁴²¹ Stephen Broadberry and Kevin O'Rourke, *The Cambridge Economic History of Modern Europe: Volume 2: 1870 to the Present* (Cambridge: Cambridge University Press, 2010), p.181.

disequilibrium accumulated in the three decades and the introduction of Fordist mass-production systems and Marshall aid from the U.S., generated high rate of capital accumulation per worker employed that permitted the acceleration of unprecedented productivity growth. As structural change had largely completed by the early 1970s and productivity levels converged to the US high level, European growth naturally came to a halt.⁴²² The US also experienced some remarkable growth in TFP during the same period that owed a good deal to broad electrification across American manufacturing.⁴²³ However, by the 1970s further prospects of Fordist mass production techniques came to a dead end. With the fall of profitability and slowdown of productivity, stagnant economic growth rendered Keynesian macroeconomic demand-management policies obsolete that merely generated an upward wage-price spiral. Money and capital no longer stayed into the long-run real economy and production, and rising costs prompted them to search for lower cost of production regions elsewhere. This was the general global historical context that conjoined into China's later 'economic miracle' when China started its 'opening-up market reforms' in the same 1970s period.

While Arrighi's broad brush of historical 'long cycles' description and

⁴²² Nicholas F. R. Crafts, "Economic Growth in the Twentieth Century," *Oxford Review of Economic Policy*, Vol.15, No.4, 1999; Peter Temin, "The Golden Age of European growth reconsidered," 2002 Cambridge University Press, *European Review of Economic History*, 6, pp.3-22.

⁴²³ Nicholas F. R. Crafts, "Economic Growth in the Twentieth Century"

interpretation is largely accurate, its implications need further refinement and extension. Western world's financial expansion phase since 1970s is *not* the main reason or sufficient condition for China's subsequent economic take-off. Rather it provided the contingency. The source of capital formation in China was predominantly internally-financed: extraction from the rural sector under Mao, and domestic household savings under Deng. This was also inaccurate to expect financial expansion alone could establish a proper sizeable industrial base elsewhere. Industrialisation is a remarkably difficult task, and only a few have succeeded: Europe and its Western settlements including the USA, and East Asian satellite states after WWII. Without the internal efforts from domestic institutions, 'developmental state', artificial planning, and industrial policy, etc., financial expansion and unfettered capitalist market could simply serve as a profiteering speculative exercise that destroys rather than generates mass affluence and a decent quality of life. China already got industrialised and possessed a comprehensive large industrial base before its market reforms.⁴²⁴ 1970s neoliberal turn provided the outside living space and condition, rather than the basis foundation, for China's transformation. The greatest contribution of Western world's financial expansion was not finance *per se*, but its unilateral annihilation of its own 'industrial armour' that passed on production opportunities to

⁴²⁴ Linda Y. Yueh, *China's Growth: The Making of an Economic Superpower* (Oxford: Oxford University Press, 2013), p.2.

and generated external effective demand for China's continued industrial 'unbalanced growth' which would have been locked into an internal systematic bottleneck cul-de-sac had neoliberal turn not happened.

Moreover, Arrighi stopped at the financial expansion phase of the fourth US 'long cycle'. Is a fifth 'China cycle' possible? However, a dire fact is China was one of the last large geographical areas incorporated into the capitalist world-economy. It is difficult for China to find another sizeable place with comparable industrial capacity on one hand, and on another for the world to generate enough effective demand for its own productive power. Western world has now frequently talked about 'de-globalisation' populist policies, and Chinese government recently launched the slogan of Common Prosperity for All (*gongtong fuyu*).

2.4.3 *The Soviet Industrialisation Debate, 1924—1928*⁴²⁵

China's carrying on and contradiction from Mao to Deng possessed enormous similarities to the discussion of the 1920s Soviet intellectuals between the leftist and rightist camps. They had also articulated in a way of the inherent contradictory and coherent whole over the simplistic Mao—

⁴²⁵ This part originally appeared in the later sections of the original script. The author would like to thank Professor Kent Deng for his valuable side-note comments on the original script: "This part pp.205—220 on the Soviet growth is repetitious. It should join the earlier part on the same issue." The author therefore corrects it and trims it here.

Deng dichotomy. Faced by all prospective sizeable economies which wished to get industrialised on their own, an economy needed to tackle the dilemma between Preobrazhenski's capacity building and Bukharin's incentives efficiency. Mao's China faced problems identified by the latter, and Deng's China encountered issues addressed by the former.

After the 1918—1921 civil war, Lenin launched the policy of retreating from war communism to the New Economic Policy (NEP). The crucial task, Lenin stressed, was “to improve the conditions of the peasantry and to increase their productive forces.”⁴²⁶ Indiscriminate requisitioning of peasant produce was replaced by a fixed tax in kind, and free trade on the local markets was restored. And NEP worked. Marketable output of agriculture climbed by 64 percent from 1922 to 1925.⁴²⁷ Drawing on Lenin, Bukharin developed his ‘market socialism’ reasoning: “By using the economic initiative of peasants... By developing trade we have restored the operation of the personal incentive of the small-scale producers, we have stimulated the expansion of output... motivated not by communist ideas but by their private interests”.⁴²⁸ Bukharin saw ‘the extent of accumulation’ depends on ‘the extent of exchange’ between industry and agriculture. By unlocking the incentives of small-scale farming and

⁴²⁶ Lenin quoted in Alexander Erlich, *The Soviet Industrialization Debate, 1924—1928* (Cambridge, Mass.: Harvard University Press, 1960), p.4.

⁴²⁷ Alexander Erlich, *The Soviet Industrialization Debate, 1924—1928*, p.xvi.

⁴²⁸ Bukharin quoted in Alexander Erlich, *The Soviet Industrialization Debate, 1924—1928*, p.10.

industry, peasants would produce more rural raw materials in exchange for state urban industry supplies, and increases in urban supplies would trickle down to the countryside that induce further increases in counterflows from agriculture.

Yet toward the end of 1925 the heyday of the NEP recovery was over: “There was a time when our enterprises were operating with a very light load. In that period it sufficed to make minor repairs, minor investment into fixed capital in order to obtain a quick increase in the load... Now it is different. The enterprises are loaded to a sufficiently full extent... Now each expenditure of new capital is to a large extent an investment in fixed capital than before... each new investment in heavy industry calls for much larger expenditures than an investment in light industry while the production effects will be coming forward later in the first case...”⁴²⁹

Preobrazhenski argues the goods shortages of the present were the results of this ill-planned ‘easy-going’ past. Years of under-replacement of capital reserves left the long overdue renewal of plant at present that were forced to be carried through in a short span of time. In order to smooth the difficult transition from ‘restoration’ to ‘reconstruction’, a drastic increase in the volume of investment would be required.⁴³⁰ And if drastic measures were

⁴²⁹ Shanin and Sokol'nikov quoted in Erlich, *The Soviet Industrialization Debate, 1924—1928*, pp.24-25.

⁴³⁰ Alexander Erlich, *The Soviet Industrialization Debate, 1924—1928*, p.33.

not taken at present, the failure to replace in the past had contributed to the goods shortage of today, the continued reluctance to make up for this delay would lead to a goods shortage of tomorrow.⁴³¹

In addition to the ‘supply’ considerations, Preobrazhenski presented his challenge to Bukharin’s effective demand. He asserted the demand problem no longer resulted from a lack of it but in the excess of it. The volume of marketable surplus was influenced decisively by the peasants’ willingness to trade. Preobrazhenski added that “the peasants are nowadays in no hurry to sell grain.”⁴³² If what he could get from the city was less than expected, it was only logical for him to keep his sales below the prewar level and to divert the difference toward his own consumption, feeding the livestock or plain hoarding. “Here lies the greatest danger and that is why we are so anxious about the volume of investment.”⁴³³

The Bukharin of 1924—25 was thinking in terms of the fullest, most balanced and most efficient *utilisation* of the existing productive potential when he discussed short-run as well as long-run developments. Preobrazhenski was concerned with the insufficiency of this *potential* even from a viewpoint of the smooth day-to-day operation of the economy. To

⁴³¹ Alexander Erlich, *The Soviet Industrialization Debate, 1924—1928*, p.107.

⁴³² Preobrazhenski quoted in Alexander Erlich, *The Soviet Industrialization Debate, 1924—1928*, p.36.

⁴³³ Preobrazhenski quoted in Alexander Erlich, *The Soviet Industrialization Debate, 1924—1928*, p.36.

be sure, he did not deny the importance of incentives. But he saw these against the broader background of ‘systematic underproduction’ such that mere reliance upon allocative efficiency would clearly not suffice.

It was under this context that he proposed his famous ‘primitive socialist accumulation’: the countries where capitalism had an early start had a definite lead in a large accumulation of wealth and the availability of free labour force. Both of these preconditions had to be created before technology superiority existed, and hence they could never come into being if the rules of the competitive game had been adhered to from the start. *Illiberal* techniques hence had to be adapted for ‘late-starters’, including separating the independent small-scale producers from their means of production, breaking the relative ‘autarky’ of primitive peasant economies and forcing their participants into the market, taxation and state-controlled manipulation of prices, outright compulsion of enclosures and workhouses...⁴³⁴ The voluntary savings of peasantry under the market could not be relied upon; an increase in the effectiveness of the monopolistic squeeze would result in a steadily growing movement of resources into industrial investment construction.⁴³⁵ Only the imposition of such could restore stability, and in the long run by making possible an expansion in total *capacity* would permit a more abundant supply in future.

⁴³⁴ Alexander Erlich, *The Soviet Industrialization Debate, 1924—1928*, pp.42-43.

⁴³⁵ Alexander Erlich, *The Soviet Industrialization Debate, 1924—1928*, p.52.

And only then would tangible incentives matter.⁴³⁶

Technically, Bukharin responded that a monopolistic policy would weaken incentives for improvements in *methods* of production.⁴³⁷ In current terminology, TFP growth would be gloomy, or even negative. A simple large-scale capital waste of accumulating *means* of production, without resorting to the efficiency on how they were organised or used. Preobrazhenski, from a macroeconomic perspective, disagreed with this microeconomic interpretation. The high profit margins created by monopolistic price policy would provide the necessary incentive and means for continuing capital outlays.⁴³⁸ Preobrazhenski might add that the gains in speed of expansion of the capital-goods industry through foreign trade were illusive. The most spectacular gain in supply in capital goods to be attained in this way would be in the nature of *onceover* increase, and could not be expected to continue in the long run.⁴³⁹ It is the *structure* of the organism; the *weight* of industrial sector to the economy that counts.

The Bukharin School was forced to readjust their views later in the course of the 1925 year when Preobrazhenski's warnings gradually came true. Bukharin retreated from his earlier promises of the "very quick tempo of

⁴³⁶ Alexander Erlich, *The Soviet Industrialization Debate, 1924—1928*, p.55.

⁴³⁷ Alexander Erlich, *The Soviet Industrialization Debate, 1924—1928*, p.53.

⁴³⁸ Alexander Erlich, *The Soviet Industrialization Debate, 1924—1928*, p.54.

⁴³⁹ Alexander Erlich, *The Soviet Industrialization Debate, 1924—1928*, p.143.

growth” to the humble “snail’s pace”: “We have come to the conclusion that we can build socialism even on this wretched technological level... that we shall move at a snail’s pace, but that we shall be building socialism and that we shall build it.”⁴⁴⁰ Nevertheless, Bukharin defended his ‘market socialism’ position through other perspectives: the policy of spreading the limited resources thin by distributing them over a large number of simultaneously started construction projects would result in a greater delay in completion of each of them.⁴⁴¹ It was in this context that Bukharin coined the famous phrase: “it is impossible to build a present-day factory with future bricks.”⁴⁴²

Bukharin denounced industrialisation promoted at the expense of peasantry. He refused to assign to any section of the economy a degree of preponderance which would involve a temporary halt or actual retrogression of the others.⁴⁴³ Preobrazhenski, however, was fearful that the Soviet economy, owing to the timidity of its moderate leadership, should act more sluggishly than a full-blooded capitalist economy would. To him, this meant *getting the worst of the two worlds*.⁴⁴⁴ The harmonist of ‘market socialism’ and the proponent of ‘primitive socialist

⁴⁴⁰ Bukharin quoted in Alexander Erlich, *The Soviet Industrialization Debate, 1924—1928*, p.78.

⁴⁴¹ Alexander Erlich, *The Soviet Industrialization Debate, 1924—1928*, p.83.

⁴⁴² Bukharin quoted in Alexander Erlich, *The Soviet Industrialization Debate, 1924—1928*, p.83.

⁴⁴³ Alexander Erlich, *The Soviet Industrialization Debate, 1924—1928*, p.83.

⁴⁴⁴ Alexander Erlich, *The Soviet Industrialization Debate, 1924—1928*, p.103.

accumulation' were thus on the opposite horns of the same dilemma. Limited productive capacity and low levels of income cannot enhance one without the sacrifice of another. Preobrazhenski stressed the need for speed; Bukharin underscored the necessity of balance. It was the case of a choice between *mortal sickness* and *virtually certain death*.

The beginnings of 1928 not only saw goods famine but also as a consequence a drop in grain collection. By January the amount of grain collected had been one-third less, and it dropped again in the spring.⁴⁴⁵ The peasantry did show the power and willingness to withhold grain for sale had urban industrial production been unsatisfactory. Stalin, in view of the slowness of agricultural development, declared agricultural collectivisation that caught everyone by surprise, including the former Preobrazhenski.⁴⁴⁶ The wholesale collectivisation of agriculture abandoned the peasants' freedom to choose the time and the terms at which to dispose of their surpluses, and those in turn passed to the hands of the state.⁴⁴⁷ To be sure, the initial fee was appallingly high. The unwillingness of the peasants to accept these arrangements appeared as their revolt against the loss of status and freedom: the whole slaughter of livestock. But by assuming direct command over the whole economy and by backing it

⁴⁴⁵ Alexander Erlich, *The Soviet Industrialization Debate, 1924—1928*, p.170.

⁴⁴⁶ Alexander Erlich, *The Soviet Industrialization Debate, 1924—1928*, p.97.

⁴⁴⁷ Alexander Erlich, *The Soviet Industrialization Debate, 1924—1928*, p.176.

with outright repression and compulsion over an unprecedented scale, Stalin succeeded in securing, even at the height of the collectivisation crisis, a minimum of basic supplies sufficient to keep the urban economy going.⁴⁴⁸ The Goods Famine, which Preobrazhenski incessantly hammered on, ceased to be a source of danger under Stalin's rule.

Stalin succeeded in 'ending' the debate with the means that even Preobrazhenski could not have imagined. But the Soviet Russian society, after a quarter of a century of unparalleled industrial and urban development pace that the advanced capitalist world failed to match, in fact lived on a lower-quality diet than at the time when it had been a society of wretchedly poor peasantry.⁴⁴⁹ The present factory was built with future bricks, to the extreme. Bukharin, in his last pronouncement, warned that the overextension of capital expenditure will eventually retard the tempo of development in the long run. The under-maintenance and inferior quality of a large part of its equipment would cause the "replacement echo" to come earlier.⁴⁵⁰ And Stalin's successors after 1950s did persistently attempt to grapple with stubborn Stalinist institutional rigidities and glaring disproportions.⁴⁵¹ The great debate of the twenties is back.

⁴⁴⁸ Alexander Erlich, *The Soviet Industrialization Debate, 1924—1928*, p.177.

⁴⁴⁹ Alexander Erlich, *The Soviet Industrialization Debate, 1924—1928*, p.183.

⁴⁵⁰ Bukharin quoted in Alexander Erlich, *The Soviet Industrialization Debate, 1924—1928*, p.184.

⁴⁵¹ Alexander Erlich, *The Soviet Industrialization Debate, 1924—1928*, p.186.

Russia was not alone. The well-known FMD (Feldman–Mahalanobis—Domar) model’s M was named after the Indian economist Prasanta Chandra Mahalanobis in 1953, who became the key economist of India's Second Five Year Plan that stressed on the importance of investment in building a capacity in the production of capital goods first in order to reach a high standard in consumption in future.⁴⁵² It is therefore interesting to speculate why only China succeeded? Jeffrey Sachs’s verdict that China was ‘backward’ beforehand while Soviet transition economies were overindustrialised is partially correct if one reinterprets it as China is a labour-abundant economy with enormous potential for left-over structural transfer (China was de-urbanised under Mao’s heavy industrialisation pursuit). That is to say, Russia got the industrial base but lacked surplus labour for structural transfer. India’s political system and socio-economic structure on the other hand precluded it to have any meaningful thorough industrialisation strategy to the enormous hardship towards the people. Bosworth and Collins in their famous comparative study between China and India reveal that despite China’s unbalanced heavy investment strategy earlier on, its later development encompassed remarkably broad across agriculture, industry, and services, the growth *and* output level of which all exceeded that of India.⁴⁵³ India’s industrial sector takes a substantial lower

⁴⁵² https://en.wikipedia.org/wiki/Feldman%E2%80%93Mahalanobis_model

Assessed on 0:32, 2021/1/25, Beijing Time.

⁴⁵³ Barry Bosworth and Susan M. Collins, “Accounting for Growth: Comparing China and India,” *The Journal of Economic Perspectives*, Vol. 22, No. 1 (Winter, 2008)

ratio of its GDP and its “manufacturing sector has remained surprisingly weak.”⁴⁵⁴ Ultimately India will need to address its inadequate infrastructure and to broaden its trade beyond the current emphasis on services so as to provide employment opportunities for its current pool of underemployed workers in agriculture.⁴⁵⁵ In other words, India got the surplus labour but lacked the industrial base. Only China possessed both. And this was *realised* by the 1970s global neoliberal turn that prompted and facilitated China’s rural-to-urban structural transition as well as sustained and enhanced China’s industrial level, enabling China to navigate out of the recurring Preobrazhenski—Bukharin systematic bottlenecks dilemma.

⁴⁵⁴ Barry Bosworth and Susan M. Collins, “Accounting for Growth: Comparing China and India”

⁴⁵⁵ Barry Bosworth and Susan M. Collins, “Accounting for Growth: Comparing China and India”

2.5 Data⁴⁵⁶

2.5.1 *The 'Great Divergence' debate*

2.5.1.1 Wages & GDP per capita

Debin Ma, in his rebuttal to scholar Kent Deng, asserted quite conceitedly that “During the past two decades, the Pomeranz Book... led to a flowering of new research into the economic history of China, with the aim of testing these ideas. In at least four different ways the hypothesis has been subjected to more detailed quantitative research, and in all cases the conclusion has been that the Pomeranz hypothesis cannot be proved right and is probably incorrect. These four tests are: (1) the development of GDP and GDP per

⁴⁵⁶ This section benefits from the engaging and stimulating discussions during the viva. Professor Deng has suggested ‘You have no data discussion.’ I then replied during the viva that first thanks for Professor Deng’s reminder. And then I have explained reasons why. The predominant reason is data are an extremely complicated area (not easy to finish in one or two paragraphs), particularly in the ‘Great Divergence’ debate. Despite the fame it got, very few believe in it apart from Pomeranz, the California School, Professor Deng, and I. And the examiners got a laugh. It was a happy chat and a good discussion. I mentioned Robert Allen’s high and low wages research, and argued he got the conceptual understanding wrong. One had to be careful whether China was a wage-labourer economy (whether Chinese peasantry lived on wages). I then used Scott’s study on Southeast Asian peasant villages to suggest local people had a reverse preference of social status to the capitalist market wages. This means Allen was wrong. I then mentioned even Mokyr, a Euro-centrist, admitted high wages was a compensation to poor living conditions in the cities. I then tackled Stephen Broadberry. He argued for British agricultural productivity growth. I questioned whether his understanding is from a wrong impression of a pure mathematical arithmetic exercise or genuine intensive productivity growth. And my own careful reading on historical evidence suggests it was not until the very late episode before the British Industrial Revolution that its agriculture took off. I then mentioned Philip Huang’s involutory growth verdict on premodern China. He used products-food price ratio to support his argument. I however pointed out his economics perhaps needs some improvement, because products-food price ratio could equally suggest productivity growth. Moreover, in historical concepts, it was an opportunity forced by cul-de-sac, as ‘industrious revolution’ has fundamentally hinted. Involution had long existed in Europe. It was not a unique Chinese scenario. This brought us back to Pomeranz’s ‘Great Divergence’ field in which none of these existing data researches could convincingly overturn this historical observation due to the very problem of the selective proxies they used. The examiners were very impressed. They encouraged me to write these down. I have therefore followed their ‘command’. Again, this high-quality new amended research is impossible if without the two prestigious examiners’ patient, rigorous, and warm support. Thank you.

capita in China (and Europe), (2) the development of real wages (of unskilled labourers), (3) the evolution of agricultural productivity and the consumption level of the population, and (4) the rate of urbanisation. All four literatures conclude that the Pomeranz hypothesis is probably too optimistic about the standard of living of the Chinese population compared with that of the most advanced parts of Western Europe.”⁴⁵⁷ Not even looking at other areas that Pomeranz asked us to see (China’s private property rights, mobility of the labour and land sale markets, rural proto-industries with high-value added products unrestricted by urban institutions, freedom to enter and establish markets, low interference from the state on the private economy, clean drinking water, high life expectancy, high literacy, mass education, dense transport networks from population size, proto-welfare granary social security system, the economies of scale of China’s internal large domestic economy, etc.), this thesis evaluates these four Eurocentric-based proxies in full rigour and concludes that Pomeranz’s alleged ‘optimism’ is historical realism.

Allen et al. collect data on the history of wages from administrative historical archives, or commercial contracts in London, Milan, Amsterdam, Peking, Tokyo, etc., and record them in grams of silver. They then construct a representative basket of consumption goods, so as to get real wages unit.

⁴⁵⁷ Debin Ma & Jan Luiten van Zanden, “What Makes Maddison Right: Chinese Historic Economic Data,” *World Economics* Vol.18, No.3, 2017.

Their results show on the eve of the British Industrial Revolution (IR), Peking's real daily wages was about 2 units as opposed to 4 units in 1738's Britain, and Britain's increased to 8 units after its completion of the IR.⁴⁵⁸ In a first glimpse, it seems as if the 'Great Divergence' debate is ended. There was basically no 'Great Divergence'.

The problem however comes from their *conceptual* comparison framework which suffers from selection bias that puts doubt on their data *comparisons*. Their logic premise is real wages in each historical city reflect living conditions. The crucial area they ignore, however, is whether *people earned a living through wages*. First and foremost is the *fact* that data on Asian daily wage refers to significantly lower proportions of the workforce than was the case for Europe.⁴⁵⁹ Chinese free landholding peasantry served various functions including active market traders, rural proto-industry producers, corvee service labourers, temporary wage labourers, soldiers, bureaucrats, etc., in addition to their farming career. Europe was different. Feudalism means a majority of commoners did not have landholding rights. And they were evicted to urban cities after the movements of *enclosure*. Socially rigid *professions* including merchants,

⁴⁵⁸ Robert C. Allen, Jean-Pascal Bassino, Debin Ma, Christine Moll-Murata, and Jan Luiten Van Zanden, "Wages, prices, and living standards in China, 1738—1925: in comparison with Europe, Japan, and India," *Economic History Review*, 64, S1 (2011), pp.8—38.

⁴⁵⁹ Kent Deng and Patrick O'Brien, "Locating a Chronology for the Great Divergence: A Critical Survey of Published Data Deployed for the Measurement of Nominal Wages for Ming and Qing China," *LSE Economic History Working Papers* No: 213/2015.

artistry, knights (or *samurais* in Japanese context), and peasant serfs consisted of different classes. And peasant serfs became wage-dependent labourers after they were expelled to the cities. A wage-dependent economy was hence the main feature under European context. Premodern ordinary Chinese, without the dispossession of their means of production, rarely would devote themselves to the wage-earning market. As late as the 1890s the Chinese wage-dependent ‘proletariat’ continued to represent a tiny proportion 5—10% of the Qing workforce.⁴⁶⁰ And they were mainly recruited on short-term seasonal contracts.⁴⁶¹ This means the number of *full-time* wage-dependent workers in traditional China was further diluted, at 1 percent to China’s total workforce.⁴⁶² Even Song China, a high tide well-known for its flourishing and advanced commerce, did not have mass full-time professional wage-labourers. In eleventh-century China, peasant-operated mines and foundries were the normal type of enterprise in eastern Shantung, and this organisation should well be the common one throughout the empire.⁴⁶³ Conversely, the production organisation developed in Venice was toward a permanent production entity.⁴⁶⁴

⁴⁶⁰ Kent Deng & Patrick O’Brien, “Why Maddison was Wrong: The Great Divergence Between Imperial China and the West,” *World Economics* Vol.2, No.18, 2017.

⁴⁶¹ Kent Deng and Patrick O’Brien, “Locating a Chronology for the Great Divergence: A Critical Survey of Published Data Deployed for the Measurement of Nominal Wages for Ming and Qing China,” *LSE Economic History Working Papers* No: 213/2015.

⁴⁶² Kent G. Deng & Patrick O’Brien, “The Kuznetsian Paradigm for the Study of Modern Economic History and the Great Divergence with Appendices of Literature Review and Statistical Data,” *LSE Economic History Working Papers* No.321/2021.

⁴⁶³ Kent Deng and Luca Zan, “Micro Foundations In The Great Divergence Debate: Opening Up A New Perspective,” *LSE Economic History Working Papers* No: 256/2017.

⁴⁶⁴ Kent Deng and Luca Zan, “Micro Foundations In The Great Divergence Debate”

This has important implications. Since Chinese peasantry did not live on wages, and European urban wage-earners lived on wages, any kind of wages comparison between the two suffers from omitted variable bias. A proper apple-to-apple comparison should be the real wages of European level versus the real wages of Chinese workers' *counterfactual* had they got no land and solely lived on the mono-wage income. Allen et al., Ma included, did not take this into account. This insight is supported by James Scott's fieldwork study on Southeast Asian peasant villages. Career preferences there did not make sense in terms of wages income alone. Hierarchy of status in the moral economy of the peasant ranked from small landholder, to land tenant, to wage-labourer. Even though a small landholder could be poorer than tenants who could rent larger plots; and marginal tenants could be poorer in a good labour market than wage workers.⁴⁶⁵ The key reason for this counteracting preference against market income alone was because of the key advantage that the small landholder possessed—the means of his subsistence—land in his own hands.⁴⁶⁶ This situation was not unique to Asian societies. Scott draws connections with the European domestic servant or permanent farm labourer or shepherd. Even though paid low wages, these were popular jobs

⁴⁶⁵ James C. Scott, *The Moral Economy of the Peasant: Rebellion and Subsistence in Southeast Asia* (New Haven and London: Yale University Press, 1976)

⁴⁶⁶ James C. Scott, *The Moral Economy of the Peasant: Rebellion and Subsistence in Southeast Asia*

then searched by European urban dwellers due to the relative security guaranteed.⁴⁶⁷ This *fact* was also unconsciously admitted by the prominent Eurocentric economic historian Joel Mokyr when he suggested the Renaissance technological progress period 1500—1750: “The poor quality of life and short life expectancy in cities raised urban wages relative to the countryside, since towns had to continue to attract migrants.”⁴⁶⁸ English cities by then were the most crowded due to the unprecedented *enclosure* movements. The unique highest wage English economy hence could be turned completely upside down.

Secondly, *cash* payment was atypical in premodern China. Payments in kind, including food and shelter, were more common. Another fact worth notice is Chinese wage-labourers were normally corvee service labour employed by the state (another reason why wage-labourers were so few, Confucian state deliberately wanted least corvee labour and low taxes), hence really not wage employment under European context. Kent Deng and Patrick O’Brien reveal that the Qing state would also pay food and shelter to workers. And they boldly conjecture the monetary wages payments recorded by Allen et al. should really be the payments *net* of the

⁴⁶⁷ James C. Scott, *The Moral Economy of the Peasant: Rebellion and Subsistence in Southeast Asia* (New Haven and London: Yale University Press, 1976), Section: Risk and Stratification.

⁴⁶⁸ Joel Mokyr, *The Lever of Riches: Technological Creativity and Economic Progress* (New York: Oxford University Press, 1990), Chapter 4. The Renaissance and Beyond

food, shelter, clothing etc.⁴⁶⁹ This is not an unreasonable guess. First, Deng and O'Brien's findings from Chinese sources suggest the published cash wages did not reflect the actual living wages needed to support a worker.⁴⁷⁰ Second, premodern China's physiocratic policies had a long tradition of taxation through collection in kind (including textiles, grain, animal fodder, and corvee services).⁴⁷¹ Huge quantities of food and textiles were collected as government taxes, and then distributed to officials as government payments. There is no reason not to believe this applied to the majority of state employees including corvee service wage workers. This was deliberate, and in fact welcomed by the employees, as payments were inflation-adjusted.

Some may argue this crude 'barter trade' showcases premodern China's commercial and credit facility backwardness when compared to those of Northwest Europe. However, one historical fact should get straight: Premodern China was the world's first civilisation to use paper currency. Song China's *jiaozi*. Historian Janet Abu-Lughod further suggests money followed a different line of development in China. In Europe, Middle East,

⁴⁶⁹ Kent Deng and Patrick O'Brien, "Locating a Chronology for the Great Divergence: A Critical Survey of Published Data Deployed for the Measurement of Nominal Wages for Ming and Qing China," *LSE Economic History Working Papers* No: 213/2015.

⁴⁷⁰ Kent G. Deng & Patrick O'Brien, "The Kuznetsian Paradigm for the Study of Modern Economic History and the Great Divergence with Appendices of Literature Review and Statistical Data," *LSE Economic History Working Papers* No.321/2021.

⁴⁷¹ Kent Deng and Luca Zan, "Micro Foundations In The Great Divergence Debate: Opening Up A New Perspective," *LSE Economic History Working Papers* No: 256/2017.

and India, gold coins were minted. In China, much less worthy copper coins were used because of the legal tender value backed by the Chinese state.⁴⁷² Kent Deng reveals the top exports from Song China was its Song copper coins ‘granted’ to Japan, Southeast Asia, and India, etc.⁴⁷³ Premodern China was not undeveloped in money, it deliberately refrained from being so. There is no reason to believe monetarisation in the premodern world was necessarily a good thing. Take premodern Japan as an example. In the latter half of the Tokugawa period as the economy became increasingly monetised, merchants flourished, and the *samurai* became progressively impoverished and indebted to the merchants as their fixed rice stipends proved inadequate to meet increasing money requirements.⁴⁷⁴

Thirdly, Allen et al. ignore an important concept in Economics when they compare nominal wages in silver taels: purchasing power parity. Silver prices were drastically different. Adam Smith published his *Wealth of Nations* in 1776. It could serve as primary historical evidence to indicate the silver prices at that time. Adam Smith explicitly acknowledged “In China, a country much richer than any part of Europe, the value of the

⁴⁷² Janet L. Abu-Lughod, *Before European Hegemony: The World System A.D. 1250—1350* (Oxford, UK; New York: Oxford University Press, 1991), p.15.

⁴⁷³ Gang Deng, “The Foreign Staple Trade of China in the Pre-Modern Era,” *The International History Review*, Vol. 19, No. 2 (May, 1997)

⁴⁷⁴ William W. Lockwood, *The Economic Development of Japan: Growth and Structural change, 1868—1938* (Princeton, N.J.: Princeton University Press, 1954)

precious metals is much higher than in any part of Europe.”⁴⁷⁵ The price of silver relative to gold in China was the highest in the world: 1:6 compared to 1:14 in Europe.⁴⁷⁶ Taking Allen et al.’s data, a simple arithmetic adjustment would yield: assuming same consumption basket, 2 units of silver in China would mean $2 \times (1/6) \times 14 = 4.67$ units of silver in Europe. Hence the real units comparison between Peking and London, instead of 2 : 4, was 4.67 : 4. It was just a simplified exercise for illustration purposes. The point is to show how drastically different silver prices would yield a distinct picture. Moreover, consumption goods basket prices were not the same. Smith in 1776 again commented: “China is a much richer country than any part of Europe, and the difference between the price of subsistence in China and in Europe is very great. Rice in China is much cheaper than wheat is anywhere in Europe.”⁴⁷⁷ Deng and O’Brien corroborate that Allen et al. and other Eurocentric studies’ nominal wage recordings of 13.05 silver taels in Qing China has been contestably transformed into an exchange rate of £6.43 that was way below the income required to buy food security in Victorian Britain.⁴⁷⁸

⁴⁷⁵ Adam Smith, (1776) *An Inquiry into the Nature and Causes of The Wealth of Nations* (published in 1977, University of Chicago Press), Book I, p.331.

⁴⁷⁶ Adam Smith, *An Inquiry into the Nature and Causes of The Wealth of Nations* (1977); Andre Gunder Frank, *ReOrient: Global Economy in the Asian Age* (Berkeley California: University of California Press, 1998)

⁴⁷⁷ Adam Smith, *An Inquiry into the Nature and Causes of The Wealth of Nations*, Book I, p.264.

⁴⁷⁸ Kent G. Deng & Patrick O’Brien, “The Kuznetsian Paradigm for the Study of Modern Economic History and the Great Divergence with Appendices of Literature Review and Statistical Data,” *LSE Economic History Working Papers* No.321/2021.

The fact that China possessed the dearest metal prices and cheapest food suggests premodern China by then was the world's most advanced economy. Since Ming's adoption of the silver standard, its quickly expanding economy had made vast quantities of goods production eager to chase the limited metals. Money supply was always short of money demand. The dearest metal prices in China had thus created opportunities for Europeans' 'global arbitrage'. The Spanish conquest of South America would have become unprofitable had Ming China not adopted silver pricing.⁴⁷⁹ China served as the anchor for the first global monetary system in silver at that time. If Europeans were utilising a point to construct their world system web, "it was toward China that they were building."⁴⁸⁰ The international prices by then were according to the China prices.

This leads one's evaluation to the next part: GDP per capita. The first and foremost problem of Maddison's grand millennium comparison project is his use of 1990 international dollars as a common numeraire, and he extends this all the way back to Year 1 of the Common Era.⁴⁸¹ For a purchasing power parity comparison to be valid, it *must* involve how much a particular quantity of goods and services valued in one national currency

⁴⁷⁹ Pomeranz, *The Great Divergence*, p.32.

⁴⁸⁰ Timothy Brook, *The Confusions of Pleasure: Commerce and Culture in Ming China* (University of California Press, 1999), p.12.

⁴⁸¹ Angus Maddison, *The World Economy: A Millennial Perspective* (Paris: OECD, Development Centre Studies, 2001)

would cost in the currency of another. It clearly depends on the particular bundle of goods and services under consideration, as well as their prices at particular places and times. It involves considerations both on the domestic structure of the economy *and* international structure at the time. Angus Deaton, the 2015 Nobel Laureate, immediately spelled out his critique to the unaccomplishable concept of ‘Purchasing power parity (PPP)’ once it rose to popularity decade ago: “comparisons become less reliable the further apart one of the structures of GDP (or its components) or the countries being compared”.⁴⁸² World Bank’s study shows a choice of different numeraire years would produce high levels of variation in China’s growth rates even for the short period 1990—2013, let alone the millennium gap comparison.⁴⁸³ More importantly, the international prices nowadays are Western-centred. Pomeranz, using China as a Smithian counterfactual, argues the New World created opportunities for Europe that “the world’s first ‘modern’ core and its first ‘modern’ periphery were created in tandem—and this global conjuncture was important in allowing western Europe to build something that was truly unique”; “this is, I think, a reasonable distribution for rethinking where our current industrialized era came from.”⁴⁸⁴ Using the international systematic prices now that work to

⁴⁸² Angus Deaton and Alan Heston (2010) “Understanding PPPs and PPP-based national account,” *American Journal: Macroeconomics* 2, 4, pp.1-35.

⁴⁸³ World Bank (2013) *Measuring the Real Size of the World's Economy, the Framework Methodology and Results of the International Comparisons Program*. Washington DC.

⁴⁸⁴ Pomeranz, *the Great Divergence*, p.25, p.27.

Europeans' favour to posit the systematic prices that were China-based once before is inappropriate in principle.

Moreover, Maddison simply granted a 450 dollars figure for Year 1 C.E. Han China.⁴⁸⁵ This basically means equal to the World Bank defined universal poverty line denominated as 450 dollars today. This is questionable given the *facts* that iron and steel tools including the heavy plough had already been used and blast furnaces were invented in the Han era while Europe still used wooden plough at the time. The world's first well-recorded long-distance trade between the East and West was named under the 'Silk Road' of Han China. Silk from Han China was sold for its weight in gold in Rome that arguably brought Roman empire's eventual downfall.⁴⁸⁶ Maddison's data for GDP per capita also suggests that almost no change occurred for more than a millennium before the advent of the Song Dynasty, essentially leaving traditional China's most powerful and energetic era, the Tang period (618—907), behind. Maddison then downgraded Song's growth: in 1000 was at 466 dollars, and not until 1300 did the figure upgrade to 600. And then stayed there at 600 dollars for five hundred years until 1850, before decreasing to 530 dollars in 1860.⁴⁸⁷ This

⁴⁸⁵ Angus Maddison, *Chinese Economic Performance in the Long Run. 2nd ed, rev. and updated: 960—2030 A.D. Vol. Development Centre studies* (Paris: Development Centre of the Organisation for Economic Co-operation and Development, 2007); Angus Maddison, *The World Economy: A Millennial Perspective* (Paris: OECD, Development Centre Studies, 2001).

⁴⁸⁶ Michael Loewe, "Spices and Silk: Aspects of World Trade in the First Seven Centuries of the Christian Era," *The Journal of the Royal Asiatic Society of Great Britain and Ireland*, No. 2 (1971), p.173.

⁴⁸⁷ Angus Maddison, *Chinese Economic Performance in the Long Run. 2nd ed, rev. and updated: 960—*

is questionable either because the rise in GDP per capita given for the Song period is too low. Maddison himself admits: “My assessment is that it was relatively modest—a rise in per capita income of about a third... China’s economic advance in the Sung dynasty relied heavily on exploitation of once-for-all opportunities for switching to intensive rice agriculture”.⁴⁸⁸ His historiography perhaps could not be more wrong since the most remarkable feature of Song China’s growth was the *significant* structural shift in the economy.⁴⁸⁹ The Ming—Qing extraordinary market expansion period acknowledged by Feuerwerker, Skinner, Rawski, Bray, Deng, Pomeranz, etc., to Maddison was static.⁴⁹⁰ This view is justifiable if Maddison applied his derogative view of premodern China’s growth to all societies (Europe included) before the Industrial Revolution, just as Clark did.⁴⁹¹ However, Maddison’s data strangely suggest divergence started around 1100, at that time and until the first two-thirds of the 16th century

2030 A.D. Vol. *Development Centre studies* (Paris: Development Centre of the Organisation for Economic Co-operation and Development, 2007); Angus Maddison, *The World Economy: A Millennial Perspective* (Paris: OECD, Development Centre Studies, 2001).

⁴⁸⁸ Maddison, *Chinese Economic Performance in the Long Run*, p.16.

⁴⁸⁹ Kent Deng and Lucy Zheng, "Economic Restructuring and Demographic Growth: Demystifying Growth and Development in Northern Song China, 960–1127," *Economic History Review*, 68, no. 4 (2015); Eric Jones, *The European Miracle: Environments, Economies and Geopolitics in the History of Europe and Asia* (Cambridge: Cambridge University Press, 1981)

⁴⁹⁰ Albert. Feuerwerker, "The State and the Economy in Late Imperial China," *Theory and Society* 13, no. 3 (1984): 297-326; G. William Skinner, "Marketing and Social Structure in Rural China," *The Journal of Asian Studies* (pre-1986); Nov 1964; Thomas G. Rawski, *Economic Growth in Prewar China* (Berkeley: University of California Press, 1989); Joseph Needham and Francesca Bray, *Science and Civilisation in China. Volume 6, Biology and Biological Technology. Part 2, Agriculture* (Cambridge: Cambridge University Press, 1984); Gang Deng, *The Premodern Chinese Economy: Structural Equilibrium and Capitalist Sterility* (Oxon; New York: Routledge Explorations in Economic History, 1999); Kenneth Pomeranz, *The Great Divergence: China, Europe, and the Making of the Modern World Economy* (Princeton: Princeton University Press, 2000)

⁴⁹¹ Clark, Gregory. 2007. *A Farewell to Alms: A Brief Economic History of the World*. Princeton and Oxford: Princeton University Press.

Italy was the richest country in the world (GDP per capita at \$1,100).⁴⁹² This is an absurdly high figure given the figure granted to Song was so low. Historical facts should get straight: Song China's gross annual iron production was not reached in Europe until 1700, and the iron price ratio reduction would only be matched by the British some seven centuries later.⁴⁹³ China's silk textile technology reached its high point between the 10th and 13th centuries, in Song times. Chinese leading textile technological inventiveness at that time has influenced textile production in other parts of the world, including the 13th century Italian city states and Flanders.⁴⁹⁴ Deng and O'Brien hence commented that the history of art since 2000 has moved from the production of historical knowledge that was representational to a stage that became more theoretical.⁴⁹⁵

A representational memoir published in 1861 recorded the early nineteenth-century British Industrial Revolution:

“I was born at Wimbush, near Saffron Walden, in Essex. My father was a labouring man, earning nine shillings a week at the best of times; but often

⁴⁹² Angus Maddison, *The World Economy: A Millennial Perspective* (Paris: OECD, Development Centre Studies, 2001)

⁴⁹³ Hartwell, R.M. (1963) *Iron and Early Industrialism in Eleventh-Century China*, Chicago: University of Chicago Library.

⁴⁹⁴ Dieter Kuhn, *Joseph Needham's Science and Civilization in China. Volume 5, Chemistry and Chemical Technology. Part IX, Textile Technology: Spinning and Reeling* (Cambridge: Cambridge University Press, 1988)

⁴⁹⁵ Kent Deng and Patrick O'Brien, "Locating a Chronology for the Great Divergence: A Critical Survey of Published Data Deployed for the Measurement of Nominal Wages for Ming and Qing China," *LSE Economic History Working Papers* No: 213/2015.

his wages were reduced to seven shillings.

There was a wonderful large family of us—eleven was born, but we died down to six. I remember one winter, we was very bad off, for we boys could get no employment, and no one in the family was working but father. He only got fourteen pence a day to keep eight of us in firing and everything. It was a hard matter to get enough to eat.”⁴⁹⁶

On another account, a ‘rural farmer’ like labourer employed in English urban cities had a somewhat better life, not from wages:

“The following are the earnings and expenses of a labourer, aged about 40, employed regularly throughout the year in a gentleman’s fields and gardens. His weekly wages are 11s... The man is allowed from his master’s garden what potatoes and other vegetables he has occasion for, and about a quart of skim milk from the dairy every morning.”⁴⁹⁷

One may hence wonder where does the nowadays urban ‘high wage’ living standard British economy meta-narrative come from.

⁴⁹⁶ Quoted in Jane Humphries, “The lure of aggregates and the pitfalls of the patriarchal perspective: a critique of the high wage economy interpretation of the British industrial revolution,” *Economic History Review*, 66, 3 (2013). Primary historical first-hand source: H____, B., ‘Autobiography of a navvy’, *Macmillans Magazine*, 5 (Nov. 1861–April 1862), pp. 140–51.

⁴⁹⁷ Quoted in Jane Humphries, “The lure of aggregates and the pitfalls of the patriarchal perspective: a critique of the high wage economy interpretation of the British industrial revolution,” *Economic History Review*, 66, 3 (2013). Primary historical first-hand source: Eden, Sir F. M., *A history of the labouring classes in England, with parochial reports*, A.G.L. Rogers, abridged and ed. (1928).

2.5.1.2 Agricultural productivity

A common theme in Eurocentric literature, and ironically Pomeranz's 'Great Divergence' thesis becomes a necessary 'counter-half' to well serve their purpose, is to boast the high agricultural productivity growth in Northwest European farming. Pastoral farming, it is argued, has the potential to enjoy economies of scale. With the continuing process of *enclosure* movements, any remaining communal village rights by the peasant serfs were extinguished and strip lands were amalgamated, all rural production decisions were subject to single management influenced by market prices, and agricultural productivity rose.⁴⁹⁸ Paradoxically, before this state was realised, it was used as an argument *ex ante* by the British Parliament to proceed movements of *enclosure* in the midst of increasing resistance by the commoners. In 1723 repressive legislation was enacted that authorised the death penalty for more than 50 offences connected with 'poaching'.⁴⁹⁹ History nowadays appears as bitter revolts and executions forgotten, and agriculture sky-rocketed. Conversely, China's rice farming in spite of the impressive high land yield, is argued to suffer from agricultural involution.⁵⁰⁰ More rice was grown from intensive labour usage, and more labour was reproduced to grow more rice. The higher yield

⁴⁹⁸ Lynn Townsend White, *Medieval Technology and Social Change* (London: Oxford University Press, 1962)

⁴⁹⁹ Simon Fairlie, "A Short History of Enclosure," *The Land* Summer 2009.

⁵⁰⁰ Clifford Geertz, *Agricultural Involution: The Processes of Ecological Change in Indonesia* (California: University of California Press, 1969)

generated encouraged more labour. During the process more labour was on the same land, and land was further divided and diluted, agricultural growth became a process of ‘involution’, with worsening and worsening man-to-land ratio.⁵⁰¹ Therefore, despite premodern China’s impressive land productivity, it is argued its labour productivity was low. Conversely, it is argued that the nature of European pastoral farming and the historical process of British *enclosure* movements helped generate economies of scale that raised agricultural labour productivity growth.

First and foremost is the problem that this kind of impression contrast fails to distinguish a simple mathematical arithmetic exercise. Suppose there are 10 people on the land. Each farms an acre and grazes a cow. Now 9 people are expelled from the land. The one left gets 10 acres together and 10 cows. Labour productivity *by arithmetic* rises 10-fold, and economies of scale *naturally* unfolds. The issue is whether there is real *intensive* growth of any kind, for the real question is whether the agricultural output could still feed the same 10 people as before, not the question of 9 out of 10 are discounted that generates the arithmetic result of labour productivity increase.

There was *no* convincing evidence on the economies of scale intensive growth in early to middle medieval Europe before 17th century. A careful

⁵⁰¹ CHAO kang, *Man and Land in Chinese History: An Economic Analysis* (Stanford: Stanford University Press, 1986)

reading on the orthodox European agricultural productivity growth classic by Lynn White summarises three main factors to the alleged ‘agricultural revolution’ in the early period. The first was the heavy plough. The second was the shift from ox to horse. The third was the three-field open system of crop rotation.⁵⁰² *None* of them, however, touches on the economies of scale effect directly. The three-field system utilised common pasture land as fallow land for rest seasons. After the completion of *enclosure*, common pastures were all privatised, and forest-fallow cultivation moved to short-fallow then to annual cropping.⁵⁰³ This effectively means convergence to premodern China’s *intensive* land use farming. Moreover, despite White’s claim that “horse as the primary farm animal made the mode of life become astonishingly urban” since previous ox moved so slowly,⁵⁰⁴ which he thought laid the agricultural foundation for later European urbanisation, a prime question is how could horse replace ox to plough the field given the latter was much stronger than the former. A more intriguing feature is the number of draft animals to pull the ploughs on the heavy soil in fact decreased from eight oxen to two horses.⁵⁰⁵ In Needham’s *Science and Civilisation* series, the author found the answer. Bray reveals that the introduction of curved iron mould-board to Europe replaced its straight

⁵⁰² Lynn Townsend White, *Medieval Technology and Social Change* (London: Oxford University Press, 1962), Chapter 2, The Agricultural Revolution of the Early Middle Ages, pp.39-78.

⁵⁰³ Boserup, E. (1965) *The Conditions of Agricultural Growth*, London: Allen and Unwin.

⁵⁰⁴ Lynn Townsend White, *Medieval Technology and Social Change*, Chapter 2.

⁵⁰⁵ Lynn Townsend White, *Medieval Technology and Social Change*, Chapter 2.

wooden mould-board used before and drastically reduced friction & saved animals. This important invention originated from Han China's heavy iron plough.⁵⁰⁶

Most agricultural productivity growth data also do not pass the sensitivity tests. Stephen Broadberry paints a vividly positive picture. England's farming output in the 1860s is more than five times greater than in the thirteenth century (a high period before Black Death), and eight times greater than in the fifteenth century.⁵⁰⁷ He argues England's substantial farm productivity growth alone facilitated the British Industrial Revolution.⁵⁰⁸ Gregory Clark, *using Broadberry et al.'s data set*, argues their output estimates were internally inconsistent with the supply of harvest labour, and consequently overall economic growth in England must "have been far less than Broadberry et al. estimate."⁵⁰⁹ Wrigley corroborates that from the beginning of 17th century to the end of the 18th century, "annual gain in agricultural productivity per head was modest, about 0.3 percent."⁵¹⁰

⁵⁰⁶ Joseph Needham and Francesca Bray, *Science and Civilisation in China. Volume 6, Biology and Biological Technology. Part 2, Agriculture* (Cambridge: Cambridge University Press, 1984), pp.174-178.

⁵⁰⁷ Stephen N. Broadberry, B.M.S. Campbell, Alexander Klein, Mark Overton, Bas van Leeuwen, *British economic growth 1270—1870* (Cambridge: Cambridge University Press, 2015), Chapters 2 and 3.

⁵⁰⁸ Stephen N. Broadberry et al., *British economic growth 1270—1870*, Chapters 2 and 3.

⁵⁰⁹ Gregory Clark, "Growth or stagnation? Farming in England, 1200—1800," *Economic History Review*, 71, 1 (2018), pp.51-81.

⁵¹⁰ Wrigley, E.A., (1987) *People, Cities and Wealth: The Transformation of Traditional Society*, Oxford: Basil Blackwell, Chapter on Urban growth and agricultural change: England and the continent in the early modern period, pp.157-193.

Conversely, even Robert Allen's study shows China's agricultural productivity in terms of *labour productivity* was not disappointing. From 1620 to 1820, output per hectare was nine times greater in Yangtze Delta than in England.⁵¹¹ Output per head was about 90 percent of the English performance.⁵¹² "This put Yangtze farmers slightly behind English and Dutch farmers c.1820, but ahead of most other farmers in Europe—an impressive achievement."⁵¹³ Despite his contested GDP per capita data, Maddison lists an alarming *fact*: in China, wheat and barley yield/seed ratios were about 10:1 in the 12th century (and a good deal better for rice), while the typical medieval European wheat and barley yield/seed ratio was 4:1 that persisted until the 18th century.⁵¹⁴ Chao's man-to-land ratio charge is therefore ungrounded. He argues the 12th century Song dynasty was a crucial turning point in which the average sown area per household had decreased from its previous 80 *shih mou* to less than 25 *shih mou*.⁵¹⁵ The problem of his analysis is the *fact* that Song China was one of the highest tides of China's growth episodes. Bray pinpoints the optimal size of

⁵¹¹ Robert C. Allen, "Agricultural Productivity and Rural Incomes in England and the Yangtze Delta, c. 1620-c.1820," *Economic History Review*, 62, 3 (2009), pp. 525-550.

⁵¹² Robert C. Allen, "Agricultural Productivity and Rural Incomes in England and the Yangtze Delta"

⁵¹³ Robert C. Allen, "Agricultural Productivity and Rural Incomes in England and the Yangtze Delta"

⁵¹⁴ Angus Maddison, *Chinese Economic Performance in the Long Run. 2nd ed, rev. and updated: 960—2030 A.D. Vol. Development Centre studies* (Paris: Development Centre of the Organisation for Economic Co-operation and Development, 2007)

⁵¹⁵ CHAO kang, *Man and Land in Chinese History: An Economic Analysis* (Stanford: Stanford University Press, 1986), Chapter 10. Conclusions.

intensive wet-rice farming is well under half an acre.⁵¹⁶ For intensive farming, diseconomies of scale, not economies of scale, is optimal.

2.5.1.3 Urbanisation

Urbanisation is the synonym for economic development nowadays. Yet consider in premodern times, when there was lack of machinery technological inventions and most people lived on farming, rural prosperity rather than urbanisation took the lead.⁵¹⁷ Urbanisation could arise from cost-push, or demand-pull factors. The English highest urbanisation level and completed structural change before the Industrial Revolution was attributed more to the former than to the latter. Mass impoverished refugees were compelled to live in cities during the accelerated movements of *enclosure* after 1688. It was under this context that studies on premodern China's urbanisation ratio need to be read with a sense of caution. What does it tell?

Van Zanden et al.'s findings show Song China had the highest level of urbanisation in premodern China during the 2nd millennium, at approximately 15%. Later episodes demonstrate a downward trend. Level

⁵¹⁶ Joseph Needham and Francesca Bray, *Science and Civilisation in China. Volume 6, Biology and Biological Technology. Part 2, Agriculture* (Cambridge: Cambridge University Press, 1984)

⁵¹⁷ Adam Smith, *An Inquiry into the Nature and Causes of The Wealth of Nations*, Book I.

of urbanisation fell from 11—12% in early Qing to 7% in the late 18th century and it remained until the early 1900s.⁵¹⁸ The exact nature of this downward urbanisation from Song to Qing shall be addressed in Chapter 3, which suggests it was physiocratic improvement and rural prosperity expansion. For the moment, consider Song China's urbanisation level. Despite Song's widely acknowledged remarkable technology and commerce achievements, its urbanisation was not the highest by international standards. In feudal Japan right until the early nineteenth century, the overwhelming majority of her 28 to 30 million people were unfree, poverty-stricken peasants.⁵¹⁹ This agrarian base supported an aristocratic ruling hierarchy of some 270 territorial lords (*daimyo*) and the warrior class (*samurai*). Some 40% or more of the peasants' produce was annually appropriated by the *daimyos* and the Tokugawa shogun for supporting themselves and for upholding a vast army of vassals and retainers, i.e., the *samurais*, numbering upwards of 2 million.⁵²⁰ Intermediary agents—merchants—were also an intriguing amount of population connecting rural surplus to the cities. This means in large cities like Edo and Osaka urbanisation level could reach 20%.⁵²¹ Rawski corroborates that in Meiji Japan or 18th century England, substantial

⁵¹⁸ Yi Xu, Bas van Leeuwen and Jan Luiten van Zanden, "Urbanization in China, ca. 1100–1900," *Centre for Global Economic History Working Paper Series*, Working paper no. 63 (2015)

⁵¹⁹ William W. Lockwood, *The Economic Development of Japan: Growth and Structural change, 1868—1938* (Princeton, N.J.: Princeton University Press, 1954), Chapter 1, Foundations of industrialism: the Meiji Era.

⁵²⁰ Lockwood, *The Economic Development of Japan*, Chapter 1, Section: the Meiji Era.

⁵²¹ Ian Inkster, *Japanese Industrialization: Historical and cultural perspectives* (London and New York: Routledge Studies in the Modern History of Asia, 2001)

personal opportunities and thick population clustered around a few large cities. China, in contrast, was widely dispersed.⁵²² Deng and O'Brien hence commented imperial China's relatively low and stable ratios of urbanisation may simply reflect a greater degree of more productive manufacturing and professional service activities growing across a vast empire.⁵²³

More importantly, even Mokyr argues between 1500 and 1750 important changes in the form of industrial organisation occurred in Europe. "The driving force in these changes was the de-urbanization of industry."⁵²⁴ Manufacturing activities were delegated from towns to the countryside, a consequence of the monopolistic position and tight corporate structure of urban craft guilds. This was the so-called rural 'putting-out' system. Mendels argues this 'proto-industrialisation' was important for the factory industrialisation afterwards.⁵²⁵ High or low urbanisation level as a proxy itself hence had little to tell.

⁵²² Thomas G. Rawski, *Economic Growth in Prewar China* (Berkeley: University of California Press, 1989)

⁵²³ Kent Deng & Patrick O'Brien, "China's GDP Per Capita from the Han Dynasty to Communist Times," *World Economics* • Vol. 17 • No. 2 • April-June 2016

⁵²⁴ Joel Mokyr, *The Lever of Riches: Technological Creativity and Economic Progress* (New York: Oxford University Press, 1990), Chapter 4. The Renaissance and Beyond

⁵²⁵ Franklin F. Mendels, "Proto-Industrialization: The First Phase of the Industrialization Process," *The Journal of Economic History*, Vol. 32, No. 1, The Tasks of Economic History (Mar., 1972)

2.5.1.4 Involutionary growth

The concept of ‘involutionary growth’ predominantly comes from Philip Huang, who extended ‘agricultural involution’ verdict to the entire socio-economy of Ming—Qing China.⁵²⁶ It is argued because population got so large, and land got so scarce, yield could not increase any further from increased frequency of cropping. A process of agricultural intensification initiated. By-employments and agricultural diversification flourished. However, Huang argues this commercialisation was rather from the necessity of survival than from genuine development *per se*. He calls it ‘growth without development’, or involutionary growth. The evidence Huang used to support his claim is daily earnings in Yangzi delta: in late imperial episode, returns to proto-industrial spinning/weaving were lower than to working in paddy fields (0.057 taels versus 0.143 taels).⁵²⁷ This suggests involution from agriculture has encroached upon the whole economy such that other production activities’ ‘spare space’ was also used up.

The first and foremost problem is Huang’s data interpretation. Song’s iron-grain price ratio decreased to one-seventh of the previous level.⁵²⁸ Food

⁵²⁶ Philip C.C. Huang, *The Peasant Family and Rural Development in the Yangzi Delta, 1350—1988* (Stanford: Stanford University Press, 1990)

⁵²⁷ *Ibid.*

⁵²⁸ Hartwell, R.M. (1963) *Iron and Early Industrialism in Eleventh-Century China*

crop prices increased five times.⁵²⁹ And one calls it intensive growth.⁵³⁰ It turns out that Chinese per capita iron output rose sixfold between 806 and 1078, and the structural change in the economy shifted labour resources to non-farming sectors *despite* higher profitability from farming due to increased food prices.⁵³¹ Hence decrease in iron-grain price ratio arose from both iron productivity increase (or more time and effort devoted to iron production) and increase in primary commodity prices that is a perfect sign of economic growth. Huang's Ming—Qing China proto-industry and food returns comparison could be applied with the same logic. Deng echoes that during Ming—Qing, “inside the Delta, either cotton productivity was improved greatly or cotton was produced cheaply by more free labour in low seasons. Or both.”⁵³² Huang's tackling of Ming—Qing and his verdict on the economy's involutory growth was his explanation to China's ‘decline’ in its later imperial episodes. However, Huang failed to explain the fact that why would Ming—Qing's Yangzi delta convert 70% of land to cotton farming if they ran out of land? Greater market flows in water transport and grand canals, and the exchange of soy bean, grain, wheat from the newly opened Manchurian territory in Qing all suggest Song's

⁵²⁹ Gang Deng (1999) *The Premodern Chinese Economy*

⁵³⁰ Jones (1981) *European miracle*; Mokyr (1990) *Lever of Riches*; Hobson (2004) *Eastern Origins of Western Civilisation*.

⁵³¹ Hartwell, R.M. (1963) *Iron and Early Industrialism in Eleventh-Century China*; Kent Deng and Lucy Zheng, “Economic Restructuring and Demographic Growth: Demystifying Growth and Development in Northern Song China, 960–1127,” *Economic History Review*, 68, no. 4 (2015)

⁵³² Kent G. Deng, *Mapping China's Growth and Development in the Long Run, 221 BC to 2020* (Singapore: World Scientific, Imperial College Press, 2016)

‘involutionary’ feature was far severer than that of the Ming—Qing episode. If so, Huang had to be consistent, either China suffered from involutionary growth from the cradle to the grave, or China’s Ming—Qing period also involved intensive growth as before. The fact that *increases* in rice prices during the Qing Dynasty were accompanied with extraordinary population increase suggests more of the latter.⁵³³

Huang, however, could as well insist no matter what one says about growth, the fact that it took increasingly more cotton cloth or more iron product to purchase the same amount of rice *is* involution. This is justifiable. Yet Pomeranz reveals involution of this kind *also* existed in Europe. In Strasbourg between 1400 and 1500 the amount of manual work needed to purchase a month’s worth of wheat for a family of four was between 40 and 100 hours.⁵³⁴ By 1540, it was well above the 100-hour line. In Germany, wages measured in grain fell 50 percent between 1500 and 1650.⁵³⁵ For France, it was not until the 1880s that a month’s grain could again be bought with 100 hours’ work.⁵³⁶ Jan de Vries however treats it as a positive sign. He coined it the ‘industrious revolution’ phenomenon existed in the long eighteenth century (1680—1815) which involved the

⁵³³ Kent Deng and Sun Shengmin, “China’s Extraordinary Population Expansion and Its Determinants during the Qing Period, 1644—1911,” *Population Review*, Volume 58, Number 1, 2019

⁵³⁴ Pomeranz, *the Great Divergence*, p.92.

⁵³⁵ *Ibid.*

⁵³⁶ *Ibid.*

lengthening of people's working hours and greater intensity of their work in order to expand their purchasing power that later paved the way for the 'industrial revolution'.⁵³⁷

Others, however, are less optimistic. Van Zanden argues real wages for the living standard of large segments of the European population between 1500 and 1800 *declined*.⁵³⁸ Pomeranz reveals meat consumption in Germany fell by 80 percent between the late Middle Ages and 1800.⁵³⁹ Britain's own grain and meat output were also becoming inadequate, between 1760 and 1790 there was a sharp rise of 40 percent in the price of wheat relative to other products.⁵⁴⁰ Food imports became a matter of *necessity*. Deng and O'Brien pinpoint that out of Allen et al.'s consumption basket for Britain, five of the commodities are foodstuffs and three (rice, sugar, and tea) were not produced in Britain.⁵⁴¹ Wallerstein explicitly argued Europe needed surplus food to support increased development and urbanisation.⁵⁴² It is also worth notice on the fact that premodern China had always been self-sufficient on food, a record unbroken until Mao's China when Great

⁵³⁷ Jan de Vries, *The Industrious Revolution: Consumer behavior and the household economy, 1650 to the present* (Cambridge: Cambridge University Press, 2008)

⁵³⁸ Jan L. van Zanden, "Wages and the standard of living in Europe, 1500—1800," *European Review of Economic History*, 2, 175—197, 1999.

⁵³⁹ Pomeranz, *the Great Divergence*, p.35.

⁵⁴⁰ Pomeranz, *the Great Divergence*, p.217.

⁵⁴¹ Kent G. Deng & Patrick O'Brien, "The Kuznetsian Paradigm for the Study of Modern Economic History and the Great Divergence with Appendices of Literature Review and Statistical Data," *LSE Economic History Working Papers* No.321/2021.

⁵⁴² Immanuel Wallerstein, *The Modern World-System* (New York: University of California Press, 1974), pp.41-42.

Famine forced China into food imports for the first time in its history. It also adds to the previous agricultural productivity section that at least in early to middle periods of the commonly orthodox praised ‘agricultural revolution’ 1500—1800, it was more due to the simple arithmetic exercise that portrayed labour productivity increase, while in reality the agricultural sector struggled to get enough to eat for the population as a whole. Chronic food scarcity was the norm in European cities during this period. In this regard, Europe was more involutionary than Ming—Qing China.

These lead us back to the historical observational arguments of Pomeranz’s ‘Great Divergence’ thesis:

“ the most ‘fully populated’ (i.e., densely populated relative to the carrying capacity of the land using available technologies) and economically developed parts of the Old World all seem to have been headed for common ‘proto-industrial’ cul de sac... [western Europe] became a fortunate freak only when unexpected and significant discontinuities in the late eighteenth and especially nineteenth centuries enabled it to break through the fundamental constraints of energy use and resource availability that had previously limited *everyone’s* horizons.”⁵⁴³

⁵⁴³ Pomeranz, *the Great Divergence*, pp.206-207.

2.5.2 *Maddison's data on Mao's and Deng's China*

Maddison's data overshoot the growth in Mao's period and undershoot Deng's growth a bit. The primary reason is he focuses on the production part, not consumption side of the economy. In other words, not from the perspective of people's well-being. He gives the annual GDP growth rate during 1952—78 at 4.4 percent, while the widely acknowledged 'China miracle' since 1978 market reforms only at 7.9 percent per annum during 1978—2003.⁵⁴⁴ The major factor is he uses China's official data on industry growth to his data set: 10.1 percent annual growth rate in industry during 1952—78, while the 1978—2003's annual growth rate dwarfed to 9.8 percent.⁵⁴⁵ A clear drawback of this data compiling is Maddison did not take into account the *quality* of capital accumulation. A high percentage of industrial output under Maoist system were simply lavish investment and waste production. A typical example is the Great Leap Forward. A million 'backyard furnaces' dotting around the countryside pushed industrial share and iron output of the economy to new height levels. Yet the melting of households' iron tools, even eating pots, produced the scenario of 'no one knows what would come out of such mess'. This leads to the second issue of his data set: 2.3 percent annual growth rate in GDP

⁵⁴⁴ Angus Maddison, *Chinese Economic Performance in the Long Run. 2nd ed, rev. and updated: 960—2030 A.D. Vol. Development Centre studies* (Paris: Development Centre of the Organisation for Economic Co-operation and Development, 2007), p.60.

⁵⁴⁵ *Ibid.*

per capita during 1952—78.⁵⁴⁶ A *fact* is people lived under Mao's period suffered from malnutrition, let alone the Great Famine causing millions of deaths. Moreover, the price structure under Mao's socialist 'self-exploitation' created an artificial scissors gap that downgraded rural raw materials' prices and inflated the output of industry. The fact that only 70 million Chinese remained in the urban industrial sector, and massive urban teenagers had to be sent to the countryside twice suggest that Mao's industrial leap forward growth was accompanied with de-urbanisation of the general economy. Maddison practically says nothing about people's living standards.

While inflating Mao's growth on one hand, Maddison strangely produced one of the harshest accounts on China's growth from 1978 to 1995: at 7.49% per annum, contrasting the official 9.88%.⁵⁴⁷ One reason is his adjustment to the official data on the tertiary sector subsector 'other services'. He accepts the official growth rates in the other two subcategories, namely in transport & communication, and in commerce & catering which he labels as 'productive services', but assumes all the rest services are 'non-productive'. And he simply puts zero labour productivity growth for them, justifying his assumption with "the practice of many OECD countries".⁵⁴⁸

⁵⁴⁶ Ibid.

⁵⁴⁷ Angus Maddison, *Chinese Economic Performance in the Long Run*

⁵⁴⁸ Angus Maddison, *Chinese Economic Performance in the Long Run*, p.151.

This is unacceptable given the fact that in a transition economy, with a previously suppressed and underdeveloped service sector (Naughton even argues a socialist economy hardly has a service sector at all, that is why unemployment is such a pressing issue in Mao's urban sector)⁵⁴⁹, once the economy opens up, labour productivity growth is very unlikely to remain constant. At least a burst of one-off growth should be expected from market reallocation. Second, Maddison draws the annual real growth rate of value added in industry during 1978—95 from the official 12.02% down to 8.56%.⁵⁵⁰ It is based on constant price output estimates calculated by Harry Wu in 1997.⁵⁵¹ The severe shortcomings of this methodology are essentially the assumption of no product quality improvement and no development of new products.⁵⁵² That is why in Maddison's data, Mao's China performed well in industry growth while Deng's China performance undershot to the level where it should have been higher. Again, Maddison considers industrial production *per se*, with no touch on consumers' welfare.

A more general evaluative comment can be given to this kind of 'GDP growth' researches. My worry is that they targeted at the wrong tree and

⁵⁴⁹ Barry Naughton, *The Chinese Economy: Transitions and Growth* (Cambridge, Mass.: MIT Press, 2007)

⁵⁵⁰ Angus Maddison, *Chinese Economic Performance in the Long Run*

⁵⁵¹ Angus Maddison, *Chinese Economic Performance in the Long Run*, p.158.

⁵⁵² Carsten Holz, "China's Reform Period Economic Growth: Why Angus Maddison Got It Wrong and What That Means," *Academia*, December 2004.

hid the real nature of specific historic periods and periods in transition, such that it is, perhaps, better to leave these researches blank than to have them. Talking about GDP growth in Mao's period was drawn from the industry output level, which in turn was drawn from the specific socialist institutional mechanism used to siphon off rural surpluses for urban industrial expansion. The harsh prices paid on misallocation of resources and blind accumulation production was in fact from the dilemma of 'there was no other alternative' for a catching-up economy lack of British primitive capital accumulation to pursue industrialisation on its own feet. Maddison leaves all these substantive circumstances and details aside and simply puts a positive GDP growth on Mao's period which by itself has no real meaning to tell. It not only hid the trauma of vast Chinese people in this hard-earned period, but also painted a picture of easy-going GDP growth (in principle achievable for all) with no touch on from where and how the journey really was. Modern growth is remarkably difficult, and only a few non-European countries succeeded apart from the Europeans. Maddison did not touch on the fundamental concept of capital formation.

The drawback of these 'GDP growth' researches is in turn manifested in the underestimated figures Maddison give to Deng's China. It arose from the failure to see the connection between the two periods and the nature of what Mao and Deng were essentially all about. Deng's China was both the

cash-in phase of Mao's industrial structure through market reforms and subsequent growth episode from continued market expansion itself. It was a reorientation from production to consumption purposes. And it was no wonder that Deng's China should have such a remarkable growth performance because it was an accumulative joined effect of more efficient uses of previous industrial base and a newly allocative market growth focus on people's welfare. Maddison simply looks at the industry growth under Deng's period as before, and fails to capture the huge discrepancy of people's well-being improvement from Mao to Deng. This kind of GDP researches in extremely limited sense really enhanced our understanding of China's growth. This problem is in fact throughout his grand millennium project. The low GDP per capita data Maddison *conjectured* for premodern China's historical periods would be contested by the revisionists-sinologists majority. Deng and O'Brien pinpoint one thing: pre-modern Chinese economy was composed of households of production, both agricultural and industrial products, and a major focus of the vast household peasantry and the physiocratic Confucian state was on people's consumption well-being.⁵⁵³ That is, a majority of products made were domestically consumed out of GDP counting. Maddison's data have showcased his Euro-centred 'industrial production' bias in essence. Consumption, rather than production *per se*, should be considered.

⁵⁵³ Kent Deng & Patrick O'Brien, "Why Maddison was Wrong: The Great Divergence Between Imperial China and the West," *World Economics* Vol.2, No.18, 2017.

2.6 Methods⁵⁵⁴

Academic disciplines nowadays from all round areas are increasingly eager to showcase themselves to be ‘scientific’. The old disciplines such as classics, politics, history, philosophy, or humanities in general, are charged as ‘thick description’. They are merely describing or interpreting things, not explanation. New generation scholars after WWII argue explanation requires the identification of mechanism or a specific formalism of logic flow, and that usually involves setting up a few premises and deducting towards conclusion. In other words, modelling & modelling to be tested. Hence one saw the emergence and encroachment of economics’ game theory to politics, i.e., political game theory to explain voters’ behaviour, legislation passing procedure, or cabinet’s veto players, as well as the popularity of ‘political science.’⁵⁵⁵ Other old disciplines are not exempt. Cliometrics and modelling appear in history. Philosophy, a rich field, more

⁵⁵⁴ This section benefits from Professor Kent Deng and Professor Xinming He’s valuable suggestions. It was an individual chapter in the original script and took the second major chapter. Both examiners have said in the viva that methodology is way too long. Also, why it is before the Reviews (implying normally methodology should be after the reviews). A predominant reason is the supra-long reviews in the original script that both examiners have commented reviews should not take so many individual chapters. Professor Deng also side-commented in the original script that “Your personal experience stated in the last 2 pages should go to a footnote as it is not what the thesis argues.” The author therefore trimmed, restructured, and put all other cases, theories, and reviews into Chapter 2. Reviews section, and methods as its last part with all redundant personal experience bits deleted and only the succinct and concise best parts remain. In so doing, it satisfies Professor Deng’s precious suggestion in the online system: ‘Ch.2 should be reviews’ as well as requirements in the joint examiners’ report that a full China focus is maintained and all irrelevant discussions are cleansed.

⁵⁵⁵ Kenneth A. Shepsle (Harvard University), *Analyzing Politics: Rationality, Behavior, and Institutions* Second Edition (New York; London: W.W. Norton & Company, original edition 1997, second edition 2010)

and more specialises in mathematical logic and analytical philosophy. The powerful phrase 'social science' pushes everything else into the sideway, and the typical history discipline would say with a small voice that it is doing historical 'narrative' nowadays.

Indeed, when one sees lightening before he hears thunder, he writes down one event after another. That is all he could say, hence the word 'narrative'. Yet the problem is exactly this. The reason why one knows it is not lightening causing thunder is exactly because he can *falsify* his hypothesis. He could do controlled experiments, to disentangle various factors in mother nature. He could do a hand clap, and there is no light before. He could shoot the laser pen, and there is no sound afterwards. When one ignites a firecracker, one nearly sees the splashing light and hears the big sound simultaneously. What is a better explanation out of all these empirical observations? There is something else causing both lightning and thunder. Light and sound occur simultaneously, but one travels much faster than the other in the air. Given the long sky distance, there is a great time lag between light and sound. Hence one sees the lightening before one hears the thunder. This is Physics.

Yet Economics is *not* Physics. Physics uses frictionless motion within a vacuum to proceed to address the effect of friction. Physicists could throw

an iron ball through mercury, then through water, then through air, then in a vacuum. They are *falsifying* things by carrying out experiments in different medium. They can work out the friction effect, and predict the perfectly frictionless world. This is science, a combination of empirical observation and deductive reasoning *from* empirical investigation, which makes generalised extrapolation possible. They are making hypothesis, and *falsifying* it through empirical experiments before it becomes a scientific ‘law.’ Economics studies ‘friction’ on the basis of its non-existence. Normally a neoclassical paper would start with ‘assuming perfect information’, or ‘no shoe-leather costs’, or ‘no friction nuances so that prices and output would quickly adjust to an equilibrium level’, and so on that would treat unemployment, one of the most important issues, as a *deviation* from a constructed ‘natural employment level’. John Maynard Keynes, in 1933, had already spelled out his critique to the classical tradition held among the orthodox during the Great Depression:

“the fact that all our ideas about economics ... are, whether we are conscious of it or not, soaked with theoretical pre-suppositions which are only applicable to a society which is in equilibrium, with all its productive capacity already employed. Many people are trying to solve the problem of unemployment with a theory which is based on the assumption that there is no unemployment... these ideas, perfectly valid in their proper setting,

are inapplicable to present circumstances.”⁵⁵⁶

Economists’ analogy to the usage of ‘friction’ in physics is hence wrong. It excludes politics, the social, the historical, people’s interdependence etc. to create individual utility functions TA^2 , then it uses TA^2 to analyse politics. This is conceptually inconsistent. It excludes the very factors that are necessary to establish TA^2 in the first place, then it uses TA^2 to analyse the very factors that it had been necessary to exclude to establish itself. It examines an individual’s changing preferences on the basis of their preferences are taken as fixed. It examines industrial upgrading and dynamic comparative advantage shift on the basis of the very concept that is inherently static. This is *not* science. This is tautology.

There hence exists a huge discrepancy between what the economic theory advises & predicts and real-world events in reality. The reductivism assumption used inevitably creates a world that has no role of state or cultural institution or individual interdependence. A theory of demand and supply would usually start with a single individual who is both the producer and consumer for himself. His utility function and production function share the same technical apparatus but mirror image to each other. It follows that one’s optimum is where the two intersects at the tangential

⁵⁵⁶ Quoted by Meltzer, A.H. (1988), *Keynes’s Monetary Theory: A Different Interpretation*, Cambridge: Cambridge University Press, p.137.

which is the price line. This is called ‘Robinson Crusoe’s optimum’. It is Pareto efficient. Notice: there is no arbiter. It is all by the individual himself as both consumer and producer. The general equilibrium in the economy is then figured out by the aggregation of all universal individual indifference curves together to form a single indifference curve of the economy’s demand. Same for the aggregate production function. This is still a Robin Crusoe diagram but with names changed. To illustrate the market at play, Frank Cowell, a neoclassical microeconomist, in his textbook confidently asserts that “The essence of a competitive equilibrium can be conveniently illustrated in a model of an economy without production—an *exchange economy*.”⁵⁵⁷ Technically this means renaming Robinson Crusoe’s production function into Bill’s consumption curve. One can see why capital formation, perhaps the most important concept, is absent in neoclassical analysis in general.⁵⁵⁸ The role of ‘state’ is also redundant in this perfect neoclassical market setting. The only role a state could best take is to take no role. Government is a collection of self-interested politicians and bureaucrats who maximise gains for themselves.⁵⁵⁹ If one insists however there should be a role for these ‘non-market’ elements to take, then he has to make market imperfect. Hence asymmetric information, externalities,

⁵⁵⁷ Frank A. Cowell, *Microeconomics: Principles and Analysis* (Oxford: Oxford University Press, 2006), p.149.

⁵⁵⁸ Joan Robinson, *Economic Heresies: Some Old-Fashioned Questions in Economic Theory* (New York: Basic Books, Inc., 1971)

⁵⁵⁹ Timothy Besley, *Principled Agents?: The Political Economy of Good Government* (Oxford: Oxford University Press, 2007)

individual bounded rationality ... emerge as the *raison d'être* of the state, as if some real great breakthroughs. Ben Fine pinpoints these are what a majority flush of Nobel prizes is all about— “the sudden dramatic discovery by economists that institutions, and structures more generally, matter considerably”, “often with the moniker ‘new’ attached – the new development economics, the new economic sociology, the new institutional economics, the new welfare economics, the new economic history, the new financial economics, and so on.”⁵⁶⁰

Two immediate problems arise out of these: Neoliberal Economics continues to rely on TA². By incorporating factors that are previously excluded to establish TA² and then to explain the excluded factors using TA², it cannot avoid the hostility to state intervention without advocating the benefits of the market and cannot explain how the *exogenous* state interacts with the market to solve market failure. Moreover, the more it is to accept that microeconomic principles in and of themselves are insufficient to explain the economy, and that other factors have to be incorporated to do this, the more generic ‘institutions’, for instance, become a proxy for explaining everything that is not previously explained. And to be anything means to be nothing.

⁵⁶⁰ Ben Fine, *Microeconomics: A Critical Companion* (London: Pluto Press, 2016), p.16.

Take Ronald Coase, the 1991 Nobel Laureate, as an example. He uses the idea of transaction costs to explain why firms, like ‘islands of planned economy in the capitalist sea of anarchy’, exist. If all contracts are enforced by law and always executed, why do we need firms? Can we use the market (rather than hierarchies of control within a firm) to conduct all exchanges? Or can we contract or sub-contract everything? Coase’s answer: the firm is needed because the market is not working perfectly, i.e., market transaction costs are non-zero.⁵⁶¹ This means if market transactions exist not only in spot but also continuously, and ownership is assigned fully so that there are no externalities, then market outcomes are Pareto efficient. Coase’s rationale does not have to be in the realm of the market. This rationale can be applied to everything. If transaction costs are universally zero, through the market or otherwise, then there is no reason to believe that the world is not an ideal place if left to itself. Such is the ultimate ideological rationale for neoliberalism.⁵⁶²

Real world events however demonstrated the reverse scenario. Karl Polanyi, the prominent economic historian, reveals that “The road to the free market was opened and kept open by an enormous increase in continuous, centrally organised and controlled intervention. To make Adam Smith's ‘simple and natural liberty’ compatible with the needs of

⁵⁶¹ Ronald H. Coase, *The Firm, the Market, and the Law* (Chicago: University of Chicago Press, 1988)

⁵⁶² Fine, *Microeconomics: A Critical Companion*, pp.105-106.

human society was a most complicated affair. Witness the complexity of the provisions in the innumerable enclosure laws; the amount of bureaucratic control involved in the administration of the New Poor Laws which for the first time since Queen Elizabeth's reign were effectively supervised by central authority; or the increase in governmental administration entailed in the meritorious task of municipal reform."⁵⁶³ Free markets could never have come into being merely by allowing things to take their course. *Laissez-faire* was not a method to achieve a thing, it was the thing to be achieved.⁵⁶⁴ And this *explains* the paradoxical counter-intuitive phenomenon in which post-WWII emerging 'free market' economies were accompanied by Neo-authoritarianism: Park Chung Hee's Korea, Chiang Kai-shek's Taiwan, Lee Kuan Yew's Singapore, and the present-day state-capitalist China. They were in fact there to *achieve* 'free markets.' More historical evidence can be drilled to support this keen sense. The other side story on Britain's 1688 'Glorious Revolution' is that the subsequent British Parliament taxed its people most heavily and had the highest debt and expenditure in the world. Conversely, the Court of pre-modern China taxed no more than 5% on its people. A major challenge for China's modernisation in response to western and Japanese threats was in fact to *raise*, rather than *lower*, its fiscal capacity. These ironic findings

⁵⁶³ Karl Polanyi, *The Great Transformation: The Political and Economic Origins of Our Time* (Boston: Beacon Press, first published in 1944, this edition republished in 2001), Chapter 12. Birth of the Liberal Creed

⁵⁶⁴ Karl Polanyi, *The Great Transformation*, Chapter 12. Birth of the Liberal Creed

make it difficult not to notice the importance of history itself. Yet these sharp insights from direct reading on events of realities face the embarrassment of the fact that despite they could describe in detail how the real-world works, the need for industrial policy for instance, they are often not justified in theory and instead always judged against by it.⁵⁶⁵

This problem was not unrealised by prominent mainstream economists. In his 1990s interview, Friedman asserts “economics has become increasingly an arcane branch of mathematics rather than dealing with real economic problems. There is no doubt that that has happened. I believe that economics has gone much too far in that direction...”⁵⁶⁶ “It is less important for macroeconomic models to have choice-theoretic microfoundations than it is for them to have empirical implications that can be subjected to refutation.”⁵⁶⁷ Yet it would be wrong to assume Friedman possessed a proper science view that any conclusion’s core should be inductive and should be subject to rigorous *Science by Falsification* procedure.⁵⁶⁸

Instead, already in 1953 Friedman spelled out his ‘positive economics’ methodology:

⁵⁶⁵ Ha-Joon Chang, *The Political Economy of Industrial Policy* (London: Palgrave Macmillan, 1996)

⁵⁶⁶ Milton Friedman’s interview in Snowdon and Vane, *Modern Macroeconomics*, p.211.

⁵⁶⁷ Milton Friedman’s interview in Snowdon and Vane, *Modern Macroeconomics*, p.210.

⁵⁶⁸ Karl Popper, *The Logic of Scientific Discovery* (Oxford: Routledge, 2002)

“Consider the problem of predicting the shots made by an expert billiard player. It seems not at all unreasonable that excellent predictions would be yielded by the hypothesis that the billiard player made his shots as if he knew the complicated mathematical formulas that would give the optimum directions of travel, could estimate accurately by eye the angles, etc., ... Our confidence in this hypothesis is not based on the belief that billiard players, even expert ones, can or do go through the process described; it delivers rather from the belief that, unless in some way or other they were capable of reaching essentially the same result, they would not in fact be expert billiard players.”⁵⁶⁹

Freidman posed this analogy in the midst of a confusing argument by which he attempts to show a scientific theory cannot be tested by testing the realism of its assumptions. All that matters is a theory’s predictions, not whether its assumptions are true. He draws another example from Physics that the law of falling bodies “is an accepted hypothesis that the acceleration of a body dropped in a vacuum is a constant— g ”.⁵⁷⁰ According to Freidman, this is meaningless to argue this law assumes a vacuum. The only thing that matters is the accuracy of the predictions obtained if one *assumes* bodies fall *as if* they are falling in a vacuum. Here comes Freidman’s famous dictum: ‘the more significant the theory, the

⁵⁶⁹ Milton Friedman, *Essays in Positive Economics* (Chicago: University of Chicago Press, 1953)

⁵⁷⁰ *Ibid.*

more unrealistic the assumptions.’

The immediate problem is Friedman’s circular argument pitfalls in his billiard player analogy. An expert billiard player plays *as if* he knew complicated mathematical formulas; if he didn’t play this way, he would not be an expert billiard player. This is tautology. More importantly, Friedman’s use of Physics ‘law of falling bodies’ example is in fact *against* his methodology proposition for the fact that this field of Physics discovery proceeded exactly on the refinement of starting *assumptions*.

Our understanding of ‘the law of falling bodies’ grew out of Galileo’s corrections to Aristotle. Aristotle assumed a constant force applied to an object will cause it to move at a constant velocity, the greater the force the greater the velocity. This seems to make perfect sense in real world that a feather falls slower compared to a stone, which is summarised by Aristotle as heavier bodies fall with a greater velocity than lighter bodies. Galileo corrected Aristotle through changing his *assumptions*: 1) a body at rest tends to remain at rest and a body in motion tends to remain in motion, 2) when a constant force is applied to an object it causes that object to *accelerate* at a constant rate rather than to move at a constant velocity. Scientific theory then proceeded through *falsification*. Galileo proved his assumptions are more reasonable than Aristotle’s in his 1589 Leaning

Tower of Pisa experiment that two iron balls with different weights fell to the ground at same time. It turns out that Aristotle did not consider the role of 'friction' in his understanding of the universe.

And Newton corrected Galileo. Galileo had *assumed* the rate of acceleration of a falling body in a vacuum would be constant throughout its fall. Newton's theory of gravity however assumes that there is an inverse-square relationship between the force of gravity and the distance between the centres of gravity of the earth and the falling body. The rate of acceleration then must increase as a falling body approaches the earth. Newton's assumptions are more reasonable than Galileo's because if Galileo was correct, then there would not have been the force of gravity. Einstein corrected Newton. Newton's *assumption* of the independence of space and time was contradicted by empirical observations and replaced by Einstein's *assumption* of a space-time continuum in his theory of relativity.

Science therefore progresses through deductive reasoning and empirical falsification procedure to correct its starting inductive assumptions. A better scientific theory is showcased by its correction of wrong beliefs and greater incorporation of a number of facts into its starting assumptions. In other words, science improves through increasing *realism* of its starting assumptions. The greatest problem of Freidman's methodology is it cannot

prove whether his theory is *systematically* consistent with real-world realities or *happened* to be the case. It is ‘hypothetic-deductive confirmation’. Scientific method, in contrast, involves ‘induction-deduction-falsification’ procedure that constantly continues the feedback loop to refine our inductive assumptions and improve our inductive understanding of the universe. It is in this regard that history as a classic discipline is everlasting. For ‘social science’ as a whole, as scholar Kent Deng has emphasised, it is important to distinguish facts from opinions/theories, and to get historical facts straight at first. It is also important to realise the non-deterministic nature of realities that stands in contrast to restricted definitive premises of modelling, and history tackles this *changing* dynamic. As scholar Xinming He pinpoints: “we underline the importance of temporality. Although time is often conceptualized as a boundary condition, it should play a more important role in theory building as it can change the way theoretical constructs and relationships between them are conceptualized.”⁵⁷¹

⁵⁷¹ Following Professor Kent Deng and Professor Xinming He's high standards, direct citations are kept at a bare minimal throughout this dissertation, unless they are too good to miss. Here Professor He's insight is so 'hitting the bullseye' that it is worth quoting in full. The author is impressed. Given Professor He has such a wide range of research background and interests, he could capture such a sharp neat understanding on the history discipline in essence: the nature of time flow. Again, it is the author's honour and privilege to have the two prestigious scholars as his external examiners. He, Xinming, Sousa, C., Lengler, J. & Tang, L. (2021). Foreign Market Re-entry: A Review and Future Research Directions. *Journal of International Management*

3

The Premodern Chinese economy:⁵⁷²

market economy prosperity versus European capitalist expansion

Eurocentric scholars love to portray themselves as outward-looking, energetic, innovative, entrepreneurial, progressive, dynamic... such that it was them who launched the Age of Exploration and the Industrial Revolution.⁵⁷³ And China, the conventional empire left unconquered in the Far East and Marc Polo's dreamland, served as a natural example to be the necessary counter-half.⁵⁷⁴ The Chinese culture was not suited to scientific and technological progress.⁵⁷⁵ Jean Jacques Rousseau conceived China as a place of despotic regimes and its people lack of sophistication, as opposed to the civilised and enlightened Europe.⁵⁷⁶ Montesquieu wrote that "China is a despotic state whose principle is fear".⁵⁷⁷ Hegel claimed

⁵⁷² This individual chapter set-up benefits from Professor Kent Deng's side-note comments on the original script: "This part, labelled as IV.I, is your main thesis instead of a review of literature. You have done your literature review already." The author got this enlightenment and started this chapter as a prime mover. This naturally connects to the later chapter on Mao and Deng in the original script, and I separate them in the new thesis as two chapters (also suggested by Professor Deng in his side-note comments) and add another third chapter on 'way out' from global perspective, and then add another chapter (before socialist transition and after Chapter 3) as Chapter 4 on early modern China's attempts and the diagnosis of China's transition difficulties during its Westernisation reforms. In this way, Chapter 3, 4, 5, 6, 7, and 8 conclusion are set up so smoothly and delicately interweaved together that satisfy the joint examiners' report: "The identified knowledge gaps and research contributions and positioning of the whole work in Chapter 1 should be echoed and discussed in the following chapters to further explain how these contributions have been achieved, and how other researchers and stakeholders (e.g., policy makers) can learn."

⁵⁷³ John M. Hobson, *The Eastern origins of Western civilization* (Cambridge, UK; New York: Cambridge University Press, 2004), pp.316-317.

⁵⁷⁴ Hobson, *The Eastern Origins of Western Civilization*, p.321.

⁵⁷⁵ Joel Mokyr, *The Lever of Riches: Technological Creativity and Economic Progress* (New York: Oxford University Press, 1990), p.227.

⁵⁷⁶ Jean Jacques Rousseau, *Discourse on Political Economy And The Social Contract* (Oxford: Oxford University Press, 1999), pp.13-14.

⁵⁷⁷ Montesquieu. 1989. *The Spirit of the Laws* (1748). Translated by Anne M. Cohler, Basia C. Miller, and

that “everything which belongs to Spirit—unconstrained morality, in practice and theory, Heart, inward Religion, Science and Art properly so called—is alien to it [the Chinese people].”⁵⁷⁸ Since Chinese people cannot think by themselves, they are also deprived of the ability to govern themselves and, like children, need to be ruled by an authoritarian father.⁵⁷⁹ Marx, as a conventional critic, coined a term ‘Asiatic mode of production’ for Asia where class struggle and bourgeoisie institutions were notably absent, and asserted capitalism should be an emancipation force in these ‘places without history’, whereas capitalism was branded ‘exploitative’ in Europe.⁵⁸⁰ These views became ‘self-evident’ when Emperor Qianlong sent his famous letter to King George III in 1792: “As your Ambassador can see for himself... our Celestial Empire possesses all things in prolific abundance and lacks no product within its own borders. There was therefore no need to import the manufactures of outside barbarians in exchange for our own produce... I do not forget the lonely remoteness of your island, cut off from the world by intervening wastes of sea...”⁵⁸¹ The Chinese were associated with impressions—inward-looking, backward, arrogant, ignorant, indulgent, spiritless and stagnant mentality subject to a

Harold S. Stone. Cambridge: Cambridge University Press, p.128.

⁵⁷⁸ Hegel, Georg F. W. 2001. *The Philosophy of History*, translated by J. Sibree. Kitchener: Batoche Books, pp.155-6.

⁵⁷⁹ Hegel, Georg F. W. 2001. *The Philosophy of History*, p.121.

⁵⁸⁰ Karl Marx, *On Colonialism: Articles from the New York Tribune and Other Writings* (1853). New York: Internat. Publ., 1972; *Grundrisse* (1857-1858); *Das Capital* Vol. I (1867). (Penguin classics, 1992)

⁵⁸¹ E. Backhouse and J.O.P. Bland, *Annals and Memoirs of the Court of Peking* (Boston: Houghton Mifflin, 1914), pp.322-331.

despotic and corrupt state; a dwarfed civilisation that isolated itself from the rest of the world—that have surmounted to Karl Wittfogel's *Oriental Despotism* from then on.⁵⁸²

Yet it was the Chinese ideas that stimulated the Continental European and British Enlightenment. Many Enlightenment thinkers positively associated with China and its ideas, including Montaigne, Malebranche, Leibniz, Voltaire, Quesnay, Wolff, Hume and Adam Smith. In his *L'Orphelin de la Chine* (1755), and *Zadig* (1748), Voltaire drew on Chinese conceptions of politics, religion and philosophy – all of which were based on rational principles – in order to attack the European preference for hereditary aristocracy.⁵⁸³ Chinese ideas also played an important part in influencing British thinking. In the Anglo-Saxon world the central European political economist was the Scotsman, Adam Smith. But behind Smith lay Francois Quesnay, the French 'Physiocrat'. And behind Quesnay lay China.⁵⁸⁴ Quesnay, not Smith, was the first European to criticise the ideas of mercantilism.⁵⁸⁵ The term 'physiocracy' means the 'rule of nature'. The significance of his ideas, derived from China, was at least twofold: firstly, he saw agriculture a crucial source of wealth (which became an important

⁵⁸² Karl August. Wittfogel, *Oriental Despotism: A Comparative Study of Total Power*. 1st Vintage Books ed. (New York: Vintage Books, 1981)

⁵⁸³ Hobson, *The Eastern Origins of Western Civilization*, p.195.

⁵⁸⁴ Hobson, *The Eastern Origins of Western Civilization*, p.196.

⁵⁸⁵ Hobson, *The Eastern Origins of Western Civilization*, p.196.

idea in the British agricultural revolution). Secondly, he believed that agriculture could only be fully exploited when producers were freed from the arbitrary interventions of the state. Only then could the ‘natural laws’ of the market prevail. Quesnay’s debt to Chinese political economy was found in *wu-wei*, a term from Lao Tzu, which was translated into French as *laissez-faire*.

World’s early technological breakthroughs also originated in China, as well-documented in Joseph Needham and his colleagues’ *Science and Civilization in China* series. The Chinese led the Europeans by a millennium and a half or more in the use of blast furnaces.⁵⁸⁶ China’s silk textile technology reached its high point between the 10th and 13th centuries, in Song times.⁵⁸⁷ Song’s widespread adoption of the water-powered spinning machine for hemp and silk and technological inventiveness has influenced the subsequent development of the silk textile industry in the 13th century Italian city states that became a key factor in the commercial revolution, and hence the rise of capitalism in Europe.⁵⁸⁸ Iron and steel production levels in Song China were not surpassed by Britain until its late

⁵⁸⁶ Joseph Needham and Wang Ling, *Science and Civilisation in China. Volume 4, Physics and Physical Technology. Part II: Mechanical Engineering* (Cambridge: Cambridge University Press, 1965).

⁵⁸⁷ Dieter Kuhn, *Joseph Needham’s Science and Civilization in China. Volume 5, Chemistry and Chemical Technology. Part IX, Textile Technology: Spinning and Reeling* (Cambridge: Cambridge University Press, 1988), p.408.

⁵⁸⁸ Janet L. Abu-Lughod, *Before European Hegemony: The World System A.D. 1250—1350* (New York: Oxford University Press, 1991), pp.9-13; Kuhn, *Science and Civilization in China*, pp.420-423.

industrial phase.⁵⁸⁹ The 6,000 km of canal built in Britain between 1750 and 1858 paled into virtual insignificance when compared to the 50,000 km constructed during the Song some seven hundred years earlier.⁵⁹⁰ The world's first paper currency occurred in China in the ninth century.⁵⁹¹ Also, in ship design and construction, the Chinese led Europe by many centuries. Chinese ocean-going junks were much larger and more seaworthy than the best European ships.⁵⁹² The most famous example is Admiral Cheng Ho's expeditions in early Ming China. Historian Louise Levathes remarks that "During the [early fifteenth century] ... China extended its sphere ... of influence throughout the Indian Ocean. Half the world was in China's grasp, and with such a formidable navy the other half was easily within reach, had China wanted it. China could have become the great colonial power, a hundred years before the great age of European exploration [sic] and expansion. But China did not."⁵⁹³

Given the historical evidence, Eurocentric scholars reconcile themselves: Chinese early technological jump was only from trial and error process; Europe overtook China later because Europe developed systematic

⁵⁸⁹ Hobson, *The Eastern Origins of Western Civilization*, p.211.

⁵⁹⁰ Hobson, *The Eastern Origins of Western Civilization*, p.217.

⁵⁹¹ Janet L. Abu-Lughod, *Before European Hegemony: The World System A.D. 1250—1350* (Oxford, UK; New York: Oxford University Press, 1991), p.15.

⁵⁹² Joseph Needham and Wang Ling, *Science and Civilisation in China. Volume 4, Physics and Physical Technology. Part II: Mechanical Engineering* (Cambridge: Cambridge University Press, 1965).

⁵⁹³ Louise E. Levathes, *When China Ruled the Seas* (London: Simon and Schuster, 1994), p.20.

knowledge of science.⁵⁹⁴ China's imperial bureaucracy, unified empire, and the unpopularity of merchants, as opposed to Europe's fragmentary city-states which encouraged inter-states competition and value pluralism, were harmful for *further* scientific discoveries and technological innovation.⁵⁹⁵ Acknowledging Song's achievement, China's Song (960—1279) is downgraded as 'abortive explosion' that was later ended by despotic regimes, as showcased by Ming (1368—1644)'s seaban after Cheng Ho in 1434 and Emperor Qianlong's letter in Qing (1644—1912). Mokyr suggests that China's unified empire under tight bureaucratic control generated higher *volatility* that was harmful to technological and scientific progress.⁵⁹⁶ In China the bridge of technological progress was provided by the public state.⁵⁹⁷ As long as the regime supports progress, progress can proceed. But the government can flip the switch off.⁵⁹⁸ It means that "one decision maker could deal it a mortal blow."⁵⁹⁹ Enlightened emperors encouraged technological progress, but the reactionary rulers of the later Ming period clearly preferred a stable and controllable environment.⁶⁰⁰ "In ocean shipping, China's decline relative to the West was abrupt. Less than a century after the great voyages of

⁵⁹⁴ Joel Mokyr, *The Lever of Riches: Technological Creativity and Economic Progress* (New York: Oxford University Press, 1990), p.230.

⁵⁹⁵ Mokyr, *The Lever of Riches*, p.231.

⁵⁹⁶ Mokyr, *The Lever of Riches*, p.231.

⁵⁹⁷ Mokyr, *The Lever of Riches*, p.236.

⁵⁹⁸ Mokyr, *The Lever of Riches*, p.237.

⁵⁹⁹ Mokyr, *The Lever of Riches*, p.231.

⁶⁰⁰ Mokyr, *The Lever of Riches*, p.231.

Cheng Ho, the Chinese shipyards were closed...”⁶⁰¹ Technological change in China was largely generated by public officials and a central government.⁶⁰² “State-run” technological progress is unlikely to be sustained for long.⁶⁰³ “The Chinese miracle is indeed that it lasted so long.”⁶⁰⁴

Conversely, Mokyr portrays Europe as a vivid autonomous market place. China’s technological progress was bridged by the public state, while in Europe it was bred by vibrant private institutions such as guilds.⁶⁰⁵ European-style wars between internal political units made European technology a matter of private initiative.⁶⁰⁶ The role of state rulers was secondary and passive.⁶⁰⁷ Political fragmentation created a multi-cell system that guaranteed no single decision maker could turn off the lights.⁶⁰⁸ Political competition between cells stimulated technological innovation among autonomous private urban guilds.⁶⁰⁹ There was a market for ideas, and a European government was just another customer in this market.⁶¹⁰ This ensures technological progress was self-spontaneous, vibrant and

⁶⁰¹ Mokyr, *The Lever of Riches*, p.220.

⁶⁰² Mokyr, *The Lever of Riches*, p.237.

⁶⁰³ Mokyr, *The Lever of Riches*, p.237.

⁶⁰⁴ Mokyr, *The Lever of Riches*, p.237.

⁶⁰⁵ Mokyr, *The Lever of Riches*, pp.233-236.

⁶⁰⁶ Mokyr, *The Lever of Riches*, pp.231-233.

⁶⁰⁷ Mokyr, *The Lever of Riches*, p.233.

⁶⁰⁸ Mokyr, *The Lever of Riches*, pp.207-208.

⁶⁰⁹ Mokyr, *The Lever of Riches*, p.233.

⁶¹⁰ Mokyr, *The Lever of Riches*, p.233.

sustaining.⁶¹¹

The first immediate objection was raised by historian Sheilagh Ogilvie. Guilds are solely rent-seeking organisations.⁶¹² They provided an “organisational mechanism for groups of businessmen to negotiate with political elites for exclusive legal privileges that allowed them to reap monopoly rents.”⁶¹³ By the 13th century, guilds had become dominant across much of Europe.⁶¹⁴ For the next 300 to 600 years, to practise industry or commerce in most European towns, it was necessary to obtain a license from the relevant guild.⁶¹⁵ In 1669, when the weaver Hannss Schrotter broke his guild’s rules by employing a female servant, his town court fined him a year of wages.⁶¹⁶ In 1662, Friedland’s court responded to complaints by local tailors’ guild by fining three villagers for buying cheap garments from non-guilded craftsmen.⁶¹⁷ Ogilvie argues that exceptional dynamic innovations took place exactly in regions where guilds’ influences were the weakest.⁶¹⁸ After 1500, in England and the Low Countries, “merchant guilds declined, with a proliferation of individual entrepreneurs who did not belong to any formal

⁶¹¹ Mokyr, *The Lever of Riches*, p.238.

⁶¹² Sheilagh Ogilvie, "The Economics of Guilds," *Journal of Economic Perspectives*, 28, no. 4 (2014), p.170.

⁶¹³ Ogilvie, "The Economics of Guilds", p.170.

⁶¹⁴ Ogilvie, "The Economics of Guilds", p.171.

⁶¹⁵ Ogilvie, "The Economics of Guilds", p.171.

⁶¹⁶ Ogilvie, "The Economics of Guilds", p.175.

⁶¹⁷ Ogilvie, "The Economics of Guilds", p.175.

⁶¹⁸ Ogilvie, "The Economics of Guilds", p.171.

associations...”⁶¹⁹

China’s public state, on the other hand, is in fact a *good* thing. Maddison argues that China’s central government and meritocratic imperial bureaucracy maintained “an efficient communications network and flow of information... in facilitating the transmission of best-practice technology... Thus the gap between best-practice and average practice was probably narrower than it was in the polycentric state system of Europe.”⁶²⁰

Bray’s research shows that Chinese government since Song has appointed ‘master farmers’, most of whom would be illiterate but experts on farming techniques, to fill official post which carried the duty of improving agricultural techniques in their villages.⁶²¹ Chinese agricultural treatises were written by literati or scholar-officials who observed and recorded the best farming practices from the countryside.⁶²² Contrasting Ogilvie’s rent-seeking urban guilds in Europe, Pomeranz suggests that China’s urban guilds, *hang*, lacked legal teeth to exclude non-members.⁶²³ Rural producers were not excluded from high value-added proto-industrial

⁶¹⁹ Ogilvie, “The Economics of Guilds”, p.171.

⁶²⁰ Angus Maddison, *Chinese Economic Performance in the Long Run. 2nd ed, rev. and updated: 960—2030 A.D. Vol. Development Centre studies* (Paris: Development Centre of the Organization for Economic Co-operation and Development, 2007), p.26.

⁶²¹ Joseph Needham and Francesca Bray, *Science and Civilization in China. Volume 6, Biology and Biological Technology. Part 2, Agriculture* (Cambridge: Cambridge University Press, 1984), p.598.

⁶²² Bray, *Science and Civilization in China*, p.47.

⁶²³ Kenneth Pomeranz, “Skills, ‘Guilds’, and Development: Asking Epstein’s Questions To East Asian Institutions,” in *Technology, Skills and the Pre-modern Economy in the East and the West: Essays Dedicated to the Memory of S.R. Epstein* (Leiden: Brill, 2013), p.94.

production.⁶²⁴ No special permissions from urban authorities were needed for rural villagers to enter artisanal production.⁶²⁵

Secondly, European states since the 17th century have played much more role than what Mokyr suggests as a customer in the market.⁶²⁶ O'Brien et al. suggest that fierce competition between mercantilist states encouraged them to adopt import substitution strategies and directly sponsor science and industries.⁶²⁷ London's Manufacturers and Commerce board was concerned to "promote the indigenous production of linen yarn and cloth... to stimulate invention across a broad range of trades by offering premiums for specific objects..."⁶²⁸ "By 1760 concern that a shortage of hands would inflate wage costs, thereby weakening the competitive position of British manufactures, encouraged the sponsorship of inventions designed to enhance labor productivity."⁶²⁹ Therefore it was in Europe after the 17th century, rather than in China, that technological change was at least *state-sponsored*, if not wholly state-run.

Mokyr's 'almighty state' verdict on China also cannot stand the test with the tiny GDP controlled by the Chinese state. Around 1800 there was only

⁶²⁴ Pomeranz, "Skills, 'Guilds', and Development", p.106.

⁶²⁵ Pomeranz, "Skills, 'Guilds', and Development", p.107.

⁶²⁶ Mokyr, *The Lever of Riches*, p.233.

⁶²⁷ Trevor Griffiths, Philip A Hunt, and Patrick K O'Brien, "Inventive Activity in the British Textile Industry, 1700–1800," *The Journal of Economic History*, 52, no. 4 (1992), p.883.

⁶²⁸ O'Brien et al., "Inventive Activity in the British Textile Industry", p.883.

⁶²⁹ O'Brien et al., "Inventive Activity in the British Textile Industry", p.886.

one government official per 32,000 people in China, compared with one for every 600 to 800 in Europe at the same time.⁶³⁰ Consequently, the Qing state only controlled about 1 to 5 percent of China's total GDP.⁶³¹ Comparatively, Tokugawa Japan's *bakufu* imposed a tax rate of 40 percent.⁶³² In Europe, the French government commanded 19 percent of France's GDP (as of 1840); Austria, 27 percent (1790); Prussia, 35 percent (1760); and Britain, 43 percent (1810).⁶³³ Rather than being under Mokyr's "tight bureaucratic control", China was in fact, in Eric Jones's phrase, "undergoverned".⁶³⁴

Thirdly, Cheng Ho's expeditions were *not* profitable. Historian Janet Abu-Lughod reveals that the journeys of the enormous 'treasure ships' (each carrying a crew of 500) under Admiral Cheng Ho were not designed for commercial purposes.⁶³⁵ Rather, the impressive show of force that paraded around the Indian Ocean during the first three decades of the fifteenth century was intended to signal the 'barbarian nations' that China had once

⁶³⁰ Naughton, *The Chinese Economy*, p.39. Primary data base: Perkins, Dwight (1967) "Government as an Obstacle to Industrialization: The Case of Nineteenth-Century China." *Journal of Economic History*, 27(4):478-92.

⁶³¹ Kent G. Deng, *Mapping China's Growth and Development in the Long Run, 221 BC to 2020* (Singapore: World Scientific, Imperial College Press, 2016), p.19. Data sources: Chung-li Chang, *The Income of the Chinese Gentry* (Seattle: University of Washington Press, 1962), p. 296.

⁶³² Deng, *Mapping China's Growth and Development in the Long Run*, p.19. Primary data source: Data available on line at: http://blog.sina.com.cn/s/blog_4b8bd1450102edb0.html.

⁶³³ Deng, *Mapping China's Growth and Development in the Long Run*, p.19. Primary data source: Michael Mann, *The Sources of Social Power, The Rise of Classes and Nation States, 1760-1914* (Cambridge: Cambridge University Press, 1993), Vol. 2, p. 366.

⁶³⁴ Mokyr, *The Lever of Riches*, p.231; Jones, *The European Miracle*, p.206.

⁶³⁵ Abu-Lughod, *Before European Hegemony*, p.343.

again become the ‘Middle Kingdom’ of the world after the Mongol invasions that led to the downfall of Song.⁶³⁶ The sheer size of Cheng Ho’s big fleets made them find some other world areas so sparsely populated that they struggled to sustain themselves and had to *revisit* harbour and relatively prospering places for food supplies and maintenance. Between 1405 and 1433, Ho’s navy travelled throughout the Indian Ocean, visiting Vietnam (twice), Sumatra, Calicut (five times), the Persian Gulf (four times), the Red Sea (twice), Mogadishu (once), and the Cape of Good Hope (twice).⁶³⁷ By the mid-fifteenth century, the Ming court had been facing dropping revenues such that it decided to end the extravaganza patrols.⁶³⁸ Half of the existing ships in the Ming navy were scrapped and no new ones were built.⁶³⁹ These were Ming court’s rational decisions rather than some mysterious ‘flip the switch off’ sea withdrawal.

Hobson further argues that one should not take too literal reading of the 1434 official seaban.⁶⁴⁰ The official documents on this were distorted by the government’s attempt to be *seen* as an isolationist ideal.⁶⁴¹ The so-

⁶³⁶ Abu-Lughod, *Before European Hegemony*, p.343.

⁶³⁷ Gang Deng, “The Foreign Staple Trade of China in the Pre-Modern Era,” *The International History Review*, Vol. 19, No. 2 (May, 1997), pp.253-285. Primary data source: Qiu Xuanyu, ‘Mingchu Yu Nanhai Zhu Fanguozhi Chaogong Maoyi 1368-1449’ (Regular Tributes of Exotic Goods and Bestowal of Chinese Goods between China and Countries in South Asia, 1368-1449), in *ZHFL*, ed. Zhang Bincun and Liu Shiji (Taipei, 1993), v. 128; *Xiyang Chaogong Dianlu* (Records of Tributes from South Asia) (Beijing, repr. 1982), p.43.

⁶³⁸ Abu-Lughod, *Before European Hegemony*, p.344.

⁶³⁹ Abu-Lughod, *Before European Hegemony*, p.344.

⁶⁴⁰ Hobson, *The Eastern Origins of Western Civilization*, p.63.

⁶⁴¹ Hobson, *The Eastern Origins of Western Civilization*, p.63.

called ‘withdrawal’ was succeeded by the imperial tribute system, and tribute relations *expanded* as time goes on.⁶⁴² And this was at times conceded in official Chinese documents.⁶⁴³ Eurocentric scholars may respond that the tribute was a regressively coerced and state-administered system entirely separate from the global economy.⁶⁴⁴ Yet this is a severe misinterpretation. Hobson asks that “How else can we explain the fact that the Portuguese, Spanish and Dutch repeatedly asked to join the system as vassals?”⁶⁴⁵ The tribute was more voluntary than to be forced. Vassal states competed with each other in order to pay tribute – again, so as to gain access to China’s lucrative economy.⁶⁴⁶ The Japanese example serves as a testimony to the voluntary aspect of the system. At the end of the sixteenth century, Japan invaded Korea (a Ming vassal state) in order to force China to resume the tributary relationship and even threatened an invasion of China if it refused.⁶⁴⁷ The tribute system, in essence, was a disguised trading system. Kent Gang Deng summarises: “China’s state-run collection of tribute should be seen as, at the least, a quasi-commercial activity: one step back it may have become philanthropy, and one step further it may have developed into regular trade.”⁶⁴⁸

⁶⁴² Hobson, *The Eastern Origins of Western Civilization*, p.63.

⁶⁴³ Hobson, *The Eastern Origins of Western Civilization*, p.63.

⁶⁴⁴ Hobson, *The Eastern Origins of Western Civilization*, pp.62-63.

⁶⁴⁵ Hobson, *The Eastern Origins of Western Civilization*, p.63.

⁶⁴⁶ Hobson, *The Eastern Origins of Western Civilization*, p.63.

⁶⁴⁷ Hobson, *The Eastern Origins of Western Civilization*, p.64.

⁶⁴⁸ Gang Deng, “The Foreign Staple Trade of China in the Pre-Modern Era,” *The International History Review*, Vol. 19, No. 2 (May, 1997), pp.253-285.

The ending of Cheng Ho's expeditions was a rational *public withdrawal* by the Chinese state, but profitable *private initiatives* continued. Chinese merchants continued their trading with or without official sanction.⁶⁴⁹ There was a thriving smuggling trade where government officials themselves often collaborated with the smugglers that made the 1434 seaban become a paper document.⁶⁵⁰ During the 1560s the smuggling trade became so large that the Ming government eventually gave in and legalised the smugglers' main port (Port Moon).⁶⁵¹ Manila became an important entrepôt for the whole global trading system because it was from there that China gained a good deal of its silver (via the Spanish Manila galleon).⁶⁵² Ming China (1368—1644) discontinued the paper printing practised in Song (960—1279) that generated hyperinflation in its late period when it struggled to fight the Mongols. The Ming court ordered all payments of domestic revenue to be paid in silver. "This Chinese public demand for silver and the large size and productivity of the Chinese economy and its consequent export surplus generated a huge demand for, and increase in the price of, silver worldwide."⁶⁵³ The Spanish Empire which lived from its sales of silver would not exist in the absence of the

⁶⁴⁹ Hobson, *The Eastern Origins of Western Civilization*, p.67.

⁶⁵⁰ Hobson, *The Eastern Origins of Western Civilization*, p.65.

⁶⁵¹ Hobson, *The Eastern Origins of Western Civilization*, p.65.

⁶⁵² Hobson, *The Eastern Origins of Western Civilization*, p.65.

⁶⁵³ Andre Gunder Frank, *ReOrient: Global Economy in the Asian Age* (Berkeley California: University of California Press, 1998), p.112.

transformation of Chinese society to a silver base in the early modern period.⁶⁵⁴ Pomeranz corroborates that “China’s switch to a silver-based economy... helped keep New World mines profitable and sustain Europe’s colonial presence during the long period before other products were developed.”⁶⁵⁵ China's exports of silk and ceramic products, and after 1600, tea added, resulted in China being the ultimate ‘sink’ of the world's silver.⁶⁵⁶ Almost all European imports from the East were paid for by European exports of American silver.⁶⁵⁷ Half of world’s silver was in China, and China alone.⁶⁵⁸ Timothy Brook argues that Ming China provided the necessary web that Europeans later built upon. “If Europeans were striving to construct a place for themselves in the world economy, it was toward China that they were building.”⁶⁵⁹ By the 1640s, the Chinese treasury had been gaining some 750,000 kg of silver per annum.⁶⁶⁰ Silver inflows continued after the 1640s in Qing because of the continuing strong demand for Chinese products.⁶⁶¹ The verdict that after Song China became isolated and backward is hence a myth. In 1688, early Qing, when 9,128 Chinese merchants aboard 193 Chinese ships visited the Nagasaki port, the

⁶⁵⁴ Andre Gunder Frank, *ReOrient*, p.112.

⁶⁵⁵ Pomeranz, *The Great Divergence*, p.32.

⁶⁵⁶ Andre Gunder Frank, *ReOrient*, pp.112-115.

⁶⁵⁷ Andre Gunder Frank, *ReOrient*, p.67.

⁶⁵⁸ Andre Gunder Frank, *ReOrient*, p.67.

⁶⁵⁹ Timothy Brook, *The Confusions of Pleasure: Commerce and Culture in Ming China* (University of California Press, 1999), p.12.

⁶⁶⁰ Hobson, *The Eastern Origins of Western Civilization*, p.66. Primary data base: Han-sheng Chuan, 'The Inflow of American silver into China from the late Ming to the mid-Ch'ing Period', *Journal of the Institute of Chinese Studies of the China University of Hong Kong* 2 (1969), 61-75.

⁶⁶¹ Hobson, *The Eastern Origins of Western Civilization*, p.67.

Japanese Tokugawa government, for fear of the effects of the trade, restricted the number to 70 Chinese ships allowed to visit the port each year.⁶⁶² What China did not do after 1434 was not trade, but in historian Hobson's word: imperialism.⁶⁶³

These lead Giovanni Arrighi to assert that why Ming China purposefully abstained from undertaking the kind of 'discovery' and conquest of the world in fact has a rather simple answer.⁶⁶⁴ The expected benefits for Portugal and other European states of discovering and controlling a direct route to the East were incomparably greater than the expected benefits of discovering and controlling a direct route to the West were for the Chinese state. Christopher Columbus stumbled on the Americas because he had treasure to retrieve in the East; Cheng Ho was not so lucky because there was no treasure to retrieve in the West.⁶⁶⁵ Arrighi goes on to argue that the Chinese Court decision was perfectly cost-benefit calculated in terms of its territorialist logic of power: "In other words, the decision not to do what the Europeans would do later is perfectly understandable in terms of a territorialist logic of power that weighed carefully the prospective benefits, costs, and risks of the additional commitment of resources to state- and

⁶⁶² Gang Deng, "The Foreign Staple Trade of China in the Pre-Modern Era", p.261. Primary data base: Lin Renchuan, *Mingmo Qingchu Siren Haishang Maoyi* (Private Maritime Trade during the Late Ming and Early Qing Period) (Shanghai, 1987), pp.259-61.

⁶⁶³ Hobson, *The Eastern Origins of Western Civilization*, p.70.

⁶⁶⁴ Giovanni Arrighi, *The Long Twentieth Century: Money, Power, and the Origins of Our times* (London; New York: Verso, 1994, Republished with new material 2010), pp.36-37.

⁶⁶⁵ Arrighi, *The Long Twentieth Century*, pp.36-37.

war-making involved in the territorial and commercial expansion of empire.”⁶⁶⁶ Joseph Schumpeter’s thesis that precapitalist state formations have been characterized by strong ‘objectless’ tendencies “toward forcible expansion, without definite, utilitarian limits – that is, non-rational and irrational, purely instinctual inclinations toward war and conquest” – holds no water in the case of Imperial China.⁶⁶⁷

Therefore, Arrighi instead puts forward his reversed question on Europe: in fact, the Chinese imperial state constitutes the clearest historical instance of a territorialist organisation that never fell into the trap of the kind of overstretch to which Paul Kennedy (1987) attributes the eventual downfall of successive Western great powers.⁶⁶⁸ What is most puzzling is not the lack of an expansionist drive in Ming China but the seemingly unbounded expansionism of European states since the latter half of the fifteenth century? Why it proceeded unimpeded by the fall of one Western power after another, until almost the entire land surface of the earth had been conquered by peoples of European descent?⁶⁶⁹

To answer these, Arrighi turns to the *capitalist logic of power*; the strongest

⁶⁶⁶ Arrighi, *The Long Twentieth Century*, pp.36-37.

⁶⁶⁷ Schumpeter, Joseph, *Imperialism – Social Classes*, New York: Meridian 1955, pp.64-5.

⁶⁶⁸ Kennedy, Paul, *The Rise and Fall of the Great Powers: Economic Change and Military Conflict from 1500 to 2000*, New York: Random House 1987.

⁶⁶⁹ Arrighi, *The Long Twentieth Century*, pp.36-37.

tendency for territorial expansion arose out of the seedbed of capitalism (Europe) rather than out of the seat of “the most developed and best established territorialist empire (China)”.⁶⁷⁰ Immanuel Wallerstein echoes that the systematic and contra-tendency movements within this nation-states capitalist logic of expansion created the largest incorporation of world’s territories: “one can begin to appreciate in their complexity the circumlocutory and often paradoxical or contradictory positions of the anti-systemic movements that emerged in historical capitalism. Let us begin with the most elementary dilemma of all. Historical capitalism has operated within a world-economy but not within a world-state. Quite the contrary. As we have seen, structural pressures militated against any construction of a world-state.”⁶⁷¹ Capitalist logic of expansion through which major individual institutional actors were structured against each other over the web of capitalist production and reorganisation forces occupied the globe into a capitalist logic of world-economy that was not possible under alternative routes of power.

The successive European states’ efforts for one wave after another during their process of capitalist expansion manifested into the ‘long cycles’ pattern. Arrighi observes that the first systemic cycle of accumulation starts in the 15th century Genoa. Unlike the medieval fairs, the Genoese fairs were

⁶⁷⁰ Arrighi, *The Long Twentieth Century*, p.35.

⁶⁷¹ Wallerstein, *Historical Capitalism with Capitalist Civilization*, p.65.

tightly controlled by a clique of merchant bankers (the Genoese diaspora ‘capitalist’ class), and fairs controlled in turn were non place-based.⁶⁷² The medieval city-states were transformed into the rise of nation-states, in which the Genoese diaspora ‘capitalists’ were a powerful instrument of control of the entire European system of interstatal payments. “Flows of commodities and means of payment that were ‘external’ to the declining and rising states were, in fact, ‘internal’ to the non-territorial network of long-distance trade and high finance controlled and managed by the Genoese merchant elite through the system of the Bisenzone fairs.”⁶⁷³ The maturity of every major development of the capitalist world-economy is then heralded by a particular switch from trade in commodities to trade in money.

The second systemic cycle of accumulation begins with the 17th century Dutch cycle, which puts the Genoese cycle on a world scale. The Dutch capitalist class established direct links between the Amsterdam entrepôt on one side, and producers from all over the world on the other; in similar way as Genoese merchant bankers managed the European interstate nation states affairs.⁶⁷⁴ Yet, while the Dutch established the 1648 Westphalia inter-states world system, they were not capable of maintaining it. The

⁶⁷² Arrighi, *The Long Twentieth Century*, p.83.

⁶⁷³ Arrighi, *The Long Twentieth Century*, p.83.

⁶⁷⁴ Arrighi, *The Long Twentieth Century*, p.143.

Dutch pursued a purer Genoese capitalist logic of power such that they monopolised Asian spices trade network through joint-chartered VOC *without* colonising it.⁶⁷⁵ The world inter-states system created by the Dutch, and the spread of multiple mercantilisms in the late seventeenth and early eighteenth centuries, created an environment in Europe and in the world at large in which the Dutch commercial system could not survive. As in the case of the previous financial expansions of Florentine and Genoese capital, the switch of the Dutch from trade to finance occurred once trade in commodities became unprofitable. The Amsterdam stock exchange, which in the early seventeenth century had functioned as a powerful ‘suction pump’ siphoning surplus capital from all over Europe into Dutch enterprises, a century later turned into an equally powerful machine that pumped the Dutch surplus capital into English enterprises.⁶⁷⁶ The prodigious success of the VOC in South Asia thus backfired on the Dutch regime of accumulation.⁶⁷⁷ It created a new enticement for territorialist organisations to imitate and compete with the Dutch, and then pushed Dutch surplus capital towards financing the most successful among the new competitors.

The reason why the British succeeded in replacing the Dutch is that they

⁶⁷⁵ Arrighi, *The Long Twentieth Century*, p.143.

⁶⁷⁶ Arrighi, *The Long Twentieth Century*, p.162.

⁶⁷⁷ Arrighi, *The Long Twentieth Century*, p.162.

brought in territorialism that ‘internalised’ capitalist techniques of power.⁶⁷⁸ This is what made the third British cycle unique out of the four long cycles of capitalism, not even the later US cycle, a large continental capitalist economy can imitate: the British fused capitalist logic and territorialist logic together to form a *world-empire*. The previous two cycles expanded their territories through capitalist logic but failed to ‘govern’ it: the later financial expansion built up rival centres and interstates mercantilist wars that brought its own downfall. Britain distinguished itself from the previous two with ‘imperialism’ and ‘free tradism’.⁶⁷⁹ The hybrid structure of British capitalism, *Genoese-Iberian capitalist-territorialist complex*, established colonial outposts in every continent. Hence while the Dutch capital lay siege to the already established markets of the East to “use their own vitality to maneuver them to its own advantage” and concentrated on the Indian Ocean rather than the Atlantic; the British, as a latecomer, focused on the Atlantic and built up colonies in Africa setting up economies of scale networks that later overtook the Dutch monopoly of the Asian trade.⁶⁸⁰ The strict adherence to capitalist logic of power enabled the Dutch to beat Iberian territorialism, but made them fail to compete effectively in the struggle for commercial supremacy with the British.⁶⁸¹ The Dutch served as a vassal state of China

⁶⁷⁸ Arrighi, *The Long Twentieth Century*, p.148.

⁶⁷⁹ Arrighi, *The Long Twentieth Century*, p.169.

⁶⁸⁰ Arrighi, *The Long Twentieth Century*, p.209.

⁶⁸¹ Arrighi, *The Long Twentieth Century*, p.209.

through Moluccas and monopolised spice trade networks around India; the British colonised India and imposed unilateral free trade regime on China. Britain's island position granted itself a unique geographical advantage in establishing imperialist expansion abroad while *at the same time* manipulated the European balance of powers that locked up interstates struggle within the continent.

Hence Britain's position left unchallenged after 1815. The original interstates world system segmented world economic space into independent political units but Britain ensured there would be *only* one. Britain's unilateral free trade regime connected the entire world to Britain. Britain became the most convenient and efficient 'marketplace' to procure the means of payment and means of production and to dispose of primary products of its world-empire. The British capital had more than a bank and merchanting role, it had sugar and cotton plantations, oil-companies, British-owned railways, slave trading, tea and rubber estates. Hence its later financial expansion phase resulted very differently from its predecessors. Britain was the biggest trade exporter and creditor to the rest of the world during its Gold Standard era (1870—1914). In 1914, 42 percent of total foreign investment in the world was done by England alone.⁶⁸² A majority of its surplus capital went to the New World,

⁶⁸² Stephen H. Broadberry and Kevin H. O' Rourke, *The Cambridge Economic History of Modern Europe Volume 2: 1870 to the Present* (Cambridge University Press, 2010), p.10.

constructing railroads and infrastructure there to import cheaper food and raw materials that represented a major contribution to the British core welfare.⁶⁸³ Ironically America was built in part by the British capital, but even after the rise of American age, London *remains* the world's financial centre. The previous Dutch capitalist logic was arguably global arbitrage, still in market trade phase with money as a medium of exchange but gained extra seigniorage from China's silver trade. It is the logic of merchant's capital that depended upon production taking place elsewhere. It was Britain that completed the full circuit of transforming colonies into inputs with *social reorganisation of labour* so that itself became the centre of production, the 'workshop of the world', and products were then sold back to colonies or semi-colonies, the 'captive' markets. That is to say, capitalist reconstruction phase with capital as a transformative power. Britain's far-flung territorial empire was primarily an agro-industrial complex rather than a commercial-financial complex of the Dutch commercial empire.⁶⁸⁴

The clear difference between simple market exchange and social reorganisation of labour was evident in Britain's engagement with India. Under the British rule, Indian farmers' centuries-old traditional self-subsistence welfare buffers were destroyed and they were made to produce for the logic of the export market. Water sources were enclosed by the

⁶⁸³ Broadberry and O'Rourke, *The Cambridge Economic History*, p.24.

⁶⁸⁴ Arrighi, *The Long Twentieth Century*, p.180.

British rather than commonly shared, which made drought years more deadly than it otherwise would have been. In 1876, when three-years-drought hit, 10 million Indians died of starvation.⁶⁸⁵ Twenty years later, from 1896 to 1902, when drought years hit again, 20 million starved to death.⁶⁸⁶ Mass starvation was theoretically avoidable. Even in the absence of traditional support systems that should have protected the Indian rural families, the railroads built by the British should have been able to shift grain-surplus areas to drought-stricken regions. Instead, British merchants, obedient to market logic, shipped grain from the hinterlands into central depots where it could be guarded from the hungry peasants and shipped them to Europe.⁶⁸⁷ In 1877 and 1878, the worst years of first drought, a record 6.4 million tons of Indian wheat were shipped to Europe.⁶⁸⁸ From 1875 to 1900, Indian grain exports increased from 3 million to 10 million tons per year.⁶⁸⁹ During the heyday of British colonisation, the last half of the 19th century, income in India declined by more than 50 percent.⁶⁹⁰

Ha-Joon Chang further reveals how Britain destroyed India's proto-industrialisation rural industries. Britain's Industrial Revolution was in part fostered by British government's industrial policy.⁶⁹¹ First, Britain banned

⁶⁸⁵ Hickel, *The Divide*, p.87. Primary data base: Mike Davis, *Late Victorian Holocausts* (London: Verso, 2000)

⁶⁸⁶ Hickel, *The Divide*, p.87. Primary data base: Mike Davis, *Late Victorian Holocausts* (London: Verso, 2000)

⁶⁸⁷ Hickel, *The Divide*, p.88.

⁶⁸⁸ Hickel, *The Divide*, p.88. Primary data base: Mike Davis, *Late Victorian Holocausts* (London: Verso, 2000)

⁶⁸⁹ Hickel, *The Divide*, p.88.

⁶⁹⁰ Hickel, *The Divide*, p.93. Primary data base: Mike Davis, *Late Victorian Holocausts* (London: Verso, 2000)

⁶⁹¹ Chang, *Kicking away the Ladder*, p.22.

the imports of superior products from some of its colonies if they happened to threaten the British industries: the 1699 Wool Act prohibited exports of Irish woollen products and killed off the then superior Irish wool industry, and in 1700 a ban was imposed on the imports of superior Indian cotton products, the world's most efficient cotton manufacturing sector at the time.⁶⁹² The Indian cotton industry, the world's cotton centre for centuries, was subsequently destroyed during the first half of the 19th century when the then superior British products flooded the Indian market. And this time, until 1917, there was no tariff on cotton goods imports into India.⁶⁹³ The British also tried to kill-off America's 'infant industry' attempts. In the 1720s, Walpole provided export subsidies to and abolished British import duties on raw materials produced in the American colonies, so as to "divert them from carrying on manufactures which interfered with those of England".⁶⁹⁴ At the same time, the construction of new steel mills in America was outlawed.⁶⁹⁵

Arrighi also observes how China, world's traditional economic gravity centre, apart from providing the first critical push to Europe's Age of Exploration (the centuries-long 'silver trade'), generated the second critical push in the 19th century. And this time, to *the British alone*. Britain's

⁶⁹² Chang, *Kicking away the Ladder*, p.22.

⁶⁹³ Chang, *Kicking away the Ladder*, p.53.

⁶⁹⁴ Walpole quoted in Chang, *Kicking away the Ladder*, p.52.

⁶⁹⁵ Chang, *Kicking away the Ladder*, p.52.

expansion to India moved the fulcrum of European business in Asia from spices to piece goods and from the Malay Archipelago to the Indian subcontinent, and in so doing reversed the fortunes of the English vis-a-vis the Dutch in the East Indies.⁶⁹⁶ The British East India Company took over the Dutch VOC. Yet successes at first in replacing the Mughal court in South Asia and in driving the VOC out of business were immediately followed by a fiscal crisis and by a strong movement at home to deprive the company of its commercial privileges. The company's debt between 1798 and 1806 tripled despite a huge accession of territory.⁶⁹⁷ Here comes the rescue: once the company began pushing sales of opium in China and monopolising opium production in Bengal India, the China trade quickly became far more profitable and dynamic than the trade in piece goods.⁶⁹⁸ For the first time in world history, the age-old problem of a structural imbalance in West—East trade since Roman times was reversed. The silver reserves that China had accumulated for *four centuries* for the first time drastically outflowed to Britain. With abolishment of the Indian monopoly, the East India Company's concentration on opium led to an explosive growth of shipments. "The Europeans," Eric Wolf comments wryly, "finally had something to sell to the Chinese."⁶⁹⁹

⁶⁹⁶ Arrighi, *The Long Twentieth Century*, p.255.

⁶⁹⁷ Arrighi, *The Long Twentieth Century*, p.256.

⁶⁹⁸ Arrighi, *The Long Twentieth Century*, p.257.

⁶⁹⁹ Wolf, Eric, *Europe and the People without History*, Berkeley: University of California Press 1982, p.258.

Capitalism is therefore not just a market economy. It is much more than the word ‘market’ can capture. The conventional view in social sciences, in political discourse, and in the mass media is that capitalism and the market economy are more or less the same thing, and that state power is antithetical to both. Braudel, in contrast, sees capitalism as being absolutely dependent for its emergence and expansion on state power and as constituting the antithesis of the market economy.⁷⁰⁰ Capitalism was the top layer of a three-tiered structure: a structure in which the upper layers could not exist without the lower stages on which they depend.⁷⁰¹ The lowest and broadest layer is an elementary and mostly self-sufficient economy. Above this comes the favoured terrain of the *market economy*, with its many horizontal communications between different markets. Here a degree of automatic coordination usually links supply, demand and prices. Then the layer at the very top comes the zone of the *anti-market*, where the great predators roam and the law of the jungle operates.⁷⁰² “This – today as in the past, before and after the industrial revolution – is the real home of capitalism.”⁷⁰³ Historian Janet Abu-Lughod echoes that a *world market economy*, in the sense of many horizontal communications between different markets, had emerged from the depth of the underlying layer of

⁷⁰⁰ Braudel, Fernand, *Civilization and Capitalism, 15th–18th Century*, vol. III: *The Perspective of the World*, New York: Harper and Row 1984.

⁷⁰¹ Braudel, Fernand, *Civilization and Capitalism, 15th–18th Century*

⁷⁰² Braudel, Fernand, *Civilization and Capitalism, 15th–18th Century*

⁷⁰³ Braudel, Fernand, *Civilization and Capitalism, 15th–18th Century*

self-sufficient material life long before capitalism as world system rose above the layer of the market economy.⁷⁰⁴ A long distance trade system “that stretched through the Mediterranean into the Red Sea and Persian Gulf and on into the Indian Ocean and through the Strait of Malacca to reach China” had already existed before “Europe became *one* of the world-economies in the twelfth and thirteenth centuries”.⁷⁰⁵ Without them, when Europe gradually “reached out” at a time “as an upstart peripheral to an ongoing operation”, “it would have grasped empty space rather than riches.”⁷⁰⁶ Yet Arrighi emphasises that nowhere, except in Europe, did elements of capitalism coalesce into the powerful mix that propelled European states towards the territorial conquest of the world and the formation of an all-powerful and truly global capitalist world-economy.⁷⁰⁷

There hence exists a fundamental discrepancy between the Western embrace of the ideology of free markets and the greater factual relevance of late imperial China for an accurate interpretation of Smith's *Wealth of Nations*. Far from being a theorist and advocate of the kind of division of labour that occurred in the pin factory in the opening passages of *The Wealth of Nations*, towards the end of the same classic Smith denounces its

⁷⁰⁴ Janet L. Abu-Lughod, *Before European Hegemony: The World System A.D. 1250—1350* (Oxford, UK; New York: Oxford University Press, 1991), p.12.

⁷⁰⁵ Abu-Lughod, *Before European Hegemony*, p.12.

⁷⁰⁶ Abu-Lughod, *Before European Hegemony*, p.12.

⁷⁰⁷ Arrighi, *The Long Twentieth Century*, pp.10-12.

deleterious effects upon the workforce: “In the progress of the division of labor, the employment of the far greater part of those who live by labor, that is, of the great body of the people, comes to be confined to a few very simple operations; frequently to one or two... The man whose life is spent in performing a few simple operations, of which the effects too are, perhaps, always the same, or very nearly the same, has no occasion to exert his understanding, or to exercise his invention in finding out expedients for removing difficulties which never occur. He naturally loses, therefore, the habit of such exertion, and generally becomes as stupid and ignorant as it is possible for a human creature to become.”⁷⁰⁸ Smith contrasts this *technical* division of labour with the concept of *social* division of labour in a rude society: “Though in a rude society there is a good deal of variety in the occupations of every individual, there is not a great deal in those of the whole society. Every man does or is capable of doing, almost everything which any other man does, or is capable of doing. Every man has a considerable degree of knowledge, ingenuity and invention; but scarce any man has a great degree. The degree, however, which is commonly possessed, is generally sufficient for conducting the whole simple business of society.”⁷⁰⁹

⁷⁰⁸ Adam Smith, *An Inquiry into the Nature and Causes of The Wealth of Nations* (1977, University of Chicago Press), Book V., p.1040.

⁷⁰⁹ Adam Smith, *An Inquiry into the Nature and Causes of The Wealth of Nations* (1977, University of Chicago Press), Book V., p.1042.

And in his *The Wealth of Nations* Smith specified ‘the natural progress of opulence’ is, “first, directed to agriculture, afterwards to manufactures, and last of all to foreign commerce.”⁷¹⁰ The extension and improvement of cultivation create a demand for investment in manufactures, and the expansion of agricultural and industrial production, in turn, generates a surplus of goods that can be exchanged abroad for goods of greater value. And Smith’s main advice to European statesmen was to steer the course of development in their own countries towards the ‘natural’ path, for the best possible way to develop a national market economy is to start with the expansion and improvement of agriculture and domestic trade.⁷¹¹

Smith also showcases his anti-urban bias. The urban guilds monopolies, often backed by legislation, enable "the inhabitants of the towns to raise their prices, without fearing to be under-sold by the free competition of their countrymen... [and] of foreigners."⁷¹² Although "landlords, farmers, and laborers of the country" are the ones who eventually pay for these higher prices, they seldom oppose state-backed urban monopolies, because “the clamor and sophistry of merchants and manufacturers easily persuade them that the private interests of a part, and of a subordinate part of the

⁷¹⁰ Adam Smith, *An Inquiry into the Nature and Causes of The Wealth of Nations* (1977, University of Chicago Press), Book I., p.20.

⁷¹¹ Adam Smith, *An Inquiry into the Nature and Causes of The Wealth of Nations* (1977, University of Chicago Press), Book I., p.14.

⁷¹² Adam Smith, *An Inquiry into the Nature and Causes of The Wealth of Nations* (1977, University of Chicago Press), Book I., p.181.

society, is the general interest of the whole.”⁷¹³ Smith also asserts that an agricultural worker is less subject than an industrial worker to the negative effects of the technical division of labour. “His understanding... being accustomed to consider a greater variety of objects, is generally much superior to that of the other, whose all attention from morning till night is commonly occupied in performing one or two very simple operations.”⁷¹⁴ Moreover, the changing conditions of agricultural production “with every change of the weather, as well as with many other accidents”, continually impose demands upon and thereby keep alive the judgment and discretion of the agricultural worker to a far greater extent than is the case among urban workers.⁷¹⁵ In the absence of restraints on competition in urban areas, the superior intelligence and skills of agricultural workers would be reflected in a higher rank and in higher wages of rural labourers than of urban workers, as it was said to be the case in China that peasants, above manufacturers and merchants, had the second highest social rank after government officials who were in turn selected through *Imperial Examinations* from the vast social majority of rural peasantry.⁷¹⁶

⁷¹³ Adam Smith, *An Inquiry into the Nature and Causes of The Wealth of Nations* (1977, University of Chicago Press), Book I., p.182.

⁷¹⁴ Adam Smith, *An Inquiry into the Nature and Causes of The Wealth of Nations* (1977, University of Chicago Press), Book I., p.181.

⁷¹⁵ Adam Smith, *An Inquiry into the Nature and Causes of The Wealth of Nations* (1977, University of Chicago Press), Book I., p.180.

⁷¹⁶ Gang Deng, *The Premodern Chinese Economy: Structural Equilibrium and Capitalist Sterility* (Routledge Explorations in Economic History, 1999), pp.67-68.

It is important to note that Smith's description of the 'natural path of development' and rural prosperity corresponds best to premodern China's Qing episode (1644—1912). Eurocentric scholars tend to portray China's Song (960—1279) as 'abortive prosperity' that was followed by regrettable decline: technology stagnated, the multiple-spinning water wheels were no longer in use, iron and steel production dropped, paper currency retreated back to metals, and most importantly, urbanisation rates dropped from Song's high tide 12—15% to 7% in late Qing.⁷¹⁷ The immediate problem of this view is that they fail to see the core from the symptoms. Song's 'prosperity' was arguably the 'false dawn' symptoms of something else more fundamental: *reverse* emigration happened in the later Southern Song period, the 'richest' part in the world at that time and in China's history, when the North Tartar Jin and Southern Song regimes coexisted.⁷¹⁸ 'Southern' Song was triggered by the North nomads' invasion, first Tartar Jin, Khitans Liao, then the Mongols, such that the Han Chinese population moved to the south and hence the ending of previous 'Northern' Song period. The natural tendency was for Han Chinese in northern conquered areas to move to the South. Yet by 1187 the northern population under the Tartars had increased over threefold from its pre-conquest level in 1102.⁷¹⁹

⁷¹⁷ Yi Xu, Bas van Leeuwen and Jan Luiten van Zanden, "Urbanization in China, ca. 1100–1900," *Centre for Global Economic History Working Paper Series*, Working paper no. 63 (2015), pp.8-13, <http://www.cgeh.nl/sites/default/files/WorkingPapers/CGEHWP63XuyiVanLeeuwenVanZanden.pdf>.

⁷¹⁸ Gang Deng, *The Premodern Chinese Economy: Structural Equilibrium and Capitalist Sterility* (Routledge Explorations in Economic History, 1999), p.311.

⁷¹⁹ Deng, *The Premodern Chinese Economy*, p.311. Primary data source: Liang Fangzhong (1980) *Zhongguo Li Dai Huko Tiandi Tianfu Tongji* (*Dynastic Data on China's Households, Cultivated Land and*

Comparatively, in the south, where peace was to a great extent retained, the population dropped by 46 percent in 1102—59.⁷²⁰ Clearly, something was going on.

Golas's data reveals that during Song's period at the end of the eleventh century, big real estate landowners, 14% of the population, owned 77.5% of all land under cultivation.⁷²¹ Farmers losing the land became tenant farmers. Tenancy rate jumped to 41.7 per cent (in AD 980–9), 43.1 per cent (in 1029), 41.1 and 41.6 per cent (in 1034 and 1037, respectively).⁷²² In Kent G. Deng's words: this was “one of the longest lasting periods with such a high tenancy rate ever reported in the empire's history.”⁷²³ Moreover, the reason why Song China had such a high iron output per capita was mainly for shipbuilding.⁷²⁴ This in turn was stimulated by the *need* for Song governments to actively engage in sea trade in order to pay huge ransom to the north and military defence.⁷²⁵ Song court's ‘mercantilist’ policies, although not originated from the north nomads’

Land Taxation), Shanghai: Shanghai People's Press.

⁷²⁰ Deng, *The Premodern Chinese Economy*, p.311. Primary data source: Liang Fangzhong (1980) *Zhongguo Li Dai Huko Tiandi Tianfu Tongji* (*Dynastic Data on China's Households, Cultivated Land and Land Taxation*), Shanghai: Shanghai People's Press.

⁷²¹ Golas, “Rural China in the Song,” *The Journal of Asian Studies*, Vol. 39, No. 2 (Feb., 1980), pp.291-325.

⁷²² Deng, *The Premodern Chinese Economy*, p.304. Primary data source: Liang Fangzhong (1980) *Zhongguo Li Dai Huko Tiandi Tianfu Tongji*, pp.126-9.

⁷²³ Deng, *The Premodern Chinese Economy*, p.304.

⁷²⁴ Hobson, *The Eastern origins of Western civilization*, p.60; Maddison, *Chinese Economic Performance in the Long Run*, p.29.

⁷²⁵ Kent Deng and Lucy Zheng, “Economic Restructuring and Demographic Growth: Demystifying Growth and Development in Northern Song China, 960–1127,” *Economic History Review*, 68, no. 4 (2015), pp.1117-1118.

invasion, were strengthened and reinforced by it that formed a ‘vicious’ cycle:

The Song court originally paid less attention to physiocratic policies. Land conglomeration happened. Some peasants became tenant farmers. Peasants losing the land had less incentive to fight their lives for it during the Cold Weapons era. North nomads invaded. The Song could not defend itself. It retreated to the south. It needed money to buy peace. It further encouraged commerce and set targets for government officials to become merchants. Land further concentrated to the hands of a few. More weakening fighting ability. More commerce and money were needed to buy peace. More peasants became tenant farmers or had to come to cities to make a living. In the end there was not enough money. The Song court simply printed paper currencies to pay the north nomads and its mercenary army (not common since Qin) that resulted in arguably the world’s first ‘hyperinflation’. All these contributed to the final downfall of Song.

The Bronze money supply growth under Song court’s command doubled in 100 years span. Likewise, from 1023 to 1107, the amount of paper currency issuance increased 40 times.⁷²⁶ Consequently the ‘seigniorage’ gains increased five- to twenty-four-fold.⁷²⁷ Such gains inevitably

⁷²⁶ Deng and Zheng, "Economic Restructuring and Demographic Growth", p.1119. Primary data source: Qi, X., *Songdai Jingjishi* [*An economic history of the Song period*], 2 vols (Shanghai, 1987).

⁷²⁷ Deng and Zheng, "Economic Restructuring and Demographic Growth", p.1119.

attracted widespread counterfeits that further diluted the money supply. The efforts, however, did not pay off. Unlike its previous dynasty, the Tang (618—907) compulsory military service, the Song army was comprised of well-paid professional soldiers (*mubing*). Around the mid-eleventh century, each soldier cost 37,000–70,000 bronze coins a year, excluding food, clothing, and shelter, which made the military budget alone eat in 70 to 80 per cent of the government's total annual revenue.⁷²⁸ Despite the high price paid, two campaigns to retake 16 prefectures from the Khitans in 979 and 986 both ended in defeat. The 1004 Chanyuan Treaty with the Khitans alone specified that the Song government would pay annual tributes of 200,000 bolts of silk cloth and 100,000 taels of silver.⁷²⁹ This 'peace' price was raised to 300,000 bolts and 200,000 taels under the new 1042 Guannan Treaty.⁷³⁰ In 1127, another 378,000 taels of gold, 7,140,000 taels of silver, and 1,040,000 bolts of silk went to the Jurchens.⁷³¹

Apart from paper printing, the Song court launched government direct profiteering policies for self-survival. By law, tea-growers sold their outputs exclusively to government agents that brought in 100–300 million bronze coins annually for the government.⁷³² Salt license fees grew from

⁷²⁸ Deng and Zheng, "Economic Restructuring and Demographic Growth", p.1118. Primary data source: Wang, S., *Liangsong Caizheng Shi* [A fiscal history of the Northern and Southern Songs] (Beijing, 1995).

⁷²⁹ Deng and Zheng, "Economic Restructuring and Demographic Growth", p.1118.

⁷³⁰ Deng and Zheng, "Economic Restructuring and Demographic Growth", p.1118.

⁷³¹ Deng and Zheng, "Economic Restructuring and Demographic Growth", p.1119. Primary data source: Mao, Z., *Songchaode Duiwai Jiaowang Geju* [Patterns of the Song foreign relations] (Yangzhou, 2012).

⁷³² Deng and Zheng, "Economic Restructuring and Demographic Growth", p.1120.

2.8 billion bronze coins in 1049 to 23 billion in 1078.⁷³³ Wine was also monopolised. An annual 100 million *sheng* was required to be sold through a government channel.⁷³⁴ The most profitable overseas markets were under government's firm control that outlawed private professional merchants. Under the 'Law of Market Trade' (*shiyi fa*), the Pharmacy of the Imperial Medical Bureau (*taiyiju maiyaosuo*) monopolised imported medicine.⁷³⁵ The arbitrage yielded 20 to 100 per cent profits.⁷³⁶ It is hence clear that Song's 'prosperity' was in essence a contingent measure to ease the financial crisis of the government rather than a natural springing-up of, or a well-thought-out plan for the economy. This crisis was in turn triggered by the social-economic pattern of Song China society.

In Medieval Europe, where there was no central bureaucracy, merchants who had no political power would use capital to manipulate the city-states aristocratic lords and expand their commercial networks accordingly (Genoese case). In ancient China, where there was central bureaucracy to select peasants and accordingly to ensure social mobility, the emperor and government officials as well as society culture as a whole from vast peasantry would detest merchants and would ensure they have no real

⁷³³ Deng and Zheng, "Economic Restructuring and Demographic Growth", p.1120.

⁷³⁴ Deng and Zheng, "Economic Restructuring and Demographic Growth", p.1120. Primary data source: Wei, T., *Songdai Guanying Jingji Shi* [An economic history of the state sector during the Song period] (Beijing, 2011).

⁷³⁵ Deng, *The Premodern Chinese Economy*, p.307.

⁷³⁶ Deng and Zheng, "Economic Restructuring and Demographic Growth", p.1121. Primary data source: Tuotuo, *Song Shi*, 'Shihuozi 137', in Shanghai Classics Press, ed., *Er-shiWu Shi*, vol. 7, pp. 5751, 5752.

economic power, i.e., big manorial landlords, so as to maintain social harmony and keep the selection mechanism in place. Song's bureaucrats, who were *at the same time* merchants encouraged by the government to fulfil the ransom targets and to find money-making opportunities, were arguably the worst combination of the two. Political power and economic power together fostered predatory rent-seeking behaviour. Song's tax revenues did not come from the land tax, since a majority of land were owned by government officials who were exempt from paying taxes, but from the heavy commercial taxes imposed on population making a living in the cities.⁷³⁷ Golas observes that the wealthy large-land-owners were predominantly government officials.⁷³⁸ The large real estate officials-landlords often did manipulate state power to their own advantage: the ability to avoid tax and labour service obligations, legally or illegally, was the major non-economic means to land accumulation.⁷³⁹ Conversely, Deng reveals that in AD 976 alone, the Quanzhou city paid the government a levy in kind of (1) imported goods of 705 tonnes (176,000 *jin*), including 6 tonnes of ivory (10,000 *jin*), and (2) 61,000 rolls (*pi*) of silk cloth.⁷⁴⁰ In addition, there were monetary payments of 1 tonne of silver (27,000 *liang*)

⁷³⁷ Golas, "Rural China in the Song", pp.291-325; Deng, *The Premodern Chinese Economy*, p.307.

⁷³⁸ Golas, "Rural China in the Song", p.302.

⁷³⁹ Golas, "Rural China in the Song", p.312.

⁷⁴⁰ Deng, *The Premodern Chinese Economy*, p.307. Primary data source: Zhuang Weiji, Zhuang Jinghui and Wang Lianmao (1989) *Haishang Sichou Zhilude Zhuming Gangko Quanzhou (Quanzhou: A Port Known for Trade along the 'Maritime Silk Road')*, Beijing: Maritime Press. Zi Si (n.d.) *Zhongyong (The Doctrine of the Mean)*, publisher unknown.

and 2,010 million bronze coins.⁷⁴¹ This means that each household in Quanzhou would have to bear a burden of 1.8 *jin* of imported goods, 0.6 roll of silk cloth, 0.3 *liang* of silver and 20,800 bronze coins.⁷⁴² It is hence less surprising that when the Tartar Jin nomads mimicked the Han civilisation and set up central bureaucracy regime with physiocratic policies in the North they conquered, urban population in rich cities of the Southern Song voted with their foot and became rural peasants in the north.

Ming China learnt lessons from Song. Currency stability was ensured by the adoption of silver. Corvee labour and taxation in kind—two of the main causes of peasant hardship and unrest—were largely replaced by a single tax payable in silver. These measures were enacted under the tenure of Chancellor *Zhang Juzheng*, one of the influential statesmen in Chinese history. By the time when he came to office, many had already suffered from inflationary trends that were mainly attributed to the growing monetisation of the economy.⁷⁴³ Extravagant lifestyle and luxury consumption took place among the newly arisen upper tiers.⁷⁴⁴ Contemporary gentry from the traditionally education-selected, merit-based Confucian scholars commonly bemoaned commercialisation and

⁷⁴¹ Deng, *The Premodern Chinese Economy*, p.307.

⁷⁴² Deng, *The Premodern Chinese Economy*, p.307.

⁷⁴³ Frederic E. Wakeman, "China and the Seventeenth-Century Crisis," *Late Imperial China* Vol.7, No.1, Periodicals Archive Online, pp.1-23.

⁷⁴⁴ Frank Trentmann, *Empire of Things: How We Became a World of Consumers, from the Fifteenth Century to the Twenty-First* (Harper, 2016), pp.21-71.

exalted the simpler life of a century or two earlier, contrasting the moral and economic tranquillity of the Hongzhi reign (1488—1505), when arable fields were plentiful, houses were abundant, villages peaceful, and bandits absent; with the turmoil and social disruption of the Jiajing period (1522—1566), when property frequently changed hands, prices fluctuated, and rich and poor grew socially apart.⁷⁴⁵ There were anxieties about and witnesses on social disorder and moral decay. Under Chancellor *Zhang Juzheng's* tenure (1572—1582), government's role of land-holding supervision was reaffirmed. Cultivated land was remeasured that drastically reduced illegal and legal land tax avoidance by corrupt officials. Land from illegitimate landlords was redistributed back to small owner-tillers. Energies were shifted back to agrarianism.⁷⁴⁶ Fiscally, the gradually dropping revenues of the Treasury were refilled. Militarily, the fighting capacity of the Ming army was revived.

Qing China, even more so, perfected the physiocratic polices. Taxes were deliberately kept low. Emperor Kangxi in 1715 set up government's commitment to 'freeze tax revenues' for his later successors (*yongbu jiafu*), which was unprecedented in world history.⁷⁴⁷ The Qing total annual land-

⁷⁴⁵ Wakeman, "China and the Seventeenth-Century Crisis", pp.1-23.

⁷⁴⁶ Eric Jones, *The European Miracle: Environments, Economies and Geopolitics in the History of Europe and Asia*. 3rd ed. (Cambridge: Cambridge University Press, 2003), Chapter 11. China and the Ming and Manchu Empires.

⁷⁴⁷ Deng, *Mapping China's Growth and Development in the Long Run 221 BC to 2020*, p.133.

poll revenues were capped at 30 million *taels* of silver (1,125 tonnes) despite growth in population and GDP. Consequently, the Qing land-tax burden per capita was halved.⁷⁴⁸ This commitment lasted for over one century until 1840, the First Opium War with Britain. Qing's rationale is captured by Bing Wong: "[Chinese governments] believed that light taxation allowed the people to prosper, and since a prosperous people was held to be crucial for the maintenance of a powerful state, tax rates were low."⁷⁴⁹

State monopoly was also relaxed. Silver imports and silver trade were deliberately left unregulated to the merchants, despite its easy controllability. As a consequence, there was silver heterogeneity in shapes, sizes and purity everywhere in China. As many as 56 official weight standards (*shiping liang*) were in operation, varying from 35.14 to 37.50 grams.⁷⁵⁰ Private weight measures varied in hundreds, from place to place and from trade to trade. Consequently, traders had to barter every time to assess each silver piece when foreign silver changed hand. One way of doing this is to assess silver coins with a chop of approval chiselled permanently on the face of those coins. Since no single dealer had the

⁷⁴⁸ Deng, *China's Political Economy in Modern Times, 1800—2000*, p.16. Primary data base: Liang, *Dynastic Data for China's Households, Cultivated Land and Land Taxation* (Shanghai: SPP, 1980), p.428.

⁷⁴⁹ R. Bin Wong, *China Transformed* (Ithaca: Cornell University Press, 1997), p.90.

⁷⁵⁰ Deng, *Mapping China's Growth and Development in the Long Run*, p.57. Primary data source: Zhang Huixin, 'Yinliangde Pingse Ji Mingcheng' (Qualities and Names of Silver), *Gugong Wenwu Yuekan (Palace Museum Cultural Relics Monthly)* (Taipei), 52 (1987), p. 130.

universal authority, coins were often chopped repeatedly until they were defaced on both sides.⁷⁵¹ In contrast to this mess, China's own bronze coins (*tongqian*) were well defined, regulated, and supplied most of the time by the Qing authority.

Qing's light taxes and hands-off approach was accompanied by its high public goods provision.⁷⁵² As a conquest dynasty, the Qing court established an empire-wide system of grain reserves maintained through sustained bureaucratic effort; ever-normal granaries were set up and maintained in *every* county village throughout China.⁷⁵³ The result was Qing's extraordinary population growth from 1750 to 1850: multiplied fourfold to 400 million people, unprecedented in world history.⁷⁵⁴ Macauley remarks that marshalling an impressive array of archival sources, it was evident that the Qing officialdom was "remarkably vigilant in attempting to mitigate food shortages and played a role in controlling fluctuations in the local supply and prices of grain", presenting an "imposing challenge to scholars who depict the eighteenth-century Chinese state as essentially ineffectual and irrelevant to the healthy functioning of

⁷⁵¹ Deng, *Mapping China's Growth and Development in the Long Run*, p.58.

⁷⁵² Roy Bin Wong and Jean-Laurent Rosenthal, *Before and Beyond Divergence: The Politics of Economic Change in China and Europe* (Cambridge, Mass.: Harvard University Press, 2011), p.199.

⁷⁵³ Plerre-Etienne Will and R. Bin Wong, *Nourish the People: The State Civilian Granary System in China, 1650—1850* (Center for Chinese Studies, The University of Michigan, 1991), pp.14-15.

⁷⁵⁴ Kent Deng and Sun Shengmin, "China's Extraordinary Population Expansion and Its Determinants during the Qing Period, 1644—1911," *Population Review*, Volume 58, Number 1, 2019, pp.20-77.

the Chinese economy.”⁷⁵⁵ Conversely, Jason Hickel argues that working conditions during the early phase of British Industrial Revolution were unsatisfying—the hellish backdrop to Dickens’ works such as *Oliver Twist*.⁷⁵⁶ These lead to Pomeranz’s *Great Divergence* argument based on *living standards comparison*: in 1800, life expectancy in England was 32 to 34 years; in China, between 35 and 40.⁷⁵⁷ A rural farmer in China lived relatively better than an urban worker in England at the time.⁷⁵⁸ Qing’s extraordinary performance in terms of people’s welfare also paled Asia’s other regions. During the Tenmei Famine of the 1780s, a large proportion of the population in Northern Japan vanished.⁷⁵⁹ A decade earlier, the Bengal Famine hit the lower Gangetic Plain of India, 10 million people, or one-third of the population perished.⁷⁶⁰

This physiocratic ‘core’ fostered, rather than curbed, *market economy* prosperity.⁷⁶¹ During the Qing period, China’s local trading networks had 45,000 fairs, each serving 15—20 villages.⁷⁶² 20—40 percent of peasant outputs were traded there by peasants and for peasants. Merchants were

⁷⁵⁵ Melissa Macauley, Book Review of *Nourish the People: The State Civilian Granary System in China, 1650—1850*, *The Journal of Economic History* (Cambridge University Press, 1995), 55(1), pp.182-183.

⁷⁵⁶ Hickel, *The Divide*, p.80.

⁷⁵⁷ Pomeranz, *The Great Divergence*, pp.36-37.

⁷⁵⁸ Pomeranz, *The Great Divergence*, p.85.

⁷⁵⁹ Hanley and Yamamura, *Economic and Demographic Change in Preindustrial Japan* (Princeton, NJ: PUP, 1977), p.17.

⁷⁶⁰ Rothermund, *An Economic History of India* (London: Routledge, 19993), p.20 and p.27.

⁷⁶¹ Kent G. Deng, “Development and Its Deadlock in Imperial China, 221 B.C.—1840 A.D.,” *Economic Development and Cultural Change* 51, no. 2 (2003), pp.479–522.

⁷⁶² G. William Skinner, “Marketing and Social Structure in Rural China,” *The Journal of Asian Studies* (pre-1986); Nov 1964; 24, 1.

not involved. William Skinner dubs it ‘pan-peasantry commercialisation’.⁷⁶³ Ordinary peasants also took the majority of loans in pawnshops rather than in China’s merchants-led native banks. Pawning was not controlled by the government; the Qing regulation exempted all taxes on pawnshops.⁷⁶⁴ By 1812, there had been a total of 23,139 pawnshops for the Qing population as a whole, with the total silver invested to be 300 million *taels*, an equivalent about half of China’s total silver stock prior to 1800.⁷⁶⁵ This sheer size of the rural market lending and borrowing attracted a wide spectrum of investors, including Emperor Qianlong and his father, Emperor Yongzheng.⁷⁶⁶ Mokyr’s ‘government as one private market player’ image hence suited China, rather than Europe, better.

Equally, China’s property market flourished with increasingly sophisticated multi-party ownership. The coexistence of freeholding rights and permanent lease holding rights (or the rights to till the soil) between the owner and the tenant on the same land property became popular in the Ming—Qing period.⁷⁶⁷ And all the partial ownership rights were subject to trade and mortgage.⁷⁶⁸ Private ownership of land was entrenched across

⁷⁶³ G. William Skinner, “Marketing and Social Structure in Rural China,” *The Journal of Asian Studies* (pre-1986); Nov 1964; 24, 1.

⁷⁶⁴ Deng, *Mapping China’s Growth and Development in the Long Run*, p.59.

⁷⁶⁵ Deng, *Mapping China’s Growth and Development in the Long Run*, p.60. Primary data source: Liu Qiugen, *Mingqing Gaolidai Ziben (Usury Capital during the Ming–Qing Period)* (Beijing: Social Science Literature Press, 2000).

⁷⁶⁶ Deng, *Mapping China’s Growth and Development in the Long Run*, p.60.

⁷⁶⁷ Deng, *The Premodern Chinese Economy*, p.57.

⁷⁶⁸ Deng, *The Premodern Chinese Economy*, p.57.

the empire. The share of the state-owned land under the Qing was further halved from the previous Ming level of 14 percent to 7 percent.⁷⁶⁹ There was also no real European counterpart to the Chinese state's repeated efforts to facilitate mass migration to newly cultivated areas.⁷⁷⁰ Under the Qing policy of 'farming by invitation', huge waves of migration took place from the original core regions to frontier areas: Manchuria absorbed 14 million immigrants from 1644 to the 1660s, Mongolia had 100,000 immigrants from Shandong in 1712 alone, and, to the southern frontiers, between 1743 and 1748, a quarter of a million flooded into Sichuan.⁷⁷¹ The mass migration into new frontiers also opened up newly regional specialisation of labour. From 1750 onwards, Manchuria supplied the Yangzi Delta with millions *shi* of wheat, rice and soya bean products a year; the Yangzi Delta supplied cotton goods in return. Bin Wong and Rosenthal hence remark that "China's internal market dwarfed those of Europe as a whole".⁷⁷²

This section therefore concludes with Adam Smith, who calls European path of development as "unnatural and retrograde": "But though [the]

⁷⁶⁹ Deng, *Mapping China's Growth and Development in the Long Run*, p.122. Primary data base: Liang, *Dynastic Data for China's Households, Cultivated Land and Land Taxation* (Shanghai: SPP, 1980), p.351 and p.384.

⁷⁷⁰ Pomeranz, *The Great Divergence*, p.84.

⁷⁷¹ Deng, *Mapping China's Growth and Development in the Long Run*, pp.13-17. Primary data source: Ge Jianxiong (ed.), *Zhongguo Yimin Shi (A History of Migration in China)* (Fuzhou: Fujian People's Press, 1997), Vol. 1, pp. 169-402.

⁷⁷² Roy Bin Wong and Jean-Laurent Rosenthal, *Before and Beyond Divergence: The Politics of Economic Change in China and Europe* (Cambridge, Mass.: Harvard University Press, 2011), p.174.

natural order of things must have taken place in some degree in every... society, it has, in all the modern states of Europe, been, in many respects, entirely inverted.”⁷⁷³ Smith's advice to the legislator was to facilitate this spontaneous convergence of the ‘unnatural’ towards the ‘natural’ path: “A merchant, it has been said very properly, is not necessarily the citizen of any particular country. It is in a great measure indifferent to him from what place he carries on his trade; and a very trifling disgust will make him remove his capital, and together with it all the industry which it supports, from one country to another... The ordinary revolutions of war and government easily dry up the sources of that wealth which arises from commerce only. That which arises from the more solid improvements of agriculture, is much more durable, and cannot be destroyed but by those more violent convulsions occasioned by the depredations of hostile and barbarous nations for a century or two together.”⁷⁷⁴ Adam Smith did not reside in London, but in Beijing.

⁷⁷³ Following Professor Deng and Professor He's high standards, direct citations are kept at a bare minimal. Here Adam Smith's ancient text serves as a first-hand prime point of reference. All secondary citations of the same author on the same page more than twice are avoided throughout this thesis. Smith, *Wealth of Nations* (written in 1776, published by Chicago press in 1977), Book III., p.506.

⁷⁷⁴ Smith, *Wealth of Nations* (1977), Book III., p.555.

4

China's failed early modernisation attempts since 1800:⁷⁷⁵

**Decentralisation of the central bureaucracy
versus
centralisation of the feudal states**

China formally started translating Western classic texts and knowledges after the 1840 Opium War. After 1860's burn-down of the Summer Palace, Self-strengthening (*zhiqiang yundong*) and Westernising (*yangwu yundong*) movements were initiated. These were led by leading scholar-officials Zeng Guofan, Zuo Zongtang, Li Hongzhang, and Zhang Zhidong. The Anqing Arsenal (*anqing neijun xiesuo*) was sponsored by Zeng Guofan to produce the first European-style firearms in 1861. Li Hongzhang followed suit and established the Jinling Machinery Bureau (*jinling jiqi ju*) and the Jiangnan Arsenal (*jiangnan zhizao ju*). Overall, 25 arsenals were built in 14 provinces.⁷⁷⁶ They formed the very first sector of modern industry in China. Despite these, China's economy remained pre-modern. Deng's data show that even in the 1930s, the aggregate output value of China's modern sector was only 10—15.5 percent of China's total GDP; within the industrial sector, only 1/3 of the output value was produced by modern

⁷⁷⁵ This chapter benefits from Professor Deng's valuable side-note comments on the online system: "Ch.3: Factors that assisted or hindered China's capitalism". This chapter also satisfies the joint examiners' report requirement that research contributions posited in the first chapter "should also be echoed and discussed in the discussion chapter to further explain whether and how these contributions have been achieved..."

⁷⁷⁶ Deng, *China's Political Economy in Modern Times: Changes and economic consequences, 1800—2000*

firms.⁷⁷⁷ And Shanghai alone housed 40 percent of China's modern industrial capital, 48 percent of its financial capital, 46 percent of its modern industrial workers, and 50 percent of its modern industrial output in 1934.⁷⁷⁸ Most workers in Shanghai were hired by the textile and food-processing sectors, producing low-tech and labour-intensive 'wage goods'.⁷⁷⁹ Rawski echoes that the share of modern industry in GDP was no more than 3 percent and that of the entire modern sector only 13 percent in the 1930s.⁷⁸⁰ Private and official entrepreneurs confronted formidable obstacles in attempting to extend the orbit of modern growth beyond the initial centers of development to the vast rural empire. Rhoads Murphey concludes that China's modernising coastal nubs were as "tiny and isolated islands in an alien Chinese sea which all along resisted, and then rejected them".⁷⁸¹

To be sure, the persisting rural economy after more than 70 years of modernisation attempts since 1861 was not due to lack of surpluses. Despite not enjoying the same advantage as Britain's primitive capital

⁷⁷⁷ Deng, *China's Political Economy in Modern Times: Changes and economic consequences, 1800—2000*, p.114. Primary data source: Xu and Wu, *Capitalist Development*, vol. 3, pp.740-2; Wright, *Chinese Economy*, p.116. N.R. Lardy gives an even small figure: 3 percent. See Lardy, *Agriculture*, p.7.

⁷⁷⁸ Deng, *China's Political Economy in Modern Times: Changes and economic consequences, 1800—2000*, p.116. Primary data source: Hong, *Shanghai's Finance*, p.211; Sun, *Early Modern Industries*, p.1202.

⁷⁷⁹ Deng, *China's Political Economy in Modern Times: Changes and economic consequences, 1800—2000*, p.116. Primary source: Xu, *Shanghai's Socio-economic Development*, p.275.

⁷⁸⁰ Rawski, *Economic Growth in Prewar China* (Berkeley: University of California Press, 1989), Chapt.1

⁷⁸¹ Murphey, Rhoads (1970), "The Treaty Ports and China's Modernization: What Went Wrong?" Michigan Papers in Chinese Studies, no. 7, Ann Arbor, University of Michigan, Center for Chinese Studies, pp.66-7.

accumulation, premodern China's rural surplus would have been sufficient to support a much larger modern sector before it ran into the scenario of surplus shortage. A British sea captain who travelled from Hainan to Canton in 1819 noted: "Scarcely any people can be supposed to enjoy a more happy or contented life... People of the poorest sort here are better clothed than the same class of persons even in England... We have seen nothing in the shape of a beggar."⁷⁸² China's potential economic surplus in 1933 was also estimated to be large, possibly more than 25 percent of GNP by Riskin's estimate.⁷⁸³ Gang Deng's analysis estimates Chinese agriculture had been reaching a point where a farmer was able to feed at least two persons.⁷⁸⁴

It was not from the frequently charged imperial state's incompetency either. Immediately after the 1840 Opium War, there was a surge of information about Europe, published in Chinese for the public, such as Wei Yuan's *A Comprehensive Survey of Off-shore Countries (haiguo tuzhi)* written in 1841, Wang Wentai's *A Study of England of Red-haired Barbarians (hongmao fan yingjili kaolue)* in 1842, Liang Tingnan's *Four Essays on Off-shore Countries* in 1846, and Xu Jishe's *Records of Lands and Peoples*

⁷⁸² Murphy, R. (1977) *The Outsiders: The Western Experience in India and China*. Ann Arbor: University of Michigan Press.

⁷⁸³ Riskin, C. (1975). "Surplus and Stagnation in Modern China." In *China's Modern Economy in Historical Perspective*. Ed. D. H. Perkins. Stanford: Stanford University Press. 49–84.

⁷⁸⁴ Gang DENG, *The Premodern Chinese Economy: Structural equilibrium and capitalist sterility* (Oxon; New York: Routledge Explorations in Economic History, 1999)

Overseas in 1848.⁷⁸⁵ From 1862 to 1895, 22 new military academics were established in coastal provinces; by the end of 1890s, 24 other modern educational institutes had been in operation, including 3 language colleges and 16 polytechnic schools; a total of 82 students were also sent to Western countries to study law, mining, manufacturing and military technologies.⁷⁸⁶ Yet another war was lost in 1895 to the Japanese naval fleet. The young 27-year-old Emperor Guangxu in 1898 initiated reformation movements and issued his edict as follows:

“Our country needs to adopt Western ways to develop all businesses vigorously... I, the Emperor, have been contemplating reforms day and night to improve [China] in all areas... Let us be united across society to implement the reforms and to strengthen China.”⁷⁸⁷

And the reform lasted 100 days (*bairi weixin*).

If premodern China’s ‘clumsiness’ of its early modernisation attempts cannot be purely resorted to capital shyness or lack of personal initiatives from leading officials and the emperor, then it must be institutional. Indeed,

⁷⁸⁵ 魏源《海国图志》；汪文泰《红毛番英吉利考略》；梁廷楠《海国四说》；徐继畲《瀛环志略》

⁷⁸⁶ Deng, *China's Political Economy in Modern Times*, p.61. Primary source: Hao, *A Naval History of Modern China* (Beiping: Xuewu, 1929); Xia, Dongyuan, *A History of the Westernisation Movement* (Shanghai, 1992).

⁷⁸⁷ ZHAO Erxun, *History of the Qing Dynasty*, Biography Vol.24, on Emperor Dezong. Assessed at: <http://www.shixiu.net/wenhua/gdss/qsg/> 清史稿在线阅读. 赵尔巽,《清史稿》,本纪二十四:清德宗。上谕:“振兴庶务,首在鼓励人材。各省士民著有新书,及创新法,成新器,堪资实用者,宜悬赏以劝。或试之实职,或锡之章服。所制器给券,限年专利售卖。其有独力创建学堂,开辟地利,兴造枪砲厂者,并照军功例赏励之。”以及:“时局艰难,亟须图自强之策。中外臣工墨守旧章,前经谕令讲求时务,勿蹈宋、明积习,训诫谆淳。惟是更新要务,造端宏大,条目繁多,不得不广集众长,折衷一是。诸臣于交议之事,当周谘博访,详细讨论。毋缘饰经术,附会古义,毋胶执成见,隐便身图。倘面从心违,致失朝廷实事求是本旨,非朕所望也。朕深惟穷变通久之义,创建一切,实具万不得已之苦衷。用申谕尔诸臣,其各精白乃心,力除壅蔽,上下一诚相感,庶国是以定,而治道蒸蒸矣。”

Sng and Moriguchi argue that the divergence between Meiji Japan and Late Qing China already started before 1850, from state capacity *alone*.⁷⁸⁸ “from 1650 to 1850, tax revenue per capita was significantly higher in Tokugawa Japan than in Qing China, and the gap widened over time.”⁷⁸⁹ The average tax rate in the Tokugawa shogunate was 34%, and in some domains outside the shogunate rates were pressed even higher.⁷⁹⁰ The lord of Aizu taxed his peasants at 50–55% between 1637 and 1764.⁷⁹¹ In Choshu domain, agricultural outputs were taxed at an average rate of 40% in 1840.⁷⁹² Similarly, in 1760s Britain there were some 20,000 civilian personnel working for the government. Overall, tax officers formed 80 percent of all officials, and the majority were not civilian bureaucrats but military personnel— “an illustration of the incredible amount of power that Britain, as a relatively small country, could mobilise.”⁷⁹³ Conversely, Sng and Moriguchi find that the Chinese state’s annual revenue on the eve of the Opium War (1839–1842) was equivalent to 2 % of its national output at the maximum.⁷⁹⁴ Unfortunately, the Smithian premodern Chinese state that created its millennium prosperity in world’s medieval history cost it dearly in early modern episodes. China at that time was like a rich elephant

⁷⁸⁸ Tuan-Hwee Sng and Chiaki Moriguchi, “Asia’s little divergence: state capacity in China and Japan before 1850,” *Journal of Economic Growth* (2014) 19:439–470, DOI 10.1007/s10887-014-9108-6

⁷⁸⁹ Sng and Moriguchi, “Asia’s little divergence: state capacity in China and Japan before 1850”, pp.439-470.

⁷⁹⁰ *Ibid.*

⁷⁹¹ *Ibid.*

⁷⁹² *Ibid.*

⁷⁹³ Peer Vries, “Public Finance in China and Britain in the Long Eighteenth Century,” *Working Papers No. 167/12*, Department of Economic History, London School of Economics, August 2012

⁷⁹⁴ Sng and Moriguchi, “Asia’s little divergence: state capacity in China and Japan before 1850”, pp.439-470.

unable to organise strength and show its muscle to beat the fierce jackals biting its neck and ass. The small size of Nanking government was just like its Qing predecessor, taxes and public spending remained below 10 percent of GDP in the 1930s.⁷⁹⁵ To answer the question on why China had such a low state fiscal capacity compared with others, one needs to look at the drastically different Chinese social structure from the European or Japanese feudalist worlds. And that puts one all the way back to 221 B.C.'s Chinese empire-building.

Dating back to the Warring States Period (457—221 B.C.), the Qin Kingdom was regarded as a marginal state in terms of commercial development. Commercial interests were carefully protected in the Chu, Wei, Jin and Qi kingdoms. But Qin's commercial backwardness did not handicap its rise as the champion among competing powers. Its empire was created by spears and ploughs in the hands of farmer-soldiers in accordance with Shang Yang's 'farming and warring' strategy (*gengzhan*).⁷⁹⁶ The need for physically tough men to fight wars and occupy newly captured areas on a permanent basis made land-holding peasantry an ideal social class for Qin's empire-building. The previous feudalist chessboard-field system (*jingtian zhi*) under Western Zhou dynasty (c. 1030–771 B.C.) was abolished. Self-declared ownership by Qin farmers over unclaimed land

⁷⁹⁵ Thomas G. Rawski, *Economic Growth in Prewar China*, Chapt. 1

⁷⁹⁶ SHANG Yang, *the Book of Lord Shang* (China's Book Press, 2015) 商鞅, 《商君书》(中华书局, 2015)

took the lead. Shang Yang also introduced policies to attract farmers from other kingdoms to settle in Qin by offering tax advantages and private ownership (*laimin*) in order to maximise the recruitment of native Qin males for the army.⁷⁹⁷ Qin as a consequence knocked its rivals over one after another and succeeded in achieving two things for the first time in China's history: (1) unified China through war and conquest; (2) a single centralised administration known as the 'prefecture-county system' (*junxian zhi*) was implemented after replacing the age-old feudalist chess-board structure and all its social tiers with tax-liable land-holding peasantry. China was divided into coherent administrative units of prefectures (*jun*) and counties (*xian*) under a single commanding centre to allow the Qin state apparatus to govern territories of a great many times its core area. Although Qin itself was a short regime, this central bureaucracy system continued for more than two millennia in China.

This has several important implications. First, the military institutional mechanism set up in Shang Yang's military campaign consequentially became private individual land ownership. By the late Qing dynasty (1644—1912), 92% of registered land was privately owned.⁷⁹⁸ Small landholder owner-tillers were the peasant majority. Second, after the abolition

⁷⁹⁷ SHANG Yang, *the Book of Lord Shang*, Volume VII. Opening Frontiers; Volume XV. Attract Immigration (China's Book Press, 2015) 商鞅, 《商君书》, 开塞第七, 徠民第十五 (中华书局, 2015)

⁷⁹⁸ Albert. Feuerwerker, "The State and the Economy in Late Imperial China," *Theory and Society* 13, no. 3 (1984): 297-326.

of Zhou's semi-feudalist rule by blood, Chinese emperors needed to select government officials to help run the country from the vast peasantry public. An impartial selection mechanism became the natural choice. Since Sui—Tang, there had been 597 *Imperial Examinations (keju)* in the span of 1,286 years from 618 to 1904. As many as 75.4 per cent of these national champions' family backgrounds were 'unknown', which traditionally was a euphemism for 'poor' and 'obscure'.⁷⁹⁹ Ho Ping-ti's data corroborate these findings. On average nearly three quarters of *shengyuan* (candidates who passed the first exam of *Imperial Examinations*) during the Ming and more than one half during the Qing came from obscure commoner families without previous elementary degree holders.⁸⁰⁰ Traditional China was ruled by meritocracy. Degree holders and scholar-officials were spiritual self-earned, rather than hereditary birth-given, nobles. Third, imperial China's bureaucracy ran with a higher cost. Under feudalism, defence, administration and landowning were overlapped; rent and tax were combined. In feudal Japan's peacetime, the *samurai* warrior class became administrative officials and occupied a status for which they received a stipend, rather than offering a particular competence for which they were paid a salary.⁸⁰¹ In imperial China, because of the prevailing pattern of

⁷⁹⁹ Deng, *The Premodern Chinese economy*, pp.63-67. Data source: Zhou Yafei (1995) *Zhongguo Lidai Zhuangyuanklu (Records of 'Number One Scholars' in the Dynastic Palace Examinations)*, Shanghai: Shanghai Culture Press.

⁸⁰⁰ Ping-ti HO, *The Ladder of Success in Imperial China: Aspects of Social Mobility, 1368-1911* (Studies of the East Asian Institute. New York: Science Editions, 1964), Chapter 3.

⁸⁰¹ Chalmers Johnson, *MITI and the Japanese Miracle*, p.37.

private individual land-holding, the authorities and landowners were separate entities; rent and tax were separate. This in turn explains, firstly, why the imperial government took pains to measure and periodically register farming acreages across the country. For instance, in the Tang period, by law, officials surveyed household income levels once every three years. Secondly, it explains why the free land-holding peasantry had incentives to resist government regulations, sometimes violently, by concealing acreage to avoid land tax, so much so that the Imperial Court had to switch to a household tax or poll tax. Thirdly, it explains why the taxation department of the central had a long payroll for tax watchdogs.⁸⁰² All these measures would not have been necessary in the running of a feudal rule-by-blood world.

A natural consequence was the dilution of bureaucratic activities and lower intensity of state control to people's day-to-day life. With the domination of Confucian doctrines from all other schools in the Han dynasty, tax rates were drastically reduced from the previous Qin level to an average 10 percent. Such a rate was institutionalised by all Confucian governments from Han to Tang times.⁸⁰³ Ming's rate showcased a lower trend, and was again halved in the Qing episode, the last period of China's imperial history,

⁸⁰² Deng, *The Premodern Chinese economy*, p.63.

⁸⁰³ Deng, *The Premodern Chinese economy*

to 1—5 percent.⁸⁰⁴ European Jesuits' impression at that time was no Chinese paid taxes.⁸⁰⁵ By the late eighteenth to early nineteenth centuries, the Qing state had fewer than 30,000 bureaucrats—including all civilian officials and military officers in total—to spread across 11 million km² to run 18 provinces, 190 prefectures and 2,074 counties.⁸⁰⁶ With population growth, the population—officials ratio increased from 2,300:1 in 1700 to 15,136:1 in 1833.⁸⁰⁷ This means for a majority of Chinese they never saw a mandarin official in their lifetime. Traditional China's central bureaucratic state, through this long-term decentralising diluting historical process, has essentially withered away.

This had severe *unintended* drawbacks down to the grass-roots level. The low and cheap state essentially means a majority of Chinese peasantry's socio-economic activities were self-governed. *In principle* it was not necessarily a bad thing, and it was an ideal world for Adam Smith's 'Little else is required to carry a state to the highest degree of opulence from the lowest barbarism, but peace, easy taxes.' *In reality* however both Smith and Confucius made a fatal mistake in assuming people's natural state of affairs

⁸⁰⁴ Kent G. Deng, *Mapping China's Growth and Development in the Long Run, 221 BC to 2020* (Singapore: World Scientific, Imperial College Press, 2016)

⁸⁰⁵ Murphy, R. (1977) *The Outsiders: The Western Experience in India and China*. Ann Arbor: University of Michigan Press.

⁸⁰⁶ Kent Deng, *China's Political Economy in Modern Times: Changes and economic consequences, 1800—2000* (London: Routledge, 2012), p.25. Primary source data: Yang, *Bureaucracy of Premodern China* (Beijing: ZB, 1992), pp. 420-1; Zhang, *The State Apparatus of the Qing Period* (Beijing: Xueyuan, 2001).

⁸⁰⁷ Deng, *China's Political Economy in Modern Times*, p.25.

without interference would be *peace*. In 1850s the Hobbesian ‘state of nature’ kicked in and swept across China. The one million self-policing rural villages swept across the empire like ‘dots’ and there was no intimate connection among them. Villages themselves organised self-defense, but it was only sufficient at one or two village level. Facing stronger more than two villages’ number of forces would tear-up the thin root for one ‘dot’ after another until the ‘snowball’ got bigger and bigger. It was different to a feudalist scenario when society itself was automatically ruled by class differentials: peasant serfs by knights or *samurais*, and these warriors in turn served the manorial lords or *daimyos*, who in turn owed allegiance to the king. In China there was no such grass-roots connection, but only equal entity villages sparse across the huge territory and a cheap bureaucracy above them. That explains Sun Yat-sen’s ‘loose tray of sands’. One major reason why the ‘Taiping Rebellions’ soon got so powerful in the end was their ‘crook’ measures undertaken to burn down every poor-resistance village and county level’s granary they conquered. The people, had nothing to eat, could do nothing but join the army.⁸⁰⁸ A frequent view of Chinese peasant rebellions is because their life got so poor, they revolted. This is wrong. For one thing, premodern China’s living standard was up the best tiers among world’s civilisations. And other civilisations did not witness either similar level or similar frequency of mass rebellions akin to the

⁸⁰⁸ Kent Deng, *China's Political Economy in Modern Times: Changes and economic consequences, 1800—2000* (London: Routledge, 2012), Chapter 4.

China type. For another, Hong Xiuquan, Li Xiucheng, Feng Yunshan, Wei Changhui, and Shi Dakai were from the literate gentry background, not the bottom poor level of the peasantry. But they were not good enough to obtain any imperial degree, i.e., ‘social rejects’ at the time.⁸⁰⁹ The two millennia long (210 B.C.—1900) China’s imperial history witnessed 2,106 incidents of peasant rebellions; a record unbroken in, and unique fierce peasantry not available to world’s other civilisations.⁸¹⁰ These ultimately came from premodern China’s state-peasantry socio-structure.

If 1850s’ rebellions have showcased the incapability of the diluted decentralised imperial Chinese central bureaucracy to *govern* peace and order, then what was happening in the outside world at that time served a ‘double-kill’. Already at the end of the Tokugawa period, Japan had about 2.5 million *samurai*-soldiers versus 27 million civilians, which put the civilian—*samurais* ratio to approx. 9:1.⁸¹¹ This astonishing extraction and rent-seeking population ratio in feudal Japan already paved the way for the later Meiji-Japan state-building, the only thing left to do was political centralisation. What Stephen Epstein speculated about the creation of absolute sovereignty to the rise of European states’ *Freedom and Growth*

⁸⁰⁹ Deng, *China’s Political Economy in Modern Times*, p.46.

⁸¹⁰ Deng, *The Premodern Chinese Economy*, p.376. Data source: Li Guangbi, Qian Junye and Lai Xinxia (1958) *Zhongguo Nongmin Qiyi Lunji (On Chinese Peasant Rebellions)*, Beijing: Sanlian Books.

⁸¹¹ Deng, *China’s Political Economy in Modern Times*, p.26. Primary data source: For the *samurai* population, see Benson and Matsumura, *Japan, 1868—1945* (Harlow: Pearson, 2001), p.15. For the civilian population, see Hane, *Modern Japan* (New York: Westview Press, 2001), p.52.

and Douglass North's boast on the creation of absolute private property rights to *the Rise of the Western World* need one serious amendment: the addition clause of 'based on European feudalist world'. The creation of absolute state sovereignty is essentially another way of saying political centralisation to the huge rent-seeking decentralised fragmented bodies that automatically generated the formation of modern state apparatus machinery. And North's English private property rights were the consolidation of feudal lords' landholdings that produced the greatest expel of the peasantry in world history.⁸¹²

Of course, centralisation of feudal states was by no means a smooth peaceful process. Enough has been said about the weaknesses of China's decentralised central bureaucracy and self-policing villages at the grass-roots level, one thing should be made clear: while Qing China failed to maintain peace in the 1850s, premodern Japan and other European feudal states had no peace to maintain. Joel Mokyr, the prominent Eurocentric economic historian who in his well-known *Lever of Riches* book's Chapter 9 contrasted the 'tight bureaucratic' Chinese empire with vibrant value pluralist European states, over the same book in Chapter 3 admitted: "Particularly between 500 and 800 A.D., the economic and cultural environment in Europe was primitive compared to the classical period.

⁸¹² Simon Fairlie, "A Short History of Enclosure," *The Land* Summer 2009.

Literacy had become rare, and the upper classes devoted themselves to the subtle art of hacking each other to pieces with even greater dedication than the Romans had. Commerce and communications, both short- and long distance, declined to almost nothing.”⁸¹³ During the period from its ‘Glorious’ Parliamentary Sovereignty to its Industrialisation phase (1688—1815), Britain was at war for no less than 52 percent of the time.⁸¹⁴ Since 1500s, European powers had been engaging in mercantilist naval wars for world expansion. The centralisation of fragmented feudalist states was a *military* procedure. This was captured by Charles Tilly’s famous dictum on the coercion formation process of European states power: ‘War made States, and States made War.’⁸¹⁵

Unfortunately, despite his good intention, the moment when scholar-official Zeng Guofan with a paper edict returned to his hometown and organised ‘Hunan Army’ (*xiangjun*) to fight the Taipings and later to terminate the trouble in 1864, he started the process of semi-feudal federalism to the age-long central empire. Provincial governors from then on were no longer the Confucian ‘man of the pen’ civil servants, but battle-harden ‘man of the sword’ ‘governor-lords’. Their power basis was no

⁸¹³ Joel Mokyr, *The Lever of Riches: Technological Creativity and Economic Progress* (New York: Oxford University Press, 1990), Chapter 3: The Middle Ages.

⁸¹⁴ Hobson, *The Eastern Origins of Western Civilisation*, p.245.

⁸¹⁵ Charles Tilly, *Coercion, Capital, and European States, AD 990—1990* (Oxford: Basil Blackwell Ltd, 1990), Chapter 3: How War Made States, and Vice Versa.

longer the fame of one's ink & morality and honour degree granted from the imperial court, but their power spheres of each province: troops, independent taxation, and a parallel power network. Provinces became mini-states. The major reason why the young ambitious Emperor Guangxu's political reformation movements failed was not because of Empress Dowager Cixi's oppression, but the support from governor-lords to the old forces. One of the political advices from Kang Youwei to Guangxu was 'abolition of provinces' (*feisheng*) that ultimately terminated the young emperor's fate. The 'Wuchang mutiny' in 1911 was a bloodless small riot that brought Qing's eventual downfall, because of the broad acquiescence from the governor-lords. The later Warlords' period was just a precipitation of this on-going historical process. China had to plunge into chaos first and retreat all the back to its 221 B.C. empire-building starting point, and restarted another historical trajectory from regional fiscal states, and fought each other to modernise.

The constant flux state of millennium-long premodern China's socio-economy and *Imperial Examinations* selection mechanism needs one ground-soil factor: there was no powerful group (except the emperor) to block the impartial selection channel to vast owner-tillers. This was achieved by the imperial state's physiocratic policies. Merchants were not oppressed by the emperor, but integrated and weakened by the people. The

emperor was fulfilling his 'political mandate' from the state-peasantry alliance, for the failure to do so would face the ultimate threat of peasantry revolts. Chinese society's constant flux was also self-perpetuated by the 'dividing families' (*fenjia*) inheritance pattern. This tradition came from Shang Yang's 'universal tilling' policy and later carried over all the way to the Qing period. Due to the influence of Confucian traditions, it was normally unacceptable, and could be a criminal act under the Qing law, to sue the elder brother or other family superior. But it did *not* apply to property division. It was explicitly stated that 'property should be equally divided among the sons regardless of their primogeniture or non-primogeniture status'.⁸¹⁶ This explains why the Chinese peasantry always had the initiative to cultivate new land and the empire's territory was in continuous expansion while the small landholding pattern of the general economy was maintained.

This also explains why there was a lack of genuine first-push capital formation endogenous mechanism in early modern China in spite of its available rural surpluses. The rough size of the potential surplus above the actual level of consumption of the working population in all sectors of the economy varied from 1/4 to 1/3 of net domestic product in 1933.⁸¹⁷ In

⁸¹⁶ SHEN Zhiqi, *the Great Qing Law and its explanations* (Laws Press, 2000). [清]沈之奇 撰, 怀效锋 点校, 《大清律辑注》(法律出版社, 2000): "嫡庶子男, 除官荫袭先尽嫡长子孙, 其分析家财田产, 不问妻妾婢生, 止以子数均分"。

⁸¹⁷ Riskin, C. (1975). "Surplus and Stagnation in Modern China." In *China's Modern Economy in Historical*

contrast, net domestic investment was less than 2 percent in the same year.⁸¹⁸ Riskin argues that the lack of investment from agricultural surplus “must be sought in the nature of the traditional rural society.”⁸¹⁹ Feuerwerker echoes that “the structure of the agrarian economy and rural society combined with the absence of effective political leadership to dissipate potential output surpluses or to prevent their mobilization for investment in further economic growth”; it was “a social system which guaranteed continued stagnation”.⁸²⁰ Tawney pinpoints that “the extensive introduction of technical improvements is ... improbable, until the social fabric within which they must function has been drastically modified.”⁸²¹ The prevailing landholding pattern for the vast Chinese peasantry on one hand bred the small and cheap imperial state incapable of delivering effective state-led growth in its early modern period in response to foreign threats, on the other hand locked peasantry onto the land improbable for an alternative path of development. Despite the fact that feudal Japan also grew rice, it proceeded rural industrialisation during the Meiji Restoration.

When Mao took over China in 1949, he therefore faced formidable tasks

Perspective. Ed. D. H. Perkins. Stanford: Stanford University Press. 49–84.

⁸¹⁸ Riskin, C. (1975). “Surplus and Stagnation in Modern China.” In *China's Modern Economy in Historical Perspective*. Ed. D. H. Perkins. Stanford: Stanford University Press. 49–84.

⁸¹⁹ Riskin, *China's Political Economy*, p.33.

⁸²⁰ Albert Feuerwerker, *The Chinese Economy, 1912—1968*, Michigan Papers in Chinese Studies, no.1. Ann Arbor, University of Michigan, Center for Chinese Studies (1968), pp.28-29.

⁸²¹ R.H. Tawney, “Introduction,” *Agrarian China: Selected Source Materials from Chinese Authors*, London, Institute for Pacific Relations (1939), pp.xii-xiii.

on both the apparent one: revitalising the national economy, regarding *forces of production*; and the implicit one: transforming the traditional fabrics of Chinese society, regarding *relations of production*. Much of China remained as a vast ‘rural sea’, and what was left in the capitalist enclave Shanghai offered no promising hope either. Industrial enterprises were small, and were dominated by consumer goods. The most important industries were cotton textiles, flour milling, cigarettes, and oil pressing.⁸²² Riskin pinpoints that increasing the living standards of the population as a whole, which required above all the technological transformation of agriculture, could not be imagined without construction of the fuel, power, metallurgical, machine-building, and chemical industries.⁸²³ “Much that China was able to accomplish later,” he acknowledges, “rested on the heavy industrial achievements of the ‘Stalinist’ period.”⁸²⁴ Apart from recovering from war destruction, therefore, the need for developing heavy industry and reframing a ‘conservative’ rural society *with stronger artificial interference* sat on the 1949 new Chinese government’s top agenda. And above all, the construction of an almighty state to terminate the thankless state of chaos for decades and to enhance the capacity control on the general economy.

⁸²² Riskin, *China’s Political Economy*, p.21.

⁸²³ Riskin, *China’s Political Economy*, p.60.

⁸²⁴ Riskin, *China’s Political Economy*, p.60.

China under Mao: 1949—76⁸²⁵

The communists took over China in 1949. Mao's bureaucracy grew from one million functionaries in 1949 to over 15 million in 1976.⁸²⁶ At its peak, Mao's bureaucrats amounted to 3 percent of China's total population, which was 450 times the Qing level.⁸²⁷ The sheer number of officials allowed Mao's state to penetrate every village for the first time in China's history. The socialist modern construction of China transformed the Qing state into a high-density and high-pressure state as a prime agent mover for modern development.

Carl Riskin, on his first page, reminds: “whatever the vicissitudes of the past thirty-five years, and even taking into account a major famine in the early 1960s, China is no longer the international paradigm of mass destitution it was in the past. This is not only because of... economic development..., but also because China's new strength has eliminated one

⁸²⁵ This individual chapter benefits from Professor Kent Deng's side-note comments on the original script: “This part deals with how the Stalinist growth model performed in China under Mao's rule. This should be an independent chapter on its own if the title of this thesis stays.” It also satisfies the joint examiners' report: the positioning of the whole work and research contributions “should also be echoed and discussed in the discussion chapter to further explain whether and how these contributions have been achieved...”

⁸²⁶ Deng, *Mapping China's Growth and Development in the Long Run 221 BC to 2020*, p.155. Primary data base: Li Yi, *The Structure and Evolution of Chinese Social Stratification* (Lanham [Maryland]: University Press of America, 2005), pp. 66, 83.

⁸²⁷ Deng, *Mapping China's Growth and Development in the Long Run 221 BC to 2020*, p.155.

of the world's oft-trod battlefields.”⁸²⁸ It was *communism* that could provide the *stronger medicine needed* to plant the ‘revolution momentum’, to mobilise the ‘mass base’, and to bring the whole society cohesively together. Communists were not only welcomed by the poor peasantry who were chief beneficiaries of the land reforms, but also, in Bramall’s argument, “the Party had won the support of China’s middle classes and its revolutionary youth. Industrialists saw in CCP rule the hope of an end to the feckless incompetence and endemic corruption of the Kuomintang.”⁸²⁹ A large group of influential intellectuals also chose to stay with the mainland rather than fled to Taiwan. This became regrettable later.

Communism became an intellectual and emotional wheel as well as a spiritual vehicle that went beyond Marx’s teleological intention. Contrasting the invariant determination of the course of human events, Professor Gerschenkron, having reinvented himself twice, wondered whether countries could do the same.⁸³⁰ Illustrating with concrete historical evidences and his life possibilities, he asserts that the world history of industrialisation was marked by phases of backwardness catching up rather than predestined teleological stages.⁸³¹ It was another

⁸²⁸ Carl Riskin, *China's Political Economy: The Quest for Development since 1949* (Oxford; New York: Oxford University Press, 1987), p.1.

⁸²⁹ Bramall, *Chinese Economic Development*, p.81.

⁸³⁰ Gerschenkron’s biography article by New York Times in 2002, ‘The Last man with all known knowledge’ <https://www.nytimes.com/2002/06/16/books/the-last-man-with-all-known-knowledge.html>
Assessed on: 23:40, Beijing Time, 2021/4/20.

⁸³¹ <https://www.nytimes.com/2002/06/16/books/the-last-man-with-all-known-knowledge.html>

man, from a middle well-to-do peasant background in a humble village (*shaoshan chong*), walked all his way to Changsha city for the pursuit of learning; it was him who struggled through the icy mountains and sparse grasslands in the Long March; it was also this man who wrote his philosophical essay *On the Problem of Contradictions (maodun lun)* in 1937. In it he provides insights earlier before Kaldor's biological two-way cumulative causation rather than mechanical static arguments: "A static, isolationist and partial stance sees the world as a group of independent and unchanging factors. And if there are changes, these are the change in place or number. And the reason for this change, is not rooted in the nature of a thing, but given by outside conditions... This is the mechanical materialist view of the world."⁸³² He goes on: "Anything's motion consists of two states—the relatively static state and the evidently changing state... When a thing's motion is in the first state, it only had number changes, no changes in nature. So, it appears as static. When the thing's motion is in the second state, it has reached the highest point of number changes in the first state, that triggers the decomposition of organism, and hence possesses changes in nature, so it shows evidently changing form."⁸³³ He is Mao Zedong.

Mao therefore comes up with the dictum: *from quantitative changes to*

⁸³² Mao, Zedong, *Mao Zedong Xuanji* Volume One (*the Selected Works of Mao Zedong* Volume One) (Beijing: People's Publishing Press *Renmin Chubanshe*, 1991), pp.300-301.

⁸³³ Mao, Zedong, *Mao Zedong Xuanji* Volume One, pp.332-333.

qualitative change. This is *echoed* by Gerschenkron. Assessing external challenges to Tsarist Russia, he writes: “It should be noted, however, that the problem is not simply one of quantitative relationship between the volume of the challenge and that of the response. The crucial point is that the magnitude of the challenge changes the *quality* of the response...”⁸³⁴ It is also from here that Mao declares “*Equilibrium is always relative and temporary; Disequilibrium is absolute and constant*” that hits the nail head on Kaldor’s *Economics without Equilibrium* lectures. To him, things are not deterministic: “any process has starts and ends; the contradictory things emerge together within an organism, and can be transferred to the opposite...”⁸³⁵ Gerschenkron, in his opening paragraph on *Reflections on the Concept of “Prerequisites” of Modern Industrialization*, begins that the concept of historical prerequisites of modern industrialization is a rather curious one. Certain major obstacles to industrialization *must* be removed and certain things propitious to it *must* be created before industrialization can begin.⁸³⁶ Gerschenkron then rejects that determinism, historical or other, is beyond the boundary line that circumscribes scientific endeavors.⁸³⁷ Gerschenkron hence asserts that “And yet, as long as we think in terms of a given model, we are all determinists in the sense that we pose a certain interrelation, or sequence, of events and phenomena

⁸³⁴ Gerschenkron, *Economic Backwardness in Historical Perspective*, p.18.

⁸³⁵ Mao, Zedong, *Mao Zedong Xuanji* Volume One, pp.332-333.

⁸³⁶ Gerschenkron, *Economic Backwardness in Historical Perspective*, p.31.

⁸³⁷ Gerschenkron, *Economic Backwardness in Historical Perspective*, p.31.

which is 'inevitable.' Within this 'denaturalized' meaning all scholarly work is deterministic..."⁸³⁸

It was this skeptical inquiry to determinism that also made Mao suggest that "Some comrades have studied Marxism in a dogmatic and blind way. This is not right. They should learn it in such a way that the doctrine can be digested at their free disposal. For instance, some would think contradictions do not always transfer dialectically to each other's opposite. To the contradiction between forces of production and relations of production, forces of production dictates... True, production forces, practice, economic base, normally present themselves as major determining force; who does not recognise this point, who is not a materialist. But, relations of production, theory, superstructure, under certain conditions, could transfer themselves to become the major determinant; this is also evidently true. When we are situated in the scenario that if we do not change the relations of production, production forces cannot develop, then changes to production relations become the major propelling force."⁸³⁹ Gerschenkron corroborates that nothing serves as absolute prerequisites: "Very frequently, a rather curious procedure has been followed. One first takes a look at something like an 'ideal type' of preindustrial economy, say, the medieval economy in Western Europe of

⁸³⁸ Gerschenkron, *Economic Backwardness in Historical Perspective*, p.32.

⁸³⁹ Mao, Zedong, *Mao Zedong Xuanji* Volume One, pp.325-326.

the fourteenth century... Thereupon, in a cinematographic shift, attention is moved to a modern industrial economy. The change in landscape naturally is striking. The inventory of economic progress is enormous: a large politically and economically unified territory; a legal system assuring the rights of the individual and satisfactory protection for property; a store of technological lore; increase in productivity in agriculture rendered possible by the elimination of the open-field system...; an entrepreneurial group...; availability of capital...; wide and absorptive markets; and so forth and so on. Then, with a slight twist of the pen, all those basic traits of a modern economy are declared to be ‘prerequisites’ of industrial development.”⁸⁴⁰ Gerschenkron remarks that this no doubt has rather discouraging implications as far as development of backward countries is concerned.⁸⁴¹

Science preordained circumscribes scientific endeavours; certainty introduced denies the room of uncertainty went through. Science is a ‘discovery procedure’ leading to ‘unknown unknowns’, not ‘take-for-granted conclusion’ resting on ‘known knowns.’ It is a process, not a result. The latter rests on the former. If science conceived from a static point of view pronounces one’s *raison d’être* as given and dissolves him into the ‘objective’ circumstances, then all one can do is “faith—faith, in the words

⁸⁴⁰ Gerschenkron, *Economic Backwardness in Historical Perspective*, pp.32-33.

⁸⁴¹ Gerschenkron, *Economic Backwardness in Historical Perspective*, p.33.

of Saint-Simon, that the golden age lies not behind but ahead of mankind.” Mao’s most well-known poem sentence echoes: “If there is no road ahead, leave it; resort to your courage for sacrifice with roofless ambitions, turn the old moonlight and dimmed sun into bright new sky! (*weiyou xisheng duo zhuangzhi, ganjiao riyue huan xintian*)”

Mao’s innovation and contribution to Marxism is his ‘production relations can in turn determine the production forces’. This is not a mere conjectured possibility. The nowadays *revived* ‘good institutions cause economic growth’ argument fits in this line of thought. In our case and in a broader sense, Bray reveals that capitalist relations in agriculture were already apparent in many parts of Northwest Europe before the fifteenth century. Especially in the Netherlands and Britain, farming methods improved notably in the seventeenth and eighteenth centuries, and land productivity rose accordingly.⁸⁴² Similar phenomenon applies to post-WWII land reforms in Japan launched by the US Occupation Forces. Toshihiko Kawagoe argues that the land reform, despite its success in transferring land ownership from landlords to tillers of the soil, brought little effect on agricultural production.⁸⁴³ Deborah Milly, nevertheless, rebuts that land reform succeeded in changing the production relations, and thereby

⁸⁴² Bray, *The Rice Economies*, Appendix A: The Western model, pp.200-201.

⁸⁴³ Toshihiko Kawagoe, “Agricultural Land Reform in Postwar Japan: Experiences and Issues,” *World Bank Policy Research Working Paper* 2111 (May 1999), pp.1-54.

facilitating long-term growth. Land reform in Japan demolished a class structure based on landholding. Landlords were no longer supreme and rural society was restructured, so that the rural population became supportive of the ruling conservative government.⁸⁴⁴

From 1945 to 1950, land reforms were also carried out in post-colonial Korea.⁸⁴⁵ The big landlords were eliminated, while the legacy of big business conglomerates *Zaibatsu*—*Chaebols* in Korean—remained.⁸⁴⁶ Taiwan also implemented land reforms in the 1950s, owing to the ‘peer pressure’ from mainland communists. Kuo, Fei and Ranis argue that the Taiwanese success story originated from its improved distribution. Growth and equity were “complementary and mutually reinforcing, rather than competitive, objectives”.⁸⁴⁷ Without the redistribution of landed property at the start, the equalisation of earned incomes would have had no chance.⁸⁴⁸ Alice Amsden summarises that assuming that data for 1960 are accurate, then countries with the most unequal land distributions were Argentina, Brazil, and Malaysia; and countries with the most equal land distributions were Korea, Taiwan, and Thailand. Postwar land reform in Japan, Korea, and Taiwan had created some of the world’s most equally

⁸⁴⁴ Deborah J. Milly (1999), *Poverty, equality, and growth: the politics of economic need in postwar Japan*

⁸⁴⁵ Amsden, *Asia's Next Giant*

⁸⁴⁶ T.A. Bisson (1954), *Zaibatsu dissolution in Japan*

⁸⁴⁷ Shirley W. Y. Kuo, John C. H. Fei, and Gustav Ranis (1981), *The Taiwan success story: rapid growth with improved distribution in the Republic of China, 1952—1979*

⁸⁴⁸ Kuo et al., *The Taiwan success story*

distributed economies. Comparable data for China are generally unavailable, but land distribution even after economic reform (beginning in 1978) was almost certainly highly equal.⁸⁴⁹ Amsden argues these have significant economic implications: Countries that invested heavily in national firms and national skills—China, Korea and Taiwan for instance—*all* had relatively equal income distributions. A national economy may be regarded as an organic whole. The greater income inequality, the more that organic whole is fractured, and the more difficult it is to mobilise support for national business enterprises and firm-specific national skills.⁸⁵⁰ The paradox was that unequal landlords society, for instance in Latin America, resorted to ‘populist’ diffusion approach while East Asian equal societies after land reforms adopted ‘elitist’ concentration one.⁸⁵¹ The greater inequality, the more diffusionist the policies and, hence, the greater the difficulty of creating national leaders with proprietary, cutting-edge skills.⁸⁵² Mao’s insight clearly counts.

However, the flavour might change completely when insights were put into action. While Mao’s insight—*Equilibrium is relative and temporary, Disequilibrium is absolute and constant*—captures the nature of growth,

⁸⁴⁹ Alice H. Amsden, *The Rise of “The Rest”: Challenges to the West from Late-Industrializing Economies* (Oxford: Oxford University Press, 2001), pp.17-18.

⁸⁵⁰ Amsden, *Rise of the Rest*, p.18.

⁸⁵¹ Amsden, *Rise of the Rest*, p.19.

⁸⁵² Amsden, *Rise of the Rest*, p.19.

Riskin argues this idea was easily misunderstood to mean that imbalance was desirable and correcting it unnecessary.⁸⁵³ For instance, Mao and the left advocated ‘active’ balance rather than ‘passive’ balance. This meant planning according to the *capacity* of the more advanced sectors rather than based upon the *exchange* with the weaker links. Mao’s hope was to use gaps in the plan to put pressure on the weaker units to mobilise their forces and catch up.⁸⁵⁴ And it turned out to be factories with no supply of raw materials *in reality*. Processing capacity had grown much faster than raw and semi-finished materials supplies. At the beginning of the 1980s the processing capacity of China’s machine tools exceeded the supply of rolled steel by ‘three or four times.’⁸⁵⁵ Moreover, while it is reasonable to argue changes in production relations are important for the growth of production forces, for instance once-over land reforms to set a clearing blank stage, and to break the ‘old’ societal fabric that is not conducive to capital investment, what is ‘Cultural Revolution’ for? Nevertheless, Bramall maintains: “For Mao, economic modernization could only be achieved by cultural and ideological transformation—in other words, by means of a Cultural Revolution.”⁸⁵⁶ He in turn constructs a side-note box entitled ‘the evolution of Maoist thought’: “...1955—63: Accelerate economic growth by a radical transformation of the relations of production (collectivization

⁸⁵³ Riskin, *China’s Political Economy*, p.282.

⁸⁵⁴ Riskin, *China’s Political Economy*, p.282.

⁸⁵⁵ Riskin, *China’s Political Economy*, p.272.

⁸⁵⁶ Bramall, *China’s Economic Development*, p.147.

and nationalization); 1963—78: Accelerate economic growth by changing the superstructure (the Cultural Revolution)...”⁸⁵⁷ This essay argues while ideology clearly plays a role, stressing this too much is however also against Mao’s own intention to follow. This essay adopts a more cautious and realistic approach to reveal how Chairman Mao, given the difficult circumstances he had been facing, thought and tried and self-reflected as time progresses. As Milton Freidman has noted, “the drastic change that has occurred in economic theory... has responded almost entirely to the force of events...”⁸⁵⁸

At the start, the NEP (New Economic Policy) was the consensus within the Party; ‘Three years of recovery, then ten years of development’ was the goal announced in 1949.⁸⁵⁹ In *The Present Situation and Our Tasks*, Mao shared a similar tone as Lenin in 1947: “In view of China’s economic backwardness, even after the country-wide victory of the revolution, it will still be necessary to permit the existence for a long time of a petty bourgeoisie and middle bourgeoisie... This capitalist sector will still be an indispensable part of the whole national economy”.⁸⁶⁰ Mao defined the upper petty bourgeoisie as “small industrialists and merchants employing

⁸⁵⁷ Bramall, *China’s Economic Development*, p.149.

⁸⁵⁸ Freidman quoted in Snowdon and Vane, *Modern Macroeconomics*, p.163.

⁸⁵⁹ Riskin, *China’s Political Economy*, p.53.

⁸⁶⁰ Mao quoted in Riskin, *China’s Political Economy*, p.39. Primary source: Mao Zedong (1967), *Selected Works*, Vols. I-IV, Peking, Foreign Languages Press, p.168.

workers or assistants”, and petty bourgeoisie as “great numbers of small independent craftsmen and traders who employ no workers or assistants and, needless to say, ... should be firmly protected”.⁸⁶¹ The principles were embodied in the ‘Common Programme’ in September 1949, and served as a national constitution until 1954.

Meanwhile, lands of the ‘feudal’ class were confiscated and turned over to the poor peasantry; and ‘monopoly bureaucratic capital’ were confiscated and turned over to the ‘new-democratic’ state. Mao’s ‘monopoly bureaucratic capital’ refers to the chief large-scale industries, and under the transition policies of the Common Programme were nationalised outright. This was made easier by the legacy of Kuomintang’s National Resources Commission during the war, which took over a large part of these ‘bureaucratic-capitalist’ industries under highly concentrated ownership.⁸⁶² Nationalised industries were run by industrial ministries established under the State Council, and there existed no formulation of long-term development plans at the time. The chief problem by then was simple: how to operate and manage the enterprises successfully and to restore production.⁸⁶³ Regarding land reform, it proceeded from the summer of 1950 to the spring of 1953. ‘Landlords’ class were abolished, while the rich

⁸⁶¹ Mao quoted in Riskin, *China’s Political Economy*, p.39. Primary source: Mao Zedong (1967), *Selected Works*, Vols. I-IV, Peking, Foreign Languages Press.

⁸⁶² Riskin, *China’s Political Economy*, p.43.

⁸⁶³ Riskin, *China’s Political Economy*, p.43.

peasant economy was protected. This indicates the Party's production-oriented and moderate intent in the land reform following the 'ultra-left excesses' of the 1947—8 land revolution in North China, launched by Liu Shaoqi.

The outbreak of war in Korea in June 1950 and China's entry in October strengthened the Party's NEP. The heavy government demand for war-related goods, such as hardware, canned food, and medicine made government resuscitate private industry and commerce, chiefly by placing processing and purchase orders with private firms and by allowing profitable trading opportunities for commercial enterprises.⁸⁶⁴ The end of 1950 thus saw a revival of the private urban economy. *At the same time*, however, China's involvement made China suffer great losses, an extra burden to a just established fragile economy recovering from previous scars. As Meisner notes: "the essentially external threat to the survival of the revolution turned the initially moderate policies and practices of the new state into increasingly repressive ones".⁸⁶⁵ Land reform was bitterer, and the treatment of 'landlords' harsher, than had originally been planned in the Agrarian Reform Law. Private businesses also suffered. The 'three-anti' campaign, beginning at the end of 1951, was a rectification movement for cadres in government offices and state enterprises. It was believed that

⁸⁶⁴ Riskin, *China's Political Economy*, p.46.

⁸⁶⁵ Maurice Meisner, *Mao's China: A History of the People's Republic* (New York: Free Press, 1977), p.80.

growing ties between the state and the private sector created fertile ground for corruption, such as the ‘five evils’ (bribery, tax evasion, theft of state property, cheating on contracts, and stealing state information). The ‘five-anti’ movement, beginning in early 1952, thus turned on the private sector. More than 450,000 private industrial and commercial enterprises in the nine biggest cities were investigated, and the investigation found that 3/4 of them had engaged in ‘five evils’ in varying degrees ‘to make excessive profits.’⁸⁶⁶ Heavy financial fines were imposed. Perhaps the real motive was Mao’s announcement in August 1952: “the money that came from the settling of accounts in the movements against the ‘three evils’ and the ‘five evils’ can see us through another eighteen months of war.”⁸⁶⁷

The ‘five-anti’ movement caused widespread distress in the private economy. The state naturally stepped in and set up the ‘rescue operation’, so that the greater part of the capitalist sector was directed into the orbit of the state plan. Complicated tasks of keeping alive the private sector while leading them into state-directed channels were on a whole handled successfully, for the number of private industrial establishments actually increased from 133,000 in 1950 to 150,000 in 1953.⁸⁶⁸ The first three years

⁸⁶⁶ Xue Muqiao, Su Xing, and Lin Tse-li (1960), *The Socialist Transformation of the National Economy*, Peking, Foreign Languages Press, pp.51-2.

⁸⁶⁷ Mao quoted in Riskin, *China’s Political Economy*, p.52. Primary source: Mao Zedong (1967), *Selected Works*, Vols. I-IV, Peking, Foreign Languages Press.

⁸⁶⁸ Richman, Barry M. (1969), *Industrial Society in Communist China*, New York, Random House, p.899.

since 1949, known as the Rehabilitation period, were to see production in all major sectors and industries restored to past peak. This objective had been realised and exceeded by 1952. The gross value of industrial output had grown to two and a half times that of 1949, and exceeded prewar levels by almost a quarter.⁸⁶⁹ In agriculture, production of most major crops equalled or surpassed past levels. A more careful Western estimate of foodgrain output still yields an annual growth rate of 7.4 percent from 1949 to 1952.⁸⁷⁰ Therefore, it must be concluded that growth performance of the Rehabilitation period was outstanding, and testifies to the robustness of the Chinese private premodern economy.

Nonetheless, growth rates were high because the starting base levels were low. Enterprises were confined to a few major cities, and most were not engaged in capital goods. A few chief large-scale industries were in the state's hands, but large stocks of capital had either fled to Hong Kong and Taiwan, or been carried over to the USSR, or been destroyed by the Japanese during the war. China's majority was rural economy, dispersed over several hundred thousand villages, containing some 100 million families. Riskin thus argues that "In the long run, economic development depended upon the ability to reach and mobilize the peasants, to persuade

⁸⁶⁹ Riskin, *China's Political Economy*, p.53.

⁸⁷⁰ Riskin, *China's Political Economy*, p.53. Primary source: Wiens, Thomas (1978), 'The Evolution of Policies and Capabilities in China's Agricultural Technology'.

them to make the efforts and investments for which, in a country of China's size and poverty, no amount of foreign assistance could substitute."⁸⁷¹ In 1953, China was ready, under the slogan 'Let's be modern and Soviet.'

Long term development planning after recovery was adopted gradually, with Soviet advice and assistance. After carrying the goods over, Stalin's USSR shifted those back again to the heavy industrial regions of the North-east (formerly Japan's colony Manchuria). In addition, the Soviet aid projects included seven iron and steel plants, twenty-four electric power stations, and sixty-three machinery plants, and involved help in all aspects of the construction process. Some 10,800 Soviet and 1,500 East European technicians and specialists went to China in the 1950s.⁸⁷² Soviet's contribution to China's development cannot be quantified with precision, but with no doubt that Soviet savings were tapped to supplement Chinese investment at a crucial point in time. China's tempo of industrialisation in the 1950s would have been considerably slower without Soviet help. China could neither have produced itself nor obtained elsewhere the modern industrial technology obtained from the USSR, as China's trade with the West was severely limited by China's involvement in the Korean War. But this was not without cost. As Bramall argues: "For all that, the positive effects of foreign trade on the Chinese economy were less than they might

⁸⁷¹ Riskin, *China's Political Economy*, p.48.

⁸⁷² Riskin, *China's Political Economy*, p.74.

have seen. The central problem was that the Soviet Union was providing loans, rather than aid. These loans therefore had to be repaid... Accordingly, Soviet loans had to be repaid by Chinese commodity exports, principally food and raw materials. And therein lay China's problem... the diversion of a significant fraction of food production to the USSR intensified the consumption squeeze on the Chinese peasantry. The USSR helped China during the 1950s, but the cost of its assistance was considerable."⁸⁷³ Riskin echoes that "Soviet credits ended in 1957 and were not renewed... its chief cost to China was the dependency it created—a cost that became clear only when the Soviet experts were abruptly withdrawn in 1960."⁸⁷⁴ For the time being, the strategic economic significance of Soviet aid was evident in China's First Five Year Plan, started in 1953: describing the Soviet-aid projects as "the core of our industrial construction plans".⁸⁷⁵

It was a promising start, but tough to proceed. First among the problems facing Mao was that of getting farmers to produce the surpluses essential for industrialisation. Such a surplus existed in the 1950s, as it had been before. But it was small by international standards compared with developed Western powers.⁸⁷⁶ While China's farm production was better

⁸⁷³ Bramall, *Chinese Economic Development*, p.100.

⁸⁷⁴ Riskin, *China's Political Economy*, p.76.

⁸⁷⁵ *First Five Year Plan for Development of the National Economy of the People's Republic of China in 1953—57* (Peking: Foreign Languages Press, 1956), p.38.

⁸⁷⁶ Riskin, *China's Political Economy*, p.6.

than that of some other poor countries including India, Pakistan, Ceylon, it was certainly not enough to provide the raw materials needed by an ambitious industrialisation programme. As Riskin notes: “Development demanded agricultural growth, the agents of which must be the farmers themselves.”⁸⁷⁷ The Stalinist approach was simply discriminating against the countryside and getting the required results through coercive means. But for China it could not suffice. Chinese farming method was different to USSR’s. It was a rice farming economy, with extremely land-intensive farming on small plots of land by individual households that gave impressive high yields (*jingeng xizuo*) which in turn could sustain a large population in a relatively self-sufficient manner.⁸⁷⁸ Economies of scale and mechanisation of agriculture in rice farming production are difficult in principle.⁸⁷⁹ In contrast to the USSR, where central planning, agricultural mechanisation and government monopoly over agriculture were possibly enough to channel for industry, China hence faced the additional problem of agricultural and systematic capacity. Mao hence resorted to the ‘mass line’ mobilisation. And he often emphasised on ‘digging out potential’. Mao’s view of development was not a standard Microeconomics paradigm that centres on optimal allocation of *fixed* supplies of resources. Here he shared Preobrazhenski’s critique to Bukharin: *enlarging the capacity*

⁸⁷⁷ Riskin, *China’s Political Economy*, p.6.

⁸⁷⁸ Kent Deng, *China’s Political Economy in Modern Times: Changes and economic consequences, 1800—2000* (London: Routledge, 2012), pp.19-23.

⁸⁷⁹ Bray, *The Rice Economies*, Introduction.

building and the stock of resources. How? Through *arousing the initiative* of working people. Maurice Dobb supports that for a poor country, it is the development tempo, rather than the prevailing paradigm of efficient equilibrium, that counts.⁸⁸⁰

The Stalinist Soviet central planning was also highly rigid. Its system of factory management was in essence a combination of ‘scientific management’ and a hierarchical ‘responsibility system’ of leadership. The former entailed formulation of precise work plans and their translation into minutely specified job tasks; the latter put one person in complete control of each unit and level of a factory, with supreme authority vested. This was hence called ‘one-man management’. As Schurmann observes: “The factory, under one-man management, was conceived of as a coldly rational arrangement of individual workers commanded by an authoritarian manager.”⁸⁸¹ The stress this system necessarily put on administrative hierarchy, division of labour, standardised tasks, and objective controls produced the problem of *motivation*. How to motivate the conscientious performance of such *passive* roles. Mao undoubtedly criticised this approach for its extreme centralisation of authority, and its neglect of human initiative. He experimented with new organisational and

⁸⁸⁰ Maurice Dobb, *Soviet Economic Development Since 1917* (New York: International Publishers, 1966)

⁸⁸¹ Franz Schurmann, *Ideology and Organization in Communist China* 2nd edition (Berkeley and Los Angeles: University of California Press, 1968), p.256.

administrative institutions, from various communes to revolutionary committees, from subjecting leaders to frequent contact with the rank-and-file to rustication of urban youths to the countryside... that all implied considerable decentralisation and dispersal of political authority, and his ontology: relying on the 'mass line'. Nevertheless, while Mao objected to hierarchical and bureaucratic prerequisites of a central planning regime, and rejected reliance on the market as an institution that inevitably encouraged the 'restoration of capitalism', he had virtually nothing positive to say about what was the alternative. As one shall see, the period 1958—76 witnessed sustained attempts to beg this question. In the face of continuous Maoist assaults on the ideology of central planning, the centre progressively lost the capacity to plan effectively. Yet as the disorganisation produced by mass campaigns became excessive, Mao, seeing no alternative, would acquiesce in the restoration of central planning, already crippled. China hence got caught between two poles—rigid centralism and chaotic administrative decentralisation—and the constant pendulum swings from one pole to another during the Chairman's era ended China being in the worst of both worlds.

The Soviet 'one-man management' system became the national model for industrial management at the start of the FFYP in 1953. "By the end of 1953 the Soviet concept of industrial management had gained general,

though only tentative acceptance”.⁸⁸² Under this system the logical solution to motivation lay in the piece rates and material incentives (but in a non-market Taylorism setting). Wage differentiation proceeded apace, reaching its apex in the major wage reform in 1956. Grades were widened to reflect skill differences and riskiness of work environment. Labour emulation campaigns were also introduced. Piece rates and emulation campaigns, however, were unpopular among workers. These various systems of individual differentiation advanced *despite* constant criticism and resistance during the first half of the 1950s: the glorification of individuals eroded group morale; the influence of the “rate-busting” model performance on standard work norms, and the “endlessly soaring accident rates” produced by over strenuous competition pressures.⁸⁸³ Moreover, conditions for fair implementation of such incentive systems were generally lacking: where technologies differ among plants, where raw materials supplies are erratic, where machines break down frequently, and where administration systems are patchy and uneven, there will be large variations of output over which the workers have no control.⁸⁸⁴ And these inevitably resulted in inequalities that created resentment and eroded support for such system.

⁸⁸² Stephen Andors, *China's Industrial Revolution* (New York: Pantheon, 1977), p.53.

⁸⁸³ Christopher Howe, *Wage Patterns and Wage Policy in Modern China, 1919—1972* (Cambridge: Cambridge University Press, 1973), p.120, pp.131-2.

⁸⁸⁴ Riskin, *China's Political Economy*, p.64.

The FFYP was by no means a purely technocratic document and was cautiously moderate. Of the three most general tasks to which it addressed itself, the first—to build 694 specific large-scale industrial construction projects, especially 156 Soviet-aid projects—concerned economic construction.⁸⁸⁵ Total planned investment by the state from 1953 to 1957 came to 76,640 million *yuan*.⁸⁸⁶ Three-fifths of state investment was devoted to capital construction, and a similar proportion of the latter was reserved for industry, and most of it went to heavy industry.⁸⁸⁷ On agriculture, the Plan was *modest*. The real goods counterpart of the planned and hoped-for investments in agriculture by both state and farmers would largely come from *traditional* inputs produced by handicraft enterprises.⁸⁸⁸ The other two had to do with ‘relations of production’: to foster growth of farm and handicraft co-operatives, and to bring the bulk of private industry and commerce into the orbit of state capitalism.⁸⁸⁹ Note that, at this most general level, the Plan was also *modest*; the principal themes did *not* include agricultural production. Bramall echoes that “There was in fact a high degree of unanimity within the CCP [Chinese Communist Party] as to the need for a gradualist ‘general line’ during the transition period... the notion that China during the 1950s was characterized by a ‘two-line’

⁸⁸⁵ *First Five Year Plan for Development of the National Economy of the People's Republic of China in 1953—57* (Peking: Foreign Languages Press, 1956), p.55.

⁸⁸⁶ *Ibid.*

⁸⁸⁷ *Ibid.*

⁸⁸⁸ Riskin, *China's Political Economy*, p.57.

⁸⁸⁹ *First Five Year Plan for Development of the National Economy of the People's Republic of China in 1953—57* (Peking: Foreign Languages Press, 1956)

struggle between the radicals centred around Mao and conservatives led by Liu Shaoqi, Deng Xiaoping and Deng Zihui (head of the Central Rural Work Department) is not supported by the evidence. To be sure, there were shifts in policy-making. The most noteworthy was the decision to abandon gradualism in July 1955 and press ahead with rapid collectivization. But all this occurred simply because Mao changed his mind. Even in March 1955, he was calling only for 33 percent of cooperatives to form collectives under the slogan ‘stop, shrink and develop’, which amounted to a reduction in the number of collectives... Only after the summer of 1955 was there disagreement, and even then Deng Zihui was very much in a minority.”⁸⁹⁰ Hence the long-term planning at a start after the Rehabilitation recovery, apart from external injection of Soviet heavy industry, still showcased a *strong NEP flavour*.

The leadership was of course acutely aware of the need for agricultural surpluses as a condition for rapid industrialisation.⁸⁹¹ On the other hand, the CCP leadership was also mindful that the Soviet decision to accelerate the pace of transition in 1928 led to a devastating famine as many as 10 million deaths.⁸⁹² Up to 1954 it was firmly believed that some prior industrialisation was a prerequisite for rapid and sustained growth of

⁸⁹⁰ Bramall, *Chinese Economic Development*, p.85.

⁸⁹¹ Kenneth R. Walker, ‘Collectivization in Retrospect: The “Socialist Hightide” of Autumn 1955—Spring 1956’, *China Quarterly (CQ)*, 26, April—June (1966), p.3.

⁸⁹² R. Conquest, *The Harvest of Sorrow* (London: Arrow, 1986)

agriculture, and that only when the means for its technical transformation were at hand would collectivisation be possible. This means initial industrialisation would depend on squeezing more output from agriculture *before* its collectivisation and mechanisation began. Co-operatives evolving gradually, were to be the principal tool for this purpose, permitting more rational use of land, pooling resources including equipment and animals on a voluntary basis, greater self-financed investment, and improved incentives. So, China in Mao's early on phrase, 'lean to one side.' The preponderant stress of the First Plan on very large-scale and capital-intensive producer goods industries, as well as its complements: a highly centralised mode of command planning, a hierarchical 'one-man management' system, and a highly articulated structure of individual material incentives in industry, were certainly Stalinist.

Nevertheless, it was soon discovered that 'lean to one side' was not easy; focusing on one sector was not enough. The land reform had the dual purpose of ending 'feudal exploitation' and promoting growth of farm production, and of preserving the rich peasant economy, which was hoped for its development potential. However, as in China's prewar economy scenario, agriculture faced slower growth after a quick recovery of production in the early 1950s. Rich peasant farming in China did not

showcase capitalist advancement or accumulation, and their production did not display much superiority over that of the peasants working on their own.⁸⁹³ Mutual aid team (MAT) was hence first tried, so as to let poor farmers utilise rich peasants' farming tools, and let three to five farmer households cooperate based on traditional practices of reciprocal aid. They were seen as transitional forms, gradually preparing the ground for large-scale co-operative farming proper, with merged and consolidated fields. Simultaneously with the spread of MATs in 1952 thus came the introduction of lower-stage agricultural producer co-operatives (LAPCs). By the autumn harvest of 1954, these had numbered 114,000 and encompassed about 2 per cent of peasant households.⁸⁹⁴ LAPCs varied in size, between ten and twenty households and could reach 200.⁸⁹⁵ Members' land, draught animals, and large tools, while still owned privately, were pooled and used together. Land could be planned more rationally and draught animals could be allocated more efficiently. Labour was also organised to build irrigation canals of benefit to all. However, the co-operatives also encountered a number of problems that were inherent in their setting-up: land that could possibly be withdrawn inevitably restricted land planning scope, and land in one's name used by others implied a free ride and received less care. Same to draught animals, whose feeding and

⁸⁹³ Xue Muqiao, Su Xing, and Lin Tse-li, *The Socialist Transformation of the National Economy*, p.101.

⁸⁹⁴ Xue Muqiao, Su Xing, and Lin Tse-li, *The Socialist Transformation of the National Economy*, p.117.

⁸⁹⁵ *Ibid.*

breeding were a source of endless conflict. By 1954, original views of industrialisation were a prerequisite for agricultural transformation had changed. Given the slow pace of agricultural growth posed for industrialisation, it now emerged the opinion that collectivisation would have to occur *before* technical modernisation of agriculture. Only collectives could mobilise the resources for urgently needed improvements to industry. China's NEP agriculture had already run out of steam before it reached the Soviet goods famine dilemma, in which it was the excess, rather than shortage of demand from the peasantry, that caused shortage of supply to the cities.

The first push forward had organised some 14 percent of rural households into co-operatives by early 1955. And the cure was worse than the disease. Many of the problems in LAPCs had become apparent: cadres pressurised richer peasants to join the co-operatives, leading to property came to be hidden or destroyed and pigs and draught animals were slaughtered to avoid confiscation. The total stock of pigs declined from 102 million in 1954 to 88 million in 1955.⁸⁹⁶ Simultaneous with—and in part because of—the problems in co-operativisation, farm production had begun to lag and thus threatening the newly launched FFYP. The growth of foodgrain output fell to 1.6 percent in 1953 and 2.3 percent in 1954, well below its

⁸⁹⁶ Riskin, *China's Political Economy*, p.69. Primary data source: Chen, Nai-ruenn (1967), *Chinese Economic Statistics*, Chicago, Aldine.

Rehabilitation records.⁸⁹⁷ *In the meantime*, investment in 1953, the Plan's first year, was 84 percent greater than in 1952, exports were up 28 percent, and the urban population had grown by 8.4 percent.⁸⁹⁸ Thus, demand for farm products was exceptionally high, whereas supply was lagging. Moreover, the previous land reforms were to an extent counterproductive. Preobrazhenski's warning came true. The poor peasantry stepped up their output at the expense of the 'landlords', and directed those towards their own consumption. The proportion of output marketed by the peasants had sharply reduced. Perkins reveals that in the 1920s and 1930s, as much as half the crop were to be marketed; in 1953 the marketing ratio was only 28 percent.⁸⁹⁹

To have either accepted the reduced rate of commercialisation or raised it by increasing purchase prices greatly would have forced curtailment of the Plan's investment programme. The short-run alternative was to eliminate the market and procure farm goods administratively. A system of compulsory purchase quotas was introduced, first for grain and then for cotton and oil-bearing seeds.⁹⁰⁰ Private trade in these commodities was banned. The programme was implemented in a near-confiscatory manner.

⁸⁹⁷ *Ten Great Years* (Beijing: State Statistical Bureau, 1960)

⁸⁹⁸ *Ibid.*

⁸⁹⁹ Dwight H. Perkins, *Market Control and Planning in Communist China* (Cambridge, Mass.: Harvard University Press, 1966), p.41.

⁹⁰⁰ Xue Muqiao, Su Xing, and Lin Tse-li, *The Socialist Transformation of the National Economy*, pp.60-61.

This coercive, bureaucratic, and extractive approach hurt incentives. Mao dubbed it ‘draining the pond to catch the fish.’ The Party acted to replace it with the ‘three-fix’ policy that structured compulsory procurement to resemble the agricultural tax in mid-1955. The ‘three-fix’ policy did relax pressure on the peasantry, but at a cost: in 1956—7, for the first time, state sales of grain exceeded purchases and reserve stocks were drawn down by some 17 percent.⁹⁰¹ Over the FFYP period as a whole, there was practically no growth at all in the amount of agricultural products available to the planners. The ‘planned’ and ‘unified’ purchase under the ‘three-fix’ policy merely postponed the crisis for a couple of years; by 1955 the problem had become clear: the growth rate of farm exports had fallen, and the high priority producer goods sector had been affected. The mere prospect of co-operativisation was not enough; rich peasants did not cooperate especially when forced by autocratic cadres. There was no way of coercing from the farm population either, without thereby crippling production incentives and eliminating future surpluses, to increase the surplus needed for industrialisation. In July 1955, Mao suddenly intervened. China eventually, as Stalin’s Soviet Russia in 1928, launched collectivisation.

⁹⁰¹ Riskin, *China’s Political Economy*, p.70. Primary data source: Denny, David (1970), ‘China’s Agricultural Marketings and Industrial Development: 1950-59’, paper prepared for SSRC Conference on ‘The Economy of China’, Cambridge, Massachusetts, 11-12 December 1970.

Agriculture faced slower growth after the quick recovery of production in the early 1950s. Given the slow pace of agricultural growth posed for industrialisation



By early 1955, first push. 14 percent of rural households into cooperatives. Violations of the 'voluntariness and mutual benefit' principle. Rich peasants' property came to be hidden or destroyed. Pigs and draught animals slaughtered. The growth of food grain had fallen into 1.6 percent in 1953 and 2.3 percent in 1954. Meanwhile, investment in 1953 was 84 percent greater, exports up 28 percent. ➡ Demand for farm products ↑, while supply was lagging. The land reform had also sharply reduced marketed output.



To have either accepted the reduced rate of commercialisation or raised it by increasing procurement prices would curtail the FFYP.



The short-run remaining alternative was to eliminate the market. Procure farm goods directly.



Hurt incentives. 'Three-fix' policy adopted. Yet merely postponed the crisis for a couple of years. No growth in agriculture.



There was no way of coercing from the farm population, even had the Party been so inclined, the increasing surpluses needed for industrialization, without thereby crippling production incentives and eliminating future surpluses. **Mao's sudden intervention in July 1955.**



Total Collectivisation

Figure 6 The March of Events towards Collectivisation

In his historic speech of 31 July 1955, *On the Cooperative Transformation of Agriculture*, Mao charged some comrades, just as Bukharin himself confessed after the goods famine, as: “on no account should we allow these comrades to use the Soviet experience as a cover for their idea of moving at a snail’s pace”; “A new upsurge in the socialist mass movement is imminent throughout the countryside. But some of our comrades are tottering along alike a woman with bound feet and constantly complaining, ‘You’re going too fast.’”⁹⁰² By 1955 it had been apparent that the growth

⁹⁰² Mao Zedong, *Mao Zedong Wenji* Volume Six (*The Works of Mao Zedong*. Note: these are the additional comprehensive works of Mao after 1949, the aforementioned *Selected Works of Mao* were his writings before 1949.) (Peking: People’s Publishing Press *Renmin Chubanshe*, 1999.6), p.433 and p.418.

rates of agricultural output and of state procurements of agricultural products were falling far short of the requirements of the FFYP.⁹⁰³ Mao realised this problem and drew the link between industrialisation, agricultural surpluses, and co-operative transformation:

“[Some] comrades fail to understand that socialist industrialisation cannot be carried out in isolation from the co-operative transformation of agriculture. In the first place, as everyone knows, China’s current level of production of commodity grain and raw materials for industry is low, whereas the state’s need for them is growing year by year, and this presents a sharp contradiction. If we cannot basically solve the problem of agricultural co-operation within roughly three five-year plans, that is to say, if our agriculture cannot make a leap from small-scale farming with animal-drawn implements to large-scale mechanised farming, along with extensive state-organised land reclamation by settlers using machinery..., then we shall fail to resolve the contradiction between the ever-increasing need for commodity grain and industrial raw materials and the present generally low output of staple crops, and we shall run into formidable difficulties in our socialist industrialisation and be unable to complete it.

...Therefore, we should not see in isolation between agriculture and industry, between socialist industrialisation and socialist agricultural transformation... Some of our comrades do not consider these two things

⁹⁰³ Riskin, *China’s Political Economy*, p.87.

together, i.e., the large funds needed for the purpose of nationalised industrialisation and agricultural technical transformation, must in large part come from agricultural accumulation itself. Apart from direct agricultural taxes, this means developing large amounts of peasantry-needed light industry products and materials, and exchanging these with peasantry's commodity grains and light industry needed raw materials, that not only satisfies both the peasants' and the state's material needs, but also accumulates funds for the state. And mass scale development of light industries in turn needs the development of heavy industry, as well as of agriculture. It is because the mass scale light industry development cannot be realised on the basis of China's small land-farming household economy; it needs mass scale agriculture, and it means socialist co-operative transformation in our country. It is because only this kind of agriculture can enlarge the purchasing power of the peasantry, far greater than the present power... Some comrades do not notice this. They think on behalf of the capitalist class, rich peasantry or capitalist self-inclined middle well-to-do peasantry minorities, without thinking on behalf of the working class and thinking for the whole nation and all people."⁹⁰⁴

It is worth stressing that Mao continued to insist on careful preparation and adherence to the stages (MAT, elementary agricultural producer

⁹⁰⁴ Mao Zedong, *Mao Zedong Wenji* Volume Six, pp.431-433.

cooperatives, advanced APC) and his proposal of 18 years since 1949 to realise the agricultural cooperative transformation.⁹⁰⁵ However, the actual pace of events far exceeded Mao's own proposed schedule. By the end of 1955, 59 percent of peasant households had 'joined' into elementary cooperatives, overachieving Mao's goal for 1958.⁹⁰⁶ And one year later were the majority of rural households—88 percent—in *advanced* cooperatives, or collectives.⁹⁰⁷ These mean that a very large proportion of collectives were formed without *even a single harvest* having been experienced beforehand. There were three main factors propelling this. First, legacies of land reform. Riskin argues that “Indeed, economic conditions were in some ways worsened by the reform, and the class structure that emerged was inherently unstable. The chief significance of the land reform therefore was in creating the political and social conditions for change in the direction planned by Mao and the Party—towards a collectivized and ultimately industrialized agriculture.”⁹⁰⁸ Second, human greed. The poorer peasants who had contributed little land stood to gain at the expense of better-off peasants who had contributed more landholdings, and *pushed hard* for full collectivisation benefitting them, just as what they had done before: the purge of China's rural gentry. Third, political correctness. Mao's speech quickly turned the atmosphere towards co-

⁹⁰⁵ Mao Zedong, *Mao Zedong Wenji* Volume Six, pp.433-436.

⁹⁰⁶ Riskin, *China's Political Economy*, p.88.

⁹⁰⁷ Riskin, *China's Political Economy*, p.88.

⁹⁰⁸ Riskin, *China's Political Economy*, p.50.

operativisation a test of 'redness' loyalty, and local cadres won credit not for carefully adhering to 'voluntariness and mutual benefit', but by achieving the end result. Out of all these was the current crisis of agricultural production and extraction, that in turn influenced the possibility of fulfilling the FFYP, put great pressure on rural cadres to raise agricultural productivity rapidly.

The result was a further decline in the already inadequate population of draught animals and a sharp fall in the number of pigs and poultry.⁹⁰⁹ But the fact that farm output continued to rise throughout this tempestuous period was 'a tribute to the efforts of cadres and peasants.'⁹¹⁰ Collectivisation in agriculture also gave rise to a similar movement in industry and trade. By 1956, when the remaining private businesspeople had their end-fate in sight, and it was best to avoid a reputation of die-hard capitalists, private enterprises had become jointly owned firms with the state. And this in turn produced the problem of lack of stimulus to seek greater efficiency. Enterprises did not keep profits thus had no incentive to increase them; they merely transferred the costs of inefficiency to the state via reduced profits and profit taxes. *On the other hand*, the sources of state revenue expanded. The growing weight of state enterprise profits and depreciation allowances provided more channels for state's funding in

⁹⁰⁹ Kenneth R. Walker, "Collectivization in Retrospect"

⁹¹⁰ Riskin, *China's Political Economy*, p.95.

addition to agricultural taxes relied before. Three decades later, Deng, having concluded that enterprise incentives needed to be restored, was again wrestling with this incentives and administrative revenues dilemma. Moreover, the Soviet ‘one-man management’ system backfired as time progresses. Until November 1957, China’s planning system was highly centralised; the centre directly supervised an originally small but rapidly growing number of goods. As both the number of commodities and the number of enterprises for which the centre assumed responsibility grew rapidly in the course of the 1950s, the maintenance of such a high degree of central planning became increasingly cumbersome. The government moved rapidly in 1956 to take over what remained of the private sector in industry and commerce, but then found it increasingly difficult to exercise effective control from the centre over an ever larger and more complex economy. In agriculture, slower growth after the quick recovery, and the inherent contradictions within the ‘gradualist’ approach of building up productive forces, threatened to the fulfillment of the FFYP. All these called into question the strategy of rapid heavy industrialisation in China’s long-term planning. Mao perceived the situation as a whole series of contradictions—between industry and agriculture, coast and interior, centre and localities, the state and the producer, light industry and heavy industry—and gave the speech *On the Ten Major Relationships* in April 1956. In it he offered a vision of decentralisation: “Here one needs to talk

about the independence of factories under the centralised supervision. To put everything in the hands of the centre or provincial capitals, and no power, discretion, interests left to the factory, is unwise... the factories and other producing organisations should have independence in relation to organism, such that they could develop more vibrantly”; “the relationship between centre and localities is a contradiction. To solve the puzzle, one needs to, on the basis of supporting central supervision, enlarge the power of localities, give localities more independence, so as to let them do more... Our country is so big, population so large, circumstances so complicated, to have two initiatives from both centre and localities, is much better than having just one initiative. We cannot be the same as the Soviet Union, to put everything to the centre, and to keep the localities so rigid, without a single room left for its own discretion.”⁹¹¹ It may turn out to be one of Mao’s chief ‘contributions’ that under his leadership China explored the administrative decentralisation route during the two subsequent turbulent decades.

In late 1957 and 1958, a series of State Council directives were announced: decentralising the planning and management system for industry, commerce, and finance. These enhanced the ability of provinces and localities to arrange material supplies and allocate labour within their

⁹¹¹ Mao Zedong, *Mao Zedong Wenji* Volume Seven, p.29 and p.31.

territories, and thus to administer and co-ordinate economic activities more effectively. The institution of 'dual leadership' was a novel attempt to unburden the central authorities of the impossible details of administering thousands of enterprises onto the shoulders of localities, while maintaining central supervision. These reforms rationalised the overcentralised planning system of the FFYP, and yet left unresolved the critical issues: management of the economy was still a highly *bureaucratised* affair. The nature of planning and management remained the same. To be sure, most parties to the debate agreed on the need for some kind of decentralisation, and on the importance of stepping up agricultural growth; what they disagreed upon was the *kind* of decentralisation. A popular alternative was the market socialist option, that involved a loss of direct control on the economy by the Party as a whole. The administrative option did not solve the problem of work and management incentives; it was not intended to provide a material link between performance and income. Administrative decentralisation was associated in debates within the Party with dependence on social mobilisation instead of material incentives. Mao's strategy of administrative decentralisation consisted of social mobilisation and the intense propagation of ideological values that would ensure distribution, incentives, and use of local powers, and *hence*, adequate central control. In short, *ideology* was the key glue.

The progression from socialist ‘high tide’ to decentralisation was not smooth. The pace of events in 1956—57 brought together a coalition within the leadership that succeeded temporarily in shelving Mao’s high-speed, social mobilisational approach.⁹¹² *At the same time*, begun as a rectification campaign, Mao expected intellectuals to criticise and expose bureaucratic and elitist tendencies in the leadership, as a catalyst support to his decentralisation route. But the nature of criticism bore him out. Popular disaffection with the course of events since 1949 burst forth in unanticipated strength in the Hundred Flowers movement: the depth of intellectual opposition, against Mao’s intention, opened fire on the Party’s monopoly power and the absence of civil liberties.⁹¹³ By June 1957, Mao had had enough; the harsh anti-rightist campaign began. And in October 1957, Mao launched a furious attack on *fanmaojin* (‘oppose rash advance’) within the Party.⁹¹⁴

The FFYP ending in 1957 scored major successes in laying the foundations for industrialisation in China. It was remarkable for two reasons: first, the increase in investment clearly did *not* result in a significant *decline* in mass living standards. Investment in 1953, the Plan’s first year, was 84 percent greater than in 1952; yet consumer goods output rose by an average annual

⁹¹² Bramall, *Chinese Economic Development*, pp.122-123.

⁹¹³ Riskin, *China’s Political Economy*, pp.109-110.

⁹¹⁴ Bramall, *Chinese Economic Development*, p.125.

rate of 29 percent during 1950—2, and by 13 percent during the Plan period, while foodgrain output grew by 7 percent and between 2.9 and 3.7 percent respectively, and both grew faster than population growth.⁹¹⁵ And this growth was for all; land reform in the early 1950s raised consumption for most peasants. Bramall echoes that “[during the Plan period] consumption was squeezed in order to make resources available for investment. In the early 1950s, the investment share stood at about 5 percent of GDP but by the mid-1950s this had gone up to 14 percent. This was not a remarkably high figure, either by late Maoist standards (as we shall see) or by the standards of many countries in the postwar era; investment rates of over 30 percent were normal across East Asia in the 1950s and 1960s. It suggests that the CCP strategy squeezed consumption, but not by an alarming amount. The very fact that consumption and calorie intake both rose during the early 1950s suggests that the type of strategy implemented in China was certainly sustainable.”⁹¹⁶ Second, despite the nominal existence of subsequent five-year plans, the FFYP was the *only* period in the three decades following the Rehabilitation period in which planning was actually carried out for more than a year at a time. This apparent paradox can be explained by the ‘left’ leadership group dominance for much of the twenty years after 1957. However, this explanation alone is inadequate unless the

⁹¹⁵ Riskin, *China's Political Economy*, p.69 and p.77; *Ten Great Years* (Beijing: State Statistical Bureau, 1960), p.89.

⁹¹⁶ Bramall, *Chinese Economic Development*, p.89.

objective difficulties that informed the left ideological position to adopt subsequent strategies are recognised.

Three main issues are worth recalling. First, there was inadequate growth of agricultural production and procurement. Second, planning and administration, in their highly centralised form, had become increasingly cumbersome as the economy grew in size and complexity, especially in 1956. The decentralisation measures of 1957—8 were supposed to deal with this problem by giving provincial authorities more scope; and in line with local initiative, central ministries in 1957—8 worked out designs for small-scale factories, and called local cadres in Beijing to learn about them. In sum, China's leaders were already looking to a rather different distribution of authority between centre and localities during the soon-announced Second Five Year Plan in late 1956.⁹¹⁷ Third, a new formidable issue arose out of the industrialisation strategy of the FFYP. The heavy industry and agriculture 'scissors gap' created high profit margins and relatively high salaries for the urban sector, and it was exacerbated by the turmoil of rural collectivisation in 1956. Unemployment became a serious problem in 1957. It was fed by a continuing flow of rural migrants escaping poverty and seeking better-paid jobs in the cities. Rawski estimates unemployment in 1957 was about 20 percent of the urban labour force.⁹¹⁸

⁹¹⁷ Riskin, *China's Political Economy*, p.111.

⁹¹⁸ Thomas G. Rawski, *Economic Growth and Employment in China* (New York: Oxford University Press,

At the same time, the high capital-goods and large machinery nature of heavy industry was notoriously bad for generating employment. *Moreover*, the liquidation of almost all of the private sector in 1956 also eliminated a flexible and responsive employment source. The entire burden of allocating labour was shifted on the shoulder of already overworked labour bureaux. Hence, neither the capital-intensive strategy of the FFYP nor the administrative capacity of the government was capable of addressing adequately on this issue. The long-term planning after the Rehabilitation period switched again, and this time to the *Great Leap Forward*.

The GLF was a vision rather than a plan. Schurmann explicates that “A plan is a carefully worked-out blueprint of action based on a matching of goals with capabilities. A vision is a total insight into the essential interrelationships of a situation.”⁹¹⁹ Late in 1957 the draft Second Five Year Plan was abandoned and a program initiated that was based on Mao’s vision of Chinese society. A dialectical conception that Chinese society was marked by essential economic, political and social contradictions. Whereas the plan was essentially economic, Mao’s vision encompassed all factors of societal dynamics: political, social as well as economic. What was needed in comparison with the FFYP was a strategy that would give greater

1979), p.35.

⁹¹⁹ Franz Schurmann, *Ideology and Organization in Communist China* 2nd edition (Berkeley and Los Angeles: University of California Press, 1968), p.74.

attention to agriculture, reduce centralisation, give greater initiative to localities (and enterprises), and turn China's redundant labour force into strength rather than weakness. Such objectives fitted very nicely with Mao's ideological predilection for a mobilisational strategy based on administrative decentralisation. And the slogan, based on previous contradictions faced in 'lean to one side', now changed to 'walking on two legs.'

The rural people's communes were initially the institutional counterpart of the GLF's labour-intensive technological policy. They quickly transcended to become vehicles for a general reorganisation of rural life in preparation for a quick transition to communism. Emerging spontaneously as amalgamations of collectives trying to mobilise enough labour for the unprecedented mass irrigation campaign of winter 1957—8, they were quickly seized on and popularised by the Party. At the beginning of 1958 the call went out to catch up with Britain in the production of steel within fifteen years. And small-scale 'backyard iron and steel factories' grew up everywhere. The rationale was to supplement the modern Soviet heavy-industry sector in major cities that required large amounts of high-quality raw materials with establishment of the 'native leg' of small-scale simple workshops.⁹²⁰ Local industries were to *mobilise* resources through *human*

⁹²⁰ Riskin, *China's Political Economy*, p.118.

initiative to enlarge the capacity of overall industrial production. And the thousands small factories and workshops set up by new rural communes were to gear their production to the needs of agriculture, thereby freeing the modern sector to concentrate on its own expansion. In sum, Mao's 'vision' was to turn China's vast quantities of underemployed labour into *capital*.

However, for this to work, some obvious conditions must be satisfied. First, Bray has already identified that in a rice-economy one cannot separate people *permanently* from the land. Surplus labour was *seasonal*. And they must come back to the land in busy harvesting seasons. Kent Deng reveals that about half the rural worker force were mobilised in a rush before the 1958 harvests were completed; "Harvesting was abandoned and crops were left in the fields to rot."⁹²¹ Second, value created from the production of steel must exceed that of inputs, and the steel must be usable. Deng observes that "Unnecessary destruction was common. Even working capital like looms was melted down."⁹²² In the end, a total of 7.2 million tonnes was produced in 1959, but over a half were rejects.⁹²³ Third, the intensive use of labour must raise income more than consumption. If heavier labour inputs raised grain output per person by 25 kilos but with

⁹²¹ Deng, *China's Political Economy in Modern Times*, p.132.

⁹²² Deng, *China's Political Economy in Modern Times*, p.132.

⁹²³ Deng, *China's Political Economy in Modern Times*, p.132.

consumption of grain by 50 kilos, it would have been better to let them rest in bed during slack seasons.

The reason for this hindsight ‘madness’ was rooted in the very nature of mobilisational approach. In principle it must be antithetical to rational planning. The charge of ‘primitive accumulation bias’ against the Leap was based on the assumption of *optimal allocation* of resources; Mao’s ontology, however, rested upon a *dynamic expansion* on ‘digging out potential’. Targets continued to be put forward, but in the course of 1958 they became symbols of political enthusiasm, and lost touch with reality. And to mobilise people, one needs agents to do this. The State Statistical Bureau, which had just made rapid progress through 1957 in establishing a reliable reporting network, was captured by local party and government authorities. ‘Politics in command’ replaced central planning in the course of 1958. And it overrode objective constraints. While it is true that over the long run nothing is given, ambitions still need to have a reasonable sense of how to get there. During the Leap, the inspirational needs of local cadres with central promotion rewards came to mean that almost any desirable goal could, with the correct attitude, be *quickly* accomplished regardless of objective conditions. Exemplifying this tendency was the excessive transfer of labour out of agriculture in 1958 and 59, the belief that yields would rise in direct proportion to the depth of ploughing and closeness of

planting, and the destruction of statistical system that was perceived to drag down the 'mass line' morale. The result was, in Dikotter's description: "at every level targets were distorted, figures were inflated and policies which clashed with local interests were ignored."⁹²⁴ To make matters worse, 'politics in command' arose from social mobilisation, which in turn rested on administrative decentralisation. The ideological, populist attack on central planning and bureaucracy was central to the Leap, and was its ultimate irrationality. Ironically, the messianic expectations and the momentum of mass movements' attack on China's functional bureaucracy and order eventually *increased* the arbitrary power of the top leadership, which gained the capacity to determine the political orthodoxy of virtually all acts and thoughts. Howe and Walker write of the GLF that "At its most extreme, the [decentralisation of economic and financial planning] created a situation where the economy was subject to central control only to the extent that it responded to direct appeals by Mao and others."⁹²⁵ The tendency of social mobilisation gave rise to 'commandism', or the issuing of arbitrary orders by the local cadres; local cadres responded to higher levels through Mao's direct appeals; direct appeals sent down for decentralisation, which further encouraged local cadres' commandism and populist upheaval; the result was anarchic chaos.

⁹²⁴ Dikotter, *Mao's Great Famine*, p.xvi.

⁹²⁵ Christopher Howe and Kenneth Walker, "The Economist," in Dick Wilson (ed.), *Mao Tse-tung in the scales of History* (Cambridge: Cambridge University Press, 1977), p.198.

From 1959 to 1961, the Great Famine occurred. The Waterstone's bestseller, *Tombstone*, estimates that the Great Famine brought about 36 million unnatural deaths, and a shortfall of 40 million births.⁹²⁶ Frank Dikotter pushes the figure higher. The death toll stands at a minimum of 45 million excess deaths, and can be as high as 60 million people.⁹²⁷ This was approximately 10 percent of China's population at the time. Chris Bramall gives either 30 million or 12 million deaths.⁹²⁸ Barry Naughton suggests 25—30 million excess deaths, and roughly 30 million postponed births.⁹²⁹ Carl Riskin agrees with the 30 million deaths toll.⁹³⁰ Yet with no doubt, it was “a major famine that in terms of loss of life may have been the worst on human record”.⁹³¹

There are mainly two views on the exact causes of the Famine: Micro-incentive failure and Macro-coordination failure. The popular view is incentive failure. During the Great Leap Forward, in 1958, many agricultural producer cooperatives were abruptly merged into a single giant

⁹²⁶ Yang Jisheng, Edward Friedman, Stacy Mosher, Jian Guo, and Roderick MacFarquhar, *Tombstone: The Great Chinese Famine, 1958—1962* (Farrar, Straus and Giroux, Year: 2012), Chapter 11. China's Population Loss in the Great Leap Forward.

⁹²⁷ Frank Dikotter, *Mao's Great Famine: The History of China's Most Devastating Catastrophe, 1958—62* (London; Berlin; New York; Sydney: Bloomsbury, 2011), p.333.

⁹²⁸ Chris Bramall, *Chinese Economic Development* (London: Routledge, 2009), p.126.

⁹²⁹ Barry Naughton, *The Chinese Economy: Transitions and Growth* (Cambridge, Mass.: MIT Press, 2007), p.72.

⁹³⁰ Carl Riskin, *China's Political Economy: The Quest for Development since 1949* (Oxford; New York: Oxford University Press, 1987), p.136.

⁹³¹ Riskin, *China's Political Economy*, p.136.

commune, which had 5,000 or more households.⁹³² Despite the organisational and ideological efforts tried to create work incentives, the work-points system only encouraged farmers to show up every morning—direct performance-related pay was impossible in agricultural activities—and the simple ‘economies of scale’ only made farmers less productive because one unit work increase among 5000 households was invisible and minor.⁹³³ Rice farming that requires intensive individual hard work and highly sophisticated master farming skills to create high land-intensive productivity needs diseconomies of scale ‘garden farming’.⁹³⁴ Francesca Bray suggests that for technical reasons the optimal size for an irrigated rice field is very small, less than one-sixth of an acre, and unlike in dryland cereal agriculture there is little scope for introducing machinery or other economies of scale.⁹³⁵ Justin Lin further argues it was the elimination of *exit rights* that led to the collapse in food production.⁹³⁶ Membership of the cooperatives was voluntary in the mid-1950s, and peasants were highly self-motivated. There were economies of scale in input purchase and marketing, and cooperation ensured a sort of risk pooling.⁹³⁷ The possibility of high-productive households leaving the commune served as

⁹³² Naughton, *The Chinese Economy*, p.235.

⁹³³ Naughton, *The Chinese Economy*, p.237.

⁹³⁴ Francesca Bray, *The Rice Economies: Technology & Development in Asian Societies* (Berkeley; Los Angeles; London: University of California Press, 1986), pp.xiv-7.

⁹³⁵ Joseph Needham and Francesca Bray, *Science and Civilization in China. Volume 6, Biology and Biological Technology. Part 2, Agriculture* (Cambridge: Cambridge University Press, 1984), p.604.

⁹³⁶ Yifu Lin, *Demystifying the Chinese Economy*, p.87.

⁹³⁷ Yifu Lin, *Demystifying the Chinese Economy*, p.87.

a *check* on shirking by low-productivity households.⁹³⁸ This all changed in 1958, when the right to exit was removed and the process of collectivisation accelerated.⁹³⁹ Chris Bramall, however, argues Lin's chronology is wrong. Membership of farming collective became compulsory for the vast majority of farmers in 1955/6, the collapse in output did not occur until 1959.⁹⁴⁰ He argues the Famine was coordination failure. The emphasis on iron and steel production in the countryside resulted in the whole diversion of labour from farming to industry, causing labour shortages.⁹⁴¹ Primary-sector employment fell by almost 40 million in 1959 (almost a fifth of China's peasants), moving into rural industry.⁹⁴² For Bramall, People's Commune was doing a great job. Grain output increased in both 1956 and 1957, and 1958 was a record.⁹⁴³ Had labour not been removed and grain sown area not been cut for rural industries, collectivisation would have been a success rather than a failure.

Both views possess some element of truth. Yet both have missed the full picture. The People's Commune is not merely an agricultural entity that can be dissected in terms of production incentives, nor can one assess it in terms of macro coordination that renders separation counterfactual possible.

⁹³⁸ Yifu Lin, *Demystifying the Chinese Economy*, p.92.

⁹³⁹ Yifu Lin, *Demystifying the Chinese Economy*, p.95.

⁹⁴⁰ Bramall, *Chinese Economic Development*, p.130.

⁹⁴¹ Bramall, *Chinese Economic Development*, p.130.

⁹⁴² Bramall, *Chinese Economic Development*, p.130.

⁹⁴³ Bramall, *Chinese Economic Development*, p.130.

The very purpose of collectivisation of agriculture was embedded in Mao's trinity system for industrialisation. Consider the scale. The size of the accounting unit jumped as many cooperatives were merged into a giant commune, in 1958: from 100—250 households to over 5000 households. The only possible rationale behind this, which agricultural productivity alone cannot adequately explain, was *resource mobilisation*. Mao's collectivisation, apart from hoping for economies of scale in agriculture and better government control over farm produces, also served as a vehicle to *mobilise labour* not only for agriculture but also for mass construction projects to substitute labour for capital at the time when capital was still scarce and expensive, as well as for rural industries dotting in the countryside *in addition to* urban-priority heavy industries. The high tide of gigantic communes and diversion of labour from agriculture well-illustrate his thinking. One hundred million peasants were said to be engaged in building water conservancy works and dams during the winter of 1957—8.⁹⁴⁴ The 'heavy industry bias' of the Great Leap Forward (rural industries set up in the countryside to meet agricultural needs themselves as well as to support the urban industrial sector) rendered the capital accumulation rate to a peak of almost 44 percent in 1959.⁹⁴⁵ This was the highest rate of accumulation in the history of the PRC. Yet the one million 'backyard

⁹⁴⁴ Riskin, *China's Political Economy*, p.119.

⁹⁴⁵ Riskin, *China's Political Economy*, p.141. Primary data source: Yang Jianbai and Li Xuezheng (1980), 'The Relations between Agriculture, Light Industry and Heavy Industry in China', in *Social Sciences in China*, 2.

furnaces' hastily built produced unusable metal products. One journalist observed that "My wife collected some old iron pots, kitchen knives, a stove and a sewing machine and sent them to a site to melt. No one knew what would come out of such a mix."⁹⁴⁶ The neglect of common sense that iron from small-scale blast furnaces must be usable and that its value must exceed that of its material inputs made Mao himself confess at the 1959 Lushan Conference: the mass melting of steel as "a great catastrophe".⁹⁴⁷ With overheated ideological climate encouraged by Mao and his group of scientists, fraudulent harvest size reports sprang up everywhere that eventually caused, by the end of 1958, 90 million people were engaged in smelting useless iron and mining and transporting ore *at the peak of the harvest season*.⁹⁴⁸ The rest was history. In Naughton's phrase, "Mao turned China in a new direction, shifted gears, and accelerated, straight into a brick wall."⁹⁴⁹ The incentive failure alone and Bramall's dichotomy between People's Commune and industry, therefore, missed the point. It was an even greater systematic failure arose from the trying efforts to solve the systematic dilemma that the trinity system was very much based on.

Apart from monumental death tolls, cracked investment, wasteful

⁹⁴⁶ Deng, *China's Political Economy in Modern Times*, p.132.

⁹⁴⁷ Mao quoted in Riskin, *China's Political Economy*, p.127. Primary source: the text of Mao's speech to the Lushan meeting is in Schran (1974).

⁹⁴⁸ Deng, *China's Political Economy in Modern Times*, pp.131-132; Riskin, *China's Political Economy*, p.126.

⁹⁴⁹ Naughton, *The Chinese Economy*, p.69.

production, and destruction to the overall economy, the GLF *ironically* achieved one thing: the *structure* of the economy was planted. Preobrazhenski's stress on the need for *big enough* once-over 'hump' over capital investment was 'solved' by administrative decentralisation in China. It had increased the ability of regional and local officials to mobilise resources for capital investment; indeed, accumulation was pushed irrationally and to counter-productive ends. This was directly evident in the persistent rise in the accumulation rate to a peak of 44 percent in 1959 during the GLF. To be sure, the destruction of the upheaval was severe, the rate soon dropped to 10.4 percent in 1962.⁹⁵⁰ But after the post-Leap readjustment period (1963—5), "during the second half of the 1960s it moved back up to an average of 26.3 percent, then to 33 percent in the first half of the 1970s, and finally to another peak of 36.5 percent in 1978."⁹⁵¹ And some have indeed argued "Deng Xiaoping's de-Sovietisation reforms after 1978 have been hailed as the saviour of the Chinese economy. The main debate is whether Deng's reforms rescued China's ailing economy or merely made Mao's Sovietisation a bit more efficient."⁹⁵² This again fits Preobrazhenski's verdict: expansion in total capacity came first, and only then would tangible incentives matter.

⁹⁵⁰ Riskin, *China's Political Economy*, p.143.

⁹⁵¹ Riskin, *China's Political Economy*, p.271. Primary data source: Dong Furen (1980), 'On the Relation between Accumulation and Consumption in China's Development', paper delivered at the US-China Conference on 'Alternative Strategies for Economic Development', Wingspread, Racine, Wisconsin, 21-24 November 1980.

⁹⁵² Kent Deng, *Mapping China's Growth and Development in the Long Run*, p.5.

Early in the recovery period the government stepped in to reassert strong central controls. Authority over resource allocation, which had been handed down to localities in 1958, was now recentralised. By 1963 87% of centrally controlled enterprises and 75% of centrally allocated goods and materials, which had been transferred downward in 1957—8, were returned to the centre.⁹⁵³ Lin observes that the degree of centralisation was now even greater than it had been before the reforms, especially regarding financial planning.⁹⁵⁴ The return to rigid centralisation means that very soon the economy was facing the same problems as before. Mao launched the Socialist Education Movement in 1963, with few echoes.⁹⁵⁵ The GLF suffered him bad image, and he later complained of having been ignored by the party leadership, and especially by its General Secretary: “Deng Xiaoping never sought me out; from 1959 until the present [1966], on no issue at all did Deng ask [to see] me.”⁹⁵⁶ The popularity of Liu Shaoqi within the Party, who committed ‘ultra-left excesses’ of the 1947—8 land revolution that killed tens of thousands, oscillated to rightist ‘moderate benign’ family farming stance in the early 1960s after becoming an ardent promoter of the Leap in 1958, won him large support.⁹⁵⁷ Meanwhile the

⁹⁵³ Riskin, *China's Political Economy*, p.158.

⁹⁵⁴ Cyril Lin, “The Reinstatement of Economics in China Today,” *CQ*, 85, March 1981.

⁹⁵⁵ Bramall, *Chinese Economic Development*, p.146.

⁹⁵⁶ Mao quoted in Riskin, *China's Political Economy*, p.158. Primary source: Mao Zedong, (1969), *Mao Zedong sixiang wansui* (Long live Mao Zedong thought), selected speeches and writings of Mao. (No other publication information.)

⁹⁵⁷ Riskin, *China's Political Economy*, p.52; Bramall, *Chinese Economic Development*, p.94.

ageing leader gradually lost his cognitive ability; he had first given the weight of his authority to impossible targets, then backed down and urged realism in 1959, and yet in the same year criticised the State Planning Commission and the central ministries.⁹⁵⁸ And lost his temper as well. In 1964, he said to Liu: “Who do you think you are? It will take me just a flip of my baby-finger to finish you off!”⁹⁵⁹ And he made it two years later. In 1966, the Cultural Revolution began.

The first two years from 1966 to 1968 witnessed extremely violent episodes: university campuses and streets were dominated by the ‘Red Guards’.⁹⁶⁰ Those were university and middle-school students who committed urban violence over party cadres, government officials and school intellectuals. The movement became fractious, and in each locality it split into factional street fighting. In late 1966 and early 1967, workers seized power in a number of cities and in numerous factories. Following the ‘January Revolution’ in Shanghai, the party and government leadership of China’s largest city was expelled and a Shanghai People’s Commune was established on the model of the Paris Commune. This loss of party and state control inherent in ‘direct democracy’ of the commune model was too much for Mao to swallow. In mid-1967 China was threatened to break out

⁹⁵⁸ Riskin, *China’s Political Economy*, p.158.

⁹⁵⁹ Mao quoted in Deng, *China’s Political Economy in Modern Times*, p.81. Primary source: Song, *Cultural Revolution*, vol. I, p.267.

⁹⁶⁰ Bramall, *Chinese Economic Development*, p.146.

into an all-out civil war.⁹⁶¹ The Army was called in to stop the chaos. Having brought down his chief targets in the leadership, especially Liu Shaoqi, the ageing leader again showcased his ‘wit’: in early September 1967, Mao issued a directive in the name of all of the top party, state, and military organs, calling on the PLA to restore order and ordering the masses to submit. The Cultural Revolution now turned against the ‘ultra-left’ and purged a number of factional leaders in the movement. The anarchic violent episode ended. From 1968 to 1971, China was run by the Army in command, and Lin Biao came to the centre.⁹⁶²

The Cultural Revolution’s economic policy again signalled Mao’s rejection to Stalinist central planning, and his distrust of market as an alternative. To strengthen the market, for Mao, would run counter to the requirements of socialist transformation and would ‘restore the road to capitalism’. He often underscored ‘Never forget the class struggle.’ The 1975 campaign to ‘limit bourgeois rights’, for instance, can be interpreted as conscious rejections of the allocative and distributional trends that a relatively unfettered market would have produced.⁹⁶³ What Maoist policies had in common was their grounding in the conviction that production relations would provide the *lever* for advancing both socialist society and economic

⁹⁶¹ Riskin, *China’s Political Economy*, p.186.

⁹⁶² Bramall, *Chinese Economic Development*, p.146.

⁹⁶³ Riskin, *China’s Political Economy*, p.203.

development. For Mao, the *tempo* of development lies in the release of human energies rather than in the efficient allocation of fixed resources. With catastrophic GLF still in sight, Mao developed his social mobilisational approach to development in analogy to guerrilla warfare. A ‘law’ of economic growth is ‘wave-like’ and ‘saddle-shaped’. Mao argued that it proceeds like a marching army, covering great distances swiftly and then requiring rest and recuperation, and to push ahead again when conditions improve.⁹⁶⁴ *Equilibrium/balance is always temporary and transient, and disequilibrium/imbalance absolute and permanent.* When neither market nor central planner is desirable to co-ordinate the economy, Mao stood up again and tried out his final ‘vision’: to minimise the need for co-ordination by means of ‘self-reliance’ (*zili gengsheng*).

Mao’s objective in promoting independent and comprehensive development at various sub-national levels was evident in his explicit notes on the Soviet textbook, *Political Economy*. Refuting the text’s advocacy of division of labour among socialist countries, Mao commented: “This is not a good idea. We do not suggest this even with respect to our own provinces. We advocate all-round development and do not think that each province need not produce goods which other provinces could supply. We want the various provinces to develop a variety of production to the fullest extent...

⁹⁶⁴ Mao Zedong, *Mao Zedong Wenji* Volume Eight, p.236.

The correct method is each doing the utmost for itself as a means toward self-reliance for new growth, working independently to the greatest possible extent, making a principle of not relying on others...”⁹⁶⁵ The locality and enterprise were to be dynamic, innovative, and socially experimented bodies. This principle was manifested in Mao’s slogans such as the factory should be a ‘university’; ‘large and comprehensive’ or ‘small but comprehensive’ enterprises; ‘being a specialist in one job and a generalist in many’; ‘many-workshops’ rather than ‘one-big-workshop’. Rawski captures nicely: “excessive division of labor masks hidden technical potentials. The obvious short-term costs of trade restrictions may be smaller than the long-run gains obtainable from exploiting these unsuspected capabilities.”⁹⁶⁶

And it *did* work in some ways. On a national level, self-reliance means a strategy of import substitution designed to establish an ‘independent and comprehensive industrial system base’ relied upon *domestic* resources to finance capital accumulation. To be sure, this does not mean autarky. The Korean War cost China trade embargoes with the West, and Mao’s quarrel with Khrushchev ended the Soviet bloc support in 1960. For more than 10 years China had suffered from economic isolation, and Mao was eager to

⁹⁶⁵ Mao Zedong, *A Critique of Soviet Economics*, edited and translated by Moss Roberts (New York: Monthly Review Press, 1977), pp.102-3.

⁹⁶⁶ Thomas G. Rawski, *China’s Transition to Industrialism* (Ann Arbor: University of Michigan Press, 1980), p.150.

find trade partners. Bramall argues “Any notion that Mao was implacably hostile to international trade is not supported by the evidence for the 1970s... it was the Chairman who opened up the policy of borrowing from the West that would expand dramatically in the post-Mao era”; “Nixon’s 1972 visit led to a gradual thawing of relations...”⁹⁶⁷ ‘Self-reliance’ principle hence manifested itself in two faces during the Cultural Revolution decade. During the 1965—69 period, when international conditions for any rapprochement with the West seemed unlikely, China continued to enlarge its capacity to produce things it had previously had to import from the Soviet bloc.⁹⁶⁸ Industrial output grew by an average rate of 9—10 percent per year despite the Cultural Revolution.⁹⁶⁹ During the 1970—3 period, in which trade grew much faster than the GNP, in the crucial area of machinery, the ratio of imports to production-plus-imports remained more or less constant between 1965 and 1975 at between 7 and 15 percent, well below the figure for 1957.⁹⁷⁰ Rawski asserts that the imports’ chief role was strengthening weak points and overcoming bottlenecks in the domestic economy, “a far cry from the overall dominance of Soviet equipment in industrial investment plans of the 1950s”.⁹⁷¹ Riskin neatly captures: “even during the period of rapidly

⁹⁶⁷ Bramall, *Chinese Economic Development*, p.363 and p.166.

⁹⁶⁸ Riskin, *China’s Political Economy*, p.207.

⁹⁶⁹ US Central Intelligence Agency, *China: Major Economic Indicators* (Washington DC: CIA, 1979)

⁹⁷⁰ Riskin, *China’s Political Economy*, p.207.

⁹⁷¹ Rawski, *China’s Transition to Industrialism*, p.101.

growing trade, China's trade policy aimed to improve domestic productive capabilities and diminish ultimate dependence on foreign trade."⁹⁷²

If self-reliance at the national level was a way of opting out of dependence on the world market, at the sub-national level it was a *substitute* for both a national market and administrative central planning. And it is here the logic becomes *self-defeating*. The reason why self-reliance worked on a national level is because it operated on the basis of *others doing trade with you*; *simultaneous* self-reliance among sub-national localities, on the other hand, inevitably produced 'tragedy of the commons.' There was no *coordination mechanism* among them. Ma Hong argues that the anti-bureaucratic vision emphasising resourcefulness and problem-solving at the factory level degenerated into a defensive posture of survival in an unpredictable macroeconomic environment where nobody knew what would come from undependable suppliers.⁹⁷³ The GLF problem re-emerged as well. Decentralisation in the Cultural Revolution years weakened central control over regional investment activity, and many localities established enterprises in furtherance of their particular interests without regards to macroeconomic rationality. A proliferation of local investment projects led to wasteful duplication of effort, shortages of raw materials, and surpluses

⁹⁷² Riskin, *China's Political Economy*, pp.207-209.

⁹⁷³ Ma Hong (1982), "Strengthen Planned Economy, Improve Planning," *Zhongguo Caimao Bao*, 20 April 1982.

of unwanted products. Lin summarises that “centralization imposed order and greater balance but resulted in a rigid, lifeless economy; decentralization stimulated economic activities but resulted in chaos and disproportions.”⁹⁷⁴

It also pushed up investment rate towards over-accumulation and neglect of living standards. Same as the USSR, despite heroic investment rates and rapid measured growth, living standards in Late Maoism were not higher. Even with two years of rural breathing space under Deng, average grain consumption of the rural population for 1978—80 was several percentage points below that of 1955—7.⁹⁷⁵ Hu echoes that “average per capita foodgrain availability in 1977 was only similar to the 1955 level.”⁹⁷⁶ Zhou observes that in 1979 per capita foodgrain production was 73 percent of world average, edible oil 16 percent, sugar 9 percent, and meat 41 percent.⁹⁷⁷ These lead Riskin to conclude that “While food might have been distributed more evenly in China than in most other low-income countries and the direst poverty found elsewhere avoided, China’s generally low level of food consumption remained the biggest and most

⁹⁷⁴ Cyril Lin, “The Reinstatement of Economics in China Today,” *CQ*, 85, March 1981.

⁹⁷⁵ Kenneth R. Walker, “Interpreting Chinese Grain Consumption Statistics,” *CQ*, 92, December 1982.

⁹⁷⁶ Hu Qiaomu (1978), “*Anzhao jingji guilv banshi, jiaukai shixian sige xiandaihua*” (Observe economic laws, speed up realisation of the four modernisations), *Renmin Ribao* (People’s daily newspaper), 6 October 1978.

⁹⁷⁷ Zhou Shulian, “Changing the Pattern of China’s Economy,” in Lin Wei and Arnold Chao, *China’s Economic Reforms* (Philadelphia: University of Pennsylvania Press, 1982), p.48.

obvious symptom of economic imbalance.”⁹⁷⁸

After Lin Biao’s death in 1971, Mao curiously brought both Deng Xiaoping and the four Cultural Revolution leaders: Jiang Qing, Wang Hongwen, Zhang Chunqiao, and Yao Wenyan to the stage in 1973. The resulting disarray of the Cultural Revolution, created by local self-reliance’s geographical and sectoral imbalances to compound the rigidity of administrative planning, called for another round of recentralisation of planning. For twenty years the leadership struggled in recurrent cycles of tightening and loosening of central control to check extremes of centralisation and anarchy. He Jianzhang puts it nicely: “centralised control caused lifelessness, decentralisation caused chaos, chaos led to recentralisation, which again produced lifelessness.”⁹⁷⁹ And centralisation seemed to have lost its restorative capacity in the 1970s; the quality of central planning, never high in China, amid frequent ‘mass campaigns’ had declined perceptibly since 1957.⁹⁸⁰ *At the same time*, the periodic intervention by the centre to impose order prevented a genuine implementation of decentralisation. It was in fact the heavy hand of Mao’s direct appeals in the GLF, the army in command during the Cultural

⁹⁷⁸ Riskin, *China’s Political Economy*, p.269.

⁹⁷⁹ He Jianzhang (1979), “*Wo guo quanmin suoyou zhi jingji jihua guanli tizhi cunzai de wenti he gaige fangxiang*” (Current problems and the direction of reform in the planning and management system of China’s state-owned economy), *Jingji Yanjiu* (Economics Studies), May 1979, p.37.

⁹⁸⁰ Riskin, *China’s Political Economy*, p.204.

Revolution, and Mao's functional mass-local-cadres-bureaucracy that dictated mass mobilisation campaigns. With radical principles undermined by *ad hoc* manipulation from above, *de jure* decentralisation increased the *de facto* arbitrary power of the centre; and yet the decentralisation strong enough to deter a true central planning regime, eliminated the possibility of coordination between local initiatives to even have a *plan*. Each of which seemed a lesser evil only when farthest away.

The whole set-up, if without administrative central planning or market mechanism to coordinate the macro-economy cohesively, from the centre to the local must resort to command politics. And 'politics in command' to mobilise people must resort to ideology. Ideology is the key glue to the whole edifice: from centre to local, and among locals to cooperate without a feasible cooperating mechanism, and from the local to report to the centre, and that is all against rationality. The propagation of ideological values will be the linkage for the centre and administrative decentralisation if central planning is cracked down and market is not in place. The result is "the extreme politicization of economic decision-making".⁹⁸¹ This provides the 'base' for the Great Famine 'symptoms' that Dikotter has exclaimed: every level was lying, and people lied to survive.⁹⁸²

⁹⁸¹ Riskin, *China's Political Economy*, p.83.

⁹⁸² Frank Dikotter, *Mao's Great Famine*, p.xvi.

This also provides the base for Cultural Revolution decade phenomenon “The politicization of virtually all policy issues—one’s characterization as a friend or enemy of socialism could depend on one’s view about such trivial questions as whether to buy or make a piece of equipment—led to a ubiquitous fear of making decisions, with the result that buck-passing, delay, and reluctance to take responsibility—in a word, classic bureaucratic behaviour—became the norm.”⁹⁸³ Goods that had no use were produced and piled up in warehouses, while goods that were acutely needed were produced not at all or in inadequacy. Moreover, the division of responsibility between administrative levels did not provide any *effective* solution to enterprise incentives. Xue Muqiao argues “According to my understanding, we never relaxed our control over the autonomy of enterprises, communes and brigades... between 1958 and 1976.”⁹⁸⁴ And he quotes some individual enterprises, “They said it did not matter whether the Center or localities were in control. All they knew was that enterprises were not allowed to exercise their own control.”⁹⁸⁵

After coming to the centre stage, Deng’s famous three policy documents pinpoint that the enemy was not ‘capitalist roaders’ in Party, but rather those who “still use metaphysics” and “talk only about politics but not

⁹⁸³ Riskin, *China’s Political Economy*, p.202.

⁹⁸⁴ Xue Muqiao, *Current Economic Problems in China* (Boulder, Colorado: Westview Press, 1982), p.95.

⁹⁸⁵ Xue Muqiao, *Current Economic Problems in China*, p.99.

economics; only about revolution but not production.”⁹⁸⁶ The spearheaded criticism pointed directly at the Cultural Revolution Group: ‘ultra-left’ forces’ whole programme of class struggle undermined national goals of modernisation and development.⁹⁸⁷ He in turn urged the establishment of ‘strong and independent’ management systems; argued that the enterprise party committee should refrain from interfering with routine management affairs; and attacked ‘opposition to enterprise management and rules of operation’ as anarchic.⁹⁸⁸ In a word, the route to centralisation of planning, and granting enterprise management power. Deng also made his views on division of labour more explicitly in 1978: “Scientists and technicians should concentrate on their energy on scientific and technical work... The cause of socialism calls for a division of labor... comrades of different trades and professions are not divorced from politics when they do their best at their posts.”⁹⁸⁹

The ‘Gang of Four’ responded by charging “an attempt to remove the workers from concern with politics, management, and their broader role in society and to make them subservient extensions of their machines.”⁹⁹⁰

They also rightly grasped the crux of the problem is the juxtaposition of

⁹⁸⁶ Selden, Mark (1979), *The People's Republic of China: A Documentary History of Revolutionary Change*, New York, Monthly Review Press, pp.140-2.

⁹⁸⁷ Riskin, *China's Political Economy*, p.194.

⁹⁸⁸ Riskin, *China's Political Economy*, p.195.

⁹⁸⁹ *Renmin Ribao* (People's Daily), 24 March 1978, pp.14-15.

⁹⁹⁰ ‘Criticism of Selected Passages of “Certain Questions on Accelerating the Development of Industry”’, *Xuexi yu Pipan* (Study and Criticism), 14 April 1976.

market forces (bourgeois rights) and party and state bureaucracy, the former corrupting the later. And Yao gave the most explicit warnings in his 1975 article that argued ‘the strengthening of bourgeois rights’ within the Party would inevitably lead to ‘polarisation’.⁹⁹¹ Given the events that were about to occur in China, it is worth quoting in length: “i.e., a small number of people will in the course of distribution acquire increasing amounts of commodities and money through certain legal channels and numerous illegal ones; capitalist ideas of amassing fortunes and craving for personal fame and gain, stimulated by such ‘material incentives,’ will spread unchecked; such phenomena as turning public property into private property, speculation, graft and corruption, theft and bribery will arise; the capitalist principle of the exchange of commodities will make its way into political life and even into Party life, undermine the socialist planned economy, and give rise to such acts of capitalist exploitation as the conversion of commodities and money into capital and labour power into a commodity...”⁹⁹² The views of the Gang of Four closely coincided with Mao’s own at the end of his life. In 1976, the Chairman left the scene.

⁹⁹¹ Yao Wenyuan (1975), “On the Social Basis of the Lin Piao Anti-Party Clique”, *Renmin Ribao*

⁹⁹² Yao Wenyuan (1975), “On the Social Basis of the Lin Piao Anti-Party Clique”, *Renmin Ribao*

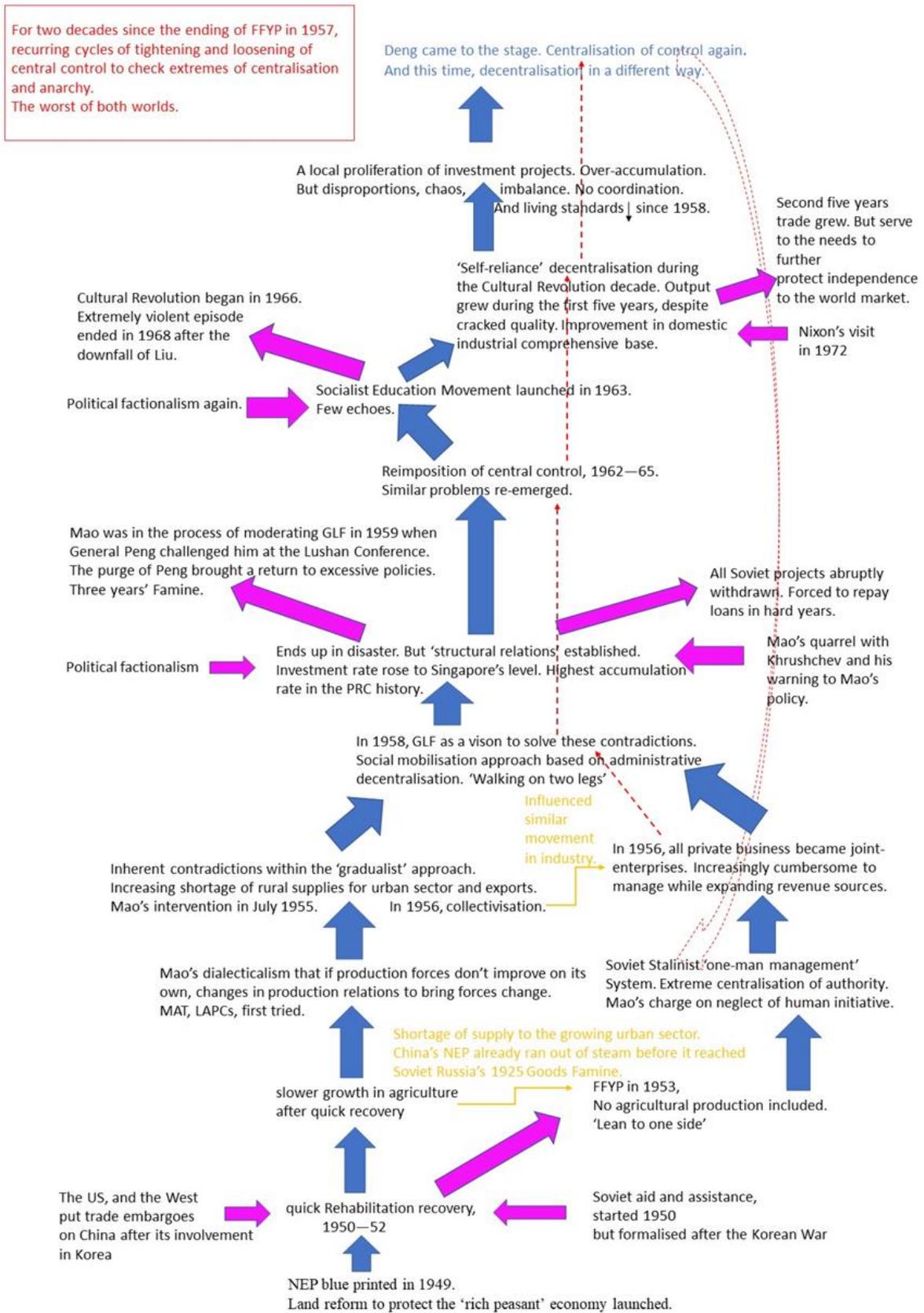


Figure 7 An Anatomy of Mao's Era: recurring struggles between central planning and administrative decentralisation

6

Deng's 'Market Socialism': 1978—1997⁹⁹³

The Third Plenum of the Eleventh Central Committee in December 1978 sent a clear economic message: *Balance Readjustment*. Yet one might ask if without the *imbalance base* at first, out of where exists the room for *balance readjustment*. But anyway, the high urban unemployment in Mao's period which made him resort to 'sending down' urban youths *twice* to the countryside—the first time was Post-GLF period, and second was Cultural Revolution after 1968—together with the establishment of *Hukou* system to stop rural-urban migration after the failure of the GLF, and Mao's trying efforts to revive rural development through 'self-reliance' after 'walking on two legs' had failed, urgently called the heavy industrialisation strategy into question. This, together with stagnating levels of food consumption, deteriorating urban housing conditions, falling real wages, and widespread rural poverty for two decades—all despite rapid economic growth as conventionally measured—must be attributed to the structural imbalances and systemic flaws of the Soviet 'self-exploitation' system. *Renmin Ribao* (People's Daily) in April 1981 ascribed them all to the 'left mistakes' that

⁹⁹³ This chapter benefits from Professor Kent Deng's side-note comments on the original script: "This chapter deals with how the post-Mao's growth. One option is to see this period as China following the Asian tigers after WWII. This should be an independent chapter on its own." It also satisfies the joint examiners' report: the positioning of the whole work and research contributions "should also be echoed and discussed in the discussion chapter to further explain whether and how these contributions have been achieved..."

caused the principal imbalances within the economy:

“‘Left’ mistakes manifest themselves mainly in high targets, high accumulation, low efficiency, and low consumption; emphasis on capital construction to the neglect of agriculture and light industry; emphasis on production to the neglect of people’s livelihood; emphasis on production to the neglect of circulation; and so on.” [*Renmin Ribao*, 9 April 1981]⁹⁹⁴

The ‘low efficiency’ ties into Bukharin’s rebuttal to Preobrazhenski, and ties with the point of TFP in general. While labour productivity had almost tripled between 1952 and 1978, output per *yuan* of capital fell to only 3/4 of its starting point.⁹⁹⁵ The increase in output—labour ratio was mainly due to the shift towards capital-intensive heavy industry, and the decline in the output—capital ratio pointed to the fact that most of China’s industrial growth during Mao’s period was simply ‘waste of capital on a grand scale.’ The change in output per unit of combined inputs (TFP) growth had been negative since 1957. Bukharin’s stress on market exchange and circulation also came to light. Bukharin’s promotion of NEP rests on his thinking of market activities and economic initiatives of small-scale farming peasantry can provide sufficient effective demand for urban industrial goods; while Preobrazhenski is concerned with the capacity building of urban industries that can satisfy the excess demand onward, demand for him is not so much

⁹⁹⁴ *Renmin Ribao* (People’s Daily), 9 April 1981.

⁹⁹⁵ Riskin, *China’s Political Economy*, p.265.

a problem because capital goods can keep reproducing and expanding on its own. The problem with Preobrazhenski's rationale is whether the production is still usable. Market economists Wu Jinglian and Zhou Shulian accused the central command planning system of being particularly bad at gearing production to the needs and wants of consumers and producers: "Since the mechanism of the market place could not operate normally, the needs of society and of its members could not be promptly reflected... The divorcing of production from demand became a common phenomenon."⁹⁹⁶ More importantly, the neglect of agriculture, consumer goods and people's livelihood rendered Bukharin's 'get rich' slogan ubiquitous across the nation: "Let some localities and peasants prosper first!"⁹⁹⁷

The rural communes were decollectivised, in the new leadership's hope to raise agricultural productivity through improving farming incentives. China had returned to its millennia long private farming by 1983. Farm prices were also raised sharply. Grain quota purchase prices were increased by 20 percent, beginning with the summer harvest of 1979; and the average price increase for all agricultural purchases including cotton, oil-bearing crops, sugar was about 22 percent.⁹⁹⁸ Grain self-sufficiency policy under

⁹⁹⁶ Wu Jinglian and Zhou Shulian, "Correctly Handle the Relationship Between Readjustment and Restructuring," *Renmin Ribao*, 5 December 1980.

⁹⁹⁷ *Beijing Review*, 19 January 1981.

⁹⁹⁸ Riskin, *China's Political Economy*, p.285. Primary data source: Cheng Zhiping (Director of State Price

Mao also gave way to rural diversification: poultry, pigs and other livestock were raised and individual household weaving, processing, repair, services and commerce re-emerged. After meeting his sales and tax obligations, the household was free to dispose of his output as he wished. From early 1979 peasants were able to sell goods at private markets in towns, reverting back to ‘pan-peasantry commercialisation.’ Per capita foodgrain output grew by 3.8 percent per year between 1978 and 1983, edible oil by 14 percent, and meat by 9 percent.⁹⁹⁹ Riskin remarks that “For the first time in many years, then, China’s spartan diet began to improve”.¹⁰⁰⁰

However, the beginning of the spurt in agricultural growth preceded both the price changes and the more radical decollectivisation measures. Total agricultural output surged forward by 8.9 percent in 1978 and 8.6 percent in 1979.¹⁰⁰¹ Yet the new prices took effect only with the summer harvests of 1979, and in early 1980 only about 1 percent of farm households had adopted any form of HRS (household responsibility system).¹⁰⁰² Bramall echoes that “By 1957, a web of nearly 14,000 agricultural technical stations had been created across China, complemented by 1,400 seed stations and 1,900 breeding and demonstration stations... Yuan Longping, a Chinese

Bureau) (1983), interview in *Beijing Review*, 35, 29 August.

⁹⁹⁹ *Zhongguo Jingji Nianjian (ZJN)* (Economic Yearbook of China), ed., Xue Muqiao et al. Beijing, Jingji Guanli Chubanshe (1984)

¹⁰⁰⁰ Riskin, *China’s Political Economy*, p.290.

¹⁰⁰¹ Riskin, *China’s Political Economy*, pp.297-298.

¹⁰⁰² *Ibid.*

scientist based in Hunan, is now widely acknowledged to have been the inventor of the world's first true hybrid variety of rice in 1974.”¹⁰⁰³ Kueh corroborates that “Mao's agricultural growth strategy is mass labour mobilization... agricultural collectivization... as the ‘institutional hedge’... for water conservancy projects of expanding the irrigation and drainage capacity”.¹⁰⁰⁴ He in turn asserts that the 1979—84's grain output growth was surely associated with adequately available irrigation water, without which the drastic increases in the application of chemical fertilizers cannot be implemented. “This is why the period 1979—84 is so profoundly different from the 1930s, although, as discussed, rural institutions in the 1980s were rapidly converging on those of the 1930s.”¹⁰⁰⁵ This is further supported by the fact that although Chinese agriculture under Deng made remarkable progress until around 1985, trends after 1985 have been less impressive.¹⁰⁰⁶ Naughton argues Deng's market reforms in the rural sector were essentially a return to the Chinese traditional household-based economy, which was one-off growth in nature.¹⁰⁰⁷ It is hence improbable that solely through HRS alone can agricultural growth be brought at the same extent as experienced in reality. Riskin argues “the spurt in output was due to incentives catching up with the technological and infrastructural

¹⁰⁰³ Bramall, *Chinese Economic Development*, p.221.

¹⁰⁰⁴ Y.Y. Kueh, *China's New Industrialization Strategy: Was Chairman Mao Really Necessary?* (UK: Edward Elgar, 2008), p.126.

¹⁰⁰⁵ Kueh, *China's New Industrialization Strategy*, p.130.

¹⁰⁰⁶ Robert F. Ash and Y. Y. Kueh, *Economic Trends in Chinese Agriculture: The Impact of Post-Mao Reforms* (Vol. Studies on contemporary China. Oxford, England: Clarendon Press, 1993), Introduction.

¹⁰⁰⁷ Naughton, *The Chinese Economy*, pp.88-89.

improvements of the collective era which were not fully exploited then.”¹⁰⁰⁸ It is hence interesting to speculate about the likely results had private farming evolved directly into the ‘household responsibility system’ of today, without first going through collectivisation. Would it still have been the same success?

Raj, comparing India’s agriculture, gives a firm ‘No’ answer. Small-scale farming has been capable of bringing impressive growth of output and yields, he argues, under the right conditions. In China these conditions were created by the farmland consolidation and capital construction programmes of the collective era; in Indian agriculture by way of contrast inequality of holdings, fragmentation, and irrational land use have impeded the improvement of yields under a family farming regime.¹⁰⁰⁹ This is supported by the subsequent fact in Chinese farming that by 1986 the gap between rural and urban per capita consumption has returned to its 1957 level.¹⁰¹⁰ At the heart of these problems was the household farm. It is too small to be improved and it dampens the rate of private investment in agriculture.¹⁰¹¹ Even worse, the irrigation and construction networks, which were set up during slack seasons by communes during Mao’s time,

¹⁰⁰⁸ Riskin, *China’s Political Economy*, p.296.

¹⁰⁰⁹ K.N. Raj, “Agricultural Growth in China and India: Role of Price and Non-price Factors,” *Economic and Political Weekly*, 18 (3), 15 January 1983.

¹⁰¹⁰ Ash and Kueh, *Economic Trends in Chinese Agriculture*, Introduction.

¹⁰¹¹ Ash and Kueh, *Economic Trends in Chinese Agriculture*, introduction.

were left un-maintained and became public externality once land was redistributed back to individual households.¹⁰¹² Chinese agricultural success under Deng's rural market reforms was hence brought by the combination of collectivist legacies and private property rights restoration incentives. Mao's dialecticalism on the nature of growth—*from quantitative changes to qualitative change*—was again in operation.

The establishment of the HRS also quickly revealed that a large percentage of the farm labour force could leave agriculture without reducing output. A smaller farm labour force was in fact accompanied by rapid *increases* in output. Lin observes that between one-third and one-half of the total labour force became rural labour surplus; that first engaged in more lucrative farming activities apart from grain farming, then participated in local village and township enterprises, and later joined Arthur Lewis's dualistic labour transfer.¹⁰¹³ Nevertheless, the Lewis model's assumptions on rural labour's zero marginal product and transferrability to urban areas for higher value-added activities do not quite fit reality. As aforementioned, a lot of Chinese surplus labour was only *seasonal*. Kent Gang Deng argues that seasonal surplus in labour supply does not automatically make the rural population idle. Moreover, to undertake a Lewisian transition, a society has

¹⁰¹² Bramall, *Chinese Economic Development*, p.339.

¹⁰¹³ Lin Zili, "The New Situation in the Rural Economy and its Basic Direction," *Social Sciences in China*, 3, 1983.

to solve the problem of food demand and supply. A society will have to maintain an adequate food supply at any given time, which contradicts the Lewisian implication that the agricultural sector suffers chronic low productivity as seen from the low marginal product of labour.¹⁰¹⁴ Riskin pinpoints that “The juxtaposition of fewer workers with rising output under relatively constant technology does not imply that labour’s marginal product had been zero (or even negative). Rather, it suggests that much of the huge increase in work-hours per worker-year between 1957 and 1975 had been illusory, that is, had been offset by slack, badly planned, and/or poorly motivated work.”¹⁰¹⁵ Similar to Temin’s explanation on European ‘Golden Age’ growth, rural surplus labour after 1978 was due to the ‘disequilibrium’ legacy left in Mao’s time; and Deng cashed it in.

The market-oriented agriculture was only the first and one aspect of the reform, and immediately it showcased conflicts with the rest of the planning economy. This time Preobrazhenski’s worries on goods famine were in play. The seven-fold rise in rural savings deposits from 5.6 billion *yuan* in 1978 to 47 billion in 1984 made farmers who cannot find attractive consumer goods to buy with new cash earnings begin to doubt the value of hard work and effective management.¹⁰¹⁶ Speculation, price-gouging,

¹⁰¹⁴ Gang Deng, *The Premodern Chinese Economy*, pp.19-20.

¹⁰¹⁵ Riskin, *China’s Political Economy*, p.305.

¹⁰¹⁶ Riskin, *China’s Political Economy*, p.302.

kickbacks, and product adulteration taking advantage of the shortage of farm inputs were reported in 1983.¹⁰¹⁷ The mutual interdependence of market-oriented and bureaucratically administered sectors introduces special problems that are apt to increase as the former sector grows and becomes more dependent on the latter. If the state economy with which the peasants deal is not responsive to their needs, these intersectoral links can dampen the effectiveness of market incentives. For instance, shortages of chemical fertiliser and of construction materials for building new houses were encountered.¹⁰¹⁸ Increased farm procurement costs associated with higher price incentives inevitably call for the improved supply of consumer goods to the peasants; hence the proliferation of the ‘new five small industries’.¹⁰¹⁹ The ‘new five small industries’ under Deng’s township and village enterprises (cotton-spinning, knitting, cigarette-making, wine-making and sugar-refining) were often conversions from the five heavy small-scale rural industries (cement, chemical fertilizers, farm machinery, metal making and energy, including small coal mines) of the Cultural Revolution, which in turn were renewed attempts from the abortive ‘backyard iron and steel furnaces’ campaign of the GLF.¹⁰²⁰ Kueh remarks “It is obvious that, without the added mobilization of idle resources for

¹⁰¹⁷ “Stop the Unhealthy Tendencies in the Supply of Goods and Materials for Agricultural Use,” *Renmin Ribao*, 23 May 1983.

¹⁰¹⁸ Riskin, *China’s Political Economy*, p.301.

¹⁰¹⁹ Kueh, *China’s New Industrialization Strategy*, p.77.

¹⁰²⁰ Kueh, *China’s New Industrialization Strategy*, p.134, p.65 and p.146.

producing consumer goods, the enormous pent-up demand resulting from years of overinvestment, and consecutive increases in farm procurement prices... would not have been able to find an outlet.”¹⁰²¹ The millions of township-and-village industrial enterprises, which represent a popular base for export-oriented Sino-foreign joint ventures and which contribute an increasingly significant share in China’s exports expansion during the 1980s, are almost all derived from the former five small rural industries institutional legacy established under Mao’s reign.¹⁰²²

The urban sector also immediately became problematic. Sharp rises in farm procurement prices transmitted higher living costs to cities. In 1979 and 1980 around 1/3 of the urban households in many large cities saw their real income reduced as a result of inflation.¹⁰²³ This was the first time in PRC history that people started to get a sense of what inflation was. The situation was figuratively underscored by a widespread saying in China ridiculing the scientists: “making (*gao*) atom bomb (*yuanzidan*) is less rewarding than (*bibushang*) street hawkers selling (*mai*) tea-leaf flavoured egg (*chayedan*).”¹⁰²⁴ Their resentment was exacerbated by the spread of *guandao* (that is, SOE managers and government officers colluding to divert scarce, centrally allocated materials from planned use to the market

¹⁰²¹ Kueh, *China’s New Industrialization Strategy*, p.181.

¹⁰²² Kueh, *China’s New Industrialization Strategy*, p.134 and p.41.

¹⁰²³ Kueh, *China’s New Industrialization Strategy*, p.53.

¹⁰²⁴ Kueh, *China’s New Industrialization Strategy*, p.53.

sector for profiteering).¹⁰²⁵ And the continuing and increasing corruption was later one of the main targets of students' protest in 1989 Tiananmen Square. *At the same time*, increased state budget expenditure on farm purchases had translated into budget deficits since 1979, for the first time ever in China.¹⁰²⁶

The increase in farm prices was only one factor to the sudden deficit of almost 21 billion *yuan* in 1979, the more fundamental reason had to do with the policy of national economic *readjustment* (first introduced in early 1979 and then reinforced in early 1981) for correcting 'national economic imbalances' in general.¹⁰²⁷ On the revenue side, the chief culprit was a decline in profits turned into the Treasury by state enterprises. The period 1978—9 immediately after the Cultural Revolution was a re-centralisation episode seeking to control excessive dispersion of economic authority left over from administrative decentralisation. *Simultaneously*, experiments with expanded enterprise autonomy and profit retention began in October 1978.¹⁰²⁸ The aim of giving enterprises authority over a portion of their own profits was to provide them with incentives to be both more innovative and more responsive to demand and cost. For such incentives to be effective, however, profitability *must* reflect economic performance that in

¹⁰²⁵ Kueh, *China's New Industrialization Strategy*, p.166.

¹⁰²⁶ Kueh, *China's New Industrialization Strategy*, pp.65-66.

¹⁰²⁷ Riskin, *China's Political Economy*, p.362; Kueh, *China's New Industrialization Strategy*, p.65.

¹⁰²⁸ Riskin, *China's Political Economy*, p.343.

turn rests upon the relative prices of market supply and demand. Riskin comments that “An economy in greater-than-normal disequilibrium marked by an irrational price structure, big surpluses, and simultaneous shortages is not fertile ground on which to set free market forces.”¹⁰²⁹ Relative profitability was simply a reflection of arbitrary fixed prices of outputs and inputs that had been primarily designed for urban heavy industries development, bearing no relation to enterprise management.

At the same time, this ‘profit contract’ reform gave rise to what Janos Kornai calls the ‘soft budget constraint’ problem.¹⁰³⁰ The plea of adverse conditions was almost always a defence against penalties for non-fulfilment; enterprises under the ‘profits contract’ system were happy to assume responsibility for profits but always found an excuse for losses. Bankruptcy was a virtual impossibility. “In the eyes of capitalist firms’ owners..., expansion is an attraction, but also a big risk. They have to consider carefully whether the products of the enlarged company will be saleable, and if so, at what price and profitability. Any loss caused by a faulty investment decision hits them in the pocket... This is the curb that the classical socialist system removes... Because of the soft budget constraint, the firm can reckon that liquidation will not follow from any

¹⁰²⁹ Riskin, *China's Political Economy*, p.341.

¹⁰³⁰ Janos Kornai, *The Socialist System: The Political Economy of Communism* (Oxford: Oxford University Press, 1992)

faulty investment decisions, however high the costs and financial losses may be... Expansion drive is a fact of life for the bureaucracy. And because this system has only bureaucrats and no real owners, there is an almost total lack of internal, self-imposed restraint that might resist this drive.”¹⁰³¹ The real power behind the enterprise was the economic department or local government, of which it was a branch.¹⁰³² The parent body seized on the ‘profit contract’ system as a source of enhanced local revenue and an excuse to establish new industries for generating income, regardless of real demand and supply conditions. The result was ‘investment hunger’.

A well-known example was the motor vehicle and tractor industry, in which several hundred separate plants were established. As Xue Muqiao explained in 1980: “We obviously do not need this many, but these plants belong to different ministries, provinces, and counties. In view of the profits these plants can give, no unit wants to disown them... There are almost 1,000 municipalities and counties wishing to produce refrigerators, electric fans, washing machines, recorders and many other products this year. If all rush to set up factories at the same time, many will be forced to stop or delay their construction when half done.”¹⁰³³ The over-accumulation, disproportions and chaos problem persisted; and this time

¹⁰³¹ Kornai, *The Socialist System: The Political Economy of Communism*, pp.162-163.

¹⁰³² Riskin, *China's Political Economy*, p.345.

¹⁰³³ Xue Muqiao, “*Guanyu jingji tizhi gaigede yixie yijian*” (Some opinions on reform of the economic system), *Renmin Ribao*, 10 June 1980.

the locus of conflict has shifted from Mao's ideological, populist attack on central planning to relations between the plan and the market.

The first market decentralisation reform ended in December 1980, and strict price control was reinstated in early 1981. Investment expenditures were cut drastically, and the spread of profit retention was halted. The cutbacks in investment and production plans were soon softened later *in the same year*, however, having made matters worse by lowering profits and, therefore, state revenues. Thus, financial decentralisation of the resource allocation process continued. A prime objective of the 'readjustment' policy was to cut the national rate of investment and to reduce the number of capital construction projects. This was to depress the development of heavy industry in order to foster the expansion of light industry; in short, to cash in the accumulation to expand consumption.¹⁰³⁴ However, total fixed investment *increased* despite state efforts to limit it.

The centre managed temporarily to force aggregate investment spending down in 1981, by cutting its own spending by 34 percent from the 1979 peak, whereas that of the localities rose by 57 percent in the same period. The centre had to bear the entire burden of controlling investment, while the localities multiplied their revenue sources by establishing factories in

¹⁰³⁴ Dic Lo, *Market and Institutional Regulation in Chinese Industrialization 1978—94* (London: Palgrave Macmillan, 1997), pp.56-57.

high-profit sectors with no serious financial constraints. The result was that the centre lost the ability to direct resources to key projects and sectors, predominantly energy and transport. The immediate consequence was energy shortage. By 1988, 1/3 of the country's production capacity had been forced to lie idle.¹⁰³⁵ Severe coal shortages made the phenomena of factories 'closing four days, opening three days per week' become widespread. In the five years 1985—9, the price index of factory-delivered industrial products increased, in percentage terms by 8.7, 3.8, 7.9, 15.0 and 18.6; and a major force pushing up the industrial prices was panic shortages of basic materials.¹⁰³⁶ Lo pinpoints that energy and raw materials shortage was symptomatic of the 'structural inflation' in general: "during 1980—9, ... the structural change towards 'industrial lightening' —that is a reduction of the relative weight of heavy industry, which is characterized by high consumption of energy and materials... In the face of rapid economic growth and intensifying imbalances, there were limits for continuous 'industrial lightening'. The 1988—9 cyclical crisis testified to the limits."¹⁰³⁷ Kueh echoes that "many sophisticated econometric estimates made in the West, just to show how inflation in China was caused by 'inordinate' money supply. Hardly any attempt is made, however, to

¹⁰³⁵ Dic Lo, *Market and Institutional Regulation in Chinese Industrialization 1978—94*, p.66.

¹⁰³⁶ Dic Lo, *Market and Institutional Regulation in Chinese Industrialization 1978—94*, p.66. Primary data sources: *Renmin Ribao* 29 February 1992; *Zhongguo Gongye Jingji Tongji Nianjian* 1989; *Zhongguo Gongye Jingji Tongji Ziliao* 1987, 1949—1984; *Zhongguo Tongji Nianjian* 1991, 1993, 1995.

¹⁰³⁷ Dic Lo, *Market and Institutional Regulation in Chinese Industrialization 1978—94*, p.69.

probe beyond the rising monetary veil to discover how the Chinese monetary authority, rather than being the ‘culprit *in situ*’, represents really none other than the agent designated to accommodate the insatiable demand of SOEs [state-owned enterprises] for investment funds.”¹⁰³⁸ The excessive increases in bank loans extended between 1984 and 1988 should hence be regarded as a ‘forced rise in money supply’. During the period the central authority actually did not engage in any expansionary monetary policy.¹⁰³⁹ Preobrazhenski’s stress on the relative weight of heavy industry for the smooth-running capacity of the total economy in case future shortages and his warnings on deep-seated maladjustments in the structure of market socialist economies again came to light.

¹⁰³⁸ Kueh, *China’s New Industrialization Strategy*, p.212.

¹⁰³⁹ Kueh, *China’s New Industrialization Strategy*, p.216.

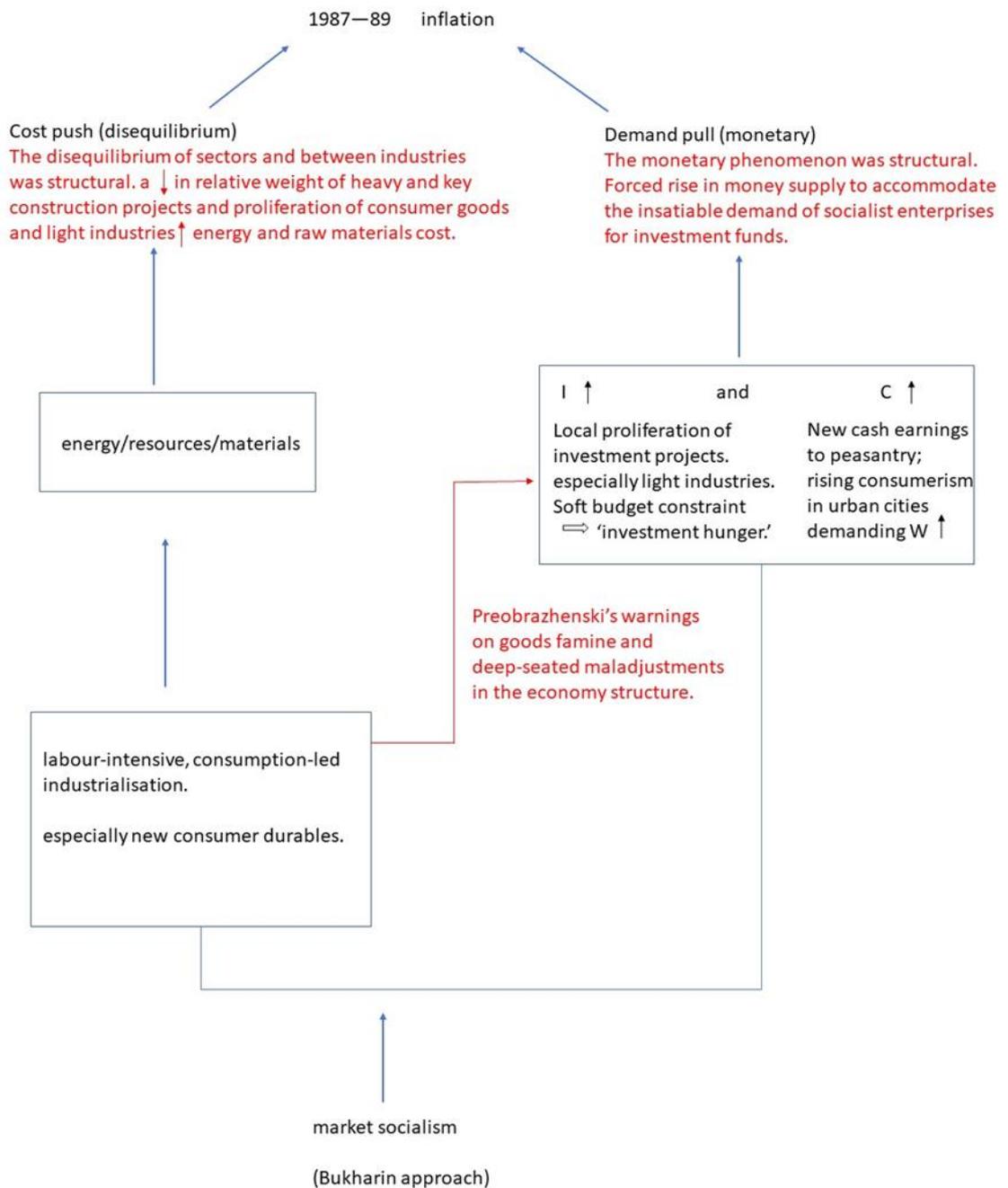


Figure 8 The 1987—89 'Structural Inflation'

The leadership succeeded temporarily in increasing supplies of consumer goods of various kinds to the rural and urban population; from 1982 to 1985, growth accelerated year by year so that the average annual rate of

growth for the whole period 1978—85 exceeded 10 percent.¹⁰⁴⁰ Nevertheless, neither enterprise management nor the price system had been able to be substantially reformed, so that the resumption of high growth brought with it many of the same problems as before—wasteful use of material, duplication of product lines, inflation of gross value, etc.—and this time shifted to consumer durables. Lo reveals that “in the case of China during 1989—90, it is clear that demand deficiency was a serious constraint on growth”; and “The demand deficiency was, above all, mainly a collapse of domestic sales of the ‘new’ consumer durables.”¹⁰⁴¹ The most phenomenal was the rapid increase of unsaleable stocks. This ultimately expressed itself in the increase of the amount of money tied up by inventories of finished products and that tied up by delayed payments from the commercial sector. From October 1988 to 1989, for all independently accounting industrial enterprises, the former amount increased by 61 percent and the latter by 62 percent.¹⁰⁴² By the end of 1991, for SOEs (state-owned enterprises) alone, the combined total of money tied up by stockpiles and delayed payments had registered a huge 332 billion *yuan*.¹⁰⁴³ Hence the State’s subsequent campaign of *xianchan yaku* (restricting production and reducing stockpiles). But it fell largely on the shoulders of

¹⁰⁴⁰ Riskin, *China’s Political Economy*, p.368.

¹⁰⁴¹ Dic Lo, *Market and Institutional Regulation in Chinese Industrialization 1978—94*, pp.77-78.

¹⁰⁴² Dic Lo, *Market and Institutional Regulation in Chinese Industrialization 1978—94*, p.79. Primary data sources: *Zhongguo Tongji Zaiyao*, 1988; *Jingji Ribao*, 1989.

¹⁰⁴³ Dic Lo, *Market and Institutional Regulation in Chinese Industrialization 1978—94*, p.79. Primary data source: *Zhongguo Gongye Jingji Wenti*, April 1992.

SOEs, while TVEs (township and village enterprises) continued to pile up new stocks. This had to do with the fundamental conflict between the planned sector and the market-oriented sector within the market socialist dual-track system; and the State had more controls over the former than the latter. A wealth of evidence indeed indicates that it was the ‘new’ consumer industries built up over the 1980s that was responsible for the demand deficiency/sales slump. By 1991, for instance, the production capacity of colour TV sets had reached 21 million per annum, and that of refrigerators 16m sets, washing machines 16m sets, and electric fans 70m sets.¹⁰⁴⁴ Conversely, the actual output in that year was respectively 12m, 5m, 7m and 20m, making the capacity utilisation rate generally well below a half.¹⁰⁴⁵ Demand deficiency, same to the ‘structural inflation’, was a structural phenomenon of deep-seated maladjustments within the market socialist macro-economy. The result was government’s *zhili zhengdun* (readjustment and rectification) campaign in 1989—90.

This episode, in Kueh’s words, was only one of the “swinging on a pendulum from decentralization to recentralization”.¹⁰⁴⁶ The initial inflation from 1979 (rate 2 percent) to 1980 (6 percent) was directly prompted by the first round of decreed increases in state farm procurement

¹⁰⁴⁴ Dic Lo, *Market and Institutional Regulation in Chinese Industrialization 1978—94*, p.80.

¹⁰⁴⁵ Dic Lo, *Market and Institutional Regulation in Chinese Industrialization 1978—94*, p.80. Primary data sources: *Zhongguo Gongye Jingji Wenti*, April 1992; *Jingjixue Dongtai*, April 1992.

¹⁰⁴⁶ Kueh, *China’s New Industrialization Strategy*, p.58.

prices, which immediately translated into state budget deficits.¹⁰⁴⁷ The massive ‘Economic Readjustment’ program and consumption policy adopted at the same time also triggered the first round of industrial deregulation, in which heavy industry was cut down in favour of light industry to raise living standards and to greatly enhance consumer goods supply to help absorb the rapidly rising purchasing power, and the role of market was introduced within the decentralisation process. The ‘investment hunger’ from ‘soft budget constraint’ produced the first strict price control reinstated in 1980—81. Immediately it was softened in the same year to keep the ‘momentum’ going. Energy and raw materials shortage and duplication of production facilities in the local level relaunched another round of recentralisation in mid-1983 to reimpose administrative constraints on investment to regain control of priorities.¹⁰⁴⁸ In the latter half of 1983 local construction was indeed restrained and resources were rechannelled to key projects. The precipitous decline in the central share of investment was finally reversed and recovered to 41 percent of total investment; and the capital construction within locally funded projects declined by 2 billion *yuan*.¹⁰⁴⁹ However, Kueh observes that “uncontrolled proliferation of rural industries has led to ‘blind duplication’ of investment projects... the overall policy demand for

¹⁰⁴⁷ Kueh, *China's New Industrialization Strategy*, p.213.

¹⁰⁴⁸ Riskin, *China's Political Economy*, p.366.

¹⁰⁴⁹ Riskin, *China's Political Economy*, p.366. Primary data source: *Zhonghua Renmin Gongheguo Guojia Tongji Ju* (1984), p.294.

retrenchment (fighting inflation) that tens of thousands of rural factories have lately been wound up, resulting in mounting unemployment pressures.”¹⁰⁵⁰ Hence having regained some control, the centre promptly gave it up again in mid-1984. A new boom developed, which saw gross industrial output take off during the third quarter of 1984 and grow at an annual rate of over 23 percent during the first half of 1985, and total investment in fixed assets grew by 35 percent in the same year.¹⁰⁵¹ Once again it became necessary to clamp down with administrative controls to cool the overheated economy. As Riskin argues: “It was vital for the centre to control the overall scale of investment as well as broad sectoral priorities, to maintain greater macroeconomic balance, control inflationary tendencies, and promote reforms oriented towards a greater reliance on the market.”¹⁰⁵²

Nevertheless, Kueh is less optimistic. The root of problem in fact came from the market itself: “The crux of the problem is, however, to what extent the centralized planning system can really tolerate the centrifugal effects of market forces.”¹⁰⁵³ For every time the *administrative* ‘recentralisation’ measures were prompted by economic imperatives from *market* ‘decentralisation’ effects. It is worth notice China’s industrial base had

¹⁰⁵⁰ Kueh, *China’s New Industrialization Strategy*, p.176.

¹⁰⁵¹ Riskin, *China’s Political Economy*, p.366. Primary data source: *China Statistical Yearbook*.

¹⁰⁵² Riskin, *China’s Political Economy*, p.367.

¹⁰⁵³ Kueh, *China’s New Industrialization Strategy*, p.180.

expanded substantially in the past several decades. By 1978, when the Deng era began, the contribution from industry already made up half of GDP, and stabilized with the same share until 1994.¹⁰⁵⁴ Naughton echoes that China is an unusual case precisely because the investment rate has remained high under dramatically different economic systems and regimes.¹⁰⁵⁵ During the Big Push period the investment rate stayed high regardless of the productivity of investment because of government's direct role. China's transition to a market economy was unique in that gross fixed capital formation never dropped below 25% of GDP, even in the lowest years (1981 and 1989—1990).¹⁰⁵⁶ This is dramatically different from other transitional economies, where investment was similarly high under the command economy but collapsed during the transition. Further, China only gradually reduced that part of investment that is basically waste. Deng's contribution, in Kueh's phrase, "the entire open-door strategy is obviously adopted... to redress the fundamental economic ills of declining capital efficiency".¹⁰⁵⁷ Preobrazhenski's verdict that capacity 'base' came first, and only then would Bukharinite tangible incentives for 'efficiency' matter again came to the stage. The economic transition from Mao to Deng, impressive as it may have appeared to be, should be seen as a natural economic evolution that responded to the changing requirements of a

¹⁰⁵⁴ Kueh, *China's New Industrialization Strategy*, p.34.

¹⁰⁵⁵ Naughton, *the Chinese Economy*, pp.147-148.

¹⁰⁵⁶ Naughton, *the Chinese Economy*, pp.147-148.

¹⁰⁵⁷ Kueh, *China's New Industrialization Strategy*, p.39.

maturing industrial structure. Deng's success should really be seen in his awareness that any attempt to cast aside the Maoist institutional legacy could be inherently destabilising.¹⁰⁵⁸ He was very cautious with his approach from the very beginning. This is best manifested in his famous slogan 'crossing the river cautiously by groping the stone'.

Rounds of centralisation, decentralisation, and recentralisation since 1978 have made Deng somehow believe that, after braking in 1985 and relaxing another round in 1986, it should be 'better to endure a short bout of sharp pain than suffer long, lingering pain' (*changtong buru duantong*) in May 1988. And *this time* Deng deliberately defied his own famous epigram of 'groping the stone to cross the river' and untypically attempted simply to jump over the rapid currents of 1988. An imminent liberalisation of prices was launched. The result was, in Naughton's words, "China underwent an inflationary crisis during 1988—1989 that shook the foundations of its political and economic system."¹⁰⁵⁹ Inflation soared from 10 percent to the high of 30 percent, and contributed to the political crisis that culminated at Tiananmen Square on June 4, 1989.¹⁰⁶⁰ Kueh hit the nail on the head in August 1989: "in view of the enormous concentration of economic resources resulting from years of centralized control in China, ... any

¹⁰⁵⁸ Kueh, *China's New Industrialization Strategy*, p.44.

¹⁰⁵⁹ Naughton, *the Chinese Economy*, p.443.

¹⁰⁶⁰ Naughton, *the Chinese Economy*, p.443. Source: *China Statistical Yearbook*.

abrupt change of direction in favour of a political pluralisation would be highly destabilizing and costly... specifically, that in a rapidly pluralizing political setting the immense scramble for resources and material benefits by rival interest groups, could lead to an abrupt, large-scale economic disintegration, chaos and destitution.”¹⁰⁶¹ This means the political confusion in China would be sorted out very soon and political unity & stability would soon return to command as usual. After the dust of the Tiananmen upheaval had settled, economic reforms in China would continue to swing the familiar pendulums between recentralisation and decentralisation, in the search by the Chinese leadership for an optimum decentralisation. And China’s door will remain open to the West.

Recentralisation did take place as early as January 1990. The 1988—89 crisis ended abruptly not only with the most severe ‘double-squeeze’, both monetary and fiscal contractions, but also in a drastic return to centralized physical-bureaucratic control that threatened to pre-empt any further industrial deregulation.¹⁰⁶² Prices and wages were frozen, and a wide range of investment projects were suspended altogether—already embarked on or in the pipeline, productive or ‘non-productive’. Thus, at a stroke, the entire market-oriented reform was brought to its knees. Mandatory input and output targets returned for major industries, together

¹⁰⁶¹ Kueh, *China’s New Industrialization Strategy*, pp.39-40.

¹⁰⁶² Kueh, *China’s New Industrialization Strategy*, p.208.

with centralised material allocation.¹⁰⁶³ The upshot was that the inflation rate was drastically reduced to a mere 2.1 percent in 1990 and 2.9 percent in 1991.¹⁰⁶⁴ No sooner had the situation stabilised, however, the old ‘curse’ came again. Enormous unemployment pressures quickly arose to compel a renewed decentralisation. Then in 1992 came one of Deng Xiaoping’s last decisive personal interventions in Chinese policy-making.¹⁰⁶⁵ And this time in his ‘southern tour’ speeches, the ‘pragmatic’ Deng spoke *in Mao’s voice* as in July 1955:

“We should be bolder than before in conducting reform and opening to the outside and have the courage to experiment. We must not act like women with bound feet... So long as we keep level-headed, there is no cause for alarm. We have our advantages: we have the large and medium-sized state-owned enterprises and the rural enterprises. More important, political power is in our hands... Our three-year effort to improve the economic environment and rectify the economic order was a success. But in assessing that effort, we can say it was an achievement only in the sense that we stabilized the economy. Should not the accelerated development of the preceding five years be considered an achievement too?”¹⁰⁶⁶

¹⁰⁶³ Kueh, *China’s New Industrialization Strategy*, p.210.

¹⁰⁶⁴ Kueh, *China’s New Industrialization Strategy*, p.210. Source: *China Statistical Yearbook*.

¹⁰⁶⁵ Naughton, *the Chinese Economy*, p.100.

¹⁰⁶⁶ Deng Xiaoping, “Excerpts from Talks Given in Wuchang, Shenzhen, Zhuhai and Shanghai” (1992), in Deng Xiaoping, *Selected Works of Deng Xiaoping*, vol.III (Beijing: Foreign Languages Press, 1994), pp.360-365.

Pragmatism is only possible under *given* conditions. In periods of *deep uncertainty* and crisis, it is to confront, not compromise.¹⁰⁶⁷ The 1989 incident and the subsequent pendulum swings as before made Deng no longer possess the ‘safety cushion’ to ‘cross the river by groping the stone’; this time he offered the ‘vision’ to try out things to *create* conditions for future, in a firmer stance. Two of the main themes of the 1990s were the rapid opening-up of the economy to foreign trade and investment, yet more important than anything in rekindling the growth process was monetary and fiscal expansion.¹⁰⁶⁸ And Deng seemed to have regarded it as perfectly normal to have periods of rapid growth (such as 1984—1989) broken up by short periods of rectification and stabilisation, and it is here that he shared Mao’s ‘wave-like’ ontology.¹⁰⁶⁹ One may hence wonder had Deng, not just in 1992, been in Mao’s difficult scenarios, would he have been the same pragmatic and successful? Kueh argues that “if Deng Xiaoping, instead of Mao, had been given the overriding mandate to bring China into the rank of the advanced industrialized countries as quickly as possible, there was really not much else he could have done, given the particular circumstances which Mao was confronting.”¹⁰⁷⁰ It was Maoist material heritage in agriculture and industry that greatly facilitated Deng’s

¹⁰⁶⁷ Walden Bello, *Paper Dragons: China and the Next Crash*, pp.75-76 (Commenting on President Obama, not doing enough in 2008).

¹⁰⁶⁸ Bramall, *Chinese Economic Development*, p.353.

¹⁰⁶⁹ Deng Xiaoping, “Excerpts from Talks Given in Wuchang, Shenzhen, Zhuhai and Shanghai” (1992), pp.364-5.

¹⁰⁷⁰ Kueh, *China’s New Industrialization Strategy*, p.32.

economic reform and opening-up strategy.

Firstly, the remarkable expansion in the country's irrigation capacity with mass labour mobilisation campaigns has helped to raise the multi-cropping area and facilitate application of chemical fertilisers.¹⁰⁷¹ The new hybrid high-yield rice variety popularised in the 1970s was the end-result of two decades' agricultural research efforts initiated in Mao's era. The mass rural 'surplus' labour that could permanently engage in non-agricultural economic activities was the 'disequilibrium' legacy of Mao's rural communes. They participated in millions of local township and village enterprises propped up in the 1980s that not only increased the supply of consumer goods and helped to absorb the hundreds of millions of *yuan* of excessive rural purchasing power and urban consumerism, but also formed a popular base for 1980s exports expansion.¹⁰⁷² Later in the 1990s they became 'rural-to-urban migrants' labour force in Lewis's dualistic modelling. It was remarkable that the reducing labour in agriculture was accompanied with increasing output from 1978 to 1984, a phenomenon accurately captured by Riskin as "Much of it, as we have seen, was due to once-for-all changes in policies affecting farm incentives, and to the consequent catching up of production to its potential."¹⁰⁷³ Secondly, by the

¹⁰⁷¹ Kueh, *China's New Industrialization Strategy*, p.41.

¹⁰⁷² Kueh, *China's New Industrialization Strategy*, p.176.

¹⁰⁷³ Riskin, *China's Political Economy*, p.310.

time of the economic transition from Mao to Deng in the late 1970s, China's heavy industry, after three decades of self-perpetuating reinvestment in the sector, had already built up and matured to such a stage as to be able to facilitate the new leadership's strategic reorientation towards a 'less harsh consumption' policy. China had heavy industries accumulation backlog that enabled China to pursue light industrialisation and openness afterwards, and enabled China to reimpose retrenchment to mitigate centrifugal market forces if needed. Thirdly, the millions of TVEs came from Mao's 'old five heavy small rural industries' in the Cultural Revolution period, which in turn arose out of 'backyard furnaces' campaign during the GLF. These small-scale industries helped to accommodate tens of millions of redundant farm labourers released from the more efficient new farming system, and mobilised enormous material resources that otherwise would have remained idle in the rural areas.¹⁰⁷⁴ More importantly, Mao's 'self-reliance' strategy left behind for Deng a clean heritage. For one thing, there was almost a complete absence of inflation pressures in the later 1970s when Deng took over. This certainly greatly facilitated, in the first instance, the drastic increases in state farm procurement prices in 1979 to kick off Deng's policy reorientation. Furthermore, without external debt, the Chinese currency was not at all subject to any major pressures for devaluation. This enabled China to re-

¹⁰⁷⁴ Kueh, *China's New Industrialization Strategy*, p.175.

enter the world economy with relative ease, and especially to borrow massively from the West in support of the continuous modernisation drive. In this respect, China compares favourably with the former Soviet Union.¹⁰⁷⁵

Deng's 'South China Tour' in early 1992 again accelerated inflation rate to 5.4 percent in 1992 and 13 percent in 1993, vis-à-vis the growth rate of real GNI over 12 percent in 1992—4, well up on the 4 percent recorded in 1989 and 1990 downturn.¹⁰⁷⁶ The continued inflation soaring to 24 percent in 1994, however, called for another round of retrenchment.¹⁰⁷⁷ And this time Zhu Rongji came into the picture; not only fighting inflation in 1993, and a stronger fighting in 1994 that won him a firm footing, but also fiscal recentralisation and tax reform in the same monumental year.¹⁰⁷⁸ China's fiscal position had eroded significantly, dropping from 33.8% of GDP in 1978 to only 10.8% at the low point in 1995.¹⁰⁷⁹ Government budget deficits existed for *every year* after 1978 to 1984. Before 1978 the government had raised revenue through direct profit remittances from

¹⁰⁷⁵ Nicholas Lardy (1995), "The role of foreign trade and investment in China's economic transformation," *The China Quarterly*, 144, pp.1065–82.

¹⁰⁷⁶ Kueh, *China's New Industrialization Strategy*, p.211; Bramall, *Chinese Economic Development*, p.353. Primary data source: *Zhongguo Tongji Nianjian*; SSB (Chinese state Statistical Bureau).

¹⁰⁷⁷ Bramall, *Chinese Economic Development*, p.353.

¹⁰⁷⁸ Kueh, *China's New Industrialization Strategy*, p.211.

¹⁰⁷⁹ Naughton, *the Chinese Economy*, p.101. Primary data base: *China Statistical Yearbook* (2005, 271, and preceding years). Official data have been adjusted to make the categories consistent over time and comparable with international conventions. Official data treat subsidies to loss-making state enterprises as a negative revenue item; these subsidies have been added to both revenues and expenditures.

SOEs; there was no real tax policy at all, nor was the banking system. After 1979 the government introduced a variety of profit-retention systems in order to give SOEs stronger and better incentives. A proliferation of TVEs also reduced SOEs' ability to save, and further decreased the volume of surplus turned over to the government. Over the 18 years 1978—1996, TVEs—collectively owned firms in the countryside—increased their share of total output from 9% to 28%.¹⁰⁸⁰ The SOE share of total industrial output declined steadily, from 77% in 1978 to only 33% in 1996.¹⁰⁸¹ SOEs lost their protected markets and their high profitability in the wake of entry and competition from TVEs and private firms. Consequently, they could no longer depend upon protected prices to generate surpluses.

Under a planned economy, industrial finance was not a pressing issue. Since 1956, in the protected markets in which SOEs operated, margins had been high and SOEs had generated ample profits. These in turn were transferred to the state budget, and channelled to the Big Push industrial investments. In 1978, SOE profits were huge, totalling 14% of GDP.¹⁰⁸² By 1996, profits had been gradually competed away and were almost zero.¹⁰⁸³ The decline in protected monopoly profits inevitably affected

¹⁰⁸⁰ Naughton, *the Chinese Economy*, p.300.

¹⁰⁸¹ Naughton, *the Chinese Economy*, p.300. Source: *China Statistical Yearbook* (1997, 411);

¹⁰⁸² Naughton, *the Chinese Economy*, p.304.

¹⁰⁸³ Naughton, *the Chinese Economy*, p.304. Source: *China Statistical Yearbook* (1994, 389; 1995, 395; 1996, 421; 1997, 431; 1998, 457; 2003, 476; 501, 506; 2004, Table XIV - 15).

every aspect of industrial finance. As SOEs turned over less money to the government, so the government provided much less money to SOEs for investment. In 1978 the government budget funded 62% of all fixed investment in state-owned industry units; and budgetary grants have declined to less than 3% of industrial investment by 1997.¹⁰⁸⁴

The decline in budgetary finance forced SOEs to exploit new sources of financing. And they turned to the banking system. Under a command economy, banks had not financed any long-term investment but served as a passive role in short-term financing for inventories. During reform, policy-makers shifted over to rely on bank loans to finance the industrial sector. It was consistent with the macroeconomic changes taking place economy-wide. Market transition transferred the overall balance of saving and investment within the state planning sector to households and banks. Household saving quickly began to increase from the very low levels in the planned economy and tripled in a short time. Financial saving increased from 2.3% of household income in 1978 to an average of 6.8% in the years 1980—1983, and household saving rates continued to rise.¹⁰⁸⁵ By 1995, households were generating 70% of domestic saving, over 25% of GDP.¹⁰⁸⁶

¹⁰⁸⁴ Naughton, *the Chinese Economy*, p.305. Source: Holz, Carsten A. (2003). *China's Industrial State-Owned Enterprises: Between Profitability and Bankruptcy*. Singapore: World Scientific.

¹⁰⁸⁵ Naughton, *the Chinese Economy*, p.428.

¹⁰⁸⁶ Naughton, *the Chinese Economy*, p.429. Source: Modigliani, Franco and Shi Larry Cao (2004). "The Chinese Saving Puzzle and the Life-Cycle Hypothesis." *Journal of Economic Literature*. Vol. XLII (March), pp. 145–70.

The shift in the locus of saving from government to households, a proliferation of highly lucrative TVEs, and household business and investment in market reforms that maintained household expectations on profitable investments within the context of reasonable stability of growth, developed a large surplus of saving over investment. Here China converged to the high-saving and high-investment bank-led model in East Asian developmental states. Households placed their financial surpluses in banks, which lent the funds to enterprises including SOEs and to the government. The passive role of banks now changed to the major anchor in preserving macroeconomic investment, growth, and stability.

The persistence of ‘soft budget constraint’, however, contributed to later problems in the banking system with nonperforming loans. SOEs turned increasingly to bank credit without much concern about their future ability to repay, and the indebtedness of SOEs steadily increased. By 1994 the debt-equity ratio had climbed steadily and reached a peak of 211%.¹⁰⁸⁷ Bank credit was being used to keep nonviable ‘zombie’ firms afloat. At the same time, sustaining such growth rates would be difficult if not impossible, since they resulted in large part from the simultaneous occurrence of several once-for-all changes. In agriculture, as one has seen, incentives to exploit the ‘disequilibrium’ legacy had been realised by the mid-1980s. In

¹⁰⁸⁷ Naughton, *the Chinese Economy*, p.306. Primary Sources: *Statistical Yearbook of China* and *Statistical Abstract of China*; after 1998 includes SOEs and state-controlled corporations.

industry, the most profitable opportunities were disappearing. The impact of proliferating market competitions on SOEs and their subsequent eroding financial position made the downsizing of SOEs, the layoffs and ending of lifetime employment in SOEs inevitable. Tens of thousands of SOEs and urban collective firms were shut down. The total number of industrial SOEs dropped from 120,000 in the mid-1990s to only 31,750 in 2004.¹⁰⁸⁸ Laid-off workers totalled 40% of the SOE workforce, and the urban collective workforce shrank by more than two-thirds.¹⁰⁸⁹ SOE debt-equity levels have declined to 147% by 2001, as banks tightened their lending standards during another round of macroeconomic austerity.¹⁰⁹⁰ Many of the most highly indebted firms simply closed up during the mid-1990s, forcing banks to write off large amounts of unpaid debt.

The massive downsizing of the state-sector and the restructuring of SOEs were overshadowed by the policy slogan ‘grasping the large, letting the small go’ (*zhuada fangxiao*) adopted in September 1997. In ‘grasping the large’, the largest, typically centrally controlled firms were reorganised into even larger enterprise groups and refinanced under state control. In ‘letting the small go’, policy-makers were giving local governments much

¹⁰⁸⁸ Naughton, *the Chinese Economy*, p.313. Primary sources: SAC (Annual). *Zhongguo Tongji Zhaiyao* [*Statistical Abstract of China*]. Beijing: Zhongguo Tongji: SYC (Annual). *Zhongguo Tongji Nianjian* [*Statistical Yearbook of China*]. Beijing: Zhongguo Tongji.

¹⁰⁸⁹ Naughton, *the Chinese Economy*, p.301.

¹⁰⁹⁰ Naughton, *the Chinese Economy*, p.307.

greater authority to restructure their own firms and to privatise or close down some of them. The retrenchment to administrative controls together with general macroeconomic austerity on market proliferation ‘shook out’ small, undercapitalised firms with backward technology (in 1999 small firms accounted for 42% of total output and had been subject to conflicting pressures), and regained profitability for the large, centrally controlled state firms through their protected market positions.¹⁰⁹¹ A smaller, revamped state sector, concentrated in fewer larger firms, was able to push profits up to 4% of GDP in 2003—2005.¹⁰⁹² Kueh asserts that previous episodes of the proliferation of market forces that “threatened to disintegrate the centralized planning core” switched to a paradigm of “small enterprises are very much overshadowed by the large and medium-scale state industrial enterprises which form the core of central planning in China.”¹⁰⁹³ China converged to East Asian developmental state’s *industrial policy* scenario in which big leading business conglomerates under State supervision oversaw and led vast small enterprises within the whole sector; capacity was enhanced with efficiency improvement from ‘the small’, and market was governed by ‘the large’.

By the early 1990s the widely-perceived serious fiscal crisis—about 60%

¹⁰⁹¹ Naughton, *the Chinese Economy*, p.303.

¹⁰⁹² Naughton, *the Chinese Economy*, p.305. Sources: *SYC* and *SAC*.

¹⁰⁹³ Kueh, *China’s New Industrialization Strategy*, p.176 and p.173.

of GNP was accounted for by the nonstate sector, but almost 80% of tax revenues were derived from SOEs—had also prompted key fiscal reforms started in 1994 that provided a new, broader tax base for the economy and led to a steady revival of government budgetary collections.¹⁰⁹⁴ Central-local relations were restructured, and the centre's share of revenue collected was dramatically boosted. Central government collections, as a share of GDP, more than doubled in 1994, while local collections dropped in half.¹⁰⁹⁵ Legacy of Maoist decentralisation in the Cultural Revolution period made the central government dependent on revenues transferred from local governments. Since the 1994 tax reform under Zhu Rongji, by contrast, the central government has been largely in control of initial tax collections, taking in a little over 50% of all revenues.¹⁰⁹⁶ The central government spends directly about 30% of all expenditures, and local governments are now dependent on central government transfers that pass on about 20% of total revenues to them.¹⁰⁹⁷ However, local governments continue to control the bulk of all expenditures. And local governments make *more* expenditures, even though the centre achieves more leverage over local through its control of revenue collection and redistribution. Again, the reason is market socialism's 'soft budget constraint'.

¹⁰⁹⁴ Naughton, *the Chinese Economy*, p.432. Sources: *SYC* (2005) and earlier volumes.

¹⁰⁹⁵ Naughton, *the Chinese Economy*, p.434.

¹⁰⁹⁶ Naughton, *the Chinese Economy*, p.435.

¹⁰⁹⁷ Naughton, *the Chinese Economy*, p.435.

In short, during Deng's period China has been troubled by persistent 'boom-bust' cycles: periods of unsustainably rapid, inflationary growth have been followed by periods of retrenchment macroeconomic austerity and slower growth. Expansionary phases have generally been accompanied by significant decentralising reforms and relaxed supervision of the industrial and financial systems. However, relaxation/expansion has often been followed by inflation and other signs of macroeconomic imbalance. Transport or energy bottlenecks, for instance, have frequently accompanied inflation. In response to these, macroeconomic austerity measures were put in place, with institutional reforms scaled back or even reversed. Only after this contractionary 'tightening-up' phase controlled inflation and caused economic growth rates to plummet did the policy environment change in way that facilitated further reforms and renewed growth. By the end of 1997 a 'soft-landing' had been achieved under Zhu Rongji, as inflation was brought down virtually to zero after the expansionary phase launched by Deng's 1992 'South China Tour'. The overly expansionary and harsh contractionary phases of cyclical pattern were avoided, as in Naughton's phrase: "Instead of stomping on the brakes, policy-makers tried to tap the brakes repeatedly."¹⁰⁹⁸ The cost, however, was also costly.

Reform in the 1980s was a kind of 'reform without losers,' making some

¹⁰⁹⁸ Naughton, *the Chinese Economy*, p.443.

better off without significantly harming any major group. This set of benign social outcomes was sacrificed after the mid-1990s.¹⁰⁹⁹ Unable to indefinitely protect SOEs from competition, reformers shrank the state sector quickly to ‘smash the iron rice bowl’ (*zadiao tie fanwan*) even though pension and health-insurance programs were far from complete. “As a result, significant segments of society, in both urban and rural areas, feel left out of the prosperity they see developing around them.”¹¹⁰⁰ Riskin further reveals that although the press [since 1978] has featured stories of poor peasants who become rich in a year, a 1984 survey of 21,000 prosperous households in a county of Shanxi Province indicates a different picture. There, a majority of better-off consisted of team cadres or returned educated youth, leaving only a residual 5 percentage points for ‘peasants skilled in business and management’.¹¹⁰¹ Urban industrial workers were also severely affected. They formed a relatively privileged stratum with generous income, retirement, and other job security benefits under the old system; and these were all gone in the massive ‘lay-off and efficiency enhancing’ (*xiagang zengxiao*) campaign in the 1990s. Stories of resourceful and frugal individuals who quickly became rich by opening restaurants or other service trades abounded in the press. Less well advertised were those who earned a meagre living as hawkers, street corner

¹⁰⁹⁹ Naughton, *the Chinese Economy*, p.109.

¹¹⁰⁰ Naughton, *the Chinese Economy*, p.109.

¹¹⁰¹ Riskin, *China's Political Economy*, p.308. Primary data source: Lu Yun (1984), ‘Specialized Households Emerge’ (Rural Responsibility System, V), *BeijingReview*, 49, 3 December.

cobblers, knife sharpeners, and the like. More importantly, in early January 1975, the final years of Mao, a new national constitution adopted by the Congress gave workers the right to strike. And China was famous for its ‘Foxconn model’ in the late 2000s. East Asian developmental states’ alike artificially cheap, reasonably well-educated, and disciplinary workforce was established that followed labour-intensive ‘comparative advantage’. The initial ‘market socialist’ reforms evolved to the end-result of, in Bramall’s term, ‘neauthoritarian capitalism’.¹¹⁰²

¹¹⁰² Bramall, *Chinese Economic Development*, p.475.

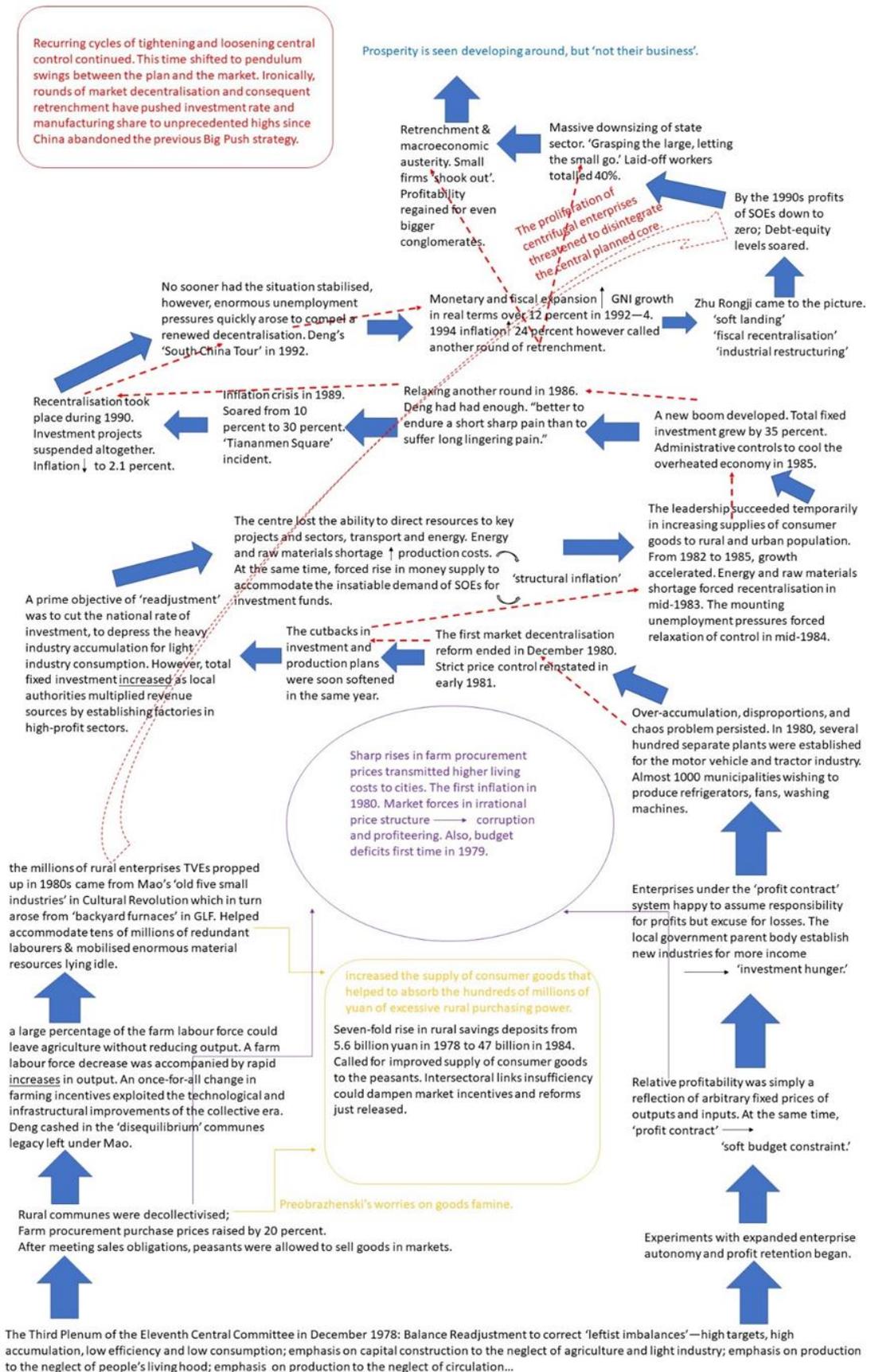


Figure 9 A Dissection on Deng's Period: the Locus of Conflict shifted to relations between the Plan and the Market

The Way Out:

the incorporation of China's industrial capacity and labour reserves into the 1970s onwards global 'long cycles' financial expansion¹¹⁰³

The post-1978 'Reform and Opening' (*gaige kaifang*) period coincided with the 1970s global neoliberal turn. Deng Xiaoping's 1984 speech deliberately stressed on the importance of opening up for the Chinese economy:

"China's past backwardness was due to its closed-door policy. After the founding of the People's Republic, we were blockaded by some, and so the country remained partially closed... the experience of the past 30 years or more proves that a closed-door policy hinders construction and inhibits development."¹¹⁰⁴

His view has been echoed in the writings of many economists. For many it is almost an act of faith nowadays that China's open-door policy has been the engine of growth. And governments across the world have concluded

¹¹⁰³ The joint examiners' report: the positioning of the whole work and research contributions "should also be echoed and discussed in the discussion chapter to further explain whether and how these contributions have been achieved..." is satisfied.

¹¹⁰⁴ Deng Xiaoping (1984), "Building Socialism with Chinese Characteristics," in Deng Xiaoping, *Selected Works of Deng Xiaoping*, vol.III (Beijing: Foreign Languages Press, 1994), pp.3-4.

that, in order to accelerate economic growth in their own countries, they need to copy China.¹¹⁰⁵ But as Bramall argues, “the reality of China’s experience is more complex. Trade and FDI have certainly been the handmaidens of growth, but it is a very big stretch from there to the conclusion that the open door was the engine of growth. The crux of the matter is whether trade was merely an adjunct to the growth process, or whether it was a prime mover.”¹¹⁰⁶ For one thing, during the European ‘Golden Age’ years 1950—73 there was unprecedented growth of capital stock, output, productivity, and employment. There were (i) rapid and parallel growth of productivity and capital stock per worker, (ii) parallel growth of real wages and productivity.¹¹⁰⁷ These virtuous relations guaranteed the profitability for businesses to invest, from increasing labour productivity and hence returns to capital, and sufficient effective demand for supply, from rising real wages in line with output and productivity growth, and hence perpetuating the initial capital accumulation drive. The surplus labour in agriculture kept transferring to industries, which still needed more workers in line with the physical capital growth. The result was more than 20 years of ‘Golden Age’ sustained rapid growth. This rapid

¹¹⁰⁵ Bert Hofman and Jinglian Wu, “Explaining China’s Development and Reforms,” *The World Bank Working Paper No.50*, 2009; Edited by Eswar Prasad, “China’s Growth and Integration into the World Economy: Prospects and Challenges,” *IMF Occasional Paper 232*, 2004; Ronald Coase and Wang Ning, *How China Became Capitalist* (Palgrave Macmillan, 2012).

¹¹⁰⁶ Bramall, *Chinese Economic Development*, p.372.

¹¹⁰⁷ Andrew Glyn, Alan Hughes, Alain Lipietz, and Ajit Singh, “Chapter 2. The Rise and Fall of the Golden Age,” in S. Marglin and J. Schor(editors) *The Golden Age of Capitalism* (Oxford: Clarendon Press, 1990), p.42.

growth of Gross Domestic Product was simultaneously accompanied with the growth in the volume of trade among intra-European regions, with trade and output especially marked in manufactures. Output of manufactures more than quadrupled between the early 1950s and the early 1970s, and trade in manufactures grew eightfold.¹¹⁰⁸ Hence it is highly unlikely that an earlier open-door policy would have made very much difference to China's growth prospects.

For another, Guangdong in 1978 was the most open of the provinces, yet its growth rate in the late Maoist era was much *slower* than the rates achieved in Jiangsu and Sichuan.¹¹⁰⁹ This suggests that the Hong Kong connection did Guangdong little good in the 1970s, primarily because much of Guangdong's exports were rice and vegetables destined for Hong Kong—showcasing the fact that agricultural exports are rarely a route to prosperity. Moreover, in 1987, in Guizhou for instance, domestic consumption rose by 1,585 million *yuan*, whereas exports increased by only 107 million *yuan*.¹¹¹⁰ To see Guizhou's growth as export-led therefore makes little sense. Bramall asserts "A far more plausible explanation would focus on the growth of agriculture between 1978 and 1984, and the surge

¹¹⁰⁸ Glyn et al., "Chapter 2. The Rise and Fall of the Golden Age", p.42. Primary data sources: For growth characteristics of different phases, Maddison (1982). For export shares of GDP, OECD National Accounts 1950—68 and 1960—84. For proportion of manufactures exported, Maizels (1963), p.223.

¹¹⁰⁹ Bramall, *Chinese Economic Development*, p.373.

¹¹¹⁰ Bramall, *Chinese Economic Development*, p.374. Primary data source: Zhongguo guojia tongjiju (Chinese State Statistical Bureau) (2005). *Xin Zhongguo wushiwunian tongji ziliao huibian 1949–2004* (Collection of Statistical Materials on 55 Years of New China). Beijing: Zhongguo tongji chubanshe.

in production in the TVE sector”.¹¹¹¹ Naughton echoes that “while China has experienced rapid growth in both exports and GDP, the provincial evidence is not clear on the causal relationship between the two. Foreign trade and investment have been highly geographically concentrated, but the acceleration of economic growth has been very broadly based.”¹¹¹²

An argument in favour of the open door based around the impact of foreign direct investment is even less plausible than one based on trade, because the scale of FDI was small in the 1980s. Jiangsu received only 103 million dollars in 1988, and Guizhou was a paltry 14 million dollars. To be sure, Guangdong received 919 million dollars in FDI in 1988 but even this was derisory relative to provincial GDP, at 3 percent.¹¹¹³ In the early 1980s, the sums involved were far smaller. China is less dependent on FDI for saving than many countries. According to UN figures, all developing countries, excluding China, experienced incoming FDI equal to about 15% of their total gross fixed capital formation in 1999—2001. China’s domestic saving and investment rate is extremely high, and gross domestic capital formation surpasses 40% of GDP.¹¹¹⁴ China’s GDP growth is even more

¹¹¹¹ Bramall, *Chinese Economic Development*, p.374.

¹¹¹² Barry Naughton (1997), “China’s Emergence and Prospects as a Trading Nation,” in W.C. Brainard and G.L. Perry (editors) *Brookings Papers on Economic Activity* (Washington, DC: Brookings Institute, 1996:2), p.312.

¹¹¹³ Bramall, *Chinese Economic Development*, p.375. Primary data source: Zhongguo guojia tongjiju (Chinese State Statistical Bureau) (2005).

¹¹¹⁴ Naughton, *the Chinese Economy*, p.405. Primary data base: *China Statistical Yearbook* (2005, 64). An approximation based on GDP expenditure side data, revised post-1993 on the assumption that fixed investment and inventory accumulation remain the same as in earlier data, but total GDP revised as in

rapid than the growth of FDI inflows, so the share of FDI in GDP is gradually drifting downward. It is therefore hard to disagree with Vogel's conclusion that "Guangdong's explosive export growth owed surprisingly little to foreign capital."¹¹¹⁵

Bramall corroborates that FDI's contribution to Chinese economic growth was not so much in terms of increasing the supply of savings. China had already had a high saving rate in the 1980s and 1990s. He asserts that "The engine of Chinese growth since 1978 has been the domestic economy. Powered by the twin motors of domestic capital accumulation (physical and human) and productivity increases, output growth has surged ahead at a rate of close to 10 percent per year. If there has been an economic miracle, it has been a miracle made in China."¹¹¹⁶ Note that even *The Economist* (3 January 2008), usually only too keen to argue that growth across the world is open-integration, seems to accept that China's growth has been driven primarily by domestic factors:

"Contrary to popular wisdom, China's rapid growth is not hugely dependent on exports... If exports are measured correctly, they account for a surprisingly modest share of China's economic growth... China's economy is driven not by exports but by investment, which accounts for

National Bureau of Statistics (2006).

¹¹¹⁵ E.F. Vogel, *One Step Ahead in China* (Cambridge, MA: Harvard University Press, 1989), p.374.

¹¹¹⁶ Bramall, *Chinese Economic Development*, p.389.

over 40% of GDP.”¹¹¹⁷

China’s post-1970s miracle growth was therefore not externally driven and internally started from scratch, but it was from the environment provided by the outside enabled what had been available inside to take part in; and the bottleneck was avoided. The package and sequence of liberalisation policies that China followed was adapted to the opportunities that China faced. A central element was a dualistic trade regime, which enabled China to adopt relatively liberal rules on export-processing trade while still protecting domestic markets.¹¹¹⁸ Although integrated, the selectively limited integration of the Chinese economy was a deliberate result of policy. The Party’s aim was not free trade but strategic integration—that is, to import technology and key raw materials, and to limit imports of manufactured goods.¹¹¹⁹ Indeed, Naughton finds it is one of the great paradoxes of China’s foreign trade *before* liberalisation: despite China’s obvious factor endowments, light, labour-intensive manufactures were a fairly modest proportion of China’s exports.¹¹²⁰ However, by 1995 all of China’s top export commodities were labour-intensive manufactured goods, predominantly in textile and garment exports.

¹¹¹⁷ *The Economist* (3 January 2008)

¹¹¹⁸ Naughton, *the Chinese Economy*, p.378.

¹¹¹⁹ Bramall, *Chinese Economic Development*, p.375.

¹¹²⁰ Naughton, *the Chinese Economy*, p.393.

These suggest two things. First is China already had considerable industrial capacity before its opening up to the world that prevented its lower assembly-line work subdual in subsequent stages. The first opening-up in the 1980s in fact revolved around the issue of resolving the internal demand deficiency that came from the collapse of domestic sales of ‘new’ consumer durables, rather than resort to any outsider financial, capital, technology, or network of production help. The ‘new’ consumer industries, including TV sets, refrigerators, washing machines and electric fans, built up over the 1980s resulted in severe over-capacity by 1989. And against the background of a domestic sales slump, hefty export expansion was promoted by the state. Over the seven-year period of 1987—94, the average annual growth rate registered 35 percent.¹¹²¹ The remarkable point worth notice is the expansion of the exports of a number of technologically sophisticated products, indicating the standard the domestic production capability has attained. In 1993, China exported 9.4m TV sets of which 3.7m were colour.¹¹²²

Second, China’s previous accumulated industrial capacity helped the subsequent development of labour-intensive light exports industries, the growth of which facilitated the upstream capital-intensive growth. Lo

¹¹²¹ Dic Lo, *Market and Institutional Regulation in Chinese Industrialization 1978—94*, p.86. Primary data source: *Jingji Guanli* (Economic Management), August 1992; *Zhongguo Jidian Bao* (China Machinery and Electronics Industry News), 1993 and 1994.

¹¹²² Dic Lo, *Market and Institutional Regulation in Chinese Industrialization 1978—94*, p.86. Source: Ibid.

argues without the development of the linked upstream industries, and hence the possible indigenisation of imported technologies, it is unlikely that the exports expansion could have been achieved. Given that these industries are in general capital intensive, technologically advanced and hence not in line with China's 'comparative advantage', it is also "unlikely that the development could have taken place under the unfettered regulation of the market."¹¹²³ Kueh asserts that, for Deng, "foreign trade carries the single most important mission of importing Western technology to support the massive industrialization drive."¹¹²⁴ This was also what Mao had in mind. But contrasting agricultural exports to *establish* 'import-substitution' FDI in major capital-intensive heavy industries, Deng's 'export-oriented' FDI helped to generate foreign exchange earnings for technology transfers to *support and improve* the independent forced draft industrialisation campaign along the Maoist lines. Deng's wide-ranging concessions and the overtures made to western capital were to bridge the domestic gaps in technology and research, and thus help accelerate the desired productivity growth.¹¹²⁵

This first burst of exports expansion in the 1980s showcases the early success of rural reforms: as collectives were disbanded and farm output

¹¹²³ Dic Lo, *Market and Institutional Regulation in Chinese Industrialization 1978—94*, p.86.

¹¹²⁴ Kueh, *China's New Industrialization Strategy*, p.157.

¹¹²⁵ Kueh, *China's New Industrialization Strategy*, p.54.

surged in the early 1980s, millions of farmers left to take up new non-agricultural jobs, especially those in township and village enterprises (TVEs). And it ended in the late 1980s. The second burst of exports occurred in the early 1990s, as economic growth surged and restrictions on rural-to-urban migration were significantly reduced. And this time took the form of labour-intensive export-oriented development that restructured China's social organisation of labour pattern as China's labour reserves were incorporated into the Lewis model on a global scale. If the first exports expansion in the 1980s mainly tackled the excess unsaleable products from a mismatched proliferation of local light industrial industries under the fundamental problem of market socialism's 'soft budget constraint', then the second burst in the 1990s happened to coincide with the severe systematic bottlenecks issue of the market socialism system as a whole. As the market sector in the 'dual-track system' continuingly 'grew out of the plan', the mass springing up of TVEs ate up the profit margins that originally protected the establishment of the 'administrative core.' Mass layoffs then proceeded to close off the inefficient small collectivist SOEs, so as to restore the *raison d'être* of a few large national industries ('grasp the large, let the small go'). The risk and pressure of mass unemployment became insurmountable, and this time the changing global climate provided the opportunity for China's second leeway.

Taiwan and Hong Kong succeeded in developing labour-intensive manufactured exports during the 1960s and 1970s, particularly to the U.S. market.¹¹²⁶ Beginning with plastic flowers, extending through a vast range of sporting and travel goods, to the huge garment and footwear sectors. Increasing wages and land costs built up in the two regions, however, began to push their exporters to move production to lower-wage locations. And this restructuring moved remarkably quickly for traditional labour-intensive manufacturing, such as garments and footwear, and was basically completed by the early 1990s. For instance, Taiwan firms moved their footwear production to the mainland, and in the United States imported shoes from China ‘displaced’ imported shoes from Taiwan.¹¹²⁷ China had been the main sourcing country for Nike’s footwear production since 1997, contributing more than 40% of Nike’s total footwear production at the peak year of 2001.¹¹²⁸ A similar restructuring of the electronics industry also took off during the same period. It has then been followed by many successive waves of relocation, and prompted by investors all over the world.

The relocation of Taiwan, Hongkong, and other small intermediary satellite states’ labour-intensive production base to China is a manifestation

¹¹²⁶ Naughton, *the Chinese Economy*, p.416.

¹¹²⁷ Naughton, *the Chinese Economy*, p.417.

¹¹²⁸ Khandelwal, A. K., Teachout, M., 2016. Special economic zones for myanmar. The International Growth Center Policy Note.

of the 1970s onward financial expansion phase of the developed world in general. The slowdown of productivity and reduction of profitability brought the post-WWII stable epoch of European ‘Golden Age’ growth to an end in the 1970s. Investment could not promise high returns any more, but high wage demands from trade unions continued.¹¹²⁹ The stable ‘corporatist’ domestic institutional structure set up in European post-war reconstruction that had delivered two-decades long high growth translated itself into ‘structural inefficiencies’ that generated inflationary pressures.¹¹³⁰ Britain, France, and Italy, for instance, had been reluctant to abandon full employment as its main policy objective since the mid-1970s recession, and tried to use expansionary monetary and fiscal policies to accommodate rising unemployment and the oil shock. The result was a new bout of inflation. Wage pressure from unions intensified, investment from businesses slumped, and the rate of growth was further depressed such that “agreements to cooperate broke down.”¹¹³¹ The subsequent Neoliberal reforms, including austerity, deregulation, privatisation etc., in the Thatcherite and Reaganite era essentially recreated the profit margins for businesses through weakening workers’ collective bargaining power on wages and unemployment benefits. Profits share bounced back to the

¹¹²⁹ Stefano Battilossi, James Foreman-Peck, and Gerhard Kling, “Chapter 14. Business cycles and economic policy, 1945—2007,” in Stephen Broadberry and Kevin H. O’Rourke, *The Cambridge Economic History of Modern Europe Volume 2, 1870 to the Present* (Cambridge: Cambridge University Press, 2010)

¹¹³⁰ Barry Eichengreen, “Chapter 2. Institutions and economic growth: Europe after World War II,” in *Economic growth in Europe since 1945* Edited by Nicholas Crafts and Gianni Toniolo (Cambridge: Cambridge University Press, 1996)

¹¹³¹ Eichengreen, “Chapter 2. Institutions and economic growth: Europe after World War II”, p.65.

previous 1960s level in the mid-1980s.¹¹³² Since 1979 however labour markets have slackened, and with the weakening of trade union power, unskilled men lost long-term jobs in industry, and short-term labour contracts took the lead, as well as the rise of ‘natural’ unemployment level. This provides an extraordinary contrast with the gains made by labour over the previous twenty to thirty years that enabled sufficient effective demand. The result of production without effective demand for consumption naturally led to the dissolution of ‘industrial armour’ in Europe that switched to financial expansion phase from the previous production expansion, for the purpose of finding regions with cheaper costs of production. This endogenous searching thrust in fact originated from the historical ‘long cycles’ pattern starting at the 15th century Genoa. Thereafter the oscillation from productive expansion to financial expansion created the continued *spatial fix* geographical incorporation rhythm (hence the sweeping world system) that brought about the 17th century Dutch cycle, 18th –19th centuries British cycle, and the current American cycle that has been pursuing high-round finance since the 1970s global neoliberal turn. Sharp falls in the savings ratio and rocket rises in household debts were accompanied by increasingly heightened financial sector. From the 1950s to the 1980s the household savings ratio averaged 8—9.5%, and fell to 5.2%

¹¹³² Andrew Glyn, *Capitalism Unleashed: Finance, Globalization and Welfare* (Oxford: Oxford University Press, 2006), p.7.

in the 1990s before averaged 1.9% in the early 2000s.¹¹³³ In 2020 nearly 70% of Americans have less than 1,000 dollars stashed away in their bank accounts.¹¹³⁴ And wealth concentrated into big banking and finance sectors as well as a few dozen Multinational companies that searched for further foreign profiteering opportunities. In the mid-2000s, nearly 60% of China's exports were carried out by foreign-invested enterprises, up from around 30% in 1995.¹¹³⁵ There began the China exports era and China serves as the 'workshop of the world.'

Therefore, despite a small amount in absolute and relative terms, FDI played a pivotal role in two regards: technology transfers, and transferring manufacturing jobs and export markets to China. The close integration of China and other East Asian economies—especially the China Circle economies of Taiwan and Hong Kong—has created extremely competitive, flexible, and low-cost manufacturing networks.¹¹³⁶ The export processing zones (Special Economic Zones) promoted after Deng's 1992 'South China Tour' and foreign-invested enterprises together were the motor of China's exports expansion. Export processing trade climbed to 56% of total exports

¹¹³³ Glyn, *Capitalism Unleashed: Finance, Globalization and Welfare*, p.53. Sources: Schor, J. (2004) 'Understanding the New Consumerism: Inequality, Emulation and the Erosion of Well Being'; Saxonhouse, G., and R. Stern (2003), 'The Bubble and the Lost Decade', *World Economy*, 26(3): 267—82.

¹¹³⁴ Most important American Savings Statistics, Fortunly.com
<https://fortunly.com/statistics/american-savings-statistics> Assessed on 12/06/2022.

¹¹³⁵ G.C. Chow and D.H. Perkins, *Routledge Handbook of the Chinese Economy* (London: Routledge, 2015), p.209.

¹¹³⁶ Naughton, *the Chinese Economy*, p.419.

in 1996, and foreign-invested enterprises gradually became important players in China's export growth—between 1992 and 2005 they accounted for fully 63% of incremental exports.¹¹³⁷ Bramall echoes that “Foreign-invested enterprises contributed 17 percent of Chinese exports in 1991, but by 2005 the figure was up to 58 percent. Foreign companies, in other words, were at the heart of China's export growth.”¹¹³⁸ Especially noteworthy was the nature of FDI to China, of which was a combination with domestic industrial capability that led to international productive investment. Manufacturing is a much larger part of FDI inflows into China than it is for FDI inflows in the rest of the world. Manufacturing accounted for 70% of Chinese FDI inflows in both 2003 and 2004.¹¹³⁹ Manufacturing accounted for only 38% of the stock of FDI in developing countries at the end of 2002, for instance.¹¹⁴⁰ Labour-intensive light industries further enhance foreign exchange earnings in support of the pursuit for an independent industrialisation drive.¹¹⁴¹

China's trade expansion in the 1990s provided both a ‘safety cushion’ in

¹¹³⁷ Naughton, *the Chinese Economy*, p.387. Source: Processing trade: *China Customs Statistics*, Annual, Issue No. 12. Updated from Ministry of Commerce Web site: <http://www.mofcom.gov.cn/tongjiziliao/tongjiziliao.html>. Exports from foreign-invested enterprises: SYC, Annual, updated from fdi.gov.cn/.

¹¹³⁸ Bramall, *Chinese Economic Development*, p.376. Source: *Zhongguo Tongji Nianjian* (2006): 751–2.

¹¹³⁹ Prasad, Eswar, and Shang-Jin Wei (2005). “The Chinese Approach to Capital Inflows: Patterns and Possible Explanations.” Working Paper 11306. Cambridge, MA: National Bureau of Economic Research. Access at <http://www.nber.org/papers/w11306>.

¹¹⁴⁰ Ibid.

¹¹⁴¹ Kueh, *China's New Industrialization Strategy*, p.250.

cheap, low-paid jobs and a paradigm evolution of coexisting labour-intensive downstream market sector and capital-intensive upstream heavy SOEs, and in so doing marched towards ‘neauthoritarian capitalism’. The exodus of workers from agriculture slowed dramatically after 1996 and until early 2000s because of the impact of state-sector restructuring.¹¹⁴² State enterprises downsizing led to mass layoffs in state-run factories. The privileged urban industrial workers under the old system began to compete for low-paid assembly work with the rural-to-urban peasants. Meanwhile, the ‘grasping the large, letting the small go’ campaign, for the sake of ‘efficiency improvement’, reverted and continued to retrench and strengthen the large-scale industrialisation tendency, resulting in a coexistence of increasing industrial fruits and a polarising society for the majority. Here came the third burst, corresponded with the 2003 investment-driven acceleration of the economy. The consumption-led industrialisation in new consumer durables in the 1980s, and the labour-intensive industrialisation in coastal export processing zones beginning in the 1990s, brought incremental capital—output ratio to a downward declining trend. Now China moved back to capital-deepening and pushed the ratio up again. The ‘U-shaped’ incremental capital—output ratio was a unique Chinese phenomenon. China’s industrial share in 2004 was extremely high; manufacturing makes up three quarters of the overall

¹¹⁴² Naughton, *the Chinese Economy*, p.152.

secondary sector (which includes construction as well as industry). Thus, manufacturing value-added accounted for 35% of China's GDP in 2004.¹¹⁴³ This is a very high share of manufacturing in GDP for a large country. A few countries have concentrated 35% of GDP in manufacturing (Brazil in 1982 and Thailand in 2003; Malaysian manufacturing accounted for 33% of GDP in 2000), but none of these countries has quite reached China's extreme levels of concentration or sustained it as long.¹¹⁴⁴ Like China, India shows a steady decline in the share of agriculture in its overall GDP, but its services have climbed to more than 50% of GDP (still a conservative estimate since its informal economy size is underestimated by World Bank).¹¹⁴⁵ It is thus ironic that since China abandoned the Big Push strategy, both its investment rate and its manufacturing share have risen to unprecedented highs. China's gross capital formation (% of GDP) in 2000—2017 was 43.1%, while for the rest developing world (low- and middle-income excluding China) was 24.7%. The manufacturing value added (% of GDP) in 2000—2017 was 31.3% for China, while for the low- and middle-income countries excluding China was 15.6%.¹¹⁴⁶ China's added value of the manufacturing industry accounted for over 28 percent of the world's total in 2018, and has surpassed the United States to become

¹¹⁴³ Naughton, *the Chinese Economy*, p.156. Primary data source: *China Statistical Yearbook* (2005, 51, 53); post-1993 revised according to National Bureau of Statistics (2006).

¹¹⁴⁴ World Bank, *World Development Indicators*.

¹¹⁴⁵ World Bank, *World Development Indicators*.

¹¹⁴⁶ World Bank, *World Development Indicators*.

the world's number one manufacturing country since 2010.¹¹⁴⁷ An 'independent and comprehensive integrated modern industrial system' for the country has always been the national policy from Mao to Deng and until the present.

China has now achieved a degree of openness that is exceptional for a large, continental economy. China exports about 40 percent of its GDP and about 70% of its economy is linked to exports.¹¹⁴⁸ In 2005, China's total goods trade (exports plus imports) amounted to 64% of GDP, far more than other large, continental economies—such as the United States, Japan, India, and Brazil—which have trade/GDP ratios around 20%, the highest being Brazil's 25%.¹¹⁴⁹ China's share of exports in GDP was 25.49% in 2011, and still maintained at 19% in 2021.¹¹⁵⁰ World Bank's recent data suggests China's exports as percentage of GDP is 18.50% and imports as 17.34% of GDP, making 35.84% in total.¹¹⁵¹ China's sustained high manufacturing share is made possible by its emergence as 'the world's factory.' Globalisation and international trade created space for China's 'unbalanced

¹¹⁴⁷ China becomes world leader in industrial economy scale. Chinadaily.com.cn. 2019-09-23.

<https://www.chinadaily.com.cn/a/201909/23/WS5d888ad6a310cf3e3556cf80.html> Assessed on 12/06/2022.

¹¹⁴⁸ Kent G. Deng (2010). Globalization, China's Recent Miracle Growth and Its Limits, Globalization - Today, Tomorrow, Kent Deng (Ed.), ISBN: 978-953-307-192-3, InTech, Available from: <http://www.intechopen.com/books/globalization--today--tomorrow/globalisation-china-s-recent-miracle-growthand-its-limits>, p.9.

¹¹⁴⁹ Naughton, *the Chinese Economy*, p.377.

¹¹⁵⁰ Share of exports in GDP in China from 2011 to 2021.

<https://www.statista.com/statistics/256591/share-of-chinas-exports-in-gross-domestic-product/> Assessed on 12/06/2022.

¹¹⁵¹ China Trade Statistics, WITS. <https://wits.worldbank.org/countryprofile/en/chn> Assessed on 12/06/2022.

growth’ that would not exist in an economy less integrated with the world.¹¹⁵²

However, it is hard to tell whether China is the sole beneficiary, or the victim of this ‘growth’ process. As discussed in previous sections, China’s successful Lewisian transition arose from the sizeable modern industrial sector accumulated beforehand, and the *Hukou* registration segregation that simultaneously prevented the over-flooding of migrants at one time and artificially lowered wages to such a substantial low level that contributed to the ‘race to the bottom’. China’s urbanisation was a typical ‘low quality’ urbanisation; rural migrant workers in urban China are second-class citizens.¹¹⁵³ Statistically, the urbanisation level was ‘artificially high’—the rate of urban population increased from 36.22% in 2000 to 56.10% in 2015, yet these new urban populations have made great contributions to the development of China’s cities but cannot share equal treatment to the urban registered population in income, employment, education, health care, etc. They however served as *ingrained* ingredients to the ‘China growth’ to compensate the scenario without the European centuries long primitive capital accumulation and colonisation of African labour. The low-tech, labour-intensive, and low wage jobs with no

¹¹⁵² Naughton, *the Chinese Economy*, p.156.

¹¹⁵³ Xingliang Guan, Houkai Wei, Shasha Lu, Qi Dai, Hongjian Su, “Assessment on the urbanization strategy in China: Achievements, challenges and reflections,” *Habitat International* 71 (2018) 97–109. Primary data source: *China Statistical Yearbook*.

guaranteed labour contract protection generated the cheap labour ‘global competitiveness’, and ‘leaked out’ a majority of surplus value to foreign investors. This holds true today. A famous example is ‘Foxconn model’: supplying Apple products to Apple—a shift back to California and with a stamp on it the price inflated several tenfold to a hundred times. Despite all of those famous mega-factories in China with millions of workers making iPhones, of the factory-cost estimate of 237.45 dollars from HIS Markit at the time the iPhone 7 was released in late 2016, all that was earned in China is about \$8.46, or 3.6 percent of the total. About \$283 of gross profit from the retail price goes straight to Apple’s coffers.¹¹⁵⁴ In short, China gets a lot of low-paid jobs, while the profits flow to other countries—the developed world.

This feature of predation is more prominent if one puts foreign reserves into consideration. In the first decade of the 21st century, there was a notable trend in the world of finance: massive increases in foreign exchange reserves by the developing economies. Measured as a ratio to their monthly average import values, the official holdings by developing economies rose from 5.2 months in 2000 to 10.6 months in 2014; with the China contribution alone increased from 7.9 to 20.8 months, a staggering

¹¹⁵⁴ Jason Dedrick, Greg Linden, and Kenneth L. Kraemer, U.S.—China Trade War intensifies, CBSN news, New York, “China makes \$8.46 from an iPhone. That’s why a U.S. trade war is futile,” July 9, 2018. www.cbsnews.com/news/china-makes-8-46-from-an-iphone-and-thats-why-u-s-trade-war-is-futile Assessed on 12/06/2022.

high level. In contrast, the ratio for developed economies only enlarged slightly, from 2.4 to 3.2 months out of the fifteen-year period.¹¹⁵⁵ Given the low rates of returns to the reserves and their massive depreciation from the Federal Reserve's money pumping, this Chinese accumulation entails a tributary transfer of economic surplus to the financial hegemons of the world. Ironically, centuries ago it was the premodern Chinese empire that was the centre of its 'tributary' system—again signifying the capitalist 'core and periphery' world system was a unique European initiated world structure in sharp contrast to a pure disguised trading scheme.

Out of the minority surplus locked domestically, a majority of them do not go to mass people either. To be sure, these unbearable features including *hukou* segregation, lowly paid heavy-task jobs, heavy environmental polluting (low cost of environmental protection) were not without revolts. Typically, the 'Shanghai Rebellion against Maglev extension' in 2008, the 'Wukan Incidence' in Guangdong Province in 2011, in Xiamen City in 2007, in Dalian in 2011, in Maoming City in 2014, in Chongqing in 2014.¹¹⁵⁶ In 2015 the Shenzhen city alone recorded 75 incidents of protests in the manufacturing sector, and the last major factory worker protest in Shenzhen was in the summer of 2018, when prolonged demonstrations by

¹¹⁵⁵ Data from International Monetary Fund (IMF), *Currency Composition of Official Foreign Exchange (COFER)*, and *World Economic Outlook*, various issues.

¹¹⁵⁶ Deng, *Mapping China's Growth and Development in the Long Run*, p.192.

workers and supporters at the Jasic Technology factory made international headlines.¹¹⁵⁷ The policy of ‘developmental state’ to ensure global cheap labour competitiveness, however, made crackdown on labour movements widespread. Shenzhen’s Jasic protests made five well-known activists detained by Shenzhen police and held for more than 15 months, and led to massive crush on civil society wide organisations.¹¹⁵⁸ As Mao’s ideological glue that helped to hold the entire national edifice together began to crumble, the Party had to resort to other means of exacting compliance. ‘The workers and staff are the real masters of any factory in China’ takes on a somewhat Orwellian air. China converged to and became an extreme version of East Asian NICs’ ‘state capitalism’.

The ‘developmental state’ construction on one hand was to eliminate trade union formation and workers’ protection for the purpose of creating an abundant relatively cheap and disciplined labour force in the global competitive market, on another was to utilise industrial policy in the interests of the nation’s future development as a whole. This means a large part of the remaining surplus has been ‘sucked out’ for the ‘common good’ of national interest and development. The hard currency earned from mass light downstream labour-intensive exports sectors was re-manoeuvred by

¹¹⁵⁷ China Labour Bulletin (*Zhongguo laogong tongbao*), org, Hong Kong, “Shenzhen worker protests decline sharply after factories relocate,” 12 November 2020. <https://clb.org.hk/content/shenzhen-worker-protests-decline-sharply-after-factories-relocate> Assessed on 12/06/2022.

¹¹⁵⁸ Ibid.

the Chinese state to further support the ‘capital deepening’ upstream heavy industry. Throughout China’s market reforms period, Mao’s industrial share has been retained and pushed to new height levels. These strategic heavy industries are national property and out of the touch of private sector. State-owned companies also get first-hand easy credit from banks, at the expense of ‘financial repression’ to the private sector. The consequence is China’s ‘market reforms’ essentially created mass downstream cheap labour and small & medium sized private light industrial companies as ‘nutrients’ for the sake of a group of national conglomerates. This resulted in an alarming fact that despite a majority of Chinese people’s living are connected to the private sector and mass downstream light industries, their economic activities not only take a tiny share of foreign enterprises’ profit margins, but also occupy a small amount of the domestic Chinese economy. Although China’s developmental model is the world’s manufacturing workshop, and its most representative example is the renowned ‘Foxconn Model’—a model of manufacturing sweatshops controlled by transnational capital, and there is no reason to believe this is a special case since the world share of the number of Chinese workers producing for the world market increased from 8% in 1980 to 32% in 2005, exports under the category ‘machinery and transport equipment’ have registered the fastest expansion.¹¹⁵⁹ Their share in total exports grew from 5% in 1980 to 49%

¹¹⁵⁹ Data from UNCTADsta, <https://unctadstat.unctad.org/EN/>

in 2018; while exports under the category of processing trade (*dai gongchang*) declined from half of the annual value of China's total merchandise exports in mid-1990s—2010 to 34% in 2016.¹¹⁶⁰ If calculating the ratio of domestic value added of processing trade measured as the ratio of net to gross exports, the value added for 2009 was equivalent to no more than 5% of China's GDP.¹¹⁶¹

This need not to be a bad scenario, and indeed could be a good 'necessary evil' if the ends of China's capital deepening industrialisation conducted by upstream heavy SOEs and the consequent moving up of global commodity value-chain as well as the becoming of industrial superpower for the nation as a whole justify the means of short-term sacrifices by mass common Chinese people as cheap toiling labourer. This, however, was proved wrong by the following: in 2007, 2,932 children of high-ranking officials are among 3,220 business tycoons, each worth over 100 million *yuan*.¹¹⁶² Mao's nationalisation and collectivisation campaigns led to no private money, hence the wealth of the 'few' must come from some part of the public economy. From 1978 to 2000, the fastest rate of growth was not China's GDP, but the number of corruption cases, at 22 percent a year.¹¹⁶³

¹¹⁶⁰ Data from UNCTADsta, <https://unctadstat.unctad.org/EN/>

¹¹⁶¹ Dic Lo (2020): Towards a conception of the systemic impact of China on late development, *Third World Quarterly*, <https://doi.org/10.1080/01436597.2020.1723076>

¹¹⁶² C. A. Holz, 'Have China Scholars All Been Bought?' *Far Eastern Economic Review*, 170/3 (April 2007): 38.

¹¹⁶³ He, Zengke, *Fanfu Xinlu (New Path to Combat Corruption)* (Beijing: Central Translation Services Press, 2002).

Over 10 percent of GDP per year goes to official corruption indefinitely.¹¹⁶⁴ China's Gini coefficient increased from 1983's 0.28 into 2012's 0.73, a conservative estimate.¹¹⁶⁵

China's cheap labour global competitiveness as the world's manufacturing workshop merely treats workers as a low wage cost of production, not a source of internal aggregate demand. A natural consequence is Chinese people cannot 'digest' the products they produced, but it is also an illusion that the world is able to absorb what China is able to produce. Five major industries in China in the 2000s already suffered from serious over-capacity. Mineral ores, metals, chemicals, synthetic fibre, and paper had about 30—50% overcapacity. Solar panels suffered the worst: 95%.¹¹⁶⁶ In 2015, there has already been widespread complaints by textiles and clothes exports industry for the struggle to earn profits. An employer in the processing trade of clothes exports (*fuzhuang jiagongchang*) in Shanghai commented that "There are too many companies in China, supply is over demand. Only with branding can we have competitiveness. In textiles exports we have too many colleagues merely taping off-brand, this is producing for someone else. Surely the wrong thing to do. Chinese companies in future must rely

¹¹⁶⁴ Zong, Fengming, *Zhao Ziyang Ruanjinzhongde Tanhua (Conversations with Zhao Ziyang under House Arrest)* (Hong Kong: Open Press, 2007), p.244.

¹¹⁶⁵ Anon., 'Ruhe Kandai Beida Baogao Cheng Zhongguo Caifu Jini Xishu 0.73' (How to Understand China's Gini Coefficient at 0.73 Cited in the Report by Peking University), 7th August, 2014, available on line at: <http://economics.cenet.org.cn/show-1545-36886-1.html>

¹¹⁶⁶ Deng, *Mapping China's Growth and Development in the Long Run*, p.195. Source: Cao, *New Norm*, p.225.

on quality and name branding.”¹¹⁶⁷ This high capacity, low wage feature puts itself at the mercy of exports volatility. Ordinary Chinese face the dilemma of either in the state of constant hardworking with no accumulation, or in constant fear of losing make-a-living jobs. Huang, Sheng, and Wang’s research testifies China’s probable ‘race to the bottom’ circumstance. In the recent two decades China’s housing prices and living costs have risen several tenfold, while wages have risen severalfold. The catch-up of wage growth on one hand cannot ease the increasingly stressful living environment of ordinary Chinese people, on another hand risks eliminating their altogether struggle-a-living job. Huang et al.’s data analysis and modelling exercise find that “exports by foreign invested firms are more sensitive to changes in minimum wage distortion than exports by domestic firms, and both intensive and extensive margins matter for this distinction.”¹¹⁶⁸ This showcases the real nature of foreign capital and enterprises interests in China, again supporting the ‘long cycles’ historical pattern analysis and refuting the neoclassical opening-up trade & Lewisian conjectured fairy-tale. Three to four decades of low quality ‘Lewisian transition’ have also produced ‘hollow villages’ in rural areas. Resulting from a massive outflow of labour to city industries, an increasing

¹¹⁶⁷ Global textiles web (China), “An investigation of China’s textiles and clothes exports industry: fewer orders, lower profit” (29/01/2015), <https://www.tnc.com.cn/info/c-012001-d-3503824.html> Assessed on 12/06/2022. 全球纺织网, www.tnc.com.cn, 《中国纺织服装外贸行业调查: 订单少、钱越来越难赚》, 2015-01-29: “中国企业数量太多, 供大于求。有质量, 牌子就有竞争力。外贸很多贴牌子, 这就是给人做嫁衣, 这肯定不行。以后中国企业肯定都要靠品质, 靠品牌。”

¹¹⁶⁸ Yi Huang, Liugang Sheng, Gewei Wang, “How did rising labor costs erode China’s global advantage?”, *Journal of Economic Behavior and Organization* 183 (2021) 632—653.

number of rural villages in China have become desolate places with no skilled labour or income, plentiful idle land, and loose administrative organisation.¹¹⁶⁹ "Now people make more money from migrant working, build bigger houses, live better, but more and more of them lead decadent lives," said Liu Baiping, a villager in Pingjiang County of Hunan.¹¹⁷⁰ Xiao Xinjian, the Party branch secretary of Diping Village in Hubei said that his village lacks the ability to maintain public welfare such as flood control and disaster relief; half of the village's fields, fishponds, mountain groves and orchards lie idle because villagers seldom invest the money they make from migrant working in agricultural production; they would otherwise like to spend it on building houses and children's schooling.¹¹⁷¹ These 'hollow villages' and their fallout have become one of the major factors hampering the economic and social development of rural China, and in turn risk bringing the entire economy into a halt.

¹¹⁶⁹ Jiang, S.; Luo, P. A literature review on hollow villages in China. *China Popul. Resour. Environ.* 2014, 24, 51–58.

¹¹⁷⁰ 'Hollow Villages' in Rural Areas <http://www.china.org.cn/english/2003/Jul/70357.htm> Assessed on 13/06/2022.

¹¹⁷¹ Ibid.

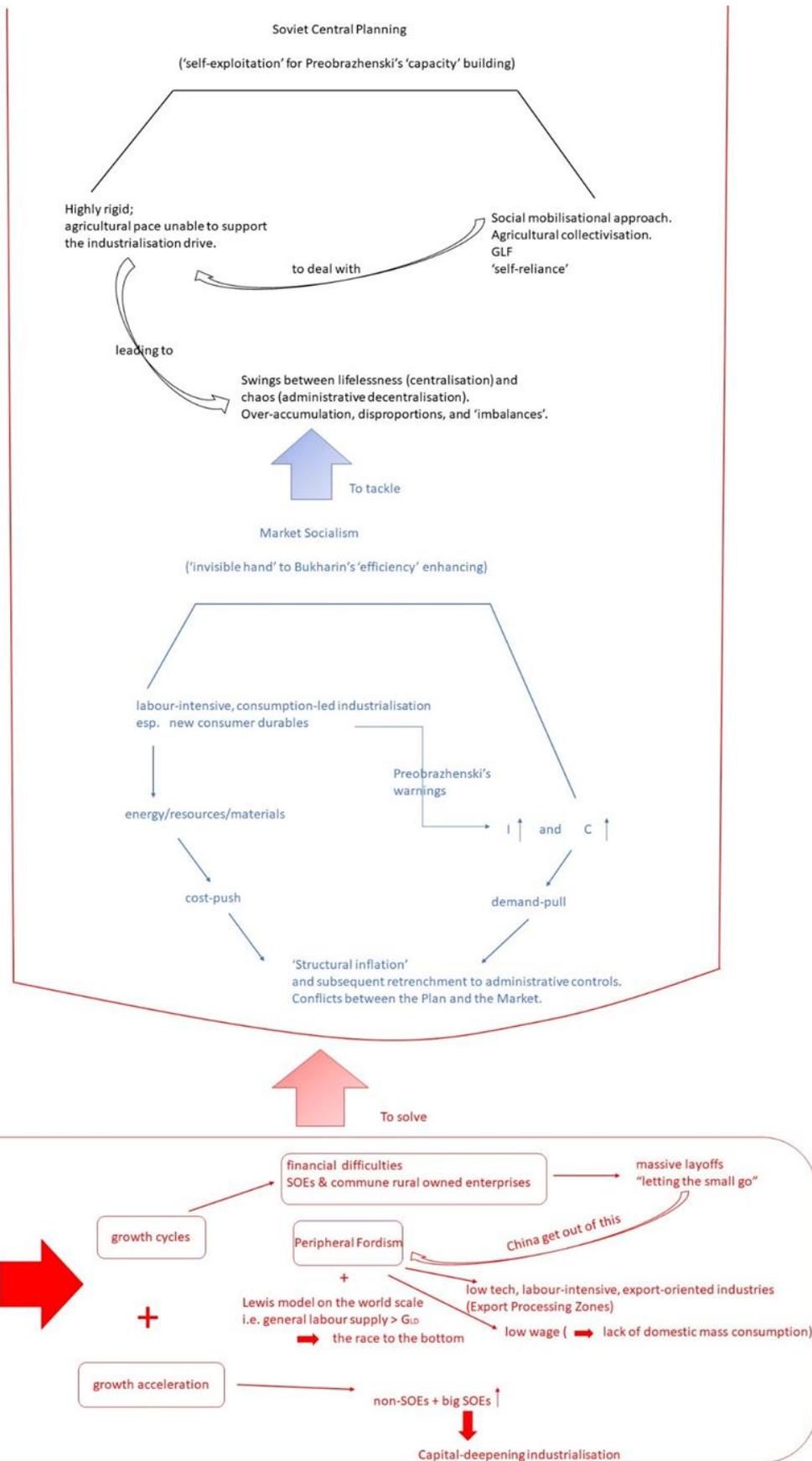


Figure 10 The Way Out: Globalisation’s resolution to China’s respective continuing internal systematic bottlenecks under Mao and Deng, and its accompanying problems

8

Conclusion:¹¹⁷²

China and the World Economy

China is currently the world's largest trading economy. Its share of global exports of goods took 14.7% in 2020, surpassing USA's 8.1% and Germany's 7.8%.¹¹⁷³ Yet its final total consumption in official stats amounted to about 54.3 percent in 2020, a very low figure compared to other countries.¹¹⁷⁴ Household consumption in China is roughly 38 percent of the nation's GDP, lower than the 50 percent for the entire Asia–Pacific region, 52 percent in the European Union, and 68 percent in the United States.¹¹⁷⁵ As a consequence it has been charged to be the cause to the current global macroeconomic and structural imbalances. Bernanke and others argue the 'saving glut' from emerging economies including China led to the financialisation of the US economy and ultimately contributed to

¹¹⁷² This chapter benefits from Professor Deng and Professor He's valuable suggestions during the viva. The conclusion in the original script was just a short paragraph summary. Both examiners have suggested the conclusion should be far longer. Apart from an informing summary of this thesis's contributions to the literature gaps and why this research matters, this conclusion part also includes Professor Deng's helpful side-note comments in the online system: "Ch.5: Impact of China as a late developer of capitalism in China and beyond. Ch.6: Final conclusions: What China as a late developer of capitalism teaches us." This conclusion also satisfies Professor He's good chat during the viva: 'Some implications of your research should be included. For instance, what are your research's insights that future policymakers can learn.' This is also reflected in the requirement in the joint examiners' report: research contributions "should be echoed and discussed... and how other researchers and stakeholders (e.g., policy makers) can learn." These are satisfied in the conclusion chapter.

¹¹⁷³ UNCTAD Statistics, China: The rise of a trade titan, [China: The rise of a trade titan | UNCTAD](#), by Alessandro Nicita and Carlos Razo, 27 April 2021.

¹¹⁷⁴ <https://www.statista.com/statistics/1197099/china-final-consumption-as-share-of-gdp/>

¹¹⁷⁵ China's Biggest, Sustainable 2022 Consumer Trends, *China Briefing*, February 24, 2022, by Guilherme Campos. <https://www.china-briefing.com/news/biggest-consumer-trends-china-in-2022-and-the-foreseeable-future/>

its financial crisis.¹¹⁷⁶

It is hence argued that China needs to rebalance its economy towards domestic consumption. The US is one of the world's top three leaders, but its economy is primarily driven by domestic demand.¹¹⁷⁷ For China's next phase of 'sustainable' growth, US is the role model. And to achieve this, to "orient towards domestic demand means boosting consumption in China which is the same as saying that there is a need to reduce the savings motive of households and firms."¹¹⁷⁸ Hence, to these mainstream economists, China's problem to the world is it has too much savings and is too wealthy. To solve the global structural mismatch, the Chinese need to unleash their savings and break away from their thrifty cultural tradition.¹¹⁷⁹ Moreover, China needs to amend its manufacturing comparative advantage so that it would not cause asymmetrical financial development in the US.¹¹⁸⁰ In short, China needs to reduce its high investment and high savings rate in its economy.

¹¹⁷⁶ Bernanke, B. (2005). 'The Global Saving Glut and the U.S. Current Account Deficit'. Sandridge Lecture, Virginia Association of Economics, Richmond, Virginia, Federal Reserve Board, March 2005; Cabellero, R.J., Farhi, E., and Gourinchas, P.-O. (2008). 'An Equilibrium Model of "Global Imbalances" and Low Interest Rates'. *American Economic Review*, 98/1: 358—93.

¹¹⁷⁷ Linda Y. Yueh, *China's Growth: The Making of an Economic Superpower* (Oxford: Oxford University Press, 2013), p.257.

¹¹⁷⁸ Linda Y. Yueh, *China's Growth*, p.263.

¹¹⁷⁹ China's Biggest, Sustainable 2022 Consumer Trends. <https://www.china-briefing.com/news/biggest-consumer-trends-china-in-2022-and-the-foreseeable-future/>

¹¹⁸⁰ Cabellero, R.J., Farhi, E., and Gourinchas, P.-O. (2008). 'An Equilibrium Model of "Global Imbalances" and Low Interest Rates'. *American Economic Review*, 98/1: 358—93.

An immediate problem of these views is the US domestic demand is not really domestic but based on the China products. A majority of China's exports production are invested by foreign enterprises, in hopes of serving their domestic markets.¹¹⁸¹ Moreover, China and other emerging countries want financial development as well, but blocked by the incumbent vested interest player. For an economy being the biggest trading partner in the world, with the biggest trade surplus, McKinnon and Schnabl argue China suffered from 'currency mismatches.'¹¹⁸² China's currency is not important in the international monetary system to be used as a numeraire to determine its own trade surplus. It consequently accumulated huge foreign dollar reserves in the period 2000—2014. Given the low rate of returns to the reserves, and Federal Reserve's constant money pumping, China's small gains accumulation from producing for someone else entails paying yet another seigniorage to them—transfer of surplus to the financial hegemons of the world.

It thus poses the serious question on whether China is the cause to the global structural imbalance or the consequence of it? A detailed assessment first targets at the 'China's high savings' claim. Zhang and Zhu argue the

¹¹⁸¹ Dic Lo (2020): Towards a conception of the systemic impact of China on late development, *Third World Quarterly*, <https://doi.org/10.1080/01436597.2020.1723076>

¹¹⁸² McKinnon, R., and G. Schnabl. "China's Exchange Rate and Financial Repression: The Conflicted Emergence of the RMB as an International Currency." *China & World Economy* 22, no. 3 (2014): 1–34. doi:10.1111/j.1749-124X.2014.12066.x.

nearly universal belief about China's consumption being too low is based on an incorrect theory and a superficial reading of the official statistics.¹¹⁸³ Their recalculation shows China's true rate of consumption can be 10 to 15 percentage points higher than the official figure, reaching 60—65% of GDP, an ideal ratio for a fast-emerging economy.¹¹⁸⁴ One of the sources of underestimation comes from the business sector. Many business owners purchase private cars and luxuries on company accounts (*gongsi baoxiao*). These spendings are counted as investment expenditures, but are private consumption. This is widespread practice in China years before and even severer at the state-owned enterprises (SOEs). And it is a large amount of consumption uncounted and mis-put to the investment category. Second, Chinese statistics have significantly underestimated housing consumption.¹¹⁸⁵ Using their method, private housing rose by only 5.99% in value in urban areas between 2000 and 2011, which means China's housing consumption made up only 6% of GDP in 2009.¹¹⁸⁶ This is unacceptable given housing is Chinese households' biggest source of expenditure. And Chinese 'high savings' are predominantly drawn to serve this purpose. The non-acknowledgement of housing costs has fuelled the wrong image of low consumption and high savings for more than a decade,

¹¹⁸³ Jun ZHANG and Tian ZHU, "Poor Economic Statistics Fuel China's Low Consumption Myth," *World Economics* Vol. 14, No.2, April-June 2013.

¹¹⁸⁴ *Ibid.*

¹¹⁸⁵ Christopher Balding, "Data Manipulation of Inflation Statistics Artificially Raises Real GDP: The Case of China," *World Economics* Vol. 15, No. 2, April-June 2014

¹¹⁸⁶ Christopher Balding, "Data Manipulation of Inflation Statistics Artificially Raises Real GDP"; Jun ZHANG and Tian ZHU, "Poor Economic Statistics Fuel China's Low Consumption Myth"

and in the midst of accelerating unbearable housing prices in recent years, this image bursts. Wright and Feng remark that “China’s households have been among the world’s best savers—until recently.”¹¹⁸⁷ In only five years’ time, Chinese household debt has surged to 128% of household income, and 56% of Chinese GDP.¹¹⁸⁸ While most of this growth is related to property mortgages, consumer credit has also expanded rapidly. Credit card debt in China now exceeds US levels in absolute terms. Over the five years from 2015 to 2019, China’s households added \$4.6 trillion in borrowing. To put this into perspective, US household debt expanded \$5.1 trillion from 2003 to Q3 2008, the eve of financial crisis.¹¹⁸⁹ Hence, Chinese households’ high savings and low consumption is a myth.

China’s high housing price—income ratio is not an endogenous feature in the framework of domestic economy *per se* and deduction towards its impact on the (Western) world, but the phenomenon created by the global structure and Chinese ‘developmental state’. East Asian governments had learnt a bitter lesson from its 1997 financial crisis and relying on the IMF for a bailout, reserve accumulation afterwards became a form of ‘self-insurance’ against foreign capital profiteering and volatility. From less than

¹¹⁸⁷ Logan Wright and Allen Feng (May 12, 2020) “COVID-19 and China’s Household Debt Dilemma,” *Rhodium Group*. <https://rhg.com/research/china-household-debt/>

¹¹⁸⁸ Wright and Feng, “COVID-19 and China’s Household Debt Dilemma”. Primary data sources: People’s Bank of China; National Bureau of Statistics; US Federal Reserve.

¹¹⁸⁹ *Ibid.*

\$1 trillion before the Asian financial crisis, East Asian nations have accumulated over \$4 trillion by 2008.¹¹⁹⁰ Despite China's exemption from the crisis, it learnt from the East Asian and Southeast Asian small states' experience and further tightened its financial sector and maintained strong controls on capital flows, so as to keep a steady focus on productive investment in the real sector. As far as a nation's development prospect is concerned, these measures were not necessarily a bad thing. They were in fact the right thing to do in a deeply constrained environment. However, exactly because of the difficult scenario these emerging economies have been facing, the right thing done has not delivered much either. The huge trade surplus from its exports-driven model generated a huge amount of cash deposits that made the opportunity costs to withhold them higher and higher. Nevertheless, to pursue currency liberalisation would expose the weak and futile national capital and banking structure as a prey to the profiteering and highly volatile foreign capital world, as the Asian crisis demonstrated. The only option left is to maintain capital controls and carry on the high productive investment growth model. And in so doing it unconsciously bred the easy touch 'currencies mismatch'. *At the same time*, because of the reserves holding are in foreign dollars, domestic companies' revenues demand an equal supply of domestic currency. That is why Federal Reserve could pump the world, while other nations and fast

¹¹⁹⁰ Walden Bello, *Paper Dragons: China and the Next Crash* (London: Zed Books Ltd, 2019), p.170.

emerging economies' central banks are constrained to conduct independent monetary policy. The issuance of Chinese *yuan* is directly related to its foreign US dollar reserves holding. Wealth and revenues however are still created in this setting. Nevertheless, exactly because of the closing up of its capital account, domestic capital created is simultaneously locked up to go out, then it must stay in. Nonetheless, exactly because of the high-investment, high-savings, high-debt developmental model created in the first place, and in the scenario of Chinese state-owned enterprises and generous state-banks credit devoted to them in particular, domestic savings interest rates were lower than they should have been. The only viable alternative for these newly sprang-up Chinese riches and middle-class then is the real estate sector.

Housing bubbles have hence been created, due to lack of other investment opportunities. *Meanwhile*, while housing properties to the Chinese rich are attractive alternative, they are inelastic demand (*gangxu*) to the Chinese poor. A vicious cycle is created and housing prices were pushed higher and higher. The 'high savings', high investment model was originally derived from the continental banking model in the scenario of capital scarcity. A non-market state was needed to manoeuvre the limited savings together into productivity enhancing activities. 'High savings' 's high is not the connotation of wealth or opulence, but a high ratio of current meagre

consumption sacrificed for future. Theoretically, things should get better afterwards as the value of industrialisation pursuit is gradually realised. However, the Chinese are then locked up to the houses. The real face behind ‘high savings’ is a majority of Chinese have never experienced a decent quality of life for consumption. As housing price has risen to a level that is unbearable, such that even the hard-earned ‘high savings’ could not suffice, household debts become the only option. Hence the saying ‘China’s households have been among the world’s best savers—until recently.’

To be sure, mainstream economists were not unaware of this scenario. While advocating China’s economic transformation to domestic demand and that entails Chinese households unleashing their savings on one hand, Yueh on another hand acknowledges the fact that “China’s comparative advantage in abundant, low-cost labour.”¹¹⁹¹ She therefore comes up with a confusing argument that government spending on “health, pensions, unemployment, local services, and schools” etc. can reduce the precautionary savings motive of Chinese households and hence reduce the savings rate and boost demand and incomes.¹¹⁹² For one thing, where does the government’s revenue come from? Taxation on the people. The precautionary savings motive of Chinese households was based on lack of

¹¹⁹¹ Linda Y. Yueh, *China's Growth*, p.257.

¹¹⁹² Linda Y. Yueh, *China's Growth*, p.294.

protection and they need to save for the future. To suppose an agent that is able to do everything and eliminate their cautionary motive that in turn draws source of revenue from them is in principle unachievable. Moreover, to put global imbalances into the perspective of China's low consumption is the wrong question to ask. For a nation's population that 40 years ago lived on a disposable income per capita of 343 *yuan*, the 31,790 *yuan*'s improvement in 2015 is a remarkable achievement.¹¹⁹³ Zhang and Zhu comparing India's consumption with China's, as well as Bosworth and Collin's comparison on Indian and Chinese growth, all suggest the engine of economic development is *investment*.¹¹⁹⁴ China's high savings generate faster consumption growth and hence a higher-level consumption in future.¹¹⁹⁵ Instead of being the growth problem, China with its vast labour, industrial capacity, productive investment, and overachieving consumption given its income level has contributed to the world growth.

The radical western left camp was more realistic. However, they attacked China as the cause problem on the other side. Klein and Pettis argue the Chinese government persecutes labour organisers and offers cheap bank loans to real estate developers, as a consequence China is a super-

¹¹⁹³ Xingliang Guan, Houkai Wei, Shasha Lu, Qi Dai, Hongjian Su, "Assessment on the urbanization strategy in China: Achievements, challenges and reflections," *Habitat International* 71 (2018) 97–109. Primary data base: *China Statistical Yearbook* (NBSC, 2016).

¹¹⁹⁴ Jun ZHANG and Tian ZHU, "Poor Economic Statistics Fuel China's Low Consumption Myth," *World Economics* Vol. 14, No.2, April-June 2013; Barry Bosworth and Susan M. Collins, "Accounting for Growth: Comparing China and India," *The Journal of Economic Perspectives*, Vol. 22, No. 1 (Winter, 2008)

¹¹⁹⁵ Johnny Ho, Felix Poh, Jia Zhou, Daniel Zipser, *China consumer report 2020* (Mckinsey & Company).

exploitative society that not only does not good to its own people, but also makes American workers lose their jobs.¹¹⁹⁶ Hence their title: ‘trade wars are class wars.’ The US—China trade war to them is a class war in China that involves getting rid of the exploitative Chinese government. Other researches argue China’s exports de-industrialise the global south,¹¹⁹⁷ or undercut the Southern labour.¹¹⁹⁸ More realistic mainstream researches also rephrased China’s cheap labour. Because of China’s cheap imports, it sent a deflationary wave to developed world’s Consumer Price Index (CPI) that enabled their regulatory bodies to pursue easy money and loose interest rates without worrying about the inflation level.¹¹⁹⁹ Hence the 2008 crisis.

To respond, several historical facts should get straight: first and foremost, when Mrs Thatcher and Mr Reagan pursued their neoliberal reforms in 1970s and 80s, China did not order them to do so. Second, low interest rates had been a crisis policy used long before China’s goods took momentum. Before China joined the WTO, speculative activity in the late

¹¹⁹⁶ Matthew C. Klein and Michael Pettis, *Trade Wars are Class Wars: How Rising Inequality Distorts the Global Economy and Threatens International Peace* (New Haven & London: Yale University Press, 2020)

¹¹⁹⁷ Antonio Andreoni and Fiona Tregenna, “Stuck in the Middle: Premature Deindustrialisation and Industrial Policy,” *CCRED Working Paper* No. 11/2018

¹¹⁹⁸ Alvarez, R., and S. Claro. “David versus Goliath: The Impact of Chinese Competition on Developing Countries.” *World Development*, 37, no. 3 (2009): 560–571. doi:10.1016/j.worlddev.2008.08.009.

¹¹⁹⁹ Rogoff, K. (2006). ‘Impact of Globalization on Monetary Policy’, paper presented at the symposium sponsored by the Federal Reserve Bank of Kansas City on ‘The New Economic Geography: Effects and Policy Implications’, Jackson Hole, Wyoming, August 2006.

1990s already focused on the high-tech stocks.¹²⁰⁰ With the collapse of the dot.com bubble in early 2000s and the subsequent recession, Alan Greenspan slashed the federal funds rate from 6.5 percent to 1 percent—a 42-year record low.¹²⁰¹ Third, developmental state’s practices had been used by other successful catch-up economies as well. The contradictions of this capitalist game are that you first need to ‘empoor’ yourself at first before make yourself richer later. The world market is inherently a limited and saturated one such that only a few would manage to beat others and occupy the market. Practices of undercutting domestic wages in order to gain exports competitiveness have been conducted by the East Asian tigers, as well as Germany. Flassbeck and Lapavitsas reveal “Germany has operated a policy of ‘beggar thy neighbour’ but only after ‘beggaring its own people’ by essentially freezing wages. This is the secret of the German success over the last fifteen years.”¹²⁰² These tie to the last point: will the developing world’s development prospect get better if China is absent? Hard to tell. For one thing, Western world’s financial expansion alone is not easy free-lunch to swallow. This was not only manifested in the 1997 Asian crisis, but also reflected in 2007 when the Irish ‘Celtic tiger’ plummeted.¹²⁰³ Lo therefore argues the China impact can potentially serve

¹²⁰⁰ Walden Bello, *Paper Dragons: China and the Next Crash* (London: Zed Books Ltd, 2019), p.41.

¹²⁰¹ Walden Bello, *Paper Dragons: China and the Next Crash* (London: Zed Books Ltd, 2019), p.41.

¹²⁰² H. Flassbeck and C. Lapavitsas (2015) *Against the Troika: Crisis and Austerity in the Eurozone*. London: Verso, pp. 24–5.

¹²⁰³ Walden Bello, *Paper Dragons: China and the Next Crash* (London: Zed Books Ltd, 2019), p.100.

as a countervailing force against the prevailing dynamics of the world economy under neoliberal globalisation, i.e., the rising prominence of speculative finance that tends to crowd out productive investment and hence to hamper the development prospect of the developing world.¹²⁰⁴ Julian di Giovanni et al. in a general equilibrium analysis of gains from trade find that economies with a comparative advantage similar to China's, in labour-intensive production, tend to suffer from China's expansion.¹²⁰⁵ Nevertheless, in a dynamic setting with technological change, developing countries will benefit from China's trade expansion if China has faster productivity growth in sectors it does not have comparative advantage.¹²⁰⁶ And recent evidence suggest it is more of the latter than the former. Exports under the category 'machinery and transport equipment' increased from 5% in 1980 to 49% in 2018.¹²⁰⁷

Therefore, these researches suffer from an isolationist Western-centric perspective and fail to incorporate the China—West relationship into a global systematic view and long history perspective. China has been subdued into global capitalism since its long cyclical turn in the 1970s, and has kept the system going for another half century. The problem of

¹²⁰⁴ Dic Lo (2020): Towards a conception of the systemic impact of China on late development, *Third World Quarterly*, <https://doi.org/10.1080/01436597.2020.1723076>

¹²⁰⁵ di Giovanni, J., A. A. Levchenko, and J. Zhang. "The Global Welfare Impact of China: Trade Integration and Technological Change." *American Economic Journal: Macroeconomics* 6, no. 3 (2014): 153–183. doi:10.1257/mac.6.3.153.

¹²⁰⁶ Ibid.

¹²⁰⁷ *China Statistical Yearbook*, various issues.

American job losses did not start with China but America itself. The transfer of world's production assemblies to the developing world, labour-intensive and low-skilled work in particular, contributed to the global 'race to the bottom.' A majority of China's wealth from its growth has been taken by the capital from the global north. Chinese government had to depress workers' wages to gain competitiveness for this race. It is the capital from the global north, not China's internal distortions, that contributed to global imbalances. China's internal distortions are in fact the result of global imbalances rather than the cause to it. The Chinese government as a prime agent mover to steer China's modern growth path was not the one to blame, but instead was the historical end-product pushed by the march of events since 1800s. Klein and Pettis' restoration of American jobs and back to US self-sufficient economy suggestion suggests both their wishful thinking and lack of historical knowledge.¹²⁰⁸ It was historical capitalism that destroyed self-sufficient market economies and swept across the world to create the modern 'core and periphery' world-system. The US 'self-sufficient' good time was just one productive expansion phase of the capitalist historical 'long cycles.' In its nature, capitalism could never be self-sufficient.

These lead to the last part: what the Western policymakers have to learn is

¹²⁰⁸ Matthew C. Klein and Michael Pettis, *Trade Wars are Class Wars: How Rising Inequality Distorts the Global Economy and Threatens International Peace* (New Haven & London: Yale University Press, 2020)

the root of today's problems cannot be solved by another round of lavish government spending or to get the 'stolen' jobs back from China, which are rather the consequence of than the cause to their domestic inequalities. China's extraordinary high housing prices at present is a sign that China started experiencing the financialisation phase as well. China's 'golden age' had also ended in 2012, when investment and productivity growth slowed afterwards, in the same way as Anglo-Saxon world's golden age ended after the 1970s. Opportunistic financial capital replaces productivity investment. It is the problem of global capitalism. China is forced to join in this storm. China is one of the last major geographical regions incorporated into the capitalist long cycles. If without further opportunities to find another destination, then the system has to internally decay. *De-globalisation* is the symptom of this trend. However, given the impossibility of China to live without the Western external effective demand, and the impossibility of Western world to afford higher non-China price products, and the current stagnation (high unemployment, low profitability, overproduction, meagre consumption, increasing inequality) suffered by all at the moment, a *qualitative* measure needs to be taken to change the production and distribution pattern. Global policymakers (Chinese and Western in particular), with international cooperation, need to respectively seriously address a comprehensive nation-wide social reengineering such that there is Common Prosperity for All (*gongtong*

fuyu). Specifically, Wall Street bankers should be responsible for their own financial behaviour and ring-fencing between investment and commercial banking should be established. And China's industrial fruits should be evened out across the whole economy from the upstream SOEs to down sectors, and a system of internal monitoring could be established within the communist party that does not rely on the high-power anti-corruption campaigns. The right of lower-rank official in charge of monitoring to impeach the high rank and the emperor (*yanguan zhidu*) established in China's Ming dynasty could serve as a reference.

In sum, this thesis unconventionally distinguishes the qualitative nature differences between capitalism and market economy, which enables it to surpass, or to argue differently from most researches on China right at the start.¹²⁰⁹ Their China explanations focus on market growth deviating from the previous Mao's era, and their eye horizons remain limited on the post-Mao period and hence essentially argue the reason why it is so different because it starts so differently there. This thesis, in contrast, treats Mao and Deng's respective episodes as a contradictory and coherent whole (*duili yu tongyi*). It argues China's 'miracle growth' since 1970s originates both

¹²⁰⁹ See, for instance, Justin Lin's *Demystifying the Chinese Economy* (2012), Linda Yueh's *China's Growth* (2013), or the influential big-names Western Sinologists and China experts, including Barry Naughton's *The Chinese Economy: Transitions and Growth* (2007), Nicholas Lardy's *China's Unfinished Economic Revolution* (1998) and *Markets over Mao: The Rise of Private Business in China* (2014), Dwight Perkins's *Routledge Handbook of the Chinese Economy* (2015), and Loren Brandt & Thomas G. Rawski's *China's Great Economic Transformation* (2008).

from market deviations and deviations to the market. Far from an unfinished cumbersome burden and remaining ills, China's spectacular growth is not just based on market reforms to the administrative planning, but also on the existence of China's state economy component itself. Through linking the post-Mao China growth paradox to paradoxes in Chinese economic history and hence Pomeranz's historical studies, it proceeds the novel thesis development where Pomeranz stops: Europe thrived from a different 'wood' nature that manifested itself as sharing the same Chinese Smithian 'trees'. Building upon the basis of unconventional differentiation between capitalism and market exchange, the thesis goes on to innovatively turn communism upside down; instead of being a natural evolution stage brought by forces of production, it serves as a mobilisational vehicle to relations of production revolutions so as to change production forces. Recent revisionist literature since 1970s and 1980s either from a Western perspective to check the universal Marxian historical stages, or from a Chinese perspective to see whether orthodox Chinese communism description since 1949 fits the actual Chinese history, all point to the facts that Marxian theory is Eurocentric and communism is nothing relevant to China. Whereas they convincingly demonstrate the irrelevance of communism on China soil and perhaps to the rest of developing world, they however in their static historiography representational findings leave the dynamic trend of urgent march of historical events towards communism as

China's only way-out exit blank. This research fulfils this crucial, if not most important, gap. It combines the prestigious scholar Professor Kent G. Deng's solid researches on the premodern Chinese economy as a point of departure, with Economic history's 'late industrialisation' catching-up literature—Professor Alexander Gerschenkron's investigation on catching-up European economic history—and literature on global capitalism from a Western perspective that crystallise as 'world system' and 'long cycles', to present a comprehensive and thorough application to China's transformation. It sketches the backbone skeleton out of the various premodern Chinese economy's phenomena revealed by the recent revisionist literature: rice-economies, proto-industrialisation, less proletarianisation, rural prosperity rather than urbanisation, cooperative *hangs* rather than restrictive guilds, etc., and point to the root of these appearances is the difference in China and Europe's socio-structures. China's establishment of private property rights and central bureaucracy created vast free landholding multi-functional peasantry. This created immense economic scale and power and Smithian growth in the world's medieval times. This also in turn presented as formidable obstacles in early modern period such that the resort to communism to remodel the structure remains the only option. So far, to his own knowledge, this is the first systematic and coherent research on China's growth and problems through such a 'long history' perspective.

The advantages are self-evident. For instance, there have been numerous sporadic studies charges on China's *hukou* system or presentations of the serious Three Agricultural Problems (*sannong wenti*). Most of them, however, see these on the face appearance. Either they present these as Chinese government anti-human liberty restrictions and provoke equal rights and liberty on rural-migrant workers' living and their off-springs' education in cities, or reveal these as the 'left-out' dark sides that are against Chinese government's major Great Rehabilitation (*weida fuxing*) meta-narrative hence showcasing the incompetency of its rule (which implies there is room for improvement and it can be improved). All these, however, fail to notice the fact that these issues are deeply *ingrained* in the simultaneous Chinese development. They exist *for* the China 'growth'. And Chinese government itself, instead of being the major agent to take the blame, in fact is also the *product* together with all these issues and growth created out of history.

This thorough study through 'long history' perspective debunks the ideological positions that common researches frequently rely upon, and exposes the cruel economic realism through direct historical analysis. The common acclaimed 'free' labour creation in orthodox European narrative (even in Marxian writings as an 'emancipation' from feudal fetters) were

nothing more than impoverished refugees expelled to cities to struggle a living recorded in Dickens' hellish workshops. In early industrialisation phase workers' living standards were lower than a typical 1800s Chinese farmer. Liberal democracies nowadays are in fact the class-conscious creations by capitalism and an evolved end product of feudal state to upper-class democracy then to universal suffrage. Bear in mind these are just domestic episodes of these advanced economies, their imperialism abroad was far harsher. China's modern history fit this capitalist industrial growth pattern that mutatively consisted of 'self-exploitation' and 'self-colonisation'. This distinctive comprehensive study from starting off on the capitalism and Chinese Smithian market growth distinctions to systematic analysis on premodern China to early modern China episodes, to China's artificial communist transformation, to China's socialist market economy, arrives at the interactions of global economy with China's systematic change. It heretically and convincingly argued against the 'China threat'. 'China problem' narrative by all positions including neoclassical Solow, neoclassical comparative advantage and free trade, reformist Keynesian, and radical Marxist Eurocentric stance, and demonstrated China's problem is an extension of their own domestic problems transmitted by the global 'long cycles' pattern. This thorough, systematic, comprehensive, and coherent analysis investigated China's all ins and outs (*lailong qumai*) from its cradle to the grave. To his own knowledge, this is the first systematic

research so far on China through such a comprehensive and in-depth ‘long history’ horizon and sharp eye sights’ spotting broad interactions under global settings. It spells out China’s growth and issues thoroughly in such a clear, comprehensive, and consistent manner.

Perhaps the greatest lesson for the developing world to learn from the China experience is it was *the* example to European ideological market growth. And the fact that China was a *leading* player until two hundred years ago and its tortuous mixing experiences in subsequent episodes as a *practitioner* of different late developers reveals the tremendous gap between the ideology propagated by and true faces of the Western world and its current market fundamentalism in general. The present predicament of global historical capitalism suggests the importance of consumption over production, and that is what the contrast between traditional Smithian China and China as a capitalist late developer teaches us.

APPENDIX A

A critical assessment of game-theoretic explanations to historical facts: ideologies, hypothetic-deductive confirmation, and partial application¹²¹⁰

¹²¹⁰ The author would like to thank Professor Kent Gang Deng for his valuable side-note ideas on setting up appendices. The author's original script was a miscellaneous 'jumble'. This formation however did not come from the author's own intentions but rather from the current academic sphere developed in the recent 10 to 20 years. Perhaps due to running out of new ideas, or due to the quick attitude to harvest instant benefits, or due to data conjecture, and facts and big thoughts (See Eric Jones, *The European Miracle*; Kenneth Pomeranz, *The Great Divergence*; and Gang Deng, *The Premodern Chinese Economy* as good examples of big thought-provoking and paradigm-shifting masterpieces) having been mostly cultivated only left for interpretations and explanations, a wide range of theories and models are increasingly applied to even the 'ancient' fields of the history discipline. Economic history papers, according to the author's own readings on recent publications, have formalistic models, one or two, involved. Either a game theory reasoning is applied, or a monetary theory modelling is conjectured, etc. Most of them, however, are anachronistically inappropriate. Surely, there are good interdisciplinary papers. But they are the minority. The author majored in Government and Economics. And studied Monetary Economics in his third year taught by a previous Monetary Policy Committee member. When he studied Economic History at Masters, and saw an academic study trying to apply a random matching monetary model combined with some credible commitment game theory reasoning (but only in a primitive way, as these people were not properly educated in the formal economics discipline. In the meantime, Economic History as a subject gets marginalised nowadays, and these opportunists get in. Then they apply some ideas from finance to this discipline, and then get their degrees transferred or look good on their CV relevant to investment banking. Hence these awkward studies) to Ming China, the author found it interesting. The central argument of the paper is the reason why Ming China still used a primitive bartering base metal (silver) regime, and not the present-day fiat money, was the lack of independent monetary regulatory agency that checked the value of money. Then the paper claimed its 'new' finding on the old historical material, and reverting back to the usual practices of enshrining the value of democracy & the failure of authoritarian regime. And get his work published. The crucial problem of this kind of work in nowadays Economic historical studies is it is a theoretical proposition founded upon an ideological *ahistorical* stance. This kind of study tends to forget that when Ming China used the silver standard, European pirates were farming gold and silver mines in Americas and shipping those to China to buy Chinese goods. It was Han China that first established the world's money standard system using formally issued copper coins *tongqian* when Europe and Middle East were using primitive gold and silver coins. See Janet L. Abu-Lughod, *Before European Hegemony: The World System A.D. 1250—1350* (Oxford, UK; New York: Oxford University Press, 1991). It was Song China that first used paper currency in the world, and that kind of research acknowledges this and argues it was exactly due to the lack of independent monetary agency that Song China suffered from hyperinflation since the Song court could not credibly commit to the money supply. However, the author would like to point out the fact that when Song China first issued paper currency, it initially worked quite well. It was later due to the increasingly over-burdened historical contingency wars factor that the Song court had heavy military bills and the need to pay large ransom to buy peace and the paper currency flooded. The Ming government officials exactly learnt the lessons from Song, and chose to rely on a metal regime: silver standard together with *tongqian*. Hence to China's historic logic, Ming's adoption of silver was a historical evolution from Song. And Ming's silver era worked quite well for two hundred years that supported the Spanish colonial expansion in Americas for silver mines. This kind of game-theoretic research however disregards all these historical contingencies and context. What it tends to forget is the establishment of Bank of England and the formation of Britain's public debt market were first aimed at war financing. Britain's sterling still anchored on gold during its Gold Standard era. And people around the world complain on the fiat US dollar today as the Federal Reserve keeps money pumping to stimulate its own

Avner Greif's research motivation through game theory directly targets at the revisionist literature conducted in the last half century and early 2000s. Despite premodern China's rising predominant position revealed by these researches that it could be as developed as Europe even until 1800s¹²¹¹, or the zenith of Mediterranean Muslim world from circa 1050 to 1350¹²¹², Greif argues this line of historical findings ignores the possibility that

domestic economy at the expense of other economies' real output and dollar reserves. The value of the history discipline exactly lies in the immense *possibilities* generated by the interacting factors, agencies, contingencies as time flows. And the deterministic modelling kills these off, and tells us from an ideological hindsight why the European hegemony *had* to be from the cradle. In this kind of analysis it has no time factor, and hence no history involved in this kind of historical study. It was the revisionist literature that founded and enlarged the Economic History discipline led by Eric Jones, Kent Gang Deng, the California School, the Cambridge Needham school, etc. in the several decades over the last half century which shook the Eurocentric ideology with concrete historical facts and revealed history the way it was. By the turn of the millennium century, however, theories and models started to encroach upon the historical narrative and consequently collapsed factual analysis back to eurocentrism. As a 21st century research, the author with his strong education background in this kind of academic environment has to, and feels obliged to, respond to these theories and modelling and defend Professor Kent Gang Deng's proper quaint Economic history discipline. However, in so doing, without the author's own notice, Professor Deng's insightful side-note comments: 'the handling of peoples' views/theories/opinions are mixed with historical facts. Economics' theories and opinions should be separated from Economic history's factual testing. One should not straddle in-between.' The joint examiners' report also states: "to cleanse out all irrelevant discussions on theories... no matter how interesting they may look like." On another occasion Professor Deng also advises: 'as a doctoral research, critical comments need to be made on already circulated diagrams and theorems rather than present them exactly as they first appeared.' Professor Xinming He during the viva also provided his helpful suggestions, from another angle, that he felt the research ran short of theoretical contributions. Considering all these, the author therefore decides to set up the appendices. The enlightenment of this idea owes gratifications to Professor Kent Deng's sidenote on the original script's Solow model that it needs to be cut and put the rest either in a footnote or an appendix. In this way, the major essay flow does not get distracted from theoretical discussions, and maintains a firm focus on historical factual study on China's development. The thesis's appendix also illustrates the author is fully capable of utilising both the 'old' economic history discipline material, and responding to the 'new' economic history research theories and modelling. He is able to critically assess these theorems' applications, make his own valuable contributions to pinpointing the theoretical deficiencies of these modelling framework with these theoretical models' own logic, and *falsify* these economics theoretical tools and opinions with Economic history facts. And thereby producing a high-standard good quality development economics through historical perspective paper in the 21st century. The accomplishment of this research comes from Professor Kent G. Deng and Professor Xinming He's valuable guidance.

¹²¹¹ Kenneth Pomeranz, *The Great Divergence: China, Europe, and the Making of the Modern World Economy* (Princeton, N.J.; Oxford: Princeton University Press, 2000)

¹²¹² Janet L. Abu-Lughod, *Before European Hegemony: The World System A.D. 1250—1350* (Oxford, UK; New York: Oxford University Press, 1991)

exchange in these economies was based on different institutional foundations.¹²¹³ Even if one observes, for example, that premodern China had a much larger integrated domestic economy than that of Europe, and the two economies had the same level of GDP per capita, it does not mean that their economies were similar in their *potential* to grow.¹²¹⁴

Greif starts off his propositions by posing the possible fundamental problem of exchange (FPOE) in medieval long trading circumstances.

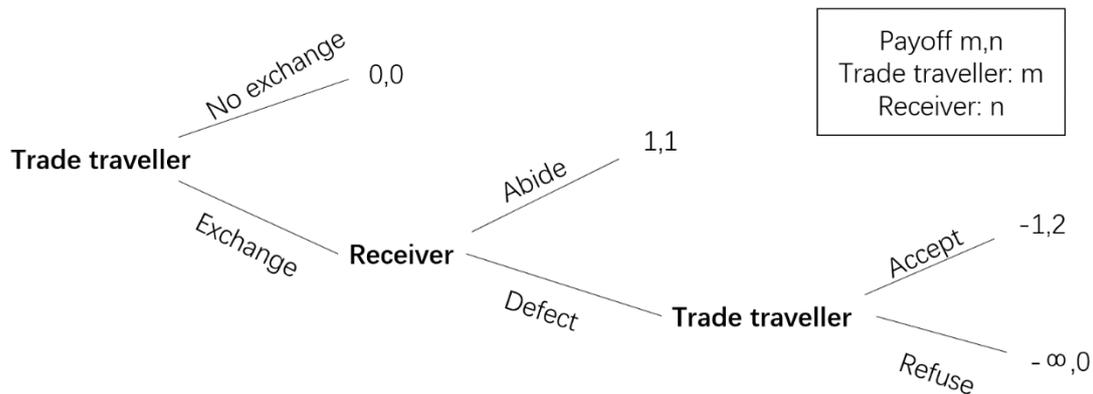


Figure 11 A sequential game tree: the fundamental problem of exchange (FPOE)¹²¹⁵

A medieval long-distance trade traveller had contacted the receiver in advance on the other side destination of the trade route. Negotiation was 1,1. However, when the trade traveller arrived with goods and cargos on camels, the receiver may choose to defect that yielded higher benefits 2. The traveller may refuse, yet he would lose all the efforts devoted travelling

¹²¹³ Avner Greif, *Institutions and the path to the modern economy: lessons from medieval trade* (Cambridge: Cambridge University Press, 2006)

¹²¹⁴ Greif, *Institutions and the path to the modern economy: lessons from medieval trade*

¹²¹⁵ Following Professor Deng's spirit, illustrations are the author's own creations.

so far, and goods had no buyer. The only better choice available for the traveller was to accept the offer from the defecting receiver, minimising his loss to -1. Using backward induction, knowing the receiver's strategy, the trade traveller would not enter exchange to begin with. There was no third party to enforce the initial agreement. Even if the receiver was honest and upright, he could not show credible commitment to convince the traveller for trading. This is the fundamental problem of exchange.

Greif asks how long-distance trades were conducted, and even flourished, in the world's medieval era given the FPOE. The Maghribi traders who were powerful traders' group during the eleventh century that operated in the Muslim Mediterranean channel connecting Europe and the East have been examined. Agency relations among the Maghribis were governed by an economic institution that can be referred to as a coalition—a non-anonymous insider trading group based on a multilateral reputation mechanism.¹²¹⁶ The group enabled beliefs in *collective* punishment to prevail; their social and commercial network ensured a group agent honest in his dealings since cheating means losing the rent stream available to him from his future dealings with *all* the Maghribis. The Maghribi traders were a homogeneous group of self-enforcing middle-class traders each operating as both a merchant and an agent at the same time and were motivated to

¹²¹⁶ Greif, *Institutions and the path to the modern economy: lessons from medieval trade*

hire and to be hired only by other Maghribis. The exclusiveness of the coalition group to outsiders was matched by cooperation, information flows, and the expectations concerning future hirings among insiders.

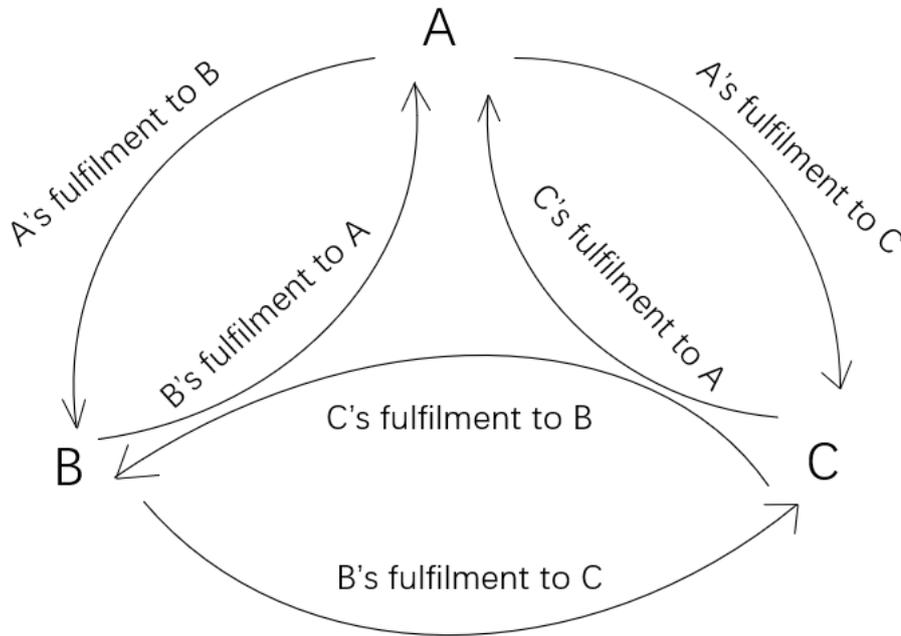


Figure 12 A multilateral reputation commitment scheme: B's defaulting to A would result in retaliations from both A and C, and vice versa to each group member¹²¹⁷

The FPOE due to the lack of commitment mechanism from a third party was solved by the multilateral reputation punishment scheme among insiders' group. The Muslim Maghribis in a short time span came from

¹²¹⁷ Following Professor Kent Deng's high quality research standards, this illustration is the author's own creations. The original Maghribi traders' study in Grief's book was shown with verbal analysis and conventional game theory matrices and mathematical formulae. Perhaps, not creative enough, he did not come up with this diagram. It is the author who is able to reduce complicated mathematical equations demonstration into a succinct and comprehensive diagram. This confirms the intelligence of and high originality from the author. Again, this high standard research cannot be completed without the examiners' valuable guidance.

some mysterious origin, grew and swept like a wind across the Mediterranean continent in the eleventh century.¹²¹⁸ Major trade routes in the region by then were operated by the Maghribi traders.

At the same time, besides traders from the Muslim world, Italian traders were very active in Mediterranean trade as well. And they became dominant *after* the eleventh century. The fact that Maghribi traders were powerful in Mediterranean trade when Italian Genoese gradually emerged from their European medieval city-states, and the fact that the Genoese later dominated the regional trading networks while the Maghribis disappeared, also suddenly like a wind, remain interesting historical questions to answer. Greif emphasises that a different kind of institution—the patron system—based on bilateral commitment backed by state enforcement emerged among Genoese traders. Agents and merchants were separate entities. *Commenda* contracts between two parties, one providing capital and the other providing travelling and transacting overseas, prevailed, in contrast to the Maghribi partnerships. *Collective* punishment was not common, and Christianity as a factor also made Genoese contract the one between individuals, not between social groups.¹²¹⁹

¹²¹⁸ Some say they were descendants from the Jewish origin. Others say they were Muslims. A possible synthesis was Jewish Muslims. See Greif, *Institutions and the path to the modern economy: lessons from medieval trade*

¹²¹⁹ Greif, *Institutions and the path to the modern economy: lessons from medieval trade*

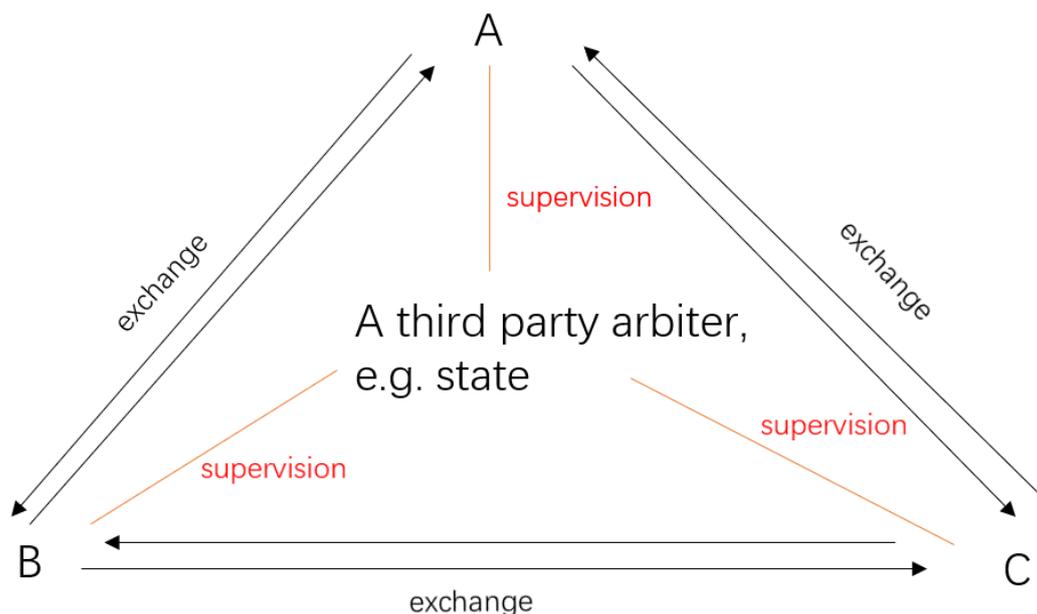


Figure 13 A bilateral exchange made possible by a third-party enforcement: B's defaulting to A would face punishment from the third-party arbiter, but B's trading with C unaffected by B's relation to A¹²²⁰

Greif argues these different institutional foundations explain the 'reversal of fortune' between Maghribi and Genoese traders. The multilateral reputation punishment mechanism was easier to set up without the need for a third-party public institution. FPOE was overcome among group members' collective punishment scheme. However, as group members increased and trade expanded, it became increasingly cumbersome for each group member to maintain commitment with *all the rest* of Maghribis. Conversely, a third-party public institution was costly to set up. Yet once established, commercial networks could continually accommodate trade

¹²²⁰ Following Professor Kent Deng's high quality research standards, this illustration is the author's own creations. The original Genoese traders' study in Grief's book was shown with verbal analysis and conventional game theory matrices and mathematical formulae. Perhaps, not creative enough, he did not come up with this diagram. This confirms the intelligence of and high originality from the author.

expansion and were impersonal.

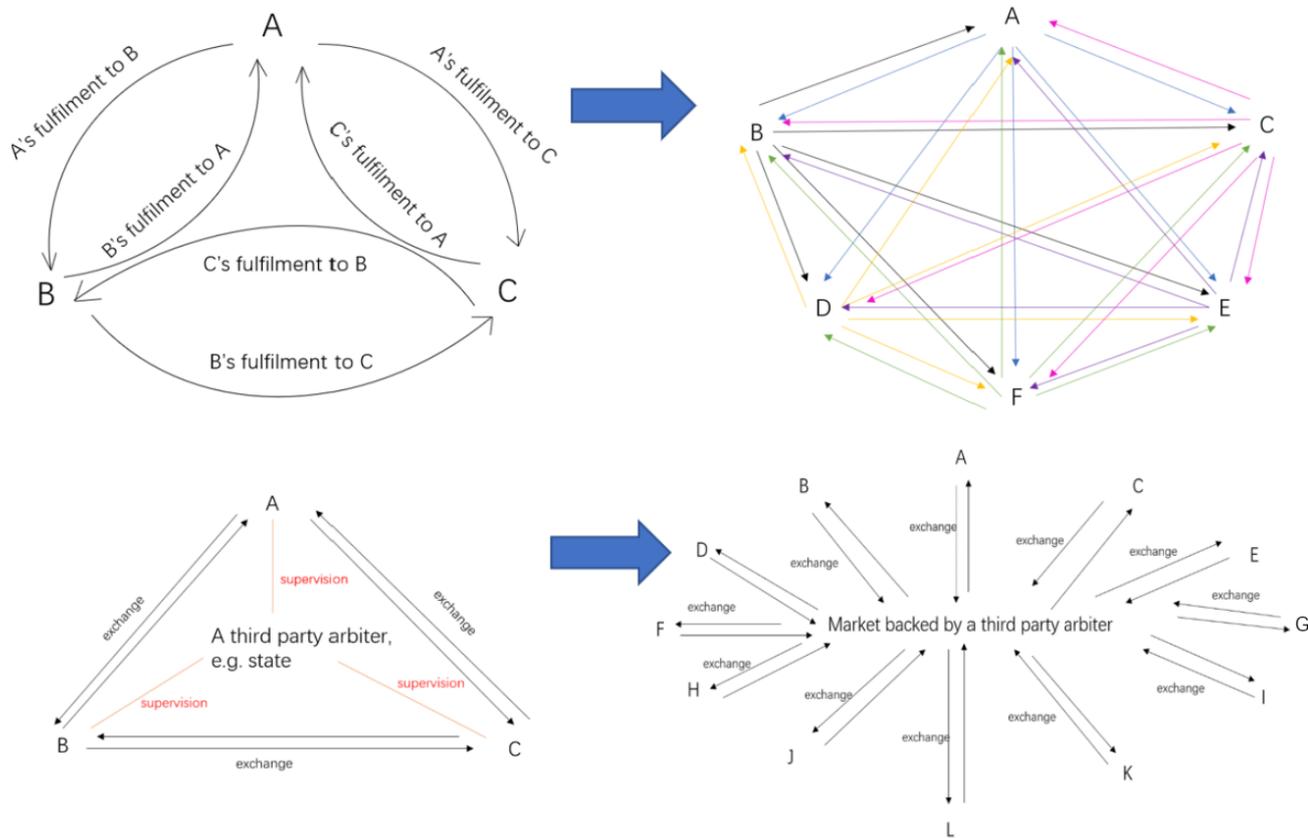


Figure 14 Comparison between multilateral reputation commitment scheme and third-party enforced bilateral exchange as trade member increases¹²²¹

Maghribis' multilateral reputation scheme had a definite limit since each Maghribi trader needed to know each other. This institutional mechanism was also quick to establish and quick to die out. Once the generation passed away, the social trust established between group members would also dissolve. This explains the historical rise and fall of the Maghribi traders. The commercial networks founded by the Genoese, on the other hand, were

¹²²¹ Following Professor Kent Deng's high quality research standards, this illustration is the author's own creations. Perhaps, not creative enough, Grief did not come up with this diagram. This confirms the intelligence of and high originality from the author.

impersonal and had no trade member ceiling. The initial sunk cost of its establishment was higher, but its growth *potential* was huge. Market rules-based network enjoyed economies of scale effect as trade expanded and participators increased that were not available to other institutional arrangements. Greif argues this validates the importance of transparent public institutions and draws distinctions between informal relation-based society and formal rules-based society.¹²²² To Greif, this explains the retreat of Maghribis and the triumph of Genoese. In the long run, only rules-based governance would succeed. This institutional trajectory demonstrates why the European hegemony *had* to be.

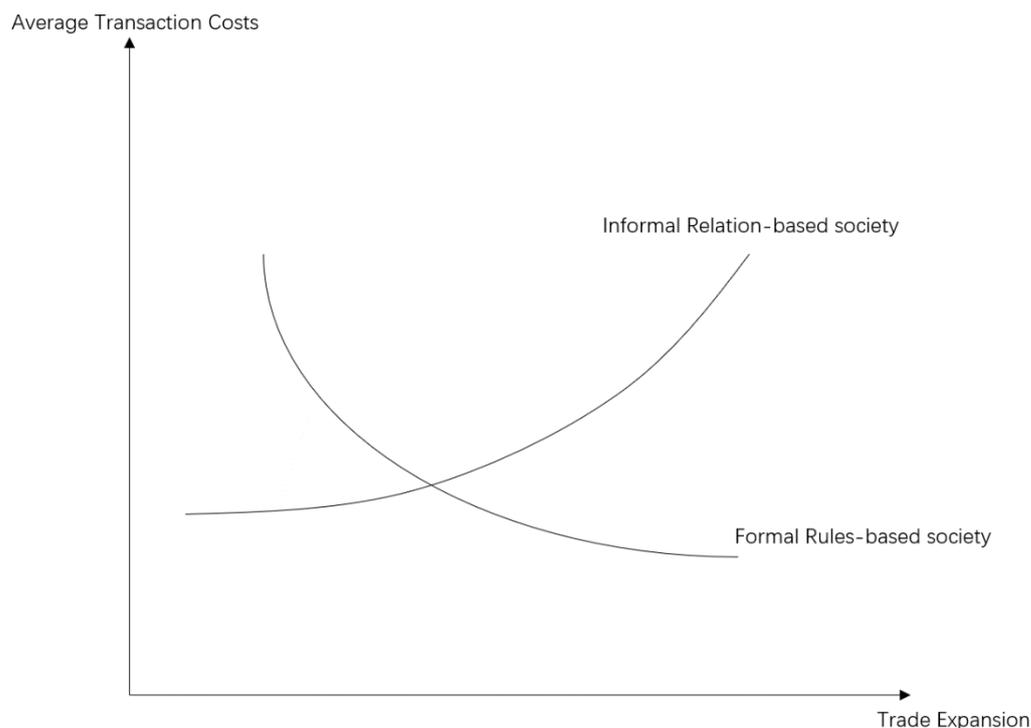


Figure 15 Relation-based society versus Rules-based society

¹²²² Greif, *Institutions and the path to the modern economy: lessons from medieval trade*

A group of research followed Greif's game-theoretic approach. Morck and Yang studied the famous Shanxi Banks in Late Qing China. Shanxi, an inland remote region, generated the most prosperous banks across Qing China in the 1800s. The banks hired insider agents only from Shanxi, and some even kept to only one county. Contracts were signed permitting their wives and children as hostages. Throughout the bank's century-long history, they find no hint of fraud or deceit by any professional manager.¹²²³ Yet the Banks gradually died away, as Maghribis, when Qing China quit the historical stage. John Li argues although the relation-based governance mechanisms in East Asian societies in the short run may have contributed to the East Asian miracle, it was the same factor that led to the Asian crisis when 'crony capitalism' was unable to sustain the financial shocks.¹²²⁴

It seems as if the 'Great Divergence' debate is resolved. Greif's game-theoretic explanations to the medieval long trading cases lead one back to the old 'good institutions causing economic growth' Eurocentric literature.¹²²⁵ Only impersonal formal market rules-based commercial networks backed by transparent public institutions—democracies, rule of

¹²²³ Randall Morck and Fan Yang, "The Shanxi Banks," *NBER Working Paper* 15884, 2010

¹²²⁴ John Shuhe Li, "Relation-based versus Rule-based Governance: an Explanation of the East Asian Miracle and Asian Crisis," *Review of International Economics*, 11(4), 651—673, 2003

¹²²⁵ Douglass C. North and Robert Paul Thomas, *The Rise of the Western World: A New Economic History* (Cambridge: Cambridge University Press, 1973); Mancur Olson, "Dictatorship, Democracy, and Development," *The American Political Science Review*, Vol. 87, No. 3 (Sep., 1993); Daron Acemoglu and James A. Robinson, *Why Nations Fail: The Origins of Power, Prosperity, and Poverty* (London: Profile Books, 2012)

law—can deliver long-run sustainable economic growth. But is it? Is it ideology or *real* history?

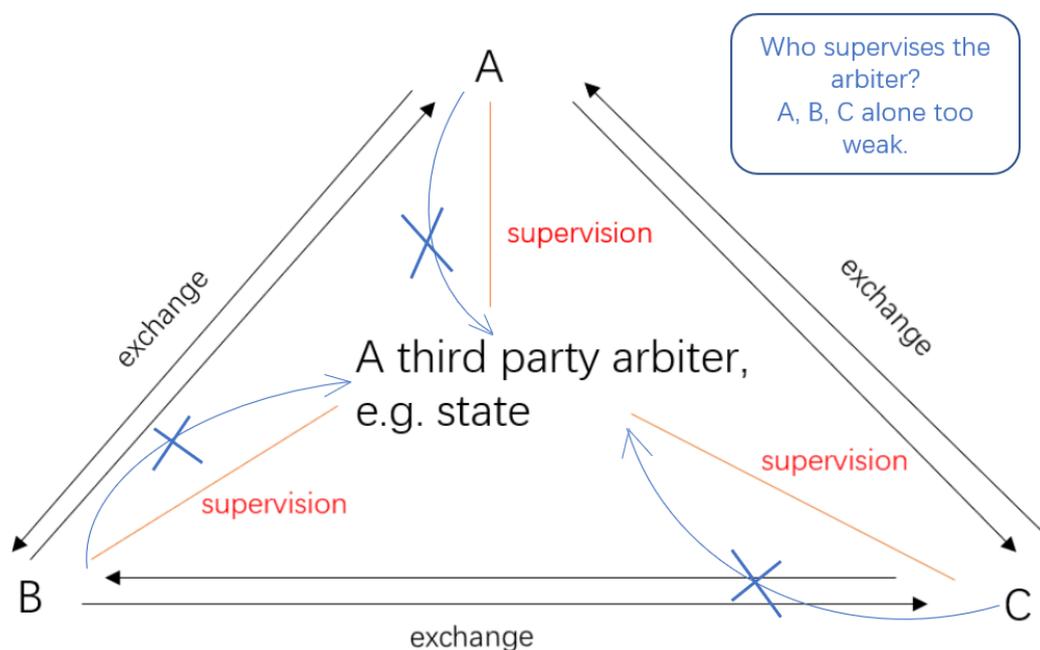


Figure 16 *Quis custodiet ipsos custodes* (Latin: who watches the watchmen?)¹²²⁶

What Avner Greif did is essentially applying *game theory* to partial historical facts and thereby coming up with a universal conclusion that does not stand up to closer historical *facts* scrutiny.¹²²⁷ Before he investigated the Maghribi and Genoese cases, Greif already had an ideological stance in mind. And hence the way he applied the theories amounts to a hypothetic-deductive confirmation (the pitfalls of circular arguments that use its own conclusion as one of its stated or unstated

¹²²⁶ Following Professor Kent Deng's high quality research standards, the critical insights and illustration are the author's own creations. They demonstrate the intelligence of and high originality from the author.

¹²²⁷ The author would like to thank Professor Kent Deng for having a nice capture: 'treating opinions as facts' and testing/falsifying theories with facts between Economics and Economic history. And hence the author's writing and language is much clearer and sharper on this throughout this research project.

premises) of the upholding ideology. This has two problems. First, there is inherent theoretical deficiency within his theoretical framework. He just treats the third-party arbiter in the Genoese case as a ‘black box’: it is simply to be there as an impartial public institution so that the two trading parties are able to credibly commit. Second, this inherent theoretical deficiency in turn gives a serious misleading impression that is contrary to comprehensive historical findings.

If we open Grief’s ‘black box’, a natural question to continue is ‘who watches the watchmen?’ And this proves deadly to reach historical realism. Historian Janet Abu-Lughod reveals that the third-party arbiters were not ideal transparent public institutions but *private rent-seekers*. The economic system of the European Middle Ages was founded on feudalism, supporting the manorial lords with the work of peasant serfs. The serfs were bondsmen to the lords and not allowed to leave the lords’ jurisdictions. Trade and exchange between regions were therefore conducted by the outside merchants entering each lord’s power sphere. “The lords received tolls (*tonlieux*) on the goods in transit. They received high rents on the halls, stables and houses they leased to the itinerant merchants... they charged license fees for all sorts of economic enterprises...” and in return they “accorded to the merchants attending the fairs very active protection of their persons, their men and their goods. Their protection began the day

they set out for the fair.”¹²²⁸ But this protection was more often the excuse, rather than the necessity, to take rents. The enormous castle and city walls erected in European medieval towns and cities, initially for military defence purposes, had a bare chance for usage. They became the symbol for each lord’s prestige to carve out his sphere of influence such that ‘a market cannot be established within 6 and 2/3 miles of another market.’¹²²⁹ Markets were the private property of the local lords; each in charge of one excluding others. To enter the market needed a ‘protection fee’.

Premodern China, in contrast, did not have such limitations. Local village trading fairs were managed by the free peasantry. Merchants were not involved.¹²³⁰ No ‘protection fee’ was needed to enter the voluntary *ganji* village markets. Ironically, Greif argues for declining transaction costs in European commercial networks *in theory*; it was European medieval fairs that had high transaction costs in historical *reality*. Historian Steven Epstein asserts that feudalism was a social-economic system in which political power defined economic power and resources were systematically

¹²²⁸ Following Professor Kent Deng and Professor Xinming He’s high standards, “to keep away from repeated citations of the same author”, “on some pages over 5 citations of the same person. A rule of thumb: the same author should appear on the same page no more than twice”, direct quotations are aimed to be kept at a bare minimal, unless they are important. Here they serve as a prime point of reference. Janet L. Abu-Lughod, *Before European Hegemony*, p.58. The European Subsystem: The Cities of the Champagne Fairs

¹²²⁹ This is from the English feudal lord law. A quote taken from the author’s lecture notes at Masters in 2019’s EH482 course on the Medieval European local markets section, at LSE.

¹²³⁰ Kent Deng, *Mapping China’s Growth and Development in the Long Run 221 BC to 2020* (Imperial College Press, 2015), p.54.

allocated through decentralised political rent-seeking. Feudal markets excluded participants on grounds of status from producing and trading that systematically constrained the Smithian market growth.¹²³¹

Grief's *mechanical* view on institutions category alone does not take these broader *organic* socio-economic systematic contexts into consideration. The separate entities between agents and merchants in *commenda* contracts in the Genoese case, and simultaneous identities of both in the Maghribi coalition partnerships could not be simply attributed to the different institutional foundations of each. For one thing, agents and merchants were *not* equal entities in the Genoese example. As Grief himself acknowledges: "historical records indicate that classes and inflexibility in agency relations prevailed in Genoa but not among the Maghribis." "...under the bilateral reputation mechanism merchants are not likely to hire other merchants as their agents. In other words, when agency relations are governed by the patron system we are likely to see a merchants' 'class' and an agents' 'class'."¹²³² The Genoese wealthy merchants, who rarely if ever functioned as agents, hired relatively poor agents, who rarely if ever functioned as merchants.¹²³³ Conversely, one does not find such *class-conscious*

¹²³¹ Steven R. Epstein, *Freedom and Growth: The rise of states and markets in Europe, 1300—1750* (London and New York: Routledge Explorations in Economic History, 2000), p.173.

¹²³² Following Professor Kent Deng and Professor Xinming He's high standards, direct quotations are aimed to be kept at a bare minimal, unless they are important. Here they serve as a prime point of reference. Avner Greif, "The fundamental problem of exchange: A research agenda in Historical Institutional Analysis," *European Review of Economic History*, **4**, 2000, p.270.

¹²³³ Avner Greif, "The fundamental problem of exchange: A research agenda in Historical Institutional

separations among the relatively homogenous Maghribi group members. More importantly, Allen et al.'s data show that real wages of Italian cities—in which twelfth to fifteenth centuries Genoese and Venetian ways of trading commonly upheld as the cradle of European capitalism, and the original places of the European Renaissance—were far lower than the English real wages on the eve of and during the British Industrial Revolution (IR); about 2 units in real daily wages comparable to Peking's level as opposed to 4 units in 1738's Britain, and 8 units in 1918's Britain after its completion of the IR.¹²³⁴ The twelfth century Genoese way of

Analysis," *European Review of Economic History*, 4, 2000, p.271.

¹²³⁴ Robert C. Allen, Jean-Pascal Bassino, Debin Ma, Christine Moll-Murata, and Jan Luiten Van Zanden, "Wages, prices, and living standards in China, 1738—1925: in comparison with Europe, Japan, and India," *Economic History Review*, 64, S1 (2011), pp.8—38. Following Professor Kent Deng and Professor Xinming He's high standards—"the new version of this dissertation needs to demonstrate a better handling of quantitative and qualitative evidence. It is vital for the student to evaluate critically every piece of evidence employed in the dissertation"—data are checked and evaluated by the author. The data sources of Allen's team are compiled and collected through first-hand premodern texts and recordings in each historical city (e.g., Milan, Peking, Suchou, London, etc.)'s administrative history and employment contracts. Hence at a first glimpse they seem to have done a pretty painstaking and decent work. The problem however comes from their *conceptual* comparison framework which suffers from selection bias that puts doubt on their data *comparisons*. In their methodology they only consider nominal daily wages recorded in grams of silver in each region and compile different basket of goods consumption to produce the real wages comparison. Their logic premise is real wages in each historical city reflect living conditions. The crucial area they ignore, however, is whether *people earned a living through wages*. For instance, the European data sources that Allen et al. compile are from merchant guilds employment contracts (apprenticeship in London before the IR and factory wage labourer during its industrial phase), and these were *professions*. For Chinese peasantry, wages were mainly for *seasonal* labour. *Duangong* short-term labour contracts, *linggong* piecemeal labour contracts were common in city areas, while *changgong* long-term contracts were less common. Even for *changgong*, the term *gong* specifying *banggong* helping hand means it was periodic rather than lifelong; eventually for a few years would return to rural village farming. Imperial Chinese taxation system were mainly based on rural land tax, and corvee labour services *yaoyi* were deliberately avoided due to Confucian principles *qingyao bofu* 'less interference with people's wellbeing, light taxes and light hands approach on conscripting labour from the emperor court.' Even when corvee labour or military services were conscripted, people in the end would return to farming. This was in sharp contrast to the Japanese *samurais* or the European knights. In short, the majority in premodern China were free rural peasantry engaged in various functions and active in trade. Merchants, artistry, peasant serfs etc. on the other hand were professions in European context. Europe needed agents and merchants to conduct trade exchange. Chinese farmers traded in local networks themselves. Artisans joined into merchant guilds in medieval cities and earned a wage living. Chinese farmers engaged in artisanal production for *side-line* production activities in idle seasons. European peasant serfs were in the charge of the manorial lords' command. Chinese farmers were in charge of their own production and consumption. The real wages

medieval long trading that Greif cherishes to be the long run institutional foundation to European prosperity did *little* to Italy's modern economic development before the British IR. One cannot talk about institutions without thinking on the broader social structure. And any argument on 'good institutions causing economic growth', whether from the 'old' liberal rhetorical ideology or the 'new' catchy game-theoretic modelling, cannot be disentangled away from the most prominent feature in world history: capital accumulation, or *imperialism*.

Grief's hypothetic-deductive confirmation of his ideological stance

comparison is therefore inappropriate in the West-East comparison context because Chinese farmers did *not* earn a living through wages. Wages on the other hand were important in the European context because whether it was feudalist city guild artisans or capitalist urban factory workers, they were wage labourers separate from their 'means of production'. James Scott, studying Southeast Asian societies and East Asia in general, elaborates that career preferences did not make sense in terms of wages income alone. Hierarchy of status in the moral economy of the peasant ranked from small landholder, to land tenant, to wage-labourer. Even though a small landholder could be poorer than tenants who could rent larger plots; and marginal tenants could be poorer in a good labour market than wage workers. The key reason for this counteracting preference against market income alone was because of the key advantage that the small landholder possessed—the means of his subsistence—land in his own hands. See James C. Scott, *The Moral Economy of the Peasant: Rebellion and Subsistence in Southeast Asia* (New Haven and London: Yale University Press, 1976). And this preference proved to be correct by history. The colonial period in Southeast Asia was marked by increasing commercialisation while at the same time increasing fluctuations of the market prices. While the direct consumption of food crops insulated a peasant from the fluctuations, others suffered from the deprivation of the original 'safety first' social insurance network and the encroachment of capitalist market principles created and deteriorated the agrarian class relations. Hence erupted waves of agrarian unrest in the region during the 1920s and 1930s predominantly by no landers. Therefore, Robert Allen et al.'s attempts to reject Kenneth Pomeranz's 'Great Divergence' argument could not hold water. Their chosen proxy for analysis fails to capture the very message that Pomeranz was getting at: *living standards* comparison. Pomeranz's more comprehensive comparison: safe drinking water, hygiene, literacy, diet and vegetables, life expectancy, luxury and services consumption, labour mobility, land sales, freedom to engage in market and trade, size of market, intensity of market integration, private property rights, status of people, social stratifications, European guilds versus Chinese *hang*, etc. are more wide-ranging and hence more accurate starting points for living standards comparison among essentially very different socio-economic societies. While Allen et al.'s data are inaccurate for East-West comparison, these are helpful for comparisons among European regions due to the feudalist social structure they shared. Here hierarchy of status for the majority followed from wages income, because the poor majority were feudal peasant serfs with no land and who were later forced to evacuate to capitalist urban cities after land enclosures, in Britain's scenario. Here Italian Milan was poorer than the English London in terms of real wages in 1738, and the gap widened throughout the Industrial Revolution.

rendered his game-theoretic application a *partial* exercise. The same approach can be applied in a reverse direction once one considers the state's 'black box' *in full*.

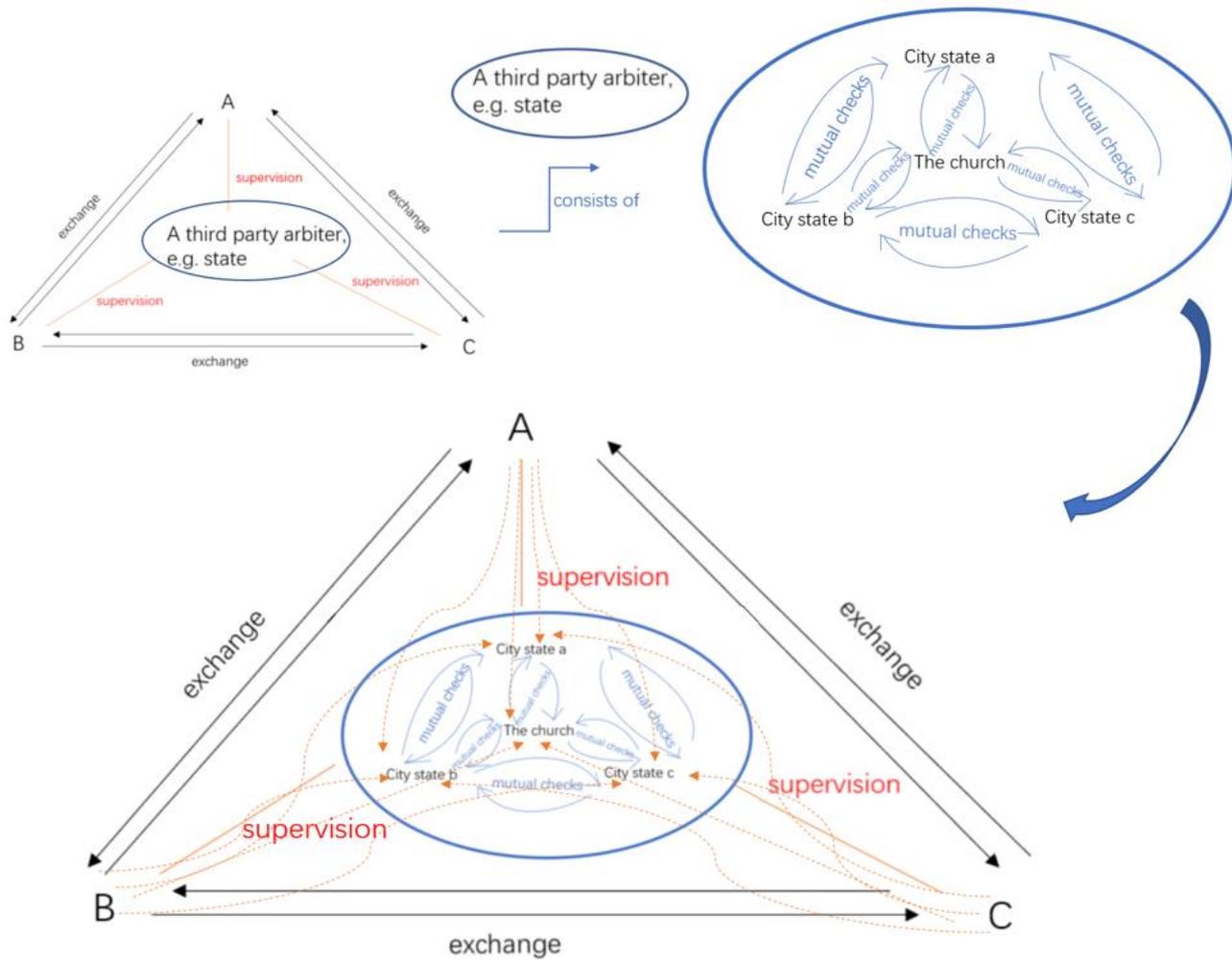


Figure 17 Opening up the third-party 'black box': a comprehensive demonstration of the Genoese way of trading¹²³⁵

A *full* application of game-theoretic tools to the Genoese case reverts one

¹²³⁵ Following Professor Kent Deng's high quality research standards, "make critical comments on already circulated diagrams and theorems rather than present them exactly as they first appeared", "illustrations are necessarily of the author's own creations", this critical new comprehensive diagram is developed by the author that demonstrates the intelligence of and high originality from the author.

back to the Maghribi example logic. Although each trading player is powerless to supervise the third-party arbiter, mutual checks among the city-states and separation between the church and the state generally ensured each individual to have the power to choose an alternative jurisdiction. These together formed a certain flavour of ‘impartiality’ to the third-party public state in Grief’s theory that consisted of competing feudal lords in historical reality. *Private* rent-seekers would serve a public function due to each other’s existence such that a merchant could choose to leave for another lord’s sphere of influence and apply for political asylum from the church (and vice versa from a city state lord if religious oppression) if he did not go well with the incumbent city state. These familiar settings remind one of ‘the checks and balances’ or ‘the separation of powers’ from the European Enlightenment ideology rhetoric that were veto players’ mutual restraints in essence. In other words, a *third* party does not come free. The existence of a credible impartial well-behaved third party inevitably *must* involve some sort of multilateral commitment scheme among all incumbents.¹²³⁶

The critical insights developed so far are crucial for us to evaluate the recent game-theoretic applications to the Imperial court of China. The

¹²³⁶ Following Professor Kent Deng's spirits, "make critical comments on already circulated diagrams and theorems rather than present them exactly as they first appeared", this significant brand-new insight developed showcases the intelligence of and high originality from the author.

previous 40 years of revisionist research had debunked Europe's self-claimed ideological myth on Adam Smith's 'peace, easy taxes and a tolerable administration of justice are the natural course to opulence.' Historical findings show that it was Britain that levied the highest tax rate in world history. In contrast, China's Imperial court deliberately imposed a striking low rate on its people. These are concrete historical *facts*. The recent one and a half decades however saw a return of Eurocentric ideology with the game theory 'gun barrel'. North and Weingast argue that it was exactly because of Britain's liberty that enabled it to possess such a high tax-raising capability.¹²³⁷ Ma and Rubin on the other hand refute Kent Deng's 'policy choice' verdict, asserting that the reason why Chinese Imperial government had such a low tax is because it was despotic so that it could not credibly commit to tie up its hands from confiscating the masses' wealth, and hence low tax was the only capable option and possibility.¹²³⁸

The first objections to their theory were the facts that premodern China *did* manage to impose high tax rates in its historical periods. Taxes rate reached more than 50% dating back to 221 B.C. Qin Empire, that was 20 times

¹²³⁷ Douglass C. North and Barry R. Weingast, "Constitutions and Commitment: The Evolution of Institutions Governing Public Choice in Seventeenth-Century England," *The Journal of Economic History* 49, no. 4 (1989), pp.803-32.

¹²³⁸ Debin Ma and Jared Rubin, "The Paradox of Power: Understanding Fiscal Capacity in Imperial China and Absolutist Regimes," London School of Economics and Political Science Department of Economic History Working Papers No. 261—March 2017.

higher than the previous level.¹²³⁹ Han China, the subsequent dynasty, deliberately adopted the Daoist and Confucian principles on recuperation and recovery (*xiuyang shengxi*), and Imperial China's light tax tradition was founded from then on. Late Qing China successfully created new levies on commerce & customs and increased its tax rates during the 'Self-strengthening' and 'Westernisation' movements after its defeat in the First Opium War, breaking the century long 'freezing tax' tradition since the Kangxi emperor.¹²⁴⁰

More importantly, these authors get an unsophisticated understanding on credible commitment mechanism. In their logic a third party, the 1688's Parliament, formed to check the English king; while there was no third party to check the Chinese emperor on its people. They fail to understand 'third party' in Britain's scenario arose from a reconfiguration and creation of multilateral commitment scheme among existing parties, such that the British monarchy was heterogeneous to the Chinese example due to essentially very different socio-economic societies of each to begin with. The key to the formation of credible commitment is not third party *per se*, but political participation of others in the decision-making process. The

¹²³⁹ Following Professor Kent Deng and Professor Xinming He's high standards, the author strives to take painstaking efforts in directly getting accurate first-hand data from ancient primary texts rather than secondary regurgitating sources. See 《史记》 *Shiji (The Book of History)*; 《商君书》 *Shangjun shu (The Book of Lord Shang)*; 《汉书·食货志》 *Hanshu, Shihuo zhi (The Book of Han, section on a recording of food and goods)*

¹²⁴⁰ Roy Bin Wong and Jean-Laurent Rosenthal, *Before and Beyond Divergence: The Politics of Economic Change in China and Europe* (Cambridge, Mass.: Harvard University Press, 2011)

unilateral feudalist nature of the English king needed a ‘third party’ to work.

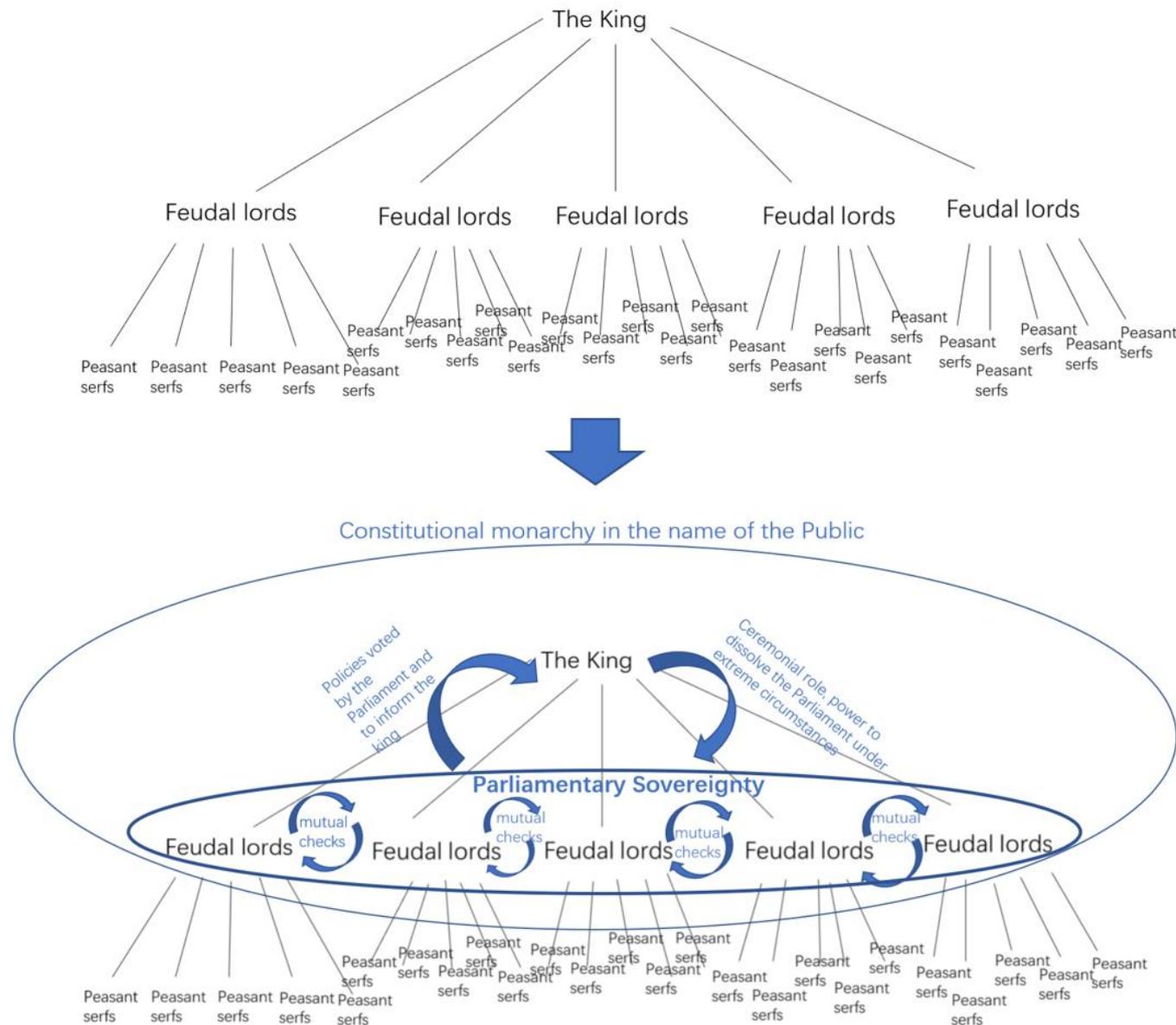


Figure 18 The 1688 ‘Glorious’ Revolution’s credible commitment mechanism: upper-class democracy¹²⁴¹

Under feudalism, the king delegated a specific duty to govern the land to a feudal lord, and each lord held sovereignty over and collected taxes from

¹²⁴¹ Following Professor Kent Deng's high quality research standards, the new critical insights and this illustration demonstrate the intelligence of and high originality from the author.

his domain. The peasant serfs were bondage to the lord, and farmed the land for him. Society was ruled by 'blood'. Social stratifications were strict, and each stratum was born to one's place and shall live there forever. It was therefore no coincidence that the English feudal king needed a third party to tie his hands to be credible, because the society was essentially 'top down'. This phrase however was later applied to other places that Europe attached 'absolutist' regimes including premodern China. But this was ironically a European phenomenon that strict feudalist social tiers levelled from the top down to the bottom, with no acquired breaking allowed. This was despite complicated by the enfeoffing nature of feudalism that 'The vassal of my appendage is not my appendage.' The 1688 constitutional monarchy was set by a reconfiguration and grouping of feudal lords and new capitalist wealthy that formed the Parliament to check the king. The feudal lords, or the later upper-class capitalists, participated in the decision-making process of the original unilateral power framework. The world's first democracy was formed by the newly formed 'third-party' upper-class that in fact had nothing to do with the peasant serfs. Under the name of 'Public', the most aggressive land *enclosure* policies unprecedented in world history passed by the Parliament Acts soon followed. One-sixth of England was enclosed after 1688, when Parliament itself became a powerful instrument of enclosure, expelling millions impoverished to

cities.¹²⁴² This helps one make sense of the paradoxical low life expectancy among England's working class in the early 19th century.¹²⁴³

The power relations of premodern China, in contrast, were *bi-directional*. The Chinese emperor selected scholar-officials through the *Imperial Examinations* system to run the country from the vast free peasantry public. He did *not* need a third party to serve as a credible commitment mechanism to check on him because the vast rural peasantry had *already* participated in decision-making processes. The vast peasantry *was* the third party. It is common misunderstanding nowadays that when one thinks of 'top down' command in history, he has Chinese imperial bureaucracy in mind. This *false* image directly came from the Orientalist and patriarchal construction of the 'West versus the East' since the latter half of the European Enlightenment (ironically, its early half borrowed philosophical ideas from China), and the British discourse of imperialism in particular.¹²⁴⁴ Imperial China's vertical bureaucratic structure gave it a 'top down' flavour, but it was exactly because of the social mobility channel between officials and

¹²⁴² Hickel, *the Divide*, pp.77-81. Following Professor Kent Deng and Professor Xinming He's high standards, the author checked Hickel's 'burden of proof'. His data come from the *authorised* magazine devoted to land study, *The Land Magazine*. Article by Simon Fairlie, "A Short History of Enclosure," in Summer 2009.

¹²⁴³ A wide range of detailed historical work tackled this. See Jane Humphries, "The lure of aggregates and the pitfalls of the patriarchal perspective: a critique of the high wage economy interpretation of the British industrial revolution," *Economic History Review*, 66, 3 (2013); Jan L. Van zanden, "Wages and the standard of living in Europe, 1500—1800," *European Review of Economic History*, 2(1999), 175—197; and, of course, Kenneth Pomeranz, *The Great Divergence* (2000).

¹²⁴⁴ See the classic John M. Hobson, *The Eastern origins of Western civilization* (Cambridge: Cambridge University Press, 2004), Chapter 10. Constructing European racist identity and the invention of the world, 1700—1850: the imperial civilising mission as a moral vocation, for a detailed discussion.

peasantry that ensured *both* ‘top down’ and ‘bottom up’, and hence the *vertical* structure was constructed. It was directly the *result* of social mobility selection processes—rule by merits—that deviated from the very connotations ‘top down’ attaches to. Each village’s rural peasantry gathered money together to hire teachers and organise school to educate their sons, in the hope that they could be recruited from the examination; the passed candidates, in turn, were expected to give back to their home village. The vast rural peasantry sent their off-springs to take part in the *Imperial Examinations*, and expected this system to be fair and well-maintained; the emperor held the examinations, in the hope that best peasant sons were recruited to deliver good governance and run the empire well. The vast rural peasantry trusted the emperor and his bureaucracy as a whole, obeying its dynastic rule in return for prompt public goods provision such as granary system during bad harvesting years, light taxes, and material well-being; the emperor and his imperial bureaucracy abided by self-regulating Confucian conducts and delivered physiocratic policies, exchanging for peaceful order and tranquil people. If physiocratic policies were not well-maintained, there was always the *credible threat* of peasantry revolts. In this state-peasantry alliance, everything was *reciprocal*.

THE STATE-PEASANTRY ALLIANCE

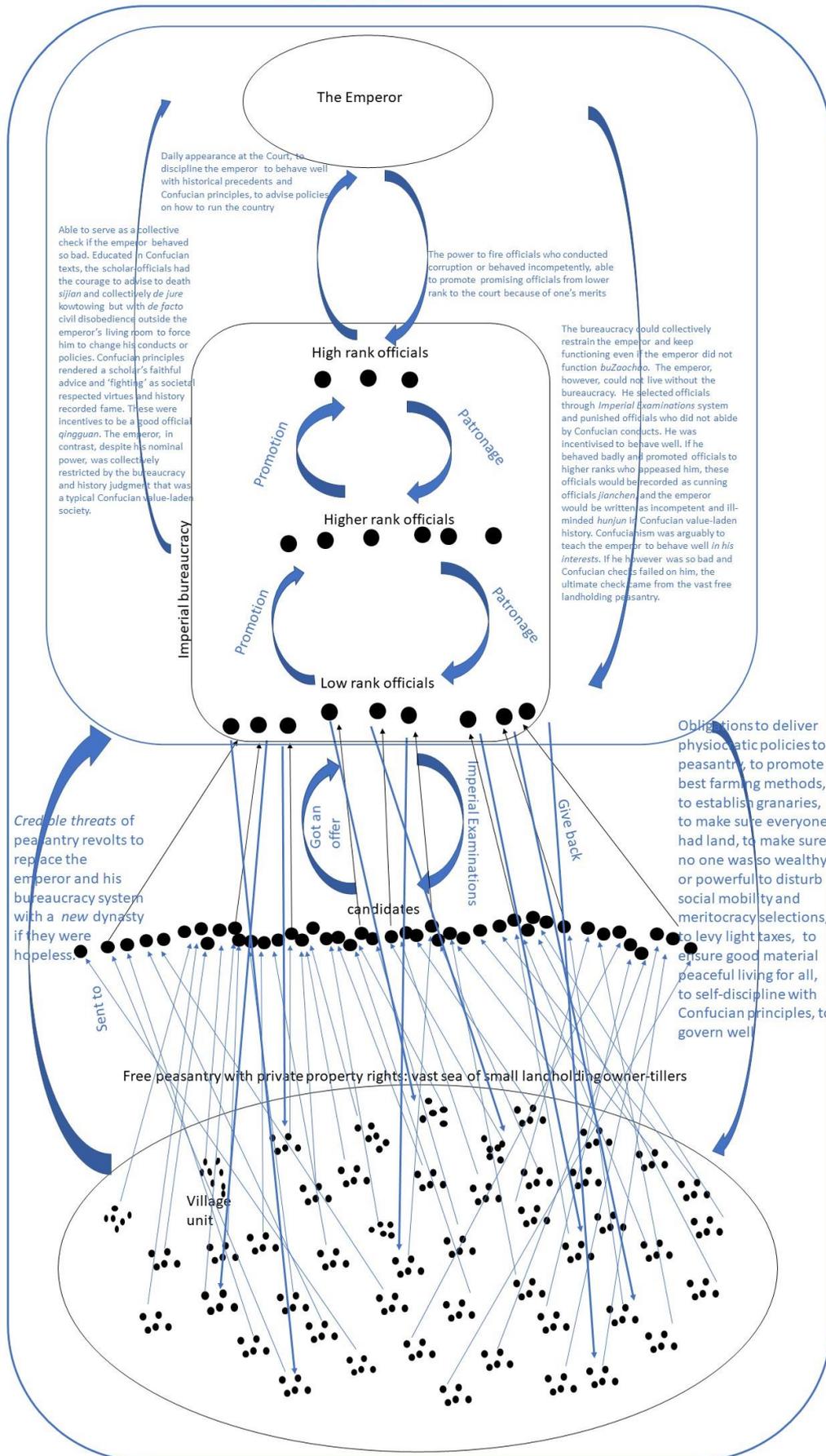


Figure 19 The Premodern Chinese state-peasantry alliance, the biggest credible commitment mechanism in world history: ‘Grassroots’ democracy¹²⁴⁵

It is hence one of the greatest ‘academic crimes’, predominantly from the European imperial civilising mission as a moral vocation, that premodern China’s ‘despotic’ regimes oppressed the progressive forces in society, merchants and commerce (*zhongnong yishang*), and made China fail to modernity. This is misleading in two regards. First, China’s imperial bureaucracy was not ‘top down’ but both ‘top down’ and ‘bottom up’. Second, merchants’ development restriction did not come from the emperor’s order. It directly came from the vast peasantry public. The emperor was just fulfilling his political mandates and would be terminated if he failed to do so. More importantly, when Eurocentric scholars cherish merchants, they do not talk about peasant serfs’ bondage to the manorial lords and the rent-seeking social structure that led merchants to flourish. When they talk about ‘top down’ absolutist regimes in world’s other places, they do not mention, paradoxically, that the horizontally rigid feudalist social tiers matched best to the vertical ‘top down’ description. China was

¹²⁴⁵ The author would like to thank Professor Kent Deng for his research aspirations and his high standard requirements to the author. This beautiful illustration and the brand-new insights developed could not come out without Professor Deng’s research enlightening and his encouragement to the author to be critical and to have his own illustrations. The idea of state-peasantry alliance comes from Professor Deng’s historical observations and his nice summative capture. The author developed his idea with the game theoretic analytical framework that was supposed to be used by the ‘opposition’ Eurocentric group. The author not only clearly explained the state-peasantry alliance mechanism with the credible commitment idea, but also by so doing successfully led the opposition to their own *self-destruction* with the analytical framework they very much based on. Together, Professor Kent Deng and the author manifest what is inheritance and carrying forward *jicheng yu fayang*. To quote Sir Isaac Newton: “If I have seen further, it is by standing on the shoulders of giants.”

vertical to *avoid* ‘top down’. When they talk about the ‘Glorious Revolution’, one thing that has been understated in their orthodox history is the subsequent *enclosure* acceleration.¹²⁴⁶ Ma and Rubin get the facts and theories both wrong: It was not due to the lack of credible commitment mechanism that the premodern Chinese state could not raise higher taxes, but it was directly *refrained* from doing so by the vast free land-holding peasantry. And North and Weingast only made their explanation partial: the British Parliament was credible commitment mechanism to the king’s creditors, but it was fiscal machinery directly on its own people.

In sum, more nuanced historical facts need to be considered along these *partial* game-theoretic applications that are hypothetic-deductive confirmation to one’s own ideology in essence. The relational ‘cronyism’ charge to East Asian governments after the 1997 financial crisis is *blind* on the fact that the East Asian countries and regions that were immune from the crisis was not due to their ‘sound’ financial markets based on the Anglo-American mode but their even more extremeness in the *reverse* direction: the closed capital account.¹²⁴⁷ And *family* firms were the original form of

¹²⁴⁶ The clearances were so thorough that few people were even left to remember, and the entire process was suppressed from collective memory, until its history was retold. For instance, when John Prebble’s book *The Highland Clearances* appeared, the Historiographer Royal for Scotland Professor Gordon Donaldson commented: “I am sixty-eight now and until recently had hardly heard of the Highland Clearances. The thing has been blown out of proportion.” See Alastair McIntosh, “Wild Scots and Buffoon History”, *The Land* 1, 2006. And when Queen Caroline asked Prime Minister Robert Walpole how much it would cost to enclose St James’ Park, Walpole replied “Only a *crown*, Madam.” See Simon Fairlie, “A Short History of Enclosure,” *The Land* Summer 2009.

¹²⁴⁷ Wade, *Governing the Market*, p.xxxv.

credit banking throughout the European Middle Ages that continued down to the nineteenth century, with the family banking houses of Rothschild in particular.¹²⁴⁸ The reason it did not die out is not because of the alleged Genoese commercial networks but primogeniture European inheritance.¹²⁴⁹ The tools themselves are value-neutral, it is the way how one uses them that counts. Ideological stances need first to be cleaned, and comprehensive *facts* to be studied, so that game-theoretic reasoning can be applied *in full*.

¹²⁴⁸ Abu-Lughod, *Before European Hegemony*, p.16.

¹²⁴⁹ See Gang Deng, *The Premodern Chinese Economy: Structural Equilibrium and Capitalist Sterility* (Oxon; New York: Routledge Explorations in Economic History, 1999), p.51 for a detailed illustration of different inheritance patterns.

APPENDIX B

Illustrations on the role of rational expectations theory to monetary and fiscal policy-making¹²⁵⁰

The role of rational expectations plays a big part in the Monetary Rules versus Discretion debate. For instance, a policy-maker announces that ‘tomorrow I will take action x.’ You react accordingly, by choosing action y. When tomorrow comes, you have committed to y. But I may have an incentive to change my mind given the fact that you have committed to y. This is the time inconsistency problem. And you anticipate this today, and you act differently today. This leads to the proposition of policy ineffectiveness by the monetarists and new classical economists. Suppose a monetary policy maker has a Loss function:

$$L_t = \frac{1}{2}[(\pi_t - \pi^*)^2 + \lambda(x_t - x_t^*)^2]$$

¹²⁵⁰ The author would like to thank Professor Kent Deng's valuable side-note comments on the original script that economic theories and economic history should be separated, not straddled in-between. He advised putting theories to the earlier discussion, instead of leaving them to the main part as a detraction from Chinese economic history analysis. He also on another occasion advised cutting Solow model and either put the rest into a footnote or into an appendix. The author therefore got his enlightenment and put theories directly relevant to the China scenario into Chapter 2. Reviews section for a critical discussion. And put other theories, useful but could serve as a sidenote, into appendices. In this way the China focus is fully maintained, and theories & facts are separated in the main body text, theories put into Chapter 2 or appendices and only economic history facts analysis remain in the main body part. Useful discussions on theories and other issues for readers' further knowledge are provided in appendices not detracting the main part analysis. This also demonstrates the author's sufficient and highly technical economics background which in turn legitimatises his economic historian falsification of economic theories with solid and concrete historical facts. The theories illustrated in this section benefit from Professor Charles Beans (the former member of the MPC committee, Bank of England)'s monetary theory lectures the author had taken in his 3rd year uni at LSE, in 2017. These also owe intellectual debt to Professor Ricardo Reis (Mankiw's student)'s fiscal policies macro-lectures the author had undertaken in his 2nd year uni at LSE, in 2016, in which the author got a high first over 80 during this course. These illustrations were not copy and paste from textbooks (the first term Monetary Economics lecturer Kevin Sheedy explicitly said there was no monetary textbook covering the course's materials), but from slides and the author's own diligent lecture notes. Hence the author leaves them at this section for the readers' useful reference.

Where:

- π^* is the inflation target, set to 0 for simplicity
- x_t^* is the target for the natural output gap, x_t . It is the difference between the level of output y_t and natural level of output \bar{y}_t . $x_t = y_t - \bar{y}_t$
- If policy maker seeks efficient output, \hat{y}_t , and efficient output generally lies above natural output, then $x_t^* = \hat{y}_t - \bar{y}_t > 0$
- λ is the weight the policy maker attaches to output gaps relative to inflation gaps. A small λ means the policy maker only cares about inflation, 'hawkish'; λ large = 'dovish'.

Policy maker minimises expected value of the loss, L_t , subject to the laws of motion governing the economy, here given by a New Keynesian model:

New Keynesian Philips curve: $\pi_t = E_t[\pi_{t+1}] + kx_t + u_t$

IS: $x_t = E_t[x_{t+1}] - (\hat{i}_t - E_t[\pi_{t+1}] - \delta)/\sigma + v_t$

where u_t is a cost shock and v_t is a demand shock; assume the policy maker observes these before the policy rate \hat{i}_t is set.

Also assume policy maker treats $E_t[\pi_{t+1}]$ as given. The policy maker's problem becomes:

Minimise x_t for $\frac{1}{2}[\pi_t^2 + \lambda(x_t - x^*)^2]$ subject to $\pi_t = E_t[\pi_{t+1}] + kx_t + u_t$

FOC: π_t times $\partial\pi_t/\partial x_t + \lambda(x_t - x^*) = 0$, with $\partial\pi_t/\partial x_t = k$

We have: $x_t = x^* - (k/\lambda)\pi_t$

Substituting the FOC into the New Keynesian Philips curve gives:

$\pi_t = E_t[\pi_{t+1}] - (k^2/\lambda)\pi_t + u_t$

To solve this, we use the Method of Undetermined Coefficients.

Assume the solution is $\pi_t = \omega + \varphi u_t$, where ω and φ are constants.

$$E_t[\pi_{t+1}] = E_t[\omega + \varphi u_{t+1}] = \omega$$

By substituting and reworking we have:

$$\pi_t = (\lambda x^*/k) + \lambda u_t / (k^2 + \lambda)$$

$$x_t = -k u_t / (k^2 + \lambda)$$

$$E_t[\pi_{t+1}] = (\lambda x^*/k) > 0$$

At $\pi = 0$, the monetary policy maker is not content with $x_t = 0$ (natural output, \bar{y}_t , too low) and tries to push y_t above \bar{y}_t by loosening policy.

But private agents understand the policy maker's initiatives, $E_t[\pi_{t+1}]$ increases. The result in the end is output at its natural rate $x=0$ and inflation is *higher*. The higher the λ , the more policy maker cares about output gap and hence employment and wants to do more, the *higher* the inflation bias.

This example explains Keynesian expansionist policies in the 1970s when high unemployment in/stagnation of the economy coexisted with high inflation, i.e., 'stagflation'. Keynesian countercyclical stabilisation policies no longer influenced the output level but contributed to the inflation upward spiral.¹²⁵¹ Robert Lucas argues that due to people's rational

¹²⁵¹ The setting up of equations including the Loss function, NK Philips curve, and IS, and rationale expanded in this section benefit from Professor Charlie Bean's Lent Term 2017 EC321 Monetary Economics course at LSE, Topic 2: The Philips curve, the New Classical critique and the New Keynesian response and Topic 3: The objectives of monetary policy and optimal stabilisation policy, in addition to his Topic 4: Rules versus Discretion: Central bank independence and inflation targets.

expectations, one could only have empirical observations that look like Philips curves but have none of the operational policy implications of the curve.¹²⁵² This time inconsistency problem leads to an upward bias in inflation and a case for ‘rules’ rather than ‘discretion’. Milton Freidman hence asserts that “I have less faith than most economists... in the ability of government to offset market failure without making matters worse.”¹²⁵³

The role of rational expectations not only limits the use of monetary policy, but also limits the fiscal spectrum. The conventional Keynesian view of fiscal policy is that fiscal authorities can stimulate aggregate demand by boosting consumption expenditure via tax cuts that raise disposable income, or by direct government spending in public investment when investment from the private sector possesses ‘gloomy’ prospect about the future. People from the lower social tier tend to have a higher marginal propensity to consume than that from the rich, so as to satisfy their basic needs first. Therefore, the raising of their disposable income by government’s fiscal policies such as social security programs and welfare safety net will boost consumption, raise the effective demand, and through multiple rounds of the multiplier effect pull the economy out of the ‘liquidity trap’. Freidman argues this view is wrong. This presumes that current consumption is

¹²⁵² Robert Lucas, “Econometric policy evaluation: A critique,” *Carnegie-Rochester Conference Series on Public Policy*, 1976, vol. 1, issue 1, 19-46.

¹²⁵³ Milton Freidman’s Interview in Brian Snowdon and Howard R. Vane, *Modern Macroeconomics: Its Origins, Development and Current State* (Cheltenham, UK: Edward Elgar, 2005), p.212.

largely a function of current disposable income. Friedman suggests that current income in fact has two components: a temporary component and a permanent component.¹²⁵⁴ The permanent income component is people's average income and the temporary component as deviation from average income. People's consumption decisions in fact draw from their permanent income. That is to say, changes in income brought about by tax-induced changes in temporary component will be seen as transitory and have little real effect on current consumption plans. The poor may have a higher marginal propensity to consume than the rich, but once their basic needs are satisfied, they tend to hold savings tighter in their hands in future consumptions plans given their low permanent income, and their average propensity to consume shall be lower than that from the rich. If consumption is proportional to the permanent income, this reduces the power of tax-induced changes on aggregate demand which further weakens the Keynesian case for activist fiscal policy.

Suppose a representative agent faces the consumption problem in three periods:

$$\text{Max } c_1, c_2, c_3 \quad \text{in} \quad u(c_1) + \beta u(c_2) + \beta^2 u(c_3)$$

$$\text{Subject to:} \quad c_1 + s_1 = y_1$$

$$c_2 + s_2 = y_2 + s_1(1+r)$$

$$c_3 = y_3 + s_2(1+r)$$

¹²⁵⁴ Friedman, M. (1957). The Permanent Income Hypothesis. In *A Theory of the Consumption Function* (pp. 20-37). Princeton, NJ: Princeton University Press.

where r is the real interest rate, and we discount future utility by a factor β .

Replace out the savings to get the intertemporal budget constraint:

$$c_1 + c_2/(1+r) + c_3/(1+r)^2 = y_1 + y_2/(1+r) + y_3/(1+r)^2 = \text{total wealth, } W$$

Replace c_3 out of objective to solve unconstrained maximisation:

$$\text{Max } c_1, c_2 \text{ in } u(c_1) + \beta u(c_2) + \beta^2 u((1+r)^2(W - c_1) - (1+r)c_2)$$

For simplicity: $\beta = 1$

$$r = 0$$

$$u(c) = \log(c)$$

The solution becomes: $c_1 = c_2 = c_3 = W/3$

This illustrates two properties. First, only total wealth matters. Time profile of income $\{y_1, y_2, y_3\}$ does not matter. The representative agent can borrow/lend no matter how it changes. Only permanent income, not current income, matters for consumption. Second, people want to smooth consumption over time. And they use borrowing/lending to achieve it.

Now introduce government spending $\{g_1, g_2, g_3\}$, so its intertemporal budget (using government bonds to borrow) is:

$$\text{Assuming } r=0. \quad g_1 + g_2 + g_3 = t_1 + t_2 + t_3$$

Also assume the charge of lump-sum taxes on income will not affect my willingness to earn that income:

$$\text{Citizen's total wealth, } W = y_1 - t_1 + y_2 - t_2 + y_3 - t_3 = y_1 + y_2 + y_3 - (g_1 + g_2 + g_3)$$

This establishes the Ricardian equivalence principle. All that matters for

consumption is total government purchases. Time profile of $\{t_1, t_2, t_3\}$ does not matter. Businesses and consumers know that government will tax at some point if it spends now. That affects how much you invest or consume today. Government spending crowds out private sector expenditures today. Time profile of taxes does not matter and consumption and investment smooth out for all periods.¹²⁵⁵

Time inconsistency issues also exist for the fiscal scenario: government overspending. Now introduce the salience of the present and assume 1 unit of wealth for simplicity:

Exponential discounting model in three periods:

$$U(c_1, c_2, c_3) = \delta \log(c_1) + \log(c_2) + \log(c_3)$$

$$U(c_2, c_3) = \delta \log(c_2) + \log(c_3)$$

with $\delta > 1$ capturing the salience of the present

$$\text{Problem of Self-1: } \max_{c_1, c_2} \{ \delta \ln(c_1) + \ln(c_2) + \ln(1 - c_1 - c_2) \}$$

$$\text{FOC: } \delta/c_1 = 1/c_2 = 1/c_3$$

Hence, consume more today: $c_1 > c_2 = c_3$

$$\text{Problem of Self-2: } \max_{c_2} \{ \delta \ln(c_2) + \ln(1 - c_1 - c_2) \}$$

$$\text{FOC now becomes: } \delta/c_2 = 1/c_3$$

So, even though at period 1 planned to consume the same at 2 and 3,

¹²⁵⁵ The intertemporal budget set-up and the rationale expanded in this section benefit from Professor Ricardo Reis's Lent term 2016 EC210 Macroeconomics Principles lecture, Topic 11: The limits of fiscal policy, at LSE.

actually choose to consume more at date 2: $c_2 > c_3$

This is dynamic inconsistency problem. The rationale not only works for the representative consumer, but also for the government. Elected governments delay fiscal adjustments. Spending cuts or tax increases are election-suicidal. Politicians would always delay it until tomorrow, when they may or may not be in power. The consequence is government debt shoots up, along with building-up household debts for citizens in a welfare state.¹²⁵⁶

¹²⁵⁶ The dynamic inconsistency set-up and the rationale expanded in this part benefit from Professor Ricardo Reis's Lent term 2016 EC210 Macroeconomics Principles lecture, Topic 11: The limits of fiscal policy, at LSE.

APPENDIX C

Theoretical explanations relating to the historical ‘long cycles’¹²⁵⁷

*The Marxian ‘law of the tendency of the rate of profit to fall’*¹²⁵⁸

Marx argues all value is created by labour, and surplus value is brought by

¹²⁵⁷ This section benefits from the good and engaging discussions during the viva. Professor He said that although he gets what is the ‘long cycles’ and the historical analysis in general to China’s development, he felt if there is any theoretical contribution to it. He thought this thesis lacked theoretical contributions, and the ‘long cycles’ as a crucial historical concept does not receive a heavy theoretical explanation or similar kind of dealing details. I at that time thanked Professor He’s valuable suggestions. And replied that when I finished the thesis, I sort of shared similar feelings. But I then found out it is also a source of strength. When John Maynard Keynes finished his *General Theory of Employment*, it was a book that would be charged as ill-structured, scant, convoluted work nowadays. Very different to a rigorous, and ‘dry’ paper one would read in economics journal today. Yet for every important macroeconomics concept, for all subsequent papers and books tackling one area or two respectively, one would always find their origin in *General Theory of Employment*. When Plato finished his *The Republic*, it would be charged as difficult to understand, poorly written, unclear by the present day neat and formalistic political theory argumentative essay style. Yet A.N. Whitehead has commented all Western political thoughts and theories are footnotes to this masterpiece: Plato’s *The Republic*. They open the fertile and rich ground for further researches. It is also my thesis’s nature. This ambitious and efforts-taking project stands on the high perspective of ‘long history’ broad horizon, it grasps major history directions and changes, to provide a broad-brush of historical stylised facts, inductive summary and deductive analysis, a flowing capture from the past to the present, from the present to the possible future, and a broad sharp comprehensive systematic coherent understanding on China’s transformation within this big context. To his own knowledge, this is the *first* research that tackles China’s growth (and problems) explanation in such a detailed and coherent from the cradle to the grave (*jailong quma*) manner. It originates from a scholar’s ‘wit’, ‘sharp insights’, ‘intuitive capture’ from direct reading on history. This is an insight and wit, an intuitive capture, but a *fact* no one can deny its existence. This is the historical concept of the ‘long cycles’, and this is the nature of the economic history discipline field. I do not want any formalistic system style to rigidify, and hence to ‘kill’, this long big historical insight’s flexibility and dynamic. I then replied to Professor He that I deliberately refrained from doing so, from providing any kind of theory, because I want to leave it blank as an open fertile ground. I then listed three possible kinds of theoretical explanations from Marxian, Keynesian, Austrian perspectives to this historical pattern, and I argued all three fail to incorporate this historical broad-brush picture in full. Professor He was very impressed. And I am glad he was persuaded. In this Amended Thesis I then think why not to mention some theories to explain this historical pattern. But Professor Deng is right on the point that this is an economic history research, hence should not straddle on the theories. Merging these valuable suggestions, the author decides to set up this appendix. This demonstrates three things: 1) it showcases the author’s strong and competent economics background that justify his economic historian critique to economists’ theories and methodology (不说经济学外行话 *bushuo waihanghua*), 2) it illustrates this thesis is a solid economic history dissertation with accurate and sharp historical concepts understandings from a diligent wide reach of historical materials (*zhashi lishi jibengong* 扎实历史学基本功), 3) theories and facts are clearly separated in the main body text so that China is maintained the full focus and only historical facts of economic history remain & all irrelevant theories cleansed. And irrelevant but useful theories are left in the appendix.

¹²⁵⁸ Karl Marx, *Das Capital* Vol. III: The Process of Capitalist Production as a Whole (Penguin classics, 1992)

the exploitation of direct or living labour. Suppose the average workday is ten hours, and that wages correspond to half the value created in this labour time. Then the rate of exploitation, defined as the surplus to necessary labour time, is five hours divided by five hours, or 100 percent. Denote s as surplus value, v as variable capital, and c as constant capital, the rate of profit r in value terms is:

$$r = s/(c+v) = s/v \text{ divided by } (c+v)/v = e/(\text{OCC} + 1)$$

where e is the rate of surplus value (s/v), Organic composition of capital (OCC) is c/v . A fall in r , provided there is no rise in e , is the direct consequence of a rising OCC.

Notice, this Marx's crucial insight made him stand in sharp contrast to David Ricardo, who viewed falling profit from neoclassical marginalist perspective as a consequence of the declining marginal returns from continued economic growth pressing on more and more marginal lands of the soil. That is to say, declining productivity of agriculture. For Marx, falling profit directly comes from *increasing productivity in industry*. This intuition comes from the observation of 'relative surplus value': the reduction of the value of labour power by means of improvements in the production of wage goods—machinery displacing labour power. Yet Marx termed it 'law of tendency to fall' instead of 'law to fall' because of the inherent contradictions involved in the capitalist model of production: the

interaction between ‘tendencies’ and ‘counter-tendencies’. For profit r not to fall from increasing OCC, surplus value s must increase. And one hence saw the dissolution of trade unions, liquidation of the labour market, increasing labour contract flexibility, shorter and temporal contracts, and increasing pace of work intensity since 1970s and 80s Thatcherite and Reaganite neoliberal reforms, as well as the search for other lower wage cost destinations, China.

The Keynesian ‘effective demand’¹²⁵⁹

Neoclassical production function considers the act of production only, which simultaneously creates income and purchasing power, i.e., Say’s Law: ‘supply creates its own demand’. Interest rate coordinates savings, investment, consumption altogether. Keynes however rejected the idea that an increase in saving automatically becomes an increase in investment expenditure via adjustment of the interest rate, and he effectively reversed Say’s Law instead: demand creates supply.

The reason why savings would not necessarily feed into investment is because of the determinants of interest rate. To Keynes, interest rate was not determined by the pure monetary neutrality principle that only real

¹²⁵⁹ John M. Keynes, *The General Theory of Employment, Interest and Money* (palgrave macmillan, 2018)

forces of thrift and marginal productivity of capital guided the rate signal formation. The interest rate instead should purely be a monetary phenomenon determined by the ‘liquidity preference’ of the public that has implications on the real side of the economy. And it represents the reward for parting with liquidity or not hoarding for a specified period instead of the classical notion that interest was the reward for postponed current consumption. Investment hence is not blindly dependent upon the rate of interest, but on businesses’ expectations about the future and the expected profitability of investment. Keynes called expected profits ‘marginal efficiency of capital’. Consumption depends on the general confidence of the economy as well as people’s income but not on interest rate. The key message of Keynesian thinking is the introduction of uncertainty. Economic activities depend on expectations about the future, which are liable to wide and sudden fluctuations. Keynes therefore argued the decision not to buy products (to save) “is not a substitution of future consumption demand for current consumption demand – it is a net diminution of such demand.”¹²⁶⁰ There is no reason to believe aggregate demand would automatically coincide with aggregate supply. And for an economy to function it ultimately depends on the principle of effective demand.

¹²⁶⁰ John M. Keynes, (first published in 1936) *The General Theory of Employment, Interest and Money* (palgrave macmillan, 2018), p.185.

China's socialist construction since 1949 has been purely supply-driven. And there is no sign that 'supply creates its own demand'. Extraction from the rural sector to support urban heavy industrial drive hardly made the majority Chinese people have any purchasing capability. Lavish investment created unusable and mismatched products. Under Mao's central planning there basically did not exist supply and demand. The fundamental problem of 'soft budget constraint' under Deng's 'market socialism' also proliferated an irrationally large amount of local light industries. Despite a re-bounce of some kind of rural purchasing power from the restoration of the rural market and state's higher-price compensation to rural raw materials, China's industrial capacity far exceeded its real output level that in turn far exceeded the domestic aggregate demand. By late 1980s and early 1990s there had been large number of unsaleable stocks. These were solved by the external effective demand. China's supply-driven model was made possible by the effective demand generated from the Western world that annihilated its middle and lower production functions since 1970s.

*The Austrian theory of the business cycle*¹²⁶¹

The Austrian school is best known for its microeconomics and for its role

¹²⁶¹ Hayek, Friedrich A. (1967[1935]), *Prices and Production*, 2nd edition, New York: Augustus M. Kelley.

in the marginalist revolution in particular. The economics of the Austrian school features a production process—a sequence of activities in which their outputs feed in as inputs to subsequent activities. Eventually this means the Austrian view of macroeconomics is full-fledged capital-based.

This use of multiple stages of production gives full play to marginalist thinking. Austrian macro is micro-friendly. A marginal decrease of return in later stage activities coupled with a marginal increase in early stages would impact the economy's overall growth rate. Specifically, different patterns of marginal changes give rise to boom and bust. To Austrians, business cycles are about the changes in the intertemporal pattern of resource allocation.

In this setting, growth is achieved by the tradeoff between consumable output soon and consumable output in later future. It is the forgoing of current and near future consumption that frees up the resources to expand the productive capacity and render increasing future consumption possible. This has an important implication: saving-induced growth entails opportunity costs. And the Austrians are not a big fan of growth. What is needed, for Austrians, is the decentralised arrangement that grants the freedom to choose and allows the growth rate of consumable output to be consistent with *people's willingness to save*. Production is according to

consumer preference. And any intertemporal pattern of allocation against consumer's will is *misallocation*. The Austrian theory of the business cycle is therefore a theory of boom and bust with regards to any extra-market forces that initiate the boom and the market's own self-correcting forces to turn boom into a bust.

A Hayekian view would treat the 1970s 'stagflation' crisis as a market self-correction to the wrong-doing committed during the previous two decades of artificial government-led economic boom. The more recent 2000s dot.com crisis and 2008 financial crisis are another market self-reversing process to eliminate the falsified interest rate created from monetary policy-induced credit expansion in the 'Great Moderation' period. China's economic miracle was from its higher marginal return of stages of production that attract foreign capital. However, decades of cumulative government-led high investment have long ended its high marginal return era and the excessively future-oriented production activities will be 'cured' by market's reaction in conditions of liquidating bust cycle in due course.

Their common problems and contributions from History

The three prominent schools have tackled some partial features of the 'long cycles' pattern in one way or another, yet all three failed to explain the historical observational 'long cycles' mechanism in full. Keynes's effective

demand, for instance, could be incorporated into the financial expansion phase of the 1970s global neoliberal turn and China's consequent navigation out of its supply-driven bottleneck. Yet that is merely describing the phenomenon without explaining it. Why the Western governments did not tackle their aggregate demand deficiencies, or why did their demand-management policies fail in the 1970s? Why Chinese government could not tackle its own demand insufficiency and had to resort to cheap exports? Similarly, an unpopular implication of Hayek's arguments is the 1930s Great Depression should not involve any kind of intervention. Yet that is against the nowadays macroeconomic consensus among major schools including Keynesians, monetarists, or new classicals. It was in this background—in the midst of not any sign of the depressing scenario could get any better, and classical economists still believed in the market's self-correcting & self-restoring nature—Keynes famously coined the phrase: 'In the long run, we are all dead.' More importantly, according to Hayek's arguments, the China explanation could well go into the opposite direction. Why should China have any kind of growth once market power was unleashed during Deng Xiaoping's era? Consider the complete lavish investments and wrong signaling allocation under Mao's rule, the unleashed market forces should bring China into a tortuous dead-end right at the start, just as Western policymakers, politicians, and economists had hoped on the eve of China's WTO accession. Yet China experienced

remarkable three to four decades of economic growth that was mainly state-led. The high-savings, high-investment, high-debt model must be buffered by long-term relations between firms and banks, and that was coordinated by the 'developmental state'.

It therefore seems that Marx's 'law of the tendency of the rate of profit to fall' came closest to the 'long cycles' historical pattern explanation. However, one should always bear in mind that Marx possessed the universal view that capitalism would outcompete all other alternatives and communism would be the teleological end for all, while historians treated capitalism was no more than an accident of human history occurred in 15th century Mediterranean and then became a 'monster' sweeping across the world. What Marx did was to assume 'exploitation' and 'class struggle' at the centre of his starting premise, what historians do is to observe the geographical incorporations pattern and how individual regions interacted within this ever-enlarging holistic 'core and periphery' world system. What Marx did was to talk about exploitation to Europe on one hand, and on the other hand to boast capitalism as a force of 'emancipation' that 'the cheap prices of its commodities are the heavy artillery with which batters down all Chinese Great Walls', let alone his infamous 'Asiatic model of production', what historians do is to reveal historically it was China that was the centre of world production with cheap and good handicraft

products flooding the European market, and “If Europeans were striving to construct a place for themselves in the world economy, it was toward China that they were building.”¹²⁶²

Immanuel Wallerstein, in the preface of his *Historical Capitalism with Capitalist Civilization*, asserted that:

“Thierry Paquot invited me to write a short book for a series he was editing in Paris. He suggested as my topic ‘Capitalism’. I replied that I was, in principle, willing to do it, but that I wished my topic to be ‘Historical Capitalism’.

I felt that much had been written about capitalism by Marxists and others on the political left, but that most of these books suffered from... basically logico-deductive analyses, starting from definitions of what capitalism was thought to be in essence, and then seeing how far it had developed in various places and times...

What seemed urgent to me, a task to which in a sense the whole corpus of my recent work has been addressed, was to see capitalism as a historical system, over the whole of its history and in concrete unique reality.”¹²⁶³

¹²⁶² Timothy Brook, *The Confusions of Pleasure: Commerce and Culture in Ming China* (University of California Press, 1999), p.12.

¹²⁶³ Immanuel Wallerstein, *Historical Capitalism with Capitalist Civilization* (London: Verso, 1995), Intro.

Bibliography

Abu-Lughod, Janet L., *Before European Hegemony: The World System A.D. 1250—1350* (Oxford, UK; New York: Oxford University Press, 1991)

Acemoglu, Daron, Simon Johnson, and James A. Robinson, “The colonial origins of comparative development: An empirical investigation,” *American Economic Review*, Vol.91, No.5, 2001

—Daron Acemoglu and James A. Robinson, *Why Nations Fail: The Origins of Power, Prosperity, and Poverty* (London: Profile Books, 2012)

Allen, F., Qian, J., and Qian, M. (2005). ‘Law, Finance and Economic Growth in China’. *Journal of Financial Economics*, 77/1: 57—116.

Allen, Robert C., *The British Industrial Revolution in Global Perspective, Vol. New approaches to economic and social history* (Cambridge: Cambridge University Press, 2009)

—Robert C. Allen, Jean-Pascal Bassino, Debin Ma, Christine Moll-Murata, and Jan Luiten Van Zanden, “Wages, prices, and living standards in China, 1738—1925: in comparison with Europe, Japan, and India,” *Economic History Review*, 64, S1 (2011), pp.8—38.

—Robert C. Allen, “Agricultural Productivity and Rural Incomes in England and the Yangtze Delta, c. 1620-c.1820,” *Economic History Review*, 62, 3 (2009), pp. 525-550.

Alvarez, R., and S. Claro. “David versus Goliath: The Impact of Chinese Competition on Developing Countries.” *World Development*, 37, no. 3 (2009): 560–571. doi:10.1016/j.worlddev.2008.08.009.

Amsden, Alice H., *Asia's next Giant: South Korea and Late Industrialization* (New York: Oxford University Press, 1989)

—Alice H. Amsden, *The Rise of “The Rest”: Challenges to the West from Late-Industrializing Economies* (Oxford: Oxford University Press, 2001)

Andors, Stephen, *China's Industrial Revolution* (New York: Pantheon, 1977)

Andreoni, Antonio and Fiona Tregenna, “Stuck in the Middle: Premature Deindustrialisation and Industrial Policy,” *CCRED Working Paper* No. 11/2018

Arrighi, Giovanni, *Adam Smith in Beijing: Lineages of the Twenty-First Century* (London: Verso, 2007)

—Giovanni Arrighi, *The Long Twentieth Century: Money, Power, and the Origins of Our times* (London; New York: Verso, first published in 1994, this version republished

in 2010)

Austin, Gareth, "The 'reversal of Fortune' Thesis and the Compression of History: Perspectives from African and Comparative Economic History," *Journal of International Development*, 20, no. 8 (2008), p.1018.

Ayres, Robert U. and Benjamin Warr, *The Economic Growth Engine: How Energy and Work Drive Material Prosperity* (UK: Edward Elgar, 2009)

Backhouse, E. and J.O.P. Bland, *Annals and Memoirs of the Court of Peking* (Boston: Houghton Mifflin, 1914)

Bailey, Mark and John Hatcher, *Modelling the Middle Ages: The History and Theory of England's Economic Development* (Oxford University Press, 2001)

Balassa, Bela (1977) "A Stage Approach to Comparative Advantage," Staff Working Paper no. 256, World Bank. Reprinted in B. Balassa (1981) *The Newly Industrializing Countries in the World Economy*. New York: Pergamon Press

—Balassa, B. (1981) "The Process of Industrial Development and Alternative Development Strategies," in B. Balassa (1981) *The Newly Industrializing Countries in the World Economy*. New York: Pergamon Press

Balding, Christopher, "Data Manipulation of Inflation Statistics Artificially Raises Real GDP: The Case of China," *World Economics* Vol. 15, No. 2, April–June 2014

BAN gu, *the Book of Han dynasty* (China's Book Press, 2021) (汉) 班固, 《汉书》, (中华书局, 2021)

Bardhan, Pranab, "Corruption and Development: A Review of Issues," *Journal of Economic Literature* 35, no. 3 (1997): 1320–46, <http://www.jstor.org.gate2.library.lse.ac.uk/stable/2729979>

Beasley, W.G., *Japanese Imperialism 1894—1945* (Oxford: Clarendon Press, 1987; 1991)

Beijing Review, 19 January 1981.

Bello, Walden, *Paper Dragons: China and the Next Crash* (London: Zed Books Ltd, 2019)

Bercé, Y.-M. (1990) *History of Peasant Revolts: The Social Origins of Rebellion in Early Modern France*, Cambridge: Polity Press

Bernanke, B. (2005). 'The Global Saving Glut and the U.S. Current Account Deficit'. Sandridge Lecture, Virginia Association of Economics, Richmond, Virginia, Federal Reserve Board, March 2005.

Besley, Timothy, *Principled Agents? : The Political Economy of Good Government* (Oxford: Oxford University Press, 2007)

Bisson, T.A. (1954), *Zaibatsu dissolution in Japan*

Boserup, E. (1965) *The Conditions of Agricultural Growth*, London: Allen and Unwin.

Bosworth, Barry P. and Susan M. Collins, "The Empirics of Growth: An Update," *Brookings Papers on Economic Activity*, 2:2003.

—Barry Bosworth and Susan M. Collins, "Accounting for Growth: Comparing China and India," *The Journal of Economic Perspectives*, Vol. 22, No. 1 (Winter, 2008)

Bowen, R.W. (1980) *Rebellion and Democracy in Meiji Japan*, Berkeley: University of California Press

Bramall, Chris, *Chinese Economic Development* (London: Routledge, 2009)

Braudel, Fernand, *Civilization and Capitalism, 15th–18th Century*, vol. III: *The Perspective of the World*, New York: Harper and Row 1984.

Bray, Francesca and Joseph Needham, *Science and Civilization in China. Volume 6, Biology and Biological Technology. Part 2, Agriculture* (Cambridge: Cambridge University Press, 1984)

—Francesca Bray, *The Rice Economies: Technology & Development in Asian Societies* (Berkeley; Los Angeles; London: University of California Press, 1986)

Broadberry, Stephen and Kevin O'Rourke, *The Cambridge Economic History of Modern Europe: Volume 2: 1870 to the Present* (Cambridge: Cambridge University Press, 2010)

—Stephen N. Broadberry, B.M.S. Campbell, Alexander Klein, Mark Overton, Bas van Leeuwen, *British economic growth 1270—1870* (Cambridge: Cambridge University Press, 2015)

Brook, Timothy, *The Confusions of Pleasure: Commerce and Culture in Ming China* (University of California Press, 1999)

Cabellero, R.J., Farhi, E., and Gourinchas, P.-O. (2008). 'An Equilibrium Model of "Global Imbalances" and Low Interest Rates'. *American Economic Review*, 98/1:

358—93.

Campbell, Cameron, Tommy Bengtsson, James Z. Lee, et al., *Life under Pressure: Mortality and Living Standards in Europe and Asia, 1700—1900* (London: The MIT Press, 2004)

Chang, Chung-li, *The Income of the Chinese Gentry* (Seattle: University of Washington Press, 1962)

Chang, Ha-Joon, *Kicking Away the Ladder: Development Strategy in Historical Perspective* (London: Anthem, 2002)

—Ha-Joon Chang, *The Political Economy of Industrial Policy* (London: Palgrave Macmillan, 1996)

Chao, Kang (1986) *Man and Land in Chinese History: An Economic Analysis*, Stanford: Stanford University

Chayanov, A.V., *The Theory of Peasant Economy* translated version into English (University of Wisconsin Press, 1986)

China's Labour Statistical Year Book (1998)

China Statistical Year Book (1986)

—*China Statistical Yearbook* (NBSC, 2016).

Chinn, Dennis L., “Team Cohesion and Collective-labor Supply in Chinese Agriculture,” *Journal of Comparative Economics* 3 (1979)

Clark, Gregory. 2007. *A Farewell to Alms: A Brief Economic History of the World*. Princeton and Oxford: Princeton University Press.

—Gregory Clark, “Growth or stagnation? Farming in England, 1200—1800,” *Economic History Review*, 71, 1 (2018), pp.51-81.

Coase, Ronald, and Wang Ning, *How China Became Capitalist* (Palgrave Macmillan, 2012)

—Ronald H. Coase, *The Firm, the Market, and the Law* (Chicago: University of Chicago Press, 1988)

Cockshott, Paul. 2020. *How the World Works: The Story of Human Labor from Prehistory to the Modern Day*. New York: Monthly Review Press

Conquest, R., *The Harvest of Sorrow* (London: Arrow, 1986)

Cowell, Frank A., *Microeconomics: Principles and Analysis* (Oxford: Oxford

University Press, 2006)

Crafts, Nicholas and Gianni Toniolo, *Economic growth in Europe since 1945* (Cambridge: Cambridge University Press, 1996)

—N.F.R. Crafts, “Exogenous or Endogenous Growth? The Industrial Revolution Reconsidered,” *The Journal of Economic History*, Dec., 1995, Vol.55, No. 4.

—Nicholas F. R. Crafts, “Economic Growth in the Twentieth Century,” *Oxford Review of Economic Policy*, Vol.15, No.4, 1999

Davenport, Romola J., “Urbanization and mortality in Britain, c. 1800—50,” *Economic History Review*, 73, 2 (2020), pp.455-485.

Deaton, Angus and Alan Heston (2010) “Understanding PPPs and PPP-based national account,” *American Journal: Macroeconomics* 2, 4, pp.1-35.

Dees, S. (1998). ‘Foreign Direct Investment in China: Determinants and Effects’. *Economics Planning*, 31/2—3: 175—94

Deng, Kent G. & Luca Zan, “Micro Foundations In The Great Divergence Debate: Opening Up A New Perspective,” *LSE Economic History Working Papers* No: 256/2017

—Kent G. Deng & Patrick O’Brien, “The Kuznetsian Paradigm for the Study of Modern Economic History and the Great Divergence with Appendices of Literature Review and Statistical Data,” *LSE Economic History Working Papers* No.321/2021

—Gang Deng, *The Premodern Chinese Economy: Structural Equilibrium and Capitalist Sterility* (Oxon; New York: Routledge Explorations in Economic History, 1999)

—Kent G. Deng, “Book Review: *The Great Divergence*,” *The Economic Journal* 111, no.472 (2001): F491-492.

—Kent Deng & Patrick O’Brien, “Why Maddison was Wrong: The Great Divergence Between Imperial China and the West,” *World Economics* Vol.2, No.18, 2017

—Kent G. Deng, “Development and Its Deadlock in Imperial China, 221 B.C.—1840 A.D.,” *Economic Development and Cultural Change* 51, no. 2 (2003)

—Kent G. Deng, *Mapping China's Growth and Development in the Long Run, 221 BC to 2020* (Singapore: World Scientific, Imperial College Press, 2016)

—Kent G. Deng (2010). Globalisation, China's Recent Miracle Growth and Its Limits, *Globalization - Today, Tomorrow*, Kent Deng (Ed.), ISBN: 978-953-307-192-3, InTech, Available from: <http://www.intechopen.com/books/globalization--today--tomorrow/globalisation-china-s-recent-miracle-growthand-its-limits>

—Gang Deng, “The Foreign Staple Trade of China in the Pre-Modern Era”, *The International History Review*, Vol. 19, No. 2 (May, 1997)

—Kent Deng, *China's Political Economy in Modern Times: Changes and economic consequences, 1800—2000* (London: Routledge, 2012)

—Kent Deng, ‘Unveiling China’s True Population Statistics for the Pre-Modern Era

with Official Census Data', *Population Review* 43/2 (2004)

—Patrick O'Brien & Kent Deng, "Quantifying the Quantifiable: A reply to Jan-Luiten van Zanden and Debin Ma," *World Economics* • Vol. 18 • No. 3 • July–September 2017

—Kent Deng & Patrick O'Brien, "China's GDP Per Capita from the Han Dynasty to Communist Times," *World Economics* • Vol. 17 • No. 2 • April-June 2016

—Kent Deng and Patrick O'Brien, "Locating a Chronology for the Great Divergence: A Critical Survey of Published Data Deployed for the Measurement of Nominal Wages for Ming and Qing China," *LSE Economic History Working Papers* No: 213/2015.

—Kent Deng and Patrick O'Brien, "Locating a Chronology for the Great Divergence: A Critical Survey of Published Data Deployed for the Measurement of Nominal Wages for Ming and Qing China," *LSE Economic History Working Papers* No: 213/2015.

—Kent Deng and Lucy Zheng, "Economic Restructuring and Demographic Growth: Demystifying Growth and Development in Northern Song China, 960–1127," *Economic History Review*, 68, no. 4 (2015)

—Kent Deng and Sun Shengmin, "China's Extraordinary Population Expansion and Its Determinants during the Qing Period, 1644—1911," *Population Review*, Volume 58, Number 1, 2019

Deng Xiaoping, "Excerpts from Talks Given in Wuchang, Shenzhen, Zhuhai and Shanghai" (1992), in Deng Xiaoping, *Selected Works of Deng Xiaoping*, vol.III (Beijing: Foreign Languages Press, 1994)

—Deng Xiaoping (1984), "Building Socialism with Chinese Characteristics," in Deng Xiaoping, *Selected Works of Deng Xiaoping*, vol.III (Beijing: Foreign Languages Press, 1994)

di Giovanni, J., A. A. Levchenko, and J. Zhang. "The Global Welfare Impact of China: Trade Integration and Technological Change." *American Economic Journal: Macroeconomics* 6, no. 3 (2014): 153–183. doi:10.1257/mac.6.3.153.

Dikotter, Frank, *Mao's Great Famine: The History of China's Most Devastating Catastrophe, 1958—62* (London; Berlin; New York; Sydney: Bloomsbury, 2011)

Dincecco, Mark, *Political Transformations and Public Finances: Europe, 1650–1913* (Cambridge: Cambridge University Press, 2011)

Dobb, Maurice, *Soviet Economic Development Since 1917* (New York: International Publishers, 1966)

Dobson, R.B. (1983) *The Peasants' Revolts of 1381*, London: Macmillan

Easterly, William, "The Lost Decades: Developing Countries' Stagnation in Spite of Policy Reform, 1980—1998," *Journal of Economic Growth*, Jun., 2001, Vol. 6, No.2, pp.135-157.

Eichengreen, Barry, "Chapter 2. Institutions and economic growth: Europe after World War II," in *Economic growth in Europe since 1945* Edited by Nicholas Crafts and Gianni Toniolo (Cambridge: Cambridge University Press, 1996).

—Barry Eichengreen, *Globalizing Capital: A History of the International Monetary System* Second Edition (Princeton and Oxford: Princeton University Press, 2008)

Elvin, Mark (1973) *The Pattern of the Chinese Past*, Stanford: Stanford University Press.

—Mark Elvin (1975) 'Skills and Resources in Late Traditional China', in D.H. Perkins (ed.) *China's Modern Economy in Historical Perspective*, Stanford: Stanford University Press, pp. 85-113.

Epstein, Steven R., *Freedom and Growth: The rise of states and markets in Europe, 1300—1750* (London and New York: Routledge Explorations in Economic History, 2000)

—S. R. Epstein and Maarten Prak, *Guilds, Innovation and the European economy, 1400—1800* (Cambridge: Cambridge University Press, 2008)

Erlich, Alexander, *The Soviet Industrialization Debate, 1924—1928* (Cambridge, Mass.: Harvard University Press, 1960)

Fairbank, J.K. (1980) *The Cambridge History of China*, New York: Cambridge University Press.

Fairlie, Simon, "A Short History of Enclosure," *The Land* Summer 2009.

FENG Youlan, *A History of Chinese Philosophy* (1934)

Feuerwerker, Albert., "The State and the Economy in Late Imperial China," *Theory and Society* 13, no. 3 (1984): 297-326.

—Albert Feuerwerker, *The Chinese Economy, 1912—1968*, Michigan Papers in Chinese Studies, no.1. Ann Arbor, University of Michigan, Center for Chinese Studies (1968)

Fine, Ben and Ourania Dimakou, *Macroeconomics: A Critical Companion* (London: Pluto Press, 2016)

—Ben Fine, *Microeconomics: A Critical Companion* (London: Pluto Press, 2016)

First Document of Central Politburo focuses on 'the new rural revival' plans and enforcement (2022). This is the 19th First Document since 21st century focusing on the

Three Agricultural Problems (*sannong wenti*). 2022 年 2 月 22 日, 《中共中央、国务

院关于做好 2022 年全面推进乡村振兴重点工作的意见》, 即 2022 年中央一号文

件发布。这是 21 世纪以来第 19 个指导“三农”工作的中央一号文件。

First Five Year Plan for Development of the National Economy of the People's Republic of China in 1953—57 (Peking: Foreign Languages Press, 1956)

Flassbeck, H. and C. Lapavistas (2015) *Against the Troika: Crisis and Austerity in the Eurozone*. London: Verso

Francois, Joseph, and Dean Spinanger. 2002. “Regulated efficiency, World Trade Organization accession, and the motor vehicle sector in China,” *Tinbergen Institute Discussion Paper* no. TI 2004-049/2. Accessed at: <https://papers.tinbergen.nl/04049.pdf>.

Frank, Andre Gunder, *ReOrient: Global Economy in the Asian Age* (Berkeley California: University of California Press, 1998)

Friedman, Milton, *Essays in Positive Economics* (Chicago: University of Chicago Press, 1953)

—Friedman, M. (1957). The Permanent Income Hypothesis. In *A Theory of the Consumption Function* (pp. 20-37). Princeton, NJ: Princeton University Press.

Geertz, Clifford, *Agricultural Involution: The Processes of Ecological Change in Indonesia* (California: University of California Press, 1969)

Gertler, Jeffrey. 2002. “What China’s WTO accession is all about,” *WTO Secretariat* 14

—Gertler, Jeffrey. 2003. “China’s WTO accession—the final countdown,” In *China and the World Trading System*, eds. Deborah Cass, Brett G. Williams, and George Barker (Cambridge: Cambridge University Press)

Gerschenkron, Alexander, *Economic Backwardness in Historical Perspective: A Book of Essays* (Cambridge, Mass.: Harvard University Press, 1962)

Glyn, Andrew, Alan Hughes, Alain Lipietz, and Ajit Singh, “Chapter 2. The Rise and Fall of the Golden Age,” in S. Marglin and J. Schor(editors) *The Golden Age of Capitalism* (Oxford: Clarendon Press, 1990), pp.42-43

—Andrew Glyn, *Capitalism Unleashed: Finance, Globalization and Welfare* (Oxford: Oxford University Press, 2006)

Golas, “Rural China in the Song,” *The Journal of Asian Studies*, Vol. 39, No. 2 (Feb., 1980), pp.291-325.

Greif, Avner, *Institutions and the path to the modern economy: lessons from medieval*

- trade* (Cambridge: Cambridge University Press, 2006)
- Avner Greif, “The fundamental problem of exchange: A research agenda in Historical Institutional Analysis,” *European Review of Economic History*, 4, 2000, p.271.
- Guan, Xingliang, Houkai Wei, Shasha Lu, Qi Dai, Hongjian Su, “Assessment on the urbanization strategy in China: Achievements, challenges and reflections,” *Habitat International* 71 (2018) 97–109.
- Gyomai, G. and P. van de Ven (2014). The non-observed economy in the system of national accounts. Statistics Brief No. 18. OECD, Paris, 2014
- Hanley and Yamamura, *Economic and Demographic Change in Preindustrial Japan* (Princeton, NJ: PUP, 1977)
- Hartwell, R.M. (1963) *Iron and Early Industrialism in Eleventh-Century China*, Chicago: University of Chicago Library
- Harvey, David, *A Brief History of Neoliberalism* (Oxford: Oxford University Press, 2007)
- Hassan, M. and F. Scheider (2016). Size and development of the shadow economies of 157 worldwide countries: updated and new measures from 1999 to 2013. *Journal of Global Economics* 4, 3
- Hayek, Friedrich A. (1967[1935]), *Prices and Production*, 2nd edition, New York: Augustus M. Kelley.
- He Jianzhang (1979), “*Wo guo quanmin suoyou zhi jingji jihua guanli tizhi cunzai de wenti he gaige fangxiang*” (Current problems and the direction of reform in the planning and management system of China’s state-owned economy), *JingJiYanJiu* (Economics Studies), May 1979
- He, Xinming & Zhang, J. (2018). Emerging Market MNCs' Cross-Border Acquisition Completion: Institutional Image and Strategies. *Journal of Business Research* 93: 139-150
- He, Xinming, Yan, H. & Cheng, B. (2017). Managerial Ties, Market Orientation, and Export Performance: Chinese Firms Experience. *Management and Organization Review* 13(3): 611-638.
- He, Xinming; Yuan, X.; Shin, S.; and Kim, S. Y. (2016). Innovation Capability, Marketing Capability, and Firm Performance: A Two-Nation Study of China and Korea. *Asian Business & Management* 15(1): 32-56.
- He, Xinming and Zhang, Jianhong (2014). Economic nationalism and foreign acquisition completion: the case of China. *International Business Review* 23(1): 212–227.

—He, Xinming, Sousa, C., Lengler, J. & Tang, L. (2021). Foreign Market Re-entry: A Review and Future Research Directions. *Journal of International Management*

He, Zengke, *Fanfu Xinlu (New Path to Combat Corruption)* (Beijing: Central Translation Services Press, 2002).

Hegel, Georg F. W. 1979. *Werke 18, Vorlesungen über die Geschichte der Philosophie* (first published 1833—36) (Works 18, Lectures on the History of Philosophy). Frankfurt am Main: Suhrkamp.

Henderson, V. J., A. Storeygard and D.N. Weil (2012). Measuring economic growth from outer space. *American Economic Review* 102, 2

Hickel, Jason, *The Divide: A Brief Guide to Global Inequality and its Solutions* (London: Windmill Books, 2017)

Higgs, Henry, *Essai sur la Nature du Commerce en Generale* (London, 1931)

Ho, Johnny, Felix Poh, Jia Zhou, Daniel Zipser, *China consumer report 2020* (McKinsey & Company).

Ho, P. (2006). *Institutions in Transition: Land Ownership, Property Rights and Social Conflict in China*. Oxford: Oxford University Press

HO, Ping-ti, *The Ladder of Success in Imperial China: Aspects of Social Mobility, 1368-1911* (Studies of the East Asian Institute. New York: Science Editions, 1964)

Hobson, John Atkinson (1902), *Imperialism, A Study*

Hobson, John M., *The Eastern origins of Western civilization* (Cambridge, UK; New York: Cambridge University Press, 2004)

Hofman, Bert, and Jinglian Wu, “Explaining China’s Development and Reforms,” *The World Bank Working Paper No.50*, 2009

Hoffman, Philip, "Prices, the Military Revolution, and Western Europe's Comparative Advantage in Violence," *The Economic History Review*, 64 (2011)

Hofstede, Geert and Michael Harris Bond, “The Confucius connection: From cultural roots to economic growth,” *Organizational Dynamics*, Volume 16, Issue 4, Spring 1988, Pages 5-21

Holz, Carsten, “China's Reform Period Economic Growth: Why Angus Maddison Got It Wrong and What That Means,” *Academia*, December 2004.

—C. A. Holz, ‘Have China Scholars All Been Bought?’ *Far Eastern Economic Review*, 170/3 (April 2007)

Hong, Ma (1982), “Strengthen Planned Economy, Improve Planning,” *Zhongguo Caimao Bao*, 20 April 1982.

Howe, Christopher, *Wage Patterns and Wage Policy in Modern China, 1919—1972* (Cambridge: Cambridge University Press, 1973)

—Christopher Howe and Kenneth Walker, “The Economist,” in Dick Wilson (ed.), *Mao Tse-tung in the scales of History* (Cambridge: Cambridge University Press, 1977)

Hu Qiaomu (1978), “*Anzhao jingji guilv banshi, jiakuai shixian sige xiandaihua*” (Observe economic laws, speed up realisation of the four modernisations), *Renmin Ribao* (People’s daily newspaper), 6 October 1978.

Huang, P.C.C. (1990) *The Peasant Family and Rural Development in the Yangzi Delta, 1350—1988*, Stanford: Stanford University Press

HUANG Xianfan, *Chinese history has no slavery society—by-assessing the ancient slaves and socio-structure in other parts' world history* (Guangxi Normal University Press, 2015).

《中国历史没有奴隶社会—兼论世界古代奴及其社会形态》，史学大家黄现璠遗著（广西师范大学出版社，2015年出版）

Huang, Yi, Liugang Sheng, Gewei Wang, “How did rising labor costs erode China’s global advantage?”, *Journal of Economic Behavior and Organization* 183 (2021) 632—653.

Humphries, Jane, “The lure of aggregates and the pitfalls of the patriarchal perspective: a critique of the high wage economy interpretation of the British industrial revolution,” *Economic History Review*, 66, 3 (2013)

Huntington, Samuel P., *The Clash of Civilisations and the Remaking of World Order* (New York: Simon and Schuster, 1996)

Ianchovichina, Elena, and Will Martin. 2001. “Trade liberalization in China’s accession to WTO,” *Journal of Economic Integration* 16 (4): 421–45

IMF. 1990. *The Economy of the USSR: Summary and Recommendations* (New York: International Monetary Fund)

International Monetary Fund (IMF), *Currency Composition of Official Foreign Exchange (COFER)*

Inkster, Ian, *Japanese Industrialization: Historical and cultural perspectives* (London and New York: Routledge Studies in the Modern History of Asia, 2001)

Islam, Nazrul and Kazuhiko Yokota, “Lewis Growth Model and China’s Industrialization,” *Asian Economic Journal* 2008, Vol. 22 No. 4, 359—396

Jiang, S.; Luo, P. A literature review on hollow villages in China. *China Popul. Resour. Environ.* 2014, 24, 51–58.

Johnson, Chalmers, *MITI and the Japanese Miracle: The Growth of Industrial Policy, 1925—1975* (Stanford, Calif.: Stanford University Press, 1982)

Johnson, Noel D. and Mark Koyama, “States and economic growth: Capacity and constraints,” *Explorations in Economic History* 64 (2017), pp.1-20.

Jones, Eric, *The European Miracle: Environments, Economies and Geopolitics in the History of Europe and Asia* (Cambridge: Cambridge University Press, 1981)

—Eric L. Jones, *Growth Recurring: Economic Change in World History* (Economics, Cognition, and Society. Ann Arbor: University of Michigan Press, 2000)

—Eric L. Jones, “Institutional determinism and the Rise of the Western World” (1974-03)

Kaldor, Nicholas, *Economics without Equilibrium* (The Okun memorial lectures at Yale University: M.E. Sharpe, Inc., 1985)

—Nicholas Kaldor, “Chapter 10. Capital Accumulation and Economic Growth,” in *The Theory of Capital*, edited by D.C. Hague (international economic association conference volumes No.8, 1961)

Kawagoe, Toshihiko, “Agricultural Land Reform in Postwar Japan: Experiences and Issues,” *World Bank Policy Research Working Paper* 2111 (May 1999), pp.1-54.

Kelton, Stephanie, *the Deficit Myth: Modern Monetary Theory and the Birth of the People’s Economy* (New York: Public Affairs, 2020)

Kennedy, Paul, *The Rise and Fall of the Great Powers* (New York: Random House, 1987)

Keynes, John Maynard, (first published in 1936) *The General Theory of Employment, Interest and Money* (palgrave macmillan, 2018)

Khandelwal, A. K., Teachout, M., 2016. Special economic zones for myanmar. The International Growth Center Policy Note.

- King, F. H., *Money and Monetary Policy in China 1845—95* (Cambridge, 1965)
- Klein, Lawrence R., *Economic Growth: the Japanese Experience since the Meiji Era* Vol. A (Publication of the Economic Growth Center, Yale University. Homewood, Ill: R. D. Irwin, 1968)
- Klein, Matthew C. and Michael Pettis, *Trade Wars are Class Wars: How Rising Inequality Distorts the Global Economy and Threatens International Peace* (New Haven & London: Yale University Press, 2020)
- Kornai, Janos, *The Socialist System: The Political Economy of Communism* (Oxford: Oxford University Press, 1992)
- Krishnan, R. R., “South Korean Export Oriented Regime: Context and Characteristics,” *Social Scientist*, Vol. 13, No. 7/8 (Jul. - Aug., 1985), pp.90-111.
- Krugman, Paul, “The Myth of Asia's Miracle,” *Foreign Affairs*, Vol. 73, No. 6 (Nov. - Dec., 1994), pp.62-78.
- Kueh, Y.Y., *China's New Industrialization Strategy: Was Chairman Mao Really Necessary?* (UK: Edward Elgar, 2008)
—Robert F. Ash and Y. Y. Kueh, *Economic Trends in Chinese Agriculture: The Impact of Post-Mao Reforms* (Vol. Studies on contemporary China. Oxford, England: Clarendon Press, 1993)
- Kuhn, Dieter, *Joseph Needham's Science and Civilization in China. Volume 5, Chemistry and Chemical Technology. Part IX, Textile Technology: Spinning and Reeling* (Cambridge: Cambridge University Press, 1988)
- Kuo, Shirley W. Y., John C. H. Fei, and Gustav Ranis (1981), *The Taiwan success story: rapid growth with improved distribution in the Republic of China, 1952—1979*
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A., and Vishny, R.W. (1998). ‘Law and Finance’. *Journal of Political Economy*, 106/6: 1113—55
- Landes, David S., *The Wealth and Poverty of Nations* (London: Little, Brown, 1998)
- Landsberger, H.A. (ed.) (1974) *Rural Protest: Peasant Movements and Social Change*, London: Macmillan
- Lardy, N.R. (2008). ‘Financial Repression in China’. Peterson Institute of International Economics, Washington DC, Policy Brief No.8.
—Lardy, Nicholas. 2000. When will China's financial system meet China's needs? *Stanford King Center on Global Development Working Paper* no. 55. Accessed at:

<https://siepr.stanford.edu/research/publications/when-will-chinas-financial-system-meet-chinas-needs>.

—Nicholas Lardy (1995), “The role of foreign trade and investment in China’s economic transformation,” *The China Quarterly*, 144, pp.1065–82.

—Nicholas Lardy’s *China’s Unfinished Economic Revolution* (1998)

—*Markets over Mao: The Rise of Private Business in China* (2014)

Levathes, Louise E., *When China Ruled the Seas* (London: Simon and Schuster, 1994)

Lewis, A. (1954). Economic Development with Unlimited Supplies of Labor. *The Manchester School*, 22, 139-191

Li, John Shuhe, “Relation-based versus Rule-based Governance: an Explanation of the East Asian Miracle and Asian Crisis,” *Review of International Economics*, 11(4), 651—673, 2003

LIANG Qichao, *the Comprehensive works in Yinbing Room* (Beijing: China’s Book Press, 1989)梁启超, 《饮冰室合集》, 北京: 中华书局, 1989 年

Lim, Linda Y.C., “Singapore’s Success: The Myth of the Free Market Economy,” *Asian Survey*, Vol. 23, No. 6 (Jun., 1983)

Lin, Cyril, “The Reinstatement of Economics in China Today,” *CQ*, 85, March 1981.

Lin, Justin Yifu, *Demystifying the Chinese Economy* (New York: Cambridge University Press, 2012)

—“The Household Responsibility System Reform in China: A Peasant’s Institutional Choice,” *American Journal of Agricultural Economics*, Vol. 69, No.2 (May 1987)

—Lin, Justin Yifu and James Kai-sing Kung “The Causes of China’s Great Leap Famine, 1959—1961,” *Economic Development and Cultural Change*, Vol. 52, No. 1 (October 2003)

—Lin, Justin. 2000. Economic reform and development strategy in China. In *China’s Entry to the WTO: Strategic Issues and Quantitative Assessments*, eds. Peter Drysdale and Ligang Song, 35–52. London: RoutledgeCurzon

Lin Zili, “The New Situation in the Rural Economy and its Basic Direction,” *Social Sciences in China*, 3. 1983.

Lo, Dic, *Market and Institutional Regulation in Chinese Industrialization 1978—94* (London: Palgrave Macmillan, 1997)

—Dic Lo (2020): Towards a conception of the systemic impact of China on late development, *Third World Quarterly*, <https://doi.org/10.1080/01436597.2020.1723076>

Locke, John, *Two Treatises of Government*. Edited by Peter Laslett. (Cambridge Texts in the History of Political Thought: Cambridge University Press, 1988)

Lockwood, William W., *The Economic Development of Japan: Growth and Structural change, 1868—1938* (Princeton, N.J.: Princeton University Press, 1954)

Loewe, Michael, “Spices and Silk: Aspects of World Trade in the First Seven Centuries of the Christian Era,” *The Journal of the Royal Asiatic Society of Great Britain and Ireland*, No. 2 (1971)

Lucas, Robert, “Econometric policy evaluation: A critique,” *Carnegie-Rochester Conference Series on Public Policy*, 1976, vol. 1, issue 1, 19-46.

Ma, Debin (2013) State capacity and great divergence, the case of Qing China (1644—1911), *Eurasian Geography and Economics*, 54:5-6, 484-499, DOI:10.1080/15387216.2014.907530

—Debin Ma and Jared Rubin, “The Paradox of Power: Understanding Fiscal Capacity in Imperial China and Absolutist Regimes,” London School of Economics and Political Science Department of Economic History Working Papers No. 261—March 2017.

—Debin Ma & Jan Luiten van Zanden, “What Makes Maddison Right: Chinese Historic Economic Data,” *World Economics* Vol.18, No.3, 2017.

Macauley, Melissa, Book Review of *Nourish the People: The State Civilian Granary System in China, 1650—1850*, *The Journal of Economic History* (Cambridge University Press, 1995), 55(1), pp.182-183.

Maddison, Angus, *Chinese Economic Performance in the Long Run. 2nd ed, rev. and updated: 960—2030 A.D. Vol. Development Centre studies* (Paris: Development Centre of the Organisation for Economic Co-operation and Development, 2007)

—Angus Maddison, *The World Economy: A Millennial Perspective* (Paris: OECD, Development Centre Studies, 2001)

Malthus, Thomas R., *An Essay on the Principle of Population* (1798, Printed for J. Johnson, in St. Paul’s Church-Yard)

Mao, Zedong, *Mao Zedong Xuanji (the Selected Works of Mao Zedong)* (Beijing: People’s Publishing Press *Renmin Chubanshe*, 1991)

—Mao Zedong, *Mao Zedong Wenji (The Works of Mao Zedong*. Note: these are the additional comprehensive works of Mao after 1949, the aforementioned *Selected Works of Mao* were his writings before 1949.) (Peking: People’s Publishing Press *Renmin Chubanshe*, 1999.6)

—Mao Zedong, *A Critique of Soviet Economics*, edited and translated by Moss Roberts (New York: Monthly Review Press, 1977)

- Marx, K. (1859). *A Contribution to the Critique of Political Economy*
 —Karl Marx and Frederick Engels (1848/1998), *The Communist Manifesto* (London: Verso)
 —Karl Marx, *Das Capital* Vol. III: The Process of Capitalist Production as a Whole (Penguin classics, 1992)
 —Karl Marx, *On Colonialism: Articles from the New York Tribune and Other Writings* (1853). New York: Internat. Publ., 1972; *Grundrisse* (1857-1858); *Das Capital* Vol. I (1867). (Penguin classics, 1992)
- McKinnon, R., and G. Schnabl. “China’s Exchange Rate and Financial Repression: The Conflicted Emergence of the RMB as an International Currency.” *China & World Economy* 22, no. 3 (2014): 1–34. doi:10.1111/j.1749-124X.2014.12066.x.
- McNeill, William H., *The Pursuit of Power* (Oxford: Blackwell, 1982)
- Medina, L. and F. Schneider (2018). Shadow economies around the world: what did we learn over the last 20 years? IMF Working Paper WP018, (Washington, DC: International Monetary Fund)
- Meisner, Maurice, *Mao’s China: A History of the People’s Republic* (New York: Free Press, 1977)
- Meltzer, A.H. (1988), *Keynes’s Monetary Theory: A Different Interpretation*, Cambridge: Cambridge University Press
- Mendels, Franklin F., “Proto-Industrialization: The First Phase of the Industrialization Process,” *The Journal of Economic History*, Vol. 32, No. 1, The Tasks of Economic History (Mar., 1972), pp.241-261.
- Mill, John Stuart, *Utilitarianism and On Liberty, Including Mill’s ‘Essay on Bentham’ and selections from the writings of Jeremy Bentham and John Austin*. Second Edition. Edited with an Introduction by Mary Warnock. (Oxford: Blackwell Publishing, 2003)
- Milly, Deborah J. (1999), *Poverty, equality, and growth: the politics of economic need in postwar Japan*
- Mokyr, Joel, *The Lever of Riches: Technological Creativity and Economic Progress* (New York: Oxford University Press, 1990)
- Montesquieu. 1989. *The Spirit of the Laws* (1748). Translated by Anne M. Cohler, Basia C. Miller, and Harold S. Stone. Cambridge: Cambridge University Press
- Morck, Randall and Fan Yang, “The Shanxi Banks,” *NBER Working Paper* 15884, 2010

Murphey, Rhoads (1970), "The Treaty Ports and China's Modernization: What Went Wrong?" *Michigan Papers in Chinese Studies*, no. 7, Ann Arbor, University of Michigan, Center for Chinese Studies

Murphy, R. (1977) *The Outsiders: The Western Experience in India and China*. Ann Arbor: University of Michigan Press.

Murthy, S.V.R (2019). *Measuring Informal Economy in India*. Washington, DC: International Monetary Fund.

Naughton, Barry, *The Chinese Economy: Transitions and Growth* (Cambridge, Mass.: MIT Press, 2007)

—Naughton, Barry. 1995. *Growing Out of the Plan: Chinese Economic Reform, 1978–1993*. Cambridge: Cambridge University Press

—Barry Naughton (1997), "China's Emergence and Prospects as a Trading Nation," in W.C. Brainard and G.L. Perry (editors) *Brookings Papers on Economic Activity* (Washington, DC: Brookings Institute, 1996:2)

Needham, Joseph, *The Grand Titration* (Toronto: University of Toronto Press, 1969)

—Joseph Needham and Wang Ling, *Science and Civilisation in China. Volume 4, Physics and Physical Technology. Part II: Mechanical Engineering* (Cambridge: Cambridge University Press, 1965)

—Kenneth G. Robinson and Joseph Needham, *Science and Civilisation in China. Volume VII, Part II: General Conclusions and Reflections* (Cambridge: Cambridge University Press, 2004)

North, Douglass, *Institutions, Institutional Change and Economic Performance* (Cambridge: Cambridge University Press, 1990)

—Douglass C. North and Robert Paul Thomas, *The Rise of the Western World: A New Economic History* (Cambridge: Cambridge University Press, 1973)

—North, D.C. (1981) *Structure and Change in Economic History*, New York and London: W.W. Norton.

—Douglass C. North and Barry R. Weingast, "Constitutions and Commitment: The Evolution of Institutions Governing Public Choice in Seventeenth-Century England," *The Journal of Economic History* 49, no. 4 (1989)

O'Brien, Patrick Karl, "Path Dependency, or Why Britain Became an Industrialized and Urbanized Economy Long before France," *Economic History Review* 49, no. 2 (1996), pp.213-49.

—Trevor Griffiths, Philip A Hunt, and Patrick K O'Brien, "Inventive Activity in the British Textile Industry, 1700–1800," *The Journal of Economic History*, 52, no. 4

(1992), p.883.

OECD National Accounts 1950—68 and 1960—84

Ogilvie, Sheilagh, “‘Whatever is, is right’? Economic institutions in pre-industrial Europe,” *Economic History Review*, 60, 4 (2007), pp.649—684

—Sheilagh Ogilvie, "The Economics of Guilds," *Journal of Economic Perspectives*, 28, no. 4 (2014).

Okazaki, Tetsuji, “The role of the merchant coalition in pre-modern Japanese economic development: an historical institutional analysis,” *Explorations in Economic History* Volume 42, Issue 2, April 2005.

Olson, Mancur, “Dictatorship, Democracy, and Development,” *The American Political Science Review*, Vol. 87, No. 3 (Sep., 1993)

Perkins, Dwight H., *Market Control and Planning in Communist China* (Cambridge, Mass.: Harvard University Press, 1966)

—G.C. Chow and D.H. Perkins, *Routledge Handbook of the Chinese Economy* (London: Routledge, 2015)

—Dwight Perkins’s *Routledge Handbook of the Chinese Economy* (2015)

Philips, Geo, *Early Spanish with Chang Cheow*. 南洋资料译丛, 1957(4)

Polanyi, Karl, *The Great Transformation: The Political and Economic Origins of Our Time* (Boston: Beacon Press, 1944, 1957, 2001 by Karl Polanyi)

Pomeranz, Kenneth, *The Great Divergence: China, Europe, and the Making of the Modern World Economy* (Princeton, N.J.; Oxford: Princeton University Press, 2000)

—Kenneth Pomeranz, “Skills, ‘Guilds’, and Development: Asking Epstein’s Questions To East Asian Institutions,” in *Technology, Skills and the Pre-modern Economy in the East and the West: Essays Dedicated to the Memory of S.R. Epstein* (Leiden: Brill, 2013)

Popper, Karl, *The Logic of Scientific Discovery* (Oxford: Routledge, 2002)

Prasad, Eswar, “China’s Growth and Integration into the World Economy: Prospects and Challenges,” *IMF Occasional Paper 232*, 2004

—Prasad, Eswar, and Shang-Jin Wei (2005). “The Chinese Approach to Capital Inflows: Patterns and Possible Explanations.” Working Paper 11306. Cambridge, MA: National Bureau of Economic Research. Access at <http://www.nber.org/papers/w11306>.

Putterman, Louis, “Group Farming and Work Incentives in Collective-Era China,” *Modern China*, Vol. 14, No. 4 (October 1988)

Qian, Wen-yuan, *The Great Inertia: Scientific Stagnation in Traditional China* (London; Dover, N.H.: Croom Helm, 1985)

Raj, K.N., “Agricultural Growth in China and India: Role of Price and Non-price Factors,” *Economic and Political Weekly*, 18 (3), 15 January 1983.

Ran, J., Voon, J.P., and Li, G. (2007). ‘How does FDI affect China? Evidence from industries and provinces’. *Journal of Comparative Economics*, 35/4: 744—99.

Rawski, Thomas G., “What is happening to China’s GDP statistics?”, *China Economic Review* 12 (2001), 347—354

—Rawski, T.G. and Jefferson, G.H. (2002). ‘China’s Emerging Market for Property Rights’. *Economics of Transition*, 10/3: 58—617

—Thomas G. Rawski, *Economic Growth in Prewar China* (Berkeley: University of California Press, 1989)

—Rawski, Thomas. 2002. Will investment behavior constrain China’s growth? *China Economic Review* 13 (4): 361—72.

—Brandt, Lauren, Debin Ma, and Thomas Rawski. 2014. From divergence to convergence: Reevaluating the history behind China’s economic boom. *Journal of Economic Literature* 52 (1): 45—123

—Thomas G. Rawski, *Economic Growth and Employment in China* (New York: Oxford University Press, 1979)

—Thomas G. Rawski, *China’s Transition to Industrialism* (Ann Arbor: University of Michigan Press, 1980)

—Loren Brandt & Thomas G. Rawski’s *China’s Great Economic Transformation* (2008)

Redding, Stephen, “Dynamic comparative advantage and the welfare effects of trade,” *Oxford Economic Papers* 51 (1999), 15—39

Renmin Ribao (People’s Daily), 24 March 1978

—*Renmin Ribao* (People’s Daily), 9 April 1981

—“Stop the Unhealthy Tendencies in the Supply of Goods and Materials for Agricultural Use,” *Renmin Ribao*, 23 May 1983.

Ricardo, David, *The Principles of Political Economy & Taxation 1772—1823* (Mineola, New York: Dover Publications, Inc., 2004)

Richman, Barry M. (1969), *Industrial Society in Communist China*, New York, Random House

Riskin, Carl, *China’s Political Economy: The Quest for Development since 1949* (Oxford; New York: Oxford University Press, 1987)

—Riskin, C. (1975). “Surplus and Stagnation in Modern China.” In *China’s Modern*

Economy in Historical Perspective. Ed. D. H. Perkins. Stanford: Stanford University Press. 49–84.

Robinson, Joan, *What are the Questions? And Other Essays: Further Contributions to Modern Economics* (New York: M.E. Sharpe, Inc., 1980)

—Joan Robinson, *Economic Heresies: Some Old-Fashioned Questions in Economic Theory* (New York: Basic Books, Inc., 1971)

Rodan, Garry, *The Political Economy of Singapore's Industrialization: National State and International Capital* (Macmillan International Political Economy Series, 1989)

Rodrik, D. (1999), *The New Global Economy and Developing Countries: Making Openness Work*, Washington, DC: Overseas Development Council.

—Rodrik, D. (1999), ‘Where Did All the Growth Go? External Shocks, Social Conflict and Growth Collapses’, *Journal of Economic Growth*, December.

Rothermund, *An Economic History of India* (London: Routledge, 19993)

Rousseau, Jean Jacques, *Discourse on Political Economy And The Social Contract* (Oxford: Oxford University Press, 1999)

Rogoff, K. (2006). ‘Impact of Globalization on Monetary Policy’, paper presented at the symposium sponsored by the Federal Reserve Bank of Kansas City on ‘The New Economic Geography: Effects and Policy Implications’, Jackson Hole, Wyoming, August 2006.

Rostow, W. W., *The stages of economic growth: a non-Communist manifesto* (Cambridge: Cambridge University Press, 1960)

Rowen, Henry S., *Behind East Asian Growth: The Political and Social Foundations of Prosperity* (London; New York: Routledge, 1998)

Roy, Tirthankar, “Knowledge and divergence from the perspective of early modern India,” *Journal of Global History* (2008) **3**, pp.361—387.

Sachs, J. and Lipton, D. (1990) ‘Creating a Market Economy in Eastern Europe: the Case of Poland’, *Brookings Papers on Economic Activity*, 1

—Sachs, Jeffrey (1996) “Achieving Rapid Growth in the Transition Economies of Central Europe,” Harvard Institute for International Development, *Development Discussion Paper* no. 544.

—Sachs, Jeffrey, and Wing Thye Woo. 1994. Structural factors in the economic reforms of China, Eastern Europe, and the former Soviet Union. *Economic Policy* 9 (18): 102–45

—Jeffrey D. Sachs and Andrew Warner, “Economic Reform and the Process of Global

Integration,” *Brookings Papers on Economic Activity*, Vol. 1995, No. 1, 25th Anniversary Issue (1995)

Schumpeter, Joseph, *Imperialism – Social Classes*, New York: Meridian 1955

Schurmann, Franz, *Ideology and Organization in Communist China* 2nd edition (Berkeley and Los Angeles: University of California Press, 1968)

Scott, James C., *The Moral Economy of the Peasant: Rebellion and Subsistence in Southeast Asia* (New Haven and London: Yale University Press, 1976)

Selden, Mark (1979), *The People’s Republic of China: A Documentary History of Revolutionary Change*, New York, Monthly Review Press

SHANG Yang, *the Book of Lord Shang*, (China’s Book Press, 2015) 商鞅,《商君书》, (中华书局, 2015)

SHEN Zhiqi, *the Great Qing Law and its explanations* (Laws Press, 2000). [清]沈之奇 撰, 怀效锋 点校, 《大清律辑注》(法律出版社, 2000)

Shepsle, Kenneth A. (Harvard University), *Analyzing Politics: Rationality, Behavior, and Institutions* Second Edition (New York; London: W.W. Norton & Company, original edition 1997, second edition 2010)

Shiue, Carol H., and Wolfgang Keller. 2007. “Markets in China and Europe on the Eve of the Industrial Revolution.” *American Economic Review* 97(4): 1189–1216.

Skinner, G. William, “Marketing and Social Structure in Rural China,” *The Journal of Asian Studies* (pre-1986); Nov 1964

Smith, Adam, *An Inquiry into the Nature and Causes of The Wealth of Nations* (1977, University of Chicago Press)

Sng, Tuan-Hwee and Chiaki Moriguchi, “Asia’s little divergence: state capacity in China and Japan before 1850,” *Journal of Economic Growth* (2014) 19:439–470, DOI 10.1007/s10887-014-9108-6

Snowdon, Brian, and Howard R. Vane, *Modern Macroeconomics: Its Origins, Development and Current State* (Cheltenham, UK: Edward Elgar, 2005)

Solow, Robert M., “A Contribution to the Theory of Economic Growth,” *Quarterly Journal of Economics*, 1956

Sun, H.S. and Parikh, A. (2001). ‘Exports, Inward Foreign Direct Investment and Regional Economic Growth in China’. *Regional Studies*, 35/3, 187—96

SUN Yat-sen, *The Comprehensive Works of Sun Yat-sen*, compiled by Shang Mingxuan (People’s Press, 2015). 《孙中山全集》尚明轩主编（人民出版社，2015年）

Takahashi, Kamekichi (1969) *The Rise and Development of Japan’s Modern economy: the Basis for “Miraculous” growth*

Tawney, R.H., “Introduction,” *Agrarian China: Selected Source Materials from Chinese Authors*, London, Institute for Pacific Relations (1939)

Temin, Peter, “The Golden Age of European growth reconsidered,” 2002 Cambridge University Press, *European Review of Economic History*, 6, pp.3-22.

Ten Great Years (Beijing: State Statistical Bureau, 1960)

The Economist (3 January 2008)

Tilly, Charles, *Coercion, Capital, and European States, AD 990—1990* (Oxford: Basil Blackwell Ltd, 1990), Chapter 3: How War Made States, and Vice Versa.

Tracy, James D., *The Political Economy of Merchant Empires: State Power and World Trade, 1350—1750* (New York: Cambridge University Press, 1991)

Trautwein, Hans-Michael, “On the Application of the Lewis Model to China,” *Research in the History of Economic Thought and Methodology: Including a Symposium on 50 Years of the Union for Radical Political Economics*, 2019, pp. 173-80.

Trentmann, Frank, *Empire of Things: How We Became a World of Consumers, from the Fifteenth Century to the Twenty-First* (Harper, 2016)

Tsinghua University Press, *Early modern China’s historical sources on thinking and culture: Marxism in China* Volume II. (Tsinghua University Press, 1983)

《中国近代思想和文化史料：马克思主义在中国》，下册，清华大学出版社 1983年版

United Nations Report 1972

United Nations, 2014 revision of the World Urbanization Prospects, Assessed at: www.un.org/zh/desa/2014-revision-world-urbanization-prospects

US Central Intelligence Agency, *China: Major Economic Indicators* (Washington DC: CIA, 1979)

US Congress. 2002. "The National Security Implications of the Economic Relationship between the United States and China 2002." *Report to Congress of the US-China Security Review Commission*. Accessed at: <https://china.usc.edu/us-china-economic-and-security-review-commission-2002-annual-report-congress-july-15-2002>

Vogel, E.F., *One Step Ahead in China* (Cambridge, MA: Harvard University Press, 1989)

von Glahn, R. (2016) *The Economic History of China: From Antiquity to the Nineteenth Century*. Cambridge: Cambridge University Press

van Zanden, Jan Luiten, "The skill premium and the 'Great Divergence'," *European Review of Economic History* (2009) **13**, pp.121—153.

—Yi Xu, Bas van Leeuwen and Jan Luiten van Zanden, "Urbanization in China, ca. 1100–1900," *Centre for Global Economic History Working Paper Series*, Working paper no. 63 (2015)

—Jan L. van Zanden, "Wages and the standard of living in Europe, 1500—1800," *European Review of Economic History*, 2, 175—197, 1999

Vries, Jan de, *The Industrious Revolution: Consumer behavior and the household economy, 1650 to the present* (Cambridge: Cambridge University Press, 2008)

Vries, Peer, "Public Finance in China and Britain in the Long Eighteenth Century," *Working Papers No. 167/12*, Department of Economic History, London School of Economics, August 2012;

Wade, Robert, *Governing the Market: Economic Theory and the Role of Government in East Asian Industrialization* Second ed. (Princeton, N.J.: Princeton University Press, 2004)

Wakeman, Frederic E., "China and the Seventeenth-Century Crisis," *Late Imperial China* Vol.7, No.1, Periodicals Archive Online, pp.1-23.

Walker, Kenneth R., 'Collectivization in Retrospect: The "Socialist Hightide" of Autumn 1955—Spring 1956', *China Quarterly (CQ)*, 26, April—June (1966)

—Kenneth R. Walker, "Interpreting Chinese Grain Consumption Statistics," *CQ*, 92, December 1982.

Wallerstein, Immanuel, *The Modern World-System* (New York: University of California Press, 1974)

—Immanuel Wallerstein, *The Modern World-System* Volume I. published in 1974; Volume II. published in 1980; Volume III. published in 1989; Volume IV. Published in 2011 (New York: University of California Press)

—Immanuel Wallerstein, *Historical Capitalism with Capitalist Civilization* (London: Verso, 1995)

Weber, Max, *The Protestant Ethic and the Spirit of Capitalism* (Oxford University Press, 2011)

Wei, S.J. (1993). ‘The Open Door Policy and China’s Rapid Growth: Evidence from City-level Data’. *NBER Working Paper*, 4602.

WEI Yuan, *A Comprehensive Survey of Off-shore Countries*, 1841. 魏源, 《海国图志》

Wen, M. (2007). ‘A Panel Study on China: Foreign Direct Investment, Regional Market Conditions, and Regional Development’. *Economics of Transition*, 15/1: 125—51.

White, Eugene N., “From privatized to government-administered tax collection: tax farming in eighteenth-century France,” *Economic History Review*, LVII, 4 (2004), pp.636-663.

White, Lynn T., *Medieval technology and social change* (London: Oxford University Press, 1962)

Williams, C. C. and F. Schneider (2016). *Measuring the Global Shadow Economy: The Prevalence of Informal Work and Labour* (Cheltenham: Edward Elgar)

Wittfogel, Karl August., *Oriental Despotism: A Comparative Study of Total Power* (1957). 1st Vintage Books ed. (New York: Vintage Books, 1981)

WO Ren, *The Memorial to the Throne By Senior Secretary WO Ren in Tongzhi emperor’s Sixth year*, Lunar calendar 15/02/1867. 《同治六年二月十五日大学士倭仁折》(1867年)

Wolf, Eric R., *Europe and the People Without History* (Berkeley: University of California Press, 1982)

Wong, R. Bin, and Plerre-Etienne Will, *Nourish the People: The State Civilian Granary*

System in China, 1650—1850 (Center for Chinese Studies, The University of Michigan, 1991)

—Roy Bin Wong and Jean-Laurent Rosenthal, *Before and Beyond Divergence: The Politics of Economic Change in China and Europe* (Cambridge, Mass.: Harvard University Press, 2011)

—R. Bin Wong, *China Transformed* (Ithaca: Cornell University Press, 1997)

Woo-Cumings, Meredith Jung-En, “Chapter 14. National security and the rise of the developmental state in South Korea and Taiwan,” in Henry S. Rowen, *Behind East Asian Growth: The Political and Social Foundations of Prosperity* (London; New York: Routledge, 1998)

World Bank (2013) *Measuring the Real Size of the World's Economy, the Framework Methodology and Results of the International Comparisons Program*. Washington DC.

World Bank Policy Research Report, *The East Asian Miracle: Economic Growth and Public Policy* (Oxford; New York; Toronto: Published for the World Bank, Oxford University Press, 1993)

World Bank, *World Development Indicators*

World Economic Outlook, various issues

World Health Organization. 1998. *Health Care Systems in Transition: Russian Federation*. Copenhagen: WHO Regional Office for Europe

Wrigley, E.A., (1987) *People, Cities and Wealth: The Transformation of Traditional Society*, Oxford: Basil Blackwell,

WSO. 2020. Global crude steel output increases by 3.4 percent in 2019. World Steel Organization. Accessed at: <https://www.worldsteel.org/media-centre/press-releases/2020/Global-crude-steel-output-increasesby-3.4--in-2019.html>.

Wu Jinglian and Zhou Shulian, “Correctly Handle the Relationship Between Readjustment and Restructuring,” *Renmin Ribao*, 5 December 1980

Xu, Xianchun, “China’s gross domestic product estimation,” *China Economic Review* 15 (2004), 302– 322

Xue Muqiao, Su Xing, and Lin Tse-li (1960), *The Socialist Transformation of the National Economy*, Peking, Foreign Languages Press

—Xue Muqiao, *Current Economic Problems in China* (Boulder, Colorado: Westview Press, 1982)

—Xue Muqiao, “*Guanyu jingji tizhi gaigede yixie yijian*” (Some opinions on reform of

the economic system), *Renmin Ribao*, 10 June 1980.

Xuexi yu Pipan, ‘Criticism of Selected Passages of “Certain Questions on Accelerating the Development of Industry”’, *Xuexi yu Pipan* (Study and Criticism), 14 April 1976.

YAN Fu, *Wirings of Yan Fu* (China’s Book Press, 1986) 严复, 《严复集》(中华书局, 1986 年)

Yang Jisheng, Edward Friedman, Stacy Mosher, Jian Guo, and Roderick MacFarquhar, *Tombstone: The Great Chinese Famine, 1958—1962* (Farrar, Straus and Giroux, Year: 2012)

Yao Wen Yuan (1975), “On the Social Basis of the Lin Piao Anti-Party Clique”, *Renmin Ribao*

Young, Alwyn, “The Tyranny of Numbers: Confronting the Statistical Realities of the East Asian Growth Experience,” *The Quarterly Journal of Economics*, Vol. 110, No. 3 (Aug., 1995), pp.641-680.

—Alwyn Young, “A Tale of Two Cities: Factor Accumulation and Technical Change in Hong Kong and Singapore,” *NBER Macroeconomics Annual*, 1992, Vol. 7 (1992)

Yueh, Linda Y., *China's Growth: The Making of an Economic Superpower* (Oxford: Oxford University Press, 2013)

ZHANG, Jun and Tian ZHU, “Poor Economic Statistics Fuel China’s Low Consumption Myth,” *World Economics* Vol. 14, No.2, April-June 2013.

ZHANG Shizhao, *the Comprehensive writings of Zhang Shizhao*, Volume II. (Shanghai: the press of writings collection, 2000) 章士钊, 《章士钊全集》(第 2 卷), 上海: 文汇出版社, 2000 年

Zhongguo Jingji Nianjian (ZJN) (Economic Yearbook of China), ed., Xue Muqiao et al. Beijing, Jingji Guanli Chubanshe (1984)

Zhou Shulian, “Changing the Pattern of China’s Economy,” in Lin Wei and Arnold Chao, *China’s Economic Reforms* (Philadelphia: University of Pennsylvania Press, 1982)

ZHOU Shuren, penname: LU xun, *A biography of Person Q*, 1921. 鲁迅, 《阿 Q 正

传》

ZHU, Xiaodong, “Understanding China’s Growth: Past, Present, and Future,” *Journal of Economic Perspectives*, Volume 26, Number 4, Fall 2012.

Zong, Fengming, *Zhao Ziyang Ruanjinzhongde Tanhua (Conversations with Zhao Ziyang under House Arrest)* (Hong Kong: Open Press, 2007)

Online sources:

China Statistical Yearbook

IMF

Chinese Ministry of Human Resources and Social Security. 2019. China employment: Secondary industry.

Accessed at: <https://www.ceicdata.com/en/china/employment/employment-secondary-industry>

PWC’s 2018 reports. The opening up of Chinese automotive industry and its impact.

Accessed at: <https://www.pwccn.com/en/automotive/chinese-automotive-industry-opening-up-impact.pdf>.

World Bank

ZHENG Yongnian, “America’s popular domestic attitudes on Sinophobia,” interview on ifeng news, 18/05/2022. <https://news.ifeng.com/c/8G7hROWCWt0> Assessed on:

21/05/2022. 郑永年：美国国内的对华集体恐慌，凤凰网

Kent G. Deng, “Insights from expert: the Covid-19 shock exposes weaknesses in the current global commodity chains,” *Elite Newspaper for High rank’s attention (cankao xiaoxi)*, 14/07/2020. http://ihl.cankaoxiaoxi.com/2020/0714/2415621_4.shtml

Assessed on 21/05/2022. 邓钢，专家文章：新冠疫情暴露全球化产业链痛点，《参考消息》14/07/2020 期

President Xi Jinping, “Prosper the domestic economy, Smooth the Domestic Great Circulation,” *People’s News (Renmin wang)*, 23/07/2020’s report on 21/07/2020. 习近

平：“繁荣国内经济、畅通国内大循环”，人民网 23/07/2020 期报道 21/07/2020 企业家座谈会

<http://hi.people.com.cn/n2/2020/0723/c231187-34178608.html> Assessed on 22/05/2022.

Premier Li Keqiang, “Li’s attendance on the 70th Anniversary of China’s Ministry on International Commerce,” China News (*Xinhua wang*), 20/05/2022. 李克强出席中国国际贸易促进委员会建会 70 周年, 新华网 20/05/2022 期

http://www.news.cn/politics/leaders/2022-05/20/c_1128669769.htm Assessed on 22/05/2022.

Rishi Sunak, “British Chancellor searches for the restoration of economic cooperation with China,” *Cancao Xiaoxi* 31/01/2022 reporting on the *Daily Telegraph* ‘s article on 29/01/2022. <http://www.cankaoxiaoxi.com/china/20220131/2467970.shtml>

Assessed on 22/05/2022. 英媒报道：英大臣寻求重启对华经贸关系, 参考消息网 31/01/2022 期

Bernie Sanders Debates Mike Braun on MMT: Modern Monetary Theory gets hashed out on the Senate floor, 12/05/2021. <https://www.c-span.org/video/?c4962723/user-clip-bernie-sanders-debates-mike-braun-mmt> Assessed on 22/05/2022

World Economic Forum, 2016.

Assessed at: <https://www.weforum.org/agenda/2016/10/these-are-the-worlds-five-biggest-slums/>

US News, 2019. Assessed at: <https://www.usnews.com/news/cities/articles/2019-09-04/the-worlds-largest-slums>

DowntoEarth, 2022. Assessed at: <https://www.downtoearth.org.in>

India’s national newspaper: <https://www.thehindu.com/business/Economy>

https://www.motorauthority.com/news/1123642_75-years-of-imitation-the-original-jeep-has-been-copied-in-form-and-function-the-world-over

Assessed on: 1:12, 2021/1/25, Beijing Time

<https://www.sony.net/SonyInfo/CorporateInfo/History/capsule/12/>

Assessed on: 1:19, 2021/1/25, Beijing Time

<https://www.nationsencyclopedia.com/economies/Asia-and-the-Pacific/Taiwan-INTERNATIONAL-TRADE.html>

Assessed on: 14:10, 2021/1/25, Beijing Time.

<https://www.allaboutcircuits.com/news/a-page-in-the-history-of-transistors-ingenuity-in-post-war-japan/>

Assessed on: 1:26, 2021/1/25, Beijing Time

The statesman who talked tough, Lee Kuan Yew

<https://www.mfa.gov.sg/overseas-mission/abu-dhabi/mission-updates/2015/03/the-statesman-who-talked-tough->

https://en.wikipedia.org/wiki/Feldman%E2%80%93Mahalanobis_model

Assessed on 0:32, 2021/1/25, Beijing Time.

Gerschenkron's biography article by New York Times in 2002, 'The Last man with all known knowledge' <https://www.nytimes.com/2002/06/16/books/the-last-man-with-all-known-knowledge.html>

Assessed on: 23:40, Beijing Time, 2021/4/20.

Most important American Savings Statistics, Fortunly.com

<https://fortunly.com/statistics/american-savings-statistics> Assessed on 12/06/2022.

China becomes world leader in industrial economy scale. Chinadaily.com.cn. 2019-09-23. <https://www.chinadaily.com.cn/a/201909/23/WS5d888ad6a310cf3e3556cf80.html>

Assessed on 12/06/2022.

Share of exports in GDP in China from 2011 to 2021.

<https://www.statista.com/statistics/256591/share-of-chinas-exports-in-gross-domestic-product/> Assessed on 12/06/2022.

China Trade Statistics, WITS. <https://wits.worldbank.org/countryprofile/en/chn>

Assessed on 12/06/2022.

Jason Dedrick, Greg Linden, and Kenneth L. Kraemer, U.S.—China Trade War intensifies, CBSN news, New York, "China makes \$8.46 from an iPhone. That's why a U.S. trade war is futile," July 9, 2018. www.cbsnews.com/news/china-makes-8-46-from-an-iphone-and-thats-why-u-s-trade-war-is-futile Assessed on 12/06/2022.

China Labour Bulletin (*Zhongguo laogong tongbao*), org, Hong Kong, "Shenzhen worker protests decline sharply after factories relocate," 12 November 2020.

<https://clb.org.hk/content/shenzhen-worker-protests-decline-sharply-after-factories-relocate> Assessed on 12/06/2022.

UNCTADsta, <https://unctadstat.unctad.org/EN/>

Anon., 'Ruhe Kandai Beida Baogao Cheng Zhongguo Caifu Jini Xishu 0.73' (How to Understand China's Gini Coefficient at 0.73 Cited in the Report by Peking University), 7th August, 2014, available on line at: <http://economics.cenet.org.cn/show-1545-36886-1.html>

Global textiles web (China), "An investigation of China's textiles and clothes exports industry: fewer orders, lower profit" (29/01/2015), <https://www.tnc.com.cn/info/c-012001-d-3503824.html> Assessed on 12/06/2022. 全球纺织网, www.tnc.com.cn

'Hollow Villages' in Rural Areas <http://www.china.org.cn/english/2003/Jul/70357.htm>
Assessed on 13/06/2022.

UNCTAD Statistics, China: The rise of a trade titan, [China: The rise of a trade titan | UNCTAD](#), by Alessandro Nicita and Carlos Razo, 27 April 2021.

<https://www.statista.com/statistics/1197099/china-final-consumption-as-share-of-gdp/>

China's Biggest, Sustainable 2022 Consumer Trends, *China Briefing*, February 24, 2022, by Guilherme Campos. <https://www.china-briefing.com/news/biggest-consumer-trends-china-in-2022-and-the-foreseeable-future/>

Logan Wright and Allen Feng (May 12, 2020) "COVID-19 and China's Household Debt Dilemma," *Rhodium Group*. <https://rhg.com/research/china-household-debt/>