

Note on the Author

Kent Deng is currently Reader in Chinese Economic History at the LSE. His doctoral thesis on long-term agricultural development in pre-modern China was discussed in 1990 at La Trobe University, Melbourne, Australia. He has since lectured in Australia, New Zealand and the UK. Among his publications *Chinese Maritime Activities and Socio-Economic Development c. 2100 BC-1900 A.D.*, New York 1997 and *The Chinese Premodern Economy. Structural Equilibrium and Capitalist Sterility*, London 1999.

I. THE CHINESE PUZZLEⁱ

In the 1950s, the historian of science, Joseph Needham, drew attention to the paradox that despite its immensely ancient and creative civilisation, China's economy had fallen behind the West's in recent centuries.¹ Like most of his contemporaries, Needham explicitly used the experience of Western Europe as the yardstick against which to measure China's performance. In the 1980s, when scholars were still grappling with this puzzle, the comparative economic historian, Eric Jones, asked instead why – given that by A.D. 1000 China had developed well ahead of other societies in Eurasia – this achievement by Song China was never repeated under later Chinese dynasties.² The “Jones question” is positive in approach and avoids using the pattern of Western European growth as a universal benchmark. This marks a major, path-breaking step forward from the approach entitled the “Needham paradox”, which is a normative, linear one and does not recognise multiple developmental trajectories in human history. Nor did Needham appear to grasp the extent of economic growth attained in China during the Song.³

However, these two approaches do have something in common: both examine a vital problem presented by China's early socio-economic supremacy and by its late inferiority, a question so fundamental to the understanding of world history that it should be placed on the same level as the debate on the causes of the English Industrial Revolution.⁴ It is, thus, not surprising that in the past 50 years the debate about China's economic past has been one of the focal points among students of global history.⁵

II. A MULTI-SYMBIOTIC ECONOMIC SYSTEM AND ITS FLUCTUATIONS

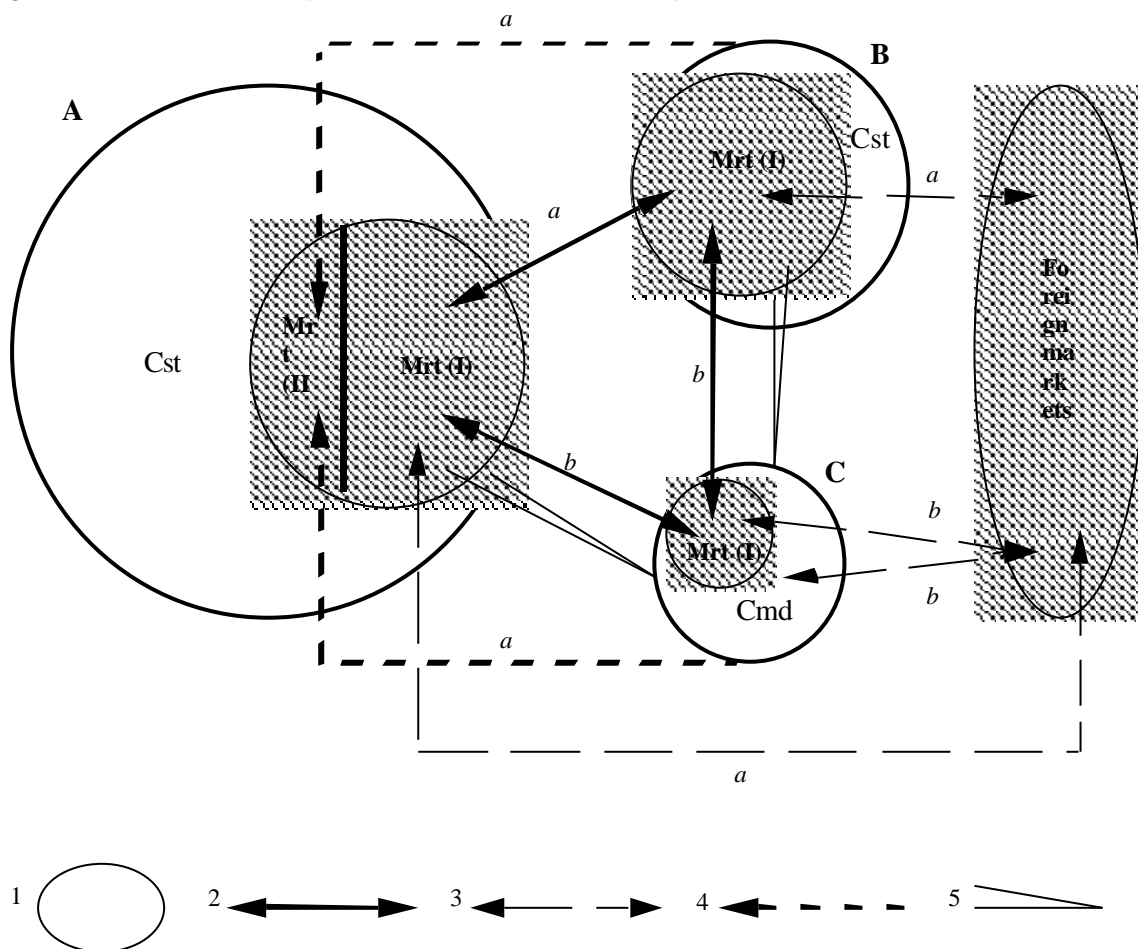
The Chinese puzzle is really about how economic dynamism on the East Asian mainland turned out to be so limited over the very long term that China fell acutely short of its potential for growth and development. The real challenge faced by the Chinese puzzle is how to embrace numerous variables in a theoretical framework to explain how rational choices led what had become a sophisticated economic system into a developmental

ⁱ This paper expands on some of the ideas contained in my 1999 monograph, “The Premodern Chinese Economy”. It was prepared for the Economic History Research Seminar at the University of Manchester, February 2001.

deadlock. This requires a positive, factual approach. An appropriate starting point is to understand just how complex and sophisticated China's premodern economy was during the Imperial period (221 B.C.- A.D.1840).⁶

From numerous studies of China's past, three economic types can be identified according to their distinctive mechanisms of resource allocation. These allocation mechanisms were: customary rule in the case of the customary type; centralised decision in the case of the command type and price signals in the case of the market type.⁷ Figure 1 reflects the main aspects of the economy under great prosperity. Here the term 'symbiotic economic system' is preferred to 'mixed economy' to reflect a mutually beneficial and interdependent relationship.

Figure 1. China's Symbiotic Economic System



Note: The relative sizes of the economic spheres in the figure are qualitatively suggestive but not necessarily quantitatively accurate.

Legenda: (1) economic spheres, (2) inter-sectoral market exchange, (3) international market exchange, (4) inter-sectoral capital formation (including investment in and acquisition of land), (5) government taxes extracted from commercial and non-commercial activities. Symbols: A – the rural sector, B – the urban sector, C–the state-run sector. Abbreviations: Cst – customary type, Cmd – command type, Mrt (I) –

market for producer and consumer goods/services, Mrt (II) – market for real estate properties. Modes of pricing: a – goods/services under ‘free market’ pricing; b – goods/services under monopoly/monopsony pricing.

In the figure, there are three interlocking symbiotic types and sectors. Component A, the ‘rural private customary-mercantile’ sector and by far the largest in society, is a symbiosis of the ‘customary’ and ‘mercantile’ types. The definition ‘customary-mercantile’ indicates that much weight is on the customary type, while the mercantile type is auxiliary. In other words, the rural sector is able to survive with or without the market.⁸

This notion of a ‘customary-mercantile’ symbiosis is supported by several important studies of Chinese agriculture. Firstly, the rural workforce accounted for some 80 percent of China’s total and produced some two-thirds of the country’s GDP.⁹ Secondly, although commercial activities in the rural sector were commonplace as seen from the regular fairs,¹⁰ and the large quantities of silk and tea for export,¹¹ and although the actual rate differed from region to region,¹² at least 60 percent of the total output (70-80 percent being recognised as the norm) was not marketed.¹³ This means that the non-commercial proportion of the rural sector accounted for some 40-50 percent of China’s total GDP.¹⁴ It is worth noting that despite its grand façade, until Mao’s era the bureaucracy never controlled the villages, which, therefore, enjoyed virtual all-round autonomy. Such autonomy was highly compatible with China’s landholding institutions.

Component B, the ‘urban private mercantile-customary’ sector, is also a symbiosis of the ‘customary’ and ‘mercantile’ types. But much weight is on the mercantile type as the urban sector depends on the rural sector for food, as well as generating products and services such as transport and communication. Although some cities were massive and cosmopolitan,¹⁵ this sector was much smaller, its ceiling being 20 percent of China’s total population and some 30 percent of China’s total GDP (as lumped together with the state-run sector). Its productivity measured by per capita GDP was greater than unity and this generated a higher income per head than in the rural sector.¹⁶

Component C, the ‘state-run command-mercantile’ sector, is a symbiosis of ‘command’ and ‘mercantile’ types. In addition to performing its traditional role as a provider of public goods such as national security/defence, law and order, the State was an active participant in the economy. The state-run sector physically overlapped with the rural and urban sectors.¹⁷ Here, a command type should be understood as the one within which resources are

allocated by government orders regardless of price signals from the market.¹⁸ The State ran large-scale farming colonies, often along the frontiers, and a considerable proportion of handicrafts industry, typically in major cities.

As a proxy of the scale of this sector, on average State-owned land occupied 13-14 percent of China's cultivated total.¹⁹ The State was also able to control some 'key commodities' and their prices. Among these were wine, salt, iron, tea, silk, materials or ingredients for traditional Chinese medicine and so forth, all of which, it should be noted, were price/income inelastic. It also controlled foreign trade, which was relatively easy to police. The volume of goods the Imperial State was able to manoeuvre was impressive.²⁰ Even so, the state-run sector was the smallest, as the State only controlled a low percentage of China's wealth: government revenue was under 10 percent of China's total GDP.²¹ The share had been merely 1-2 percent of GDP during the Qing.²² The overwhelming financial concern was a balanced budget, a high proportion of which was earmarked for national defence.²³ This set an upper limit to the State's involvement in the economy.

Foreign markets were not one entity but many. Nevertheless, they can be regarded as one economic sphere. In the late Qing, the ratio of domestic to international trade was 2.3-3.1:1 in volume.²⁴ This reflects the degree of openness to and dependence on foreign markets during a prosperous period.²⁵

Overall, the three sectors were linked together by two kinds of domestic markets: that for producer and consumer goods/services and that for land property. The three sectors were also connected to foreign markets. There were two distinctive price systems: the 'free market' price and the monopoly/monopsony price. The commercial proportion of the whole economy would at most be 60 percent (27 percent in the rural sector, 30 percent in the urban sector, and 1-2 percent in the State sector). In addition, there were fiscal links between the two private sectors and the state-run sector through taxation on trade and customary activities.

The premodern Chinese economy can thus be defined as a symbiotic economic system of different types and sectors with multiple links, or a 'multi-symbiotic system'. A unique universe, this lasting and stable symbiosis implied some kind of structural equilibrium in the economy.

Broadly speaking, there were four periods of economic prosperity when the symbiosis grew enormously: Western Han (229 years: 206 B.C.-A.D. 23), Tang (289 years: 618-907), Song (319 years: 960-1279), late Yuan (about 50 years: 1320-68) and Ming-Qing (472 years: 1368-1840). They totalled 1,430 years.

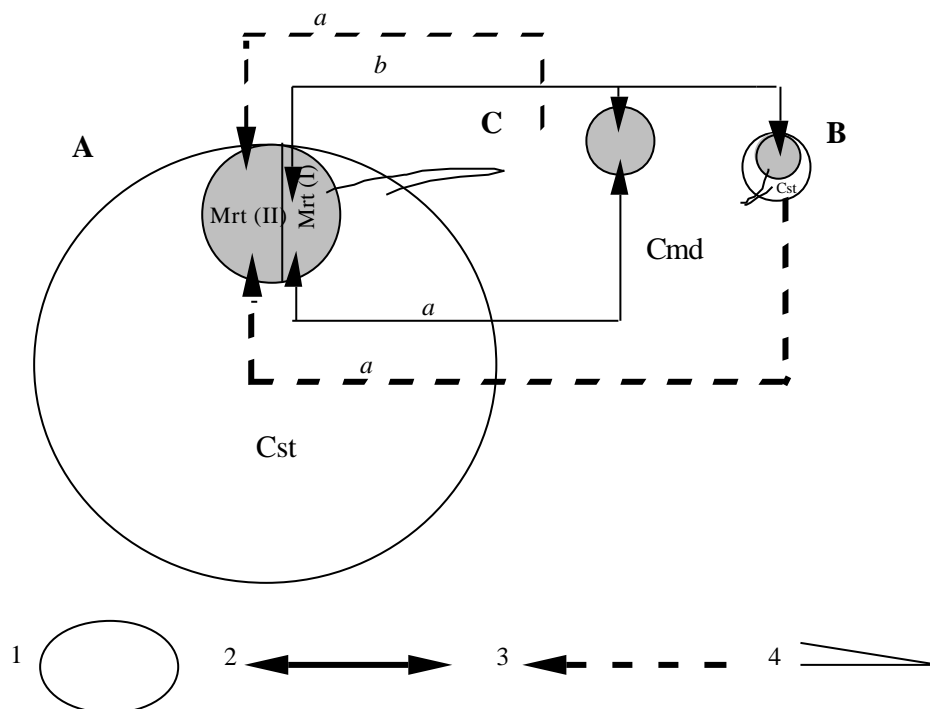
The complexity, sophistication and the degree of commercialisation and urbanisation presented in Figure 1 indicate that Imperial China was by no means a primitive society. But it was through no easy process that China

achieved this. It is crucial to understand that China's achievement was gradual. It is also crucial to understand that the level of prosperity was not always maintained; fluctuations were inevitable.

Given the 'dynastic cycle' characterised by a period of prosperity followed by economic decline, collapse and recovery,²⁶ it is commonly recognised that only a proportion of these four periods truly qualified as prosperous. It is likely that only a third of a total of 1,430 years were prosperous.²⁷ At the other end of the spectrum, the Qin (14 years: 221-207 B.C.), East Han-Sui (593 years: A.D. 25-618), Five Dynasties (53 years: 907-60), early Yuan (some 50 years: 1271-1320) were commonly recognised as periods of economic downturn, 710 years in all. They occupied some one-third of the Empire's life span. If one also takes into account the 500 years of economic decline during the Western Han, Tang, Song and Ming-Qing, the total non-prosperous period could well be half the Empire's history. Thus, Figure 1 reflects some 20 percent of the Empire's life span (221 B.C.-A.D. 1911).

The fundamental causes for the low economic ebbs were internal shocks (corruption of the bureaucracy) and external shocks (alien invasions/conquests), which will be dealt with later. Natural disasters could and did lower the threshold for the low ebb, but were not the cause of it.²⁸ The features of such periods are portrayed in Figure 2.

Figure 2. China's Economy at Low Ebb

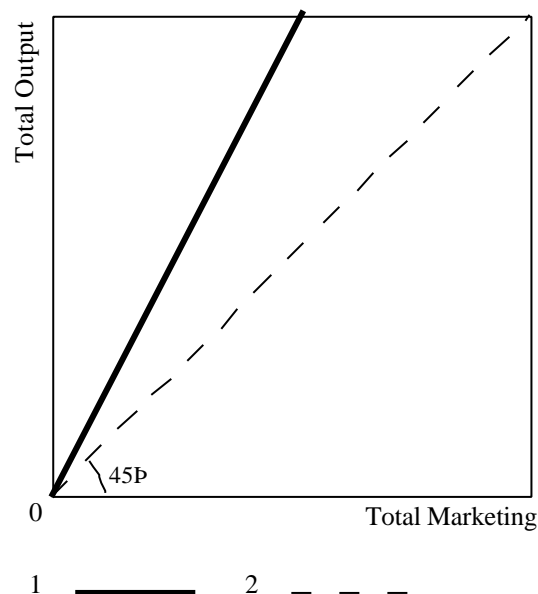


Note: The same as Figure 1.

Several points can be made here. Firstly, compared to the period of prosperity the economy was de-urbanised, de-commercialised and the absolute size of the economy smaller, due to heavy losses of population, capital and land under-cultivation. Secondly, the market for producer and consumer goods/services shrank with widespread commodity scarcity. On the other hand, the market for real estate increased its share due to increased availability of farming households, as so many of them went bankrupt - others were simply wiped out by disasters, natural or man-made. Thirdly, foreign trade became trivial and thus negligible. Fourthly, as the balance between the symbiotic economic types and sectors changed, the relative shares of the customary and command economies increased and the urban sector lost ground to become the smallest among the three. Finally, with all these changes, the rural sector moved in the direction of a 'rural private customary-command economy'; the urban sector moved in the direction of an 'urban private command-customary economy' and the state-run sector of a 'state-run command economy'.

Thus, despite the decline in commercial activities, the basic structure was still maintained although the proportion of each element in the economy changed. The mercantile seed was stored and would flower again when the conditions were normalised. So China's structural equilibrium itself was elastic and dynamic. Hence, during the low economic ebb, the seeds for recovery and prosperity were preserved and they could be activated again, once the conditions became normalised. The economy of Imperial China oscillated between great prosperity and a low ebb, like a never ending *legato* movement from the lowest octave to the highest and back (see Figure 3).²⁹

Figure 3. China's Upper Bound for Commercialisation



Note: (1) China's maximum marketing curve where only a proportion of the total output (goods/services) is marketed. (2) Perfect commercialisation line where all goods/services are marketed.

Although China's commercial growth fluctuated within a band, it was a dynamic, continuous and *ad hoc* non-linear process. Here, the relationship between the customary component of the economy and the mercantile component is like that between a planet and its satellite. Once captured, the satellite is unable to run away from the gravity of the planet, reaching at most the 'apogee'. Neither, however, does it crash-land, since the gravity is never powerful enough to suck it back when it reaches the 'perigee'.³⁰ The 'centre of gravity' (the customary core of the economy) determined how far and how fast the 'satellite' (commercialisation/urbanisation) orbited. Therefore, although some elements of proto-capitalism emerged, capitalist mercantilism and industrialisation represented but a counterfactual perspective as the customary core remained unchallenged.³¹ This is paradoxical: the market economy, conventionally viewed as superior to the customary economy, seemed to serve, not to take over, the latter.³² But why and how?

III. WHO DETERMINED THE DEVELOPMENTAL APOGEE?

However puzzling it may be to record how, during China's economic decline, the market did not completely disappear, to understand China's developmental apogee is an even more challenging task. Most comparative historians have recognised this developmental apogee either implicitly or explicitly. For example, Mark Elvin speaks of a 'high-level equilibrium trap' referring to a situation where resource allocation, market capacity, technology advancement and population density all reached their premodern maxima in Qing China, resembling the Ricardian 'stationary state'.³³ In a sense, the existence of an apogee is well known, although the present study suggests that China reached that apogee several times, not just during the Ming-Qing Period.

What remains to be answered, however, is how China reached that condition. Were China's inefficiencies really rooted in the Chinese mindset, a mindset established by and for the elite? Or were they the consequence of (1) a coercive, rent-seeking State, (2) a weak merchant class, (3) a strong landlord class, (4) the bio-mass of the Chinese race itself, which kept reproducing itself at a very fast rate, or (5) a combination of several such variables?³⁴ The problem here is that although they may offer sensible

insights into why China declined, such clear-cut, ready-made parameters cannot satisfactorily explain why China rose in the first place, or vice versa; not to mention the fact that what underlies them is the counterfactual, normative approach of judging China by a European benchmark.

Many studies imply that China's position was a result of a 'natural' course over which the Chinese had no control, either individually or collectively. Thus, no one was truly consciously responsible for China's fate. Hegel, Marx, Weber, Needham, and Fairbank would agree with this view. But, from the viewpoint of Douglass North, any outcome of human society is the product of conscious choices, compromises and trade-offs. Thus, China's developmental apogee was actively and deliberately man-made. There was nothing 'natural' about it at all. Otherwise, it is incomprehensible why and how the Chinese were able to run a symbiotic economic system and lead the world in many areas for so long. To a great extent, the orthodox classical/neo-classical economists would agree. Could it be possible that the upper band was deliberately set by millions of ordinary Chinese, on the basis of rational choices? Could it also be possible that the apogee was deliberately and creatively maintained over time? The findings of the present research strongly indicate affirmative answers to such questions.

Firstly, we need to identify the centre of economic gravity in Imperial China. This centre was undoubtedly fixed in the rural sector and more specifically in the customary component of the economy, as portrayed in Figures 1 and 2. The customary economy in China was dynamic, versatile, flexible, accommodating, rewarding; it was not necessarily depressed and seldom operated at a mere subsistence level. So much so that its residual impact can still be felt after the Qing: the rural sector succeeded in preserving the customary economy under heavy bombardment from the capitalist world market as well as from wars.³⁵

Secondly, we need to identify who made economic decisions and choices. It is a widely accepted view that decisions and choices were the preserve of the rulers – the Chinese monarch and his bureaucracy – and that the peasantry only had an obligation to obey. On the contrary, evidence shows that the monarch and his bureaucracy did not have the resources or the will to monopolise those decisions and that the peasantry often disobeyed.³⁶ So, the ordinary Chinese were far more individualistic and made far more decisions than one might think. If so, the question is: who were these ordinary Chinese? Obviously, the single largest group among all economic agents was the peasantry (or more precisely, the premodern professional farmers).

There has been a long debate about how the premodern professional farmers should be viewed. There have been two main schools of thought. Leninism-Stalinism insists that the 'peasantry' does not exist and that the rural population was always divided according to property ownership and

income levels. The 'haves' belong to either the feudal, bourgeois or petty bourgeois classes; the 'have-nots' to the proletariat or semi-proletariat. Empirically, the socio-economic disasters caused by communism (Lenin's war communism and Stalin's collectivisation) in the Soviet Union – as seen from the severe decline in livestock numbers and food output in both relative and absolute terms, as well as from the elimination of the entrepreneurial *kulaki* – indicate that any such division is arbitrary and misleading.³⁷ In contrast, populists/neo-populists regard farmers as a more or less homogeneous stratum because of the similarities in their production and consumption patterns, life-style and mindset.³⁸

There is agreement on one point, that peasant economic behaviour is highly distinguishable from that of other classes such as merchants and industrialists. Based on such observation, the peasant economy has even been labelled as a separate mode of production.³⁹ This categorisation matches China's economic history, considering that the peasantry formed the vast majority of society during the whole of Imperial China. Moreover the choices made by the Chinese peasantry individually and/or collectively were completely rational (including what to produce, how to produce it, when to produce it and for whom). Ultimately, such rational choices determined a balance between the customary and mercantile activities at all levels and hence China's particular developmental orientation.

Thirdly, in the context of the economic reality of Imperial China, we need to identify the peasantry's economic incentives and behavioural patterns. What in this study is called the 'rural customary economy' is often loosely referred to as the 'traditional peasant economy'; peasants are referred to as 'traditional farmers'. So far, the 'traditional peasant economy' has been defined at the macro level under three following broad categories:

- 'Subsistence economy', which produces just enough for the population to survive without market exchange with other economic agents,⁴⁰
- 'Market economy', which is not different in nature from the urban sector,⁴¹
- 'Customary-market dualistic economy', which combines subsistence needs and returns from market exchange.⁴²

Correspondingly, at the micro level, peasants have been regarded as:

- Non-market agents efficient in allocating resources to maximise utility, or 'resource rational but non-capitalist',⁴³
- Market agents efficient in allocating resources to achieve profit/returns, or 'market rational and capitalist',⁴⁴

- Dualistic utility and profit maximisers for economic optimisation, or ‘resource-market dualistic’.⁴⁵

These patterns no doubt all apply sometime and somewhere. Sufficient evidence from Chinese history indicates that China fell within the third category, a ‘customary-market dualistic economy’, while its peasantry consisted of ‘dualistic utility and profit maximisers’. The Chinese peasantry seemed to enjoy the benefits of two worlds: the customary economy produced secure livelihoods, and the market economy, the icing on the cake. From the fact that ordinary Chinese enjoyed respectable living standards during the Qing period, the symbiotic economy was able to deliver desirable results.⁴⁶ If so, China’s developmental apogee did not just occur; on the contrary it was deliberately created/induced by the rational choices of the vast majority in society.

IV. HOW WAS THE APOGEE CREATED?

We assume at this point that it was the Chinese peasantry that determined China’s developmental apogee. But how? Part of the answer lies in specific institutions and policy devices that were developed in China over time.

China probably had the most developed private landholding system in the premodern world. The core of Chinese family-cum-farms – private individual land-ownership – was created probably at the grassroots level through trial and error by the seventh century B.C. This injected a new variable into China’s production function. The State played an active role: its approval functioned as a catalyst for land-ownership change (see Table 1).⁴⁷

*Table 1. Early Spread of Private Land-ownership*⁴⁸

Year	Kingdom	Location	Fiscal policy
685BC	Qi	lower Yellow River valley	differential taxes on land output capacities
594	Lu	lower Yellow River valley	taxing on land under cultivation
548	Chu	middle Yangtze valley	tax on land according to its output level
540	Zheng	middle Yellow River valley	tax on land area under cultivation

When the Qi, a power at the very top of the league table, took the lead among the competing kingdoms, private land-ownership was widespread in established farming zones. It can be assumed that by then private land-ownership must have reached the ‘critical mass’ to make government tax on private farms worthwhile. By the fourth century B.C., the attractions for the

State were so strong that tax advantages and private land-ownership were offered to lure farmers from rival kingdoms (*laimin*, literally ‘attracting immigrants’). To make the new institution complete, a law for equal inheritance of real estate together with a law for land property registration were introduced by Shang Yang (c. 390-338 B.C.), a policy adviser to the Qin authorities, in order to ensure and enlarge the tax base and increase army recruits.⁴⁹

This was a major institutional change in that the biological or family link to landholding was for the first time established by law. Thus, the Qin legislation, rather unintentionally, fuelled the momentum of the new landholding pattern, via the human reproduction cycle. With it, the existing practice of ancestral worship and lineage expansion had a new economic driving force: as family properties were legally passed on through the bloodline, ancestral worship and lineage expansion began to make economic sense. These changes were to have a profound impact on China’s long-term developmental orientation, given that the Qin legacy was maintained. The protection of private land-ownership and equal inheritance remained at the core of the civil codes under the Tang (618-907), Song (960-1279) and Ming (1368-1644).⁵⁰

The advantage of this new pattern of ownership lay in the tangible rewards it offered farmers to produce more and better; in addition to which it eliminated any communal free riding.⁵¹ This in turn attracted investment back into the rural sector. The State benefited from more revenue and well-fed soldiers and hence greater economic and military power.⁵² Thus, a Pareto optimum was reached and everyone gained.⁵³ This new system of state finance led to the State becoming rurally dependent, as seen from the breakdown of the Qing tax income in 1652-1766:

*Table 2. Tax Structure of the Qing*⁵⁴

Year	Grain (I ₁)*	Land Poll (I ₂)	Salt (II ₁)	Customs Duties (II ₂)	Other (II ₃)	I:II
1652	8,767,200 (5,620,000 picul)	21,260,000	2,120,000	1,000,000		9.6:1
1682	9,890,400 (6,340,000 picul)	26,340,000	2,760,000	2,000,000		7.6:1
1766	12,975,768 (8,317,800 picul)	32,910,000	5,740,000	5,400,000	4,490,000	4.1:1

*Note: *Conversion based on the mean price of 1.56 liang per picul derived from the price range of 0.94-2.18 liang per picul in rich farming regions of Yangzi and Pearl deltas of the seventeenth and eighteenth centuries.⁵⁵*

Here the ratio between direct tax (I) and indirect taxes (II) reflects the symbiotic nature of the economy under rural dominance as the land-poll tax and the grain tax accounted for by far the largest share of State revenue. This was the immediate consequence. A further consequence was that the new system locked the peasantry into the rural economy, as farmers became reluctant to leave the land over which they had property rights. China had a clear pattern of 'personified private landholding' vis-à-vis the Marxian 'personified capital' in capitalist Europe.

Moreover, incentives for farmers to produce more and better under the new landholding system logically allowed the customary-mercantile symbiosis to thrive within the household - the very cell of the rural economy - so as to achieve an economic optimum. An economic optimum in turn created a tendency to perpetuate that symbiosis.

After Shang Yang's reform, the Qin succeeded in maximising both the revenue and the number of fighting men. As the Qin - once a poor agrarian kingdom on the marginal land of the north-western plateau⁵⁶ - captured more and more territory in the wealthy North China Plain through war, the militia-peasantry was rewarded promptly under a nation-wide scheme launched in 216 B.C.⁵⁷ Compared with its main rival kingdoms, in which a professional army existed alongside an unarmed farming class, Qin's militia-landholder combination was unique. This military-backed pattern of private land-ownership prevailed as the Qin system was franchised/replicated in all the newly captured areas in the process of empire building.⁵⁸

This eventually transformed the nature of the economy and the relationship between the State and society. Firstly, the private economy became the dominant type, and the rural sector the dominant sector. Within it, the rural private customary-mercantile sector took shape. Secondly, the State became a fiscal State with a centralised bureaucracy, which worked according to the 'jackpot' principle, similar to a lottery: to collect a huge aggregate revenue from a large population by extracting small sums per head.⁵⁹ This was a low cost option designed to benefit from economies of scale, especially useful for the purpose of national defence against nomads from the north. But it also meant that the size of the political unit needed to be big enough to make the jackpot worthwhile.⁶⁰ Thirdly, the majority of the population became legally free, landholding, tax-paying citizens. Rural males were also obliged to serve in the army. In the end the powerful land-owning militia-peasantry, institutionally motivated and incentive-driven as they were,

facilitated the Qin's ambition to unify China in 221 B.C.⁶¹ This new relationship between the State and society benefited both parties.

Did this landholding peasantry have anything to do with the formation of China's developmental apogee? The answer is affirmative. Firstly – and this is the most important and an often neglected point - the Chinese landholding system functioned well regardless of alleged 'diseconomies of scale' in farming (and handicraft production).⁶² By implication it can be said that large-scale landholding under slavery, feudalism or communism enjoyed no productive advantage and the adoption of large landholdings incurred high opportunity costs and social costs for the farming population.

Secondly, the Chinese landholding system generated strong incentives for the farmer to stay in agriculture as his life-time employment, income, pension, returns from investment (including skills and materials) and the sense of control of his own life depended largely on the land. This explains well why in post-Qin China owning land was always a central aim in the economic life of the ordinary Chinese, almost an obsession, at least from a Western European viewpoint. So, even in commercially prosperous eighteenth-century China, as much as 92 percent of the registered land was privately owned.⁶³ Among these property owners, smallholders were the majority.⁶⁴ The hangover of this system can still be strongly felt in modern times: up to the 1930s, at least 70 percent of rural households still belonged to the category of freeholders,⁶⁵ although the acreage of their landholdings varied.⁶⁶

In this historical context, the Chinese peasant did not behave like a 'Lewisian peasant', abandoning farming for higher salaries in the urban sector. The opportunity costs for doing so were too high: so high that only extra-economic factors were able to separate him from his land; high salaries were not sufficient (not to mention the fact that a farmer could not easily be turned into a craftsman and vice versa). At best, some peasants became full-time cash-croppers. But they very rarely moved any further. In the peasant economic equation, mercantile incentives were cancelled out to a considerable extent by their customary counterparts. The fact that this went on for so long suggests that the Chinese landholding system formed an institutional barrier against a high degree of commercialisation and urbanisation.

Peasant landholding was double-edged. On one side it presented a barrier against fully-grown commercialisation and urbanisation, on the other, it offered the peasantry strong incentives to produce more and better, in order to improve their material life. China's premodern high-yield farming is well known. As a result, surplus was produced regularly and regular market exchange became both feasible and necessary.

Agriculture's seasonal cycle, which brought the marginal product of farming labour down to zero during the low season, created a strong

incentive for Chinese peasants to take up sideline production for the market, to increase their income.⁶⁷ Far from harming his farming, sideline skills and occupations reinforced the peasant's customary-mercantile existence, as he maximised his utility and income by evenly distributing his resources to match seasonal demands. Thus, as long as he had a side-occupation, his marginal product of labour avoided the 'zero trap'. Therefore, persistence of rural sideline undertakings simply meant that peasant marginal product of labour remained positive, and that it optimised the benefits of the two worlds.⁶⁸

In the case of sideline occupations, what the peasant aimed at was not economies of scale but 'economies of scope'. This was most obvious in North China. In South China, where multiple cropping was practised, seasonal concentration of agriculture became blurred, as farming became a year-round occupation. This also encouraged sideline production, not because of the rational avoidance of the 'zero trap', but due to an increased agricultural surplus, which supported a wide range of non-farming economic activities. In essence, what supported commercial activities in Imperial China was agricultural surplus, either spare time-driven (as seen in the northern seasonal cycle) or spare produce-driven (as seen in the Southern high yield).

Although the proportion of surplus produced by the rural sector was technology-elastic, technological development took time and the chance of a surplus windfall was slight. Without imports of foreign food in large quantities, the limited margin of surplus from the rural sector ultimately dictated the degree of urbanisation in China. Therefore, an urbanisation-driven commercialisation model did not work for China. After all, historically, although agricultural surplus could 'automatically' lead to market exchange (common in many civilisations), market activities would not 'automatically' lead to capitalism (only in Western Europe).

Thirdly, as the peasant made all the decisions and the rural market network served him well,⁶⁹ there was a phenomenon of 'entrepreneurialisation of the peasantry' in China: an ordinary peasant participated regularly and actively in the market by trading a considerable percentage of his output, with a high degree of market autonomy.⁷⁰ The aggregate trading of millions of individual peasants accounted for about half of China's total marketing in a prosperous period.⁷¹ But there was a catch: the existence of millions of market-wise amateur peasant marketers (or simply semi-merchants) was a formidable check on the growth of the professional merchant class: since in the rural sector the barrier to entry into the market was low and the market seemed to be cleared most of time in the hands of ordinary peasant-traders, a professional merchant faced a crowding-out effect.⁷² An obstacle also came from the State effectively controlling key commodities. The growth of professional merchants was

sandwiched, as their services were by-passed and marginalised jointly by the State and by the peasantry. The market share (in value traded) for the professional merchants was only about half of China's total;⁷³ and the merchant activities tended to concentrate on four areas: luxuries, wholesale, long distance trade (between internal macro-regions and beyond China's territory) and money dealing (including trading government licences).⁷⁴ These were areas peasants could not afford to engage in and the State had no will to control. Even so, things like long-distance trade were successfully hijacked by the State under the service-licence system (called *yinfa*).⁷⁵

Therefore, rather than, as commonly-claimed, sheer political suppression and persecution, what confined the merchants' growth in premodern China were: (1) low returns (which were not worth pursuing as millions of peasants had easy access to local markets and worked on a small profit margin just above the production cost),⁷⁶ and (2) State monopoly via state enterprises and licenses (which barred ordinary merchants from entering the most lucrative markets).⁷⁷ This helps to clarify the main obstacle to the merchants' growth: limited market opportunities (not necessarily accompanied by a high bankruptcy rate).⁷⁸ It also explains the importance for Chinese merchants of family-based capital. It was the limited demand for such capital that dictated the pattern.⁷⁹ Not surprisingly, Chinese merchants constantly sought alternative areas to invest in: land property, education and official titles, to stretch out their business a little.⁸⁰

This entrepreneurialisation of the peasantry also explains the phenomenon of loosely connected, localised markets, which were never convergent enough to form an integrated market with a single currency for the whole of China.⁸¹ In all logic, China's multi-symbiotic system led mainly to local trade and a local currency (*quanhuo*, literally 'commodity to help circulation'); that was all that was needed to facilitate local markets.⁸² Indeed, China's stubborn dialectal divergence was a symptom of such market fragmentation. In addition, the existence of a land property market, together with stable returns from farming (again, thanks to peasant production incentives), made agriculture an investment safe haven.⁸³ Some peasants did turn themselves into full-time marketers.⁸⁴ But, most merchants, shrewd as they were, invested their money back in agriculture (and thus became semi-landlords) - a constant drain on commercial capital.⁸⁵ Thus, it is no exaggeration to claim that commercialisation in China was constantly under siege.⁸⁶

Likewise, although a few peasant-born individuals (1-3 percent of the rural population) managed to climb up the social ladder and join the bureaucracy (and thus represent rural interests within government),⁸⁷ their savings, if any, were often invested in land. Retired officials, well informed as they were, often returned to their home villages.⁸⁸ This is illustrated by the size of the property market in Figures 1 and 2. The end result was predictable: China's

urbanisation was constantly under check by 'ruralisation'.⁸⁹ With a relatively weak professional merchant class and relatively weak incentives to move into towns, a higher degree of commercialisation and urbanisation was not achievable. All this was done voluntarily by different economic groups, not as a result of a class struggle but for perfectly sensible economic reasons. Thus, a commercialisation-driven urbanisation model did not work for China. Although agricultural surplus could 'automatically' lead to urbanisation (common in many civilisations), urban activities would not 'automatically' lead to capitalism (only in Western Europe).

Finally, the peasants' successful dualistic undertakings had two effects. On one side, they made the rural sector a very attractive investment option for other strata, on the other side, however, they raised the opportunity costs for the economy as a whole to shift to another path of development. In other words, to adopt other economic systems – be they, counterfactually, 'slavery', 'feudalism', 'communism', and 'capitalist mercantilism' – would have been far from cost-free. With various twists, with conscious choices, the Chinese landholding property rights had a lock-in effect against the developmental stages of the European type.⁹⁰

The Confucian State, which recognised the advantages of the Qin landholding pattern, private property rights, and the 'jackpot' mechanism in empire building, also recognised the long-term benefit of maintaining the Qin system. As it depended heavily on the peasantry for its supply of revenue and soldiers, the post-Qin State was usually reluctant to initiate fundamental changes in peasant landholding and property rights. Rather, the post-Qin State had strong incentives to maintain the *status quo*. Over time, by the early Tang (r. 618-907), peasant landholding rights together with a low level of taxation became the peasantry's *de facto* entitlements.

China's developmental apogee was thus a product of deliberate, careful, rational choices. It was an outcome, not the cause of China's problems. From this standpoint, and also considering what has been said about the merchant class, many hypotheses about the possible causes of China's seeming failure in development are in effect only the symptoms or results of the aforementioned pro-agrarian choices: the strong propensity to practise universal marriage and to have many children,⁹¹ the indifference towards 'pure science' and non-agricultural technology, the distaste for capturing overseas colonies, to name just a few. To take the example of the Chinese family structure, under the Chinese inheritance laws, a private property could only be kept in the family by passing it on to the next generation, through the bloodline. A relatively high infant mortality rate and a short life expectancy encouraged early and universal marriage and, thus, a higher birth rate for the sake of preserving family property.⁹²

Given that internal migration was common, the supply of land did not really run out economy-wide until the later Qing.⁹³ So, more children promised

more land property (when new land was available) and more output (when multiple cropping was practised and refined) for the next generation and more secure pensions for the current one.

V. HOW WAS THE APOGEE CREATIVELY MAINTAINED?

The creation of the development apogee may have well been accidental and consequential. But to maintain it required a lot of creativity because over time economic conditions changed, among which the problem of land supply loomed large. From the Qin model, one can detect the ‘genes’ of an ‘agriculture and peasantry-friendly’ State (‘physiocratic-and-agrarianistic’, or simply ‘physio-agrarianistic’, State), which were so vital for the maintenance of China’s socio-economic equilibrium for the rest of the Empire’s life.⁹⁴ It is, in many ways, paradoxical that a centralised, aggressive and efficient military killing machine such as the Qin should take so much care of ordinary farmers’ rights and livelihood.

The role of the State was crucial in tackling land supply. But the State’s commitment to increasing the land supply was not as straightforward as it appeared. Rather, it was a result of a long chain reaction. Economy-wide, once the stable rural sector became entrenched as the centre of economic gravity, it became a public good and was thus enshrined in society for several reasons. Firstly, it was the single largest sector to provide the population with employment and thus livelihood. Secondly, it was a reliable source of tax revenue for the State. Thirdly, its surplus supported other productive activities and services in the urban sector. In return, the rural sector received political protection from the State and goods/services from the urban sector. Thus, a triangle of ‘give-and-take’ interdependence took shape among the three sectors. It was in the interest of the general public as well as of the State to protect the rural sector, mainly agriculture.

The public good status of the inter-sectoral interdependence led to an historical alliance between the landholding peasantry and the centralised State, a relationship which can be traced back to the Warring States Period (475-221 B.C.) before the Empire was built.⁹⁵ The ruler of such a State had an agenda: to build up and maintain his economic and military might. This was met without too much trouble by the rural sector once private landholding created jointly by the peasants (who claimed it) and the State (which endorsed it) had been institutionalised.

From the State's point of view, it had no other groups to turn to other than the peasantry for the amount of revenue and soldiers it required. So, this alliance was a product of the State's military-financial dependency on the peasantry rather than - as the elite liked to romanticise - the result of the noble-mindedness, thoughtfulness or sagacity of the authorities. This military-financial dependency-driven alliance differed from the conventional patron-client relationship, which widely existed in premodern Eurasia. Rather, it resembled in many ways the modern electorate-government relationship.⁹⁶ In this context, it was natural that farming should become a symbol of China's wealth and strength, and that the State should protect and promote it in all possible ways, ideological, technical, and institutional.

In the beginning, the newly emerged physio-agrarianistic State policy well served the purpose of external territorial expansion, a rather short-term goal.⁹⁷ Nevertheless, it marked the beginning of a physio-agrarianistic State (or 'physio-agrarianistic bureaucracy' as a proxy).⁹⁸ The effort paid off as the Qin State enjoyed a win-win cycle: better promoted and protected agriculture brought in more revenue and soldiers to conquer more land to till, and more cultivated land led to even more revenue and soldiers for a greater Empire, until the whole of China was unified.

The whole process took over a century (from c 338 B.C. of Shang Yang's time to 221 B.C.). To accomplish this unprecedented mission, three main physio-agrarianistic measures were taken by the Qin State. Firstly, as mentioned, the Qin peasantry was granted blanket private landholding property rights. Secondly, law was established to protect such rights.⁹⁹ Thirdly, the Great Wall was built to protect China's farming zones from plunder by northern nomads, which made China the first and only 'walled empire' in the entire history of the world. The astronomical inputs of capital, labour and materials that went into the wall may be viewed as evidence of power abuse by the Qin emperor. However, they also manifested an unprecedented political commitment from a physio-agrarianistic State to its peasant ally, an extremely important but often totally ignored fact in Chinese history. After all, the wall was built, maintained and guarded by peasants and their soldier sons until the Ming.¹⁰⁰ The Qin physio-agrarianistic approach continued for more than two millennia, although the Qin itself was a short-lived regime.¹⁰¹

However, the Qin institutions were crude and required much fine-tuning and perfecting. New elements needed to be added to make them stable. Among them, the most important developments were, in chronological order, (1) peasant rebellion as a passive check on State deviation, (2) adoption of Confucianism to replace Legalism (*fajia*), as an active check on State deviation, and (3) a series of physio-agrarianistic measures to develop the political economy. As rebellion will be dealt with later, the focus is on Confucianism and physio-agrarianistic measures.

Since the Western Han (206-8 B.C.), Confucian ideology was officially chosen to nurture and massage the peasant-State relationship in the aftermath of the political disaster caused by the Qin's ruthless Legalist approach.¹⁰² Unlike Legalism, Confucianism gave the Imperial State a human face which theorised the need for protecting people's livelihood for the sake of the rulers' own interest: if a ruler practised physio-agrarianism, he achieved 'sage-like humanity' (*ren*), and his reign was secure.¹⁰³ Confucius never preached to the peasantry, only to the ruling classes. This is clearly stated in Mencius' well-known maxims that "food is the people's god" (*min yishi weitian*) and 'people are the foundation of a régime' (*minben*). The essence of Confucian economic values is simply 'benevolent rule over an egalitarian economy'. Confucian ideology did not create the State-peasantry exchange.¹⁰⁴ It only moralised the State's military-financial dependency on the peasantry and thus moralised the State-peasantry alliance.¹⁰⁵

Also since the Western Han, apart from the routine physio-agrarianistic 'house-keeping', often known as 'promoting farming and confining trade' (*zhongnong yishang*), the State was responsible for increasing land supply, distributing land and resettling the farming population, all of which was crucial in consolidating the peasant-State alliance. It was no accident that China's territory expanded in all possible directions: from its northern core to much of the south, west and Korea during the Western Han (206 B.C.-A.D. 23), to Fujian, part of Turkistan (Xinjiang) and Vietnam during the Tang, to Taiwan and Sichuan during the Ming and to Mongolia, Manchuria and Turkistan during the Qing (1644-1911).¹⁰⁶ Considering that up to the late Qing China's population fluctuated between 20 and 80 million within a land-mass roughly as big as Europe or the US, it can be said that the overall land supply ratio was favourable, thanks to the success in overland expansion.

In the newly captured regions, military-farming colonies (*tuntian*) were systematically established as the first step of 'internal colonisation'. This was feasible because the vast majority of the soldiers had a peasant background, a legacy of the militia-peasantry of the Qin. In these colonies, the government provided land and capital (including seed, animals and other equipment).¹⁰⁷ A network of agricultural supervision was established, attached to the agricultural board of the central government.¹⁰⁸ Often, land in these colonies was privatised for migrants or retired soldiers as the frontiers moved outwards. These farming enterprises continued to exist for most of the time up until the Qing.¹⁰⁹ During the Three Kingdoms period (A.D. 220-80), taking the Wei Kingdom alone, 80 percent of soldiers were involved in such colonies.¹¹⁰ Later, under the Tang Dynasty, there were 1,147 agricultural colonies occupying a total area of 307,800 hectares (57,000 *qing*), and sometimes two-thirds of the Tang soldiers were employed there.¹¹¹ Agricultural colonies became larger under the Song, Yuan, Ming

and Qing dynasties.¹¹² For instance, by 1887 Qing agricultural colonies had been established in 18 of the 23 provinces and occupied 3,412,310 hectares (509,300 *qing*), about 6 percent of the total cultivated land of China.¹¹³

Because creating military-farming colonies served the purpose of land distribution only temporarily, the State directly contacted farmers and allocated land to them. This often took place when land supply was abundant, especially after wars. Proper legislation was enacted for such purposes. The best examples are the practices of 'land allowed to citizens' (*zhantian*), 'land allocated to citizens' (*shoutian*), and the 'land equalisation scheme' (*juntianzhi*). The first such system was set up in A.D. 280.¹¹⁴ The most influential system of all was the 'land equalisation' scheme.¹¹⁵ In 485 A.D the system allowed each married couple to till 80 *mu* of land, 60 *mu* for grain and 20 *mu* for 50 mulberry trees, five jujube trees and three elm trees.¹¹⁶ This system remained in place for the next 300 years before universal land privatisation took place.¹¹⁷ The allocated land was held either under lifetime leasehold or inheritable leasehold, the second best thing to freehold. Under Tang law, for example, such land was recognised as the 'ever-holding land' (*yongyetian*). The government had no right to take it away as long as it was under cultivation. In practice, unlike land in military-farming colonies, these plots were virtually granted as private property at the moment of their allocation.

Government land redistribution also took the form of internal migration and resettlement under nation-wide schemes of 'moving farmers from over-crowded regions to thinly populated regions' (*yizhai bukuan*).¹¹⁸ These schemes aimed at eliminating unemployed labour and idle land, thus clearing the labour and land markets. The first recorded government-sponsored migration scheme took place during the Qin, and half a million people benefited from moving to the south.¹¹⁹ The most effective schemes in later periods included mass migration to marginal lands in the western region of Sichuan (from the Yuan to Qing) called 'populating Sichuan from Hubei, Hunan and Guangdong' (*huguang tian sichuan*) and offshore Taiwan (during the Ming-Qing).¹²⁰ Its effectiveness can be testified by the Sichuan case. From 1661 to 1753, Sichuan's share of land under cultivation in China's total increased 28 times (from 0.22 to 6.25 percent).¹²¹ This undoubtedly contributed to the overall expansion of the rural sector.

The Taiwan scheme began with the initiative of Zheng Zhilong (1604-61), an official in Fujian, who organised the emigration of several tens of thousands from Fujian to Taiwan to take up farming as part of an effort in famine relief.¹²² Later, the Qing government resumed the scheme. In the 1680s, registered able-bodied men in Taiwan numbered 16,000. By the early eighteenth century, that population had increased over 60 times to one

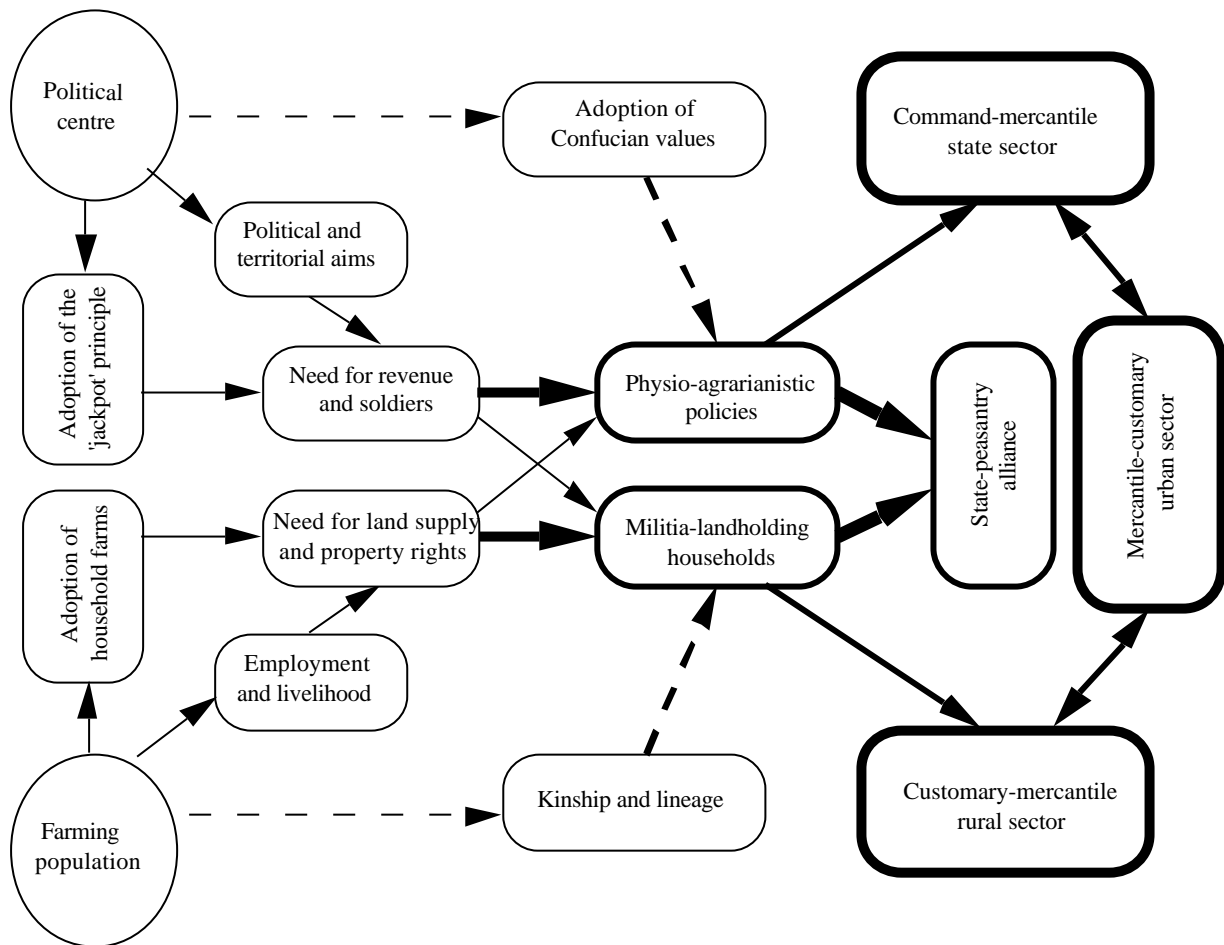
million people.¹²³ Given the Chinese landholding system, such population growth brought with it a rapid expansion of the rural sector. As internal migration inevitably loosened up the existing kinship-lineage ties, it is clear that kinship and lineage played only a small role in perpetuating the Chinese landed family-cum-farms.¹²⁴

Moreover, to stabilise the landholding situation and thus the rural economy, the State sometimes imposed restrictions on land sale. Land transactions, under the military-farming colony programmes and land equalisation schemes, were sometimes barred, even after privatisation. Under the Ming, subject to official approval, land transactions were limited within the local district to prevent run-away market speculation.¹²⁵

If internal colonisation and land distribution were not physio-agrarianism-specific enough, then there was a repertoire of policies to assist landholding farmers with farming technology, including the recording and accumulation of farming knowledge, the publication and circulation of agronomic books, provision of farming advisory services, distribution of new equipment and seed varieties.¹²⁶ The most celebrated economy-wide government initiatives were probably the introduction of (1) heavy iron ploughshare for dry farming during the Han, (2) early-ripening rice during the Northern Song, (3) cotton during the Yuan, and (4) and sweet potatoes during the Ming.¹²⁷ Public works for flood control in farming regions, which made China known to the outside world, should also be added. What these activities did for the economy was (1) to push local production towards the 'production probability frontier' (in the case of diffusion of the 'best practice') and (2) to out-stretch that frontier itself (in the case of new seed varieties and new tools). The impact was undoubtedly positive in the short run. In the long run though, it helped in shaping labour-skill intensive farming, which proved double-edged.

Furthermore, by the time of the Ming (r. 1368-1644) disaster prevention (such as water control) and famine relief were both regarded by society as citizens' entitlements and routine duties of the State.¹²⁸ The peasantry was undoubtedly the main intended beneficiary. Government rescue projects often provided the poor with low interest loans to cover them through difficult periods of temporary shortage so that they did not have to sell their land. The best example was the 'green-sprout loan scheme' (*qingmiaofa*) during the eleventh century under the administration of Wang Anshi (1021-86).¹²⁹ The political economy of Imperial China can be sketched as a broadly converging, interlinked set of factors as in Figure 4.¹³⁰

Figure 4. *Crucial Links in China's Political Economy, c. 100 B.C.- A.D. 1900*



Note: Solid lines: causality links between first-order factors. Broken lines: stabilising factors of the second-order (re-enforcers).

Last but not the least, there was an environmental and ecological premium built into the Chinese system, a vital factor that has been often overlooked. The Chinese family-based private landholding and the State-peasant alliance generated strong incentives to achieve sustainable farming and to avoid ripping off the environment in pursuit of short-term benefits. Indeed, Chinese traditional farming technology evolved – as much in the hands of ordination peasants as in those of the literati – entirely around this issue of environmental and ecological sustainability.¹³¹ Thus, it was no accident that by 1900 China's agricultural land remained on the whole very productive after several millennia of intensive cultivation, the only case on this scale in world history.¹³² This long-term environmental and ecological sustainability ultimately determined the resilience of China's customary-mercantile sector and thus the longevity of Chinese civilisation. No doubt, the very nature of such long-term sustainability raised the opportunity costs of giving up farming.

Also, there was a biological check on the demand for land. Over the long run, a short life expectancy together with widely practised infanticide among the Chinese (commonly agreed at 35-40 years) helped keep the population, and thus the aggregate demand for land, relatively stable.¹³³

Despite the State's intermittent initiatives designed to increase the land supply, the expansion of China's territory came to a temporary halt. With relative scarcity of land, China's landholding pattern began to evolve in two directions: the development of freehold by a sole owner with complete rights over the land and, together with this, the development of divided rights between ownership of the land and long-term leaseholding for tilling the same land (*yongdianquan*, literally 'permanent leaseholding rights'). Under long-term leaseholding, the landowner had no power to interfere with the production process and marketing activities of the leaseholders, as long as the rent was paid. It was a second best choice after freehold and many of freehold's incentives were preserved. At the same time there developed a secondary market for the trade/ mortgage of leases.¹³⁴

By the tenth century, under the Song law was established to protect and regulate leaseholding rights called 'permanent leaseholding rights'.¹³⁵ Similar laws were passed during the Ming-Qing.¹³⁶ Thus, the splitting of freeholding and leaseholding rights over the same land became institutionalised. As a result, the door for a further splitting of property rights was wide open. Gradually, during the Ming-Qing, fixed rent (*tiebanzhu*, literally 'iron-hard rent') replaced sharecropping to accommodate multiple partial landholders. Also during the Ming-Qing, a subdivision of rights occurred within leaseholding itself in the form of multi-partial landholding rights, of 'surface or topsoil cultivation rights' (*tianmianquan*), 'subsoil or base land rights' (*tiandiquan*) and numerous other sub-rights.¹³⁷ All partial ownership rights were subject to trade and mortgage. The emergence of a division in land property rights had a knock-on effect on water rights for irrigation.¹³⁸

Most interestingly, in many areas leaseholding property rights took over freeholding rights and became the prime rights. They were in high demand in trade and market speculation. This situation is shown from the return-yielding ratio between freeholding property rights (for primary rent) and leaseholding property rights (for secondary rent), which, for example, was about 0.75 at the end of the sixteenth century in Fujian, a mountainous region known for land scarcity.¹³⁹ Accordingly, the market price for freeholding rights was sometimes much lower than that of leaseholding rights over the same land. So much so that there was a strong trend for large landholders to divide their properties into smaller plots, sell their freeholding rights, but retain the leaseholding rights in order to capture the economic benefits. In such a twist, freeholding rights became inferior to leaseholding.¹⁴⁰ But a new Pareto optimum was reached among various landholding rights in different regions.

When the land supply was given, the geographic distribution of various landholding patterns and rights was ultimately determined by the total factor productivity in each different region. So, generally speaking, the higher the multiple cropping index, the further divided were landholding rights. Thus, in the Yellow River Region, where the multiple cropping index was at best 1.5 per year, freehold prevailed. In the Pearl River Delta where 3-4 crops a year could be expected, multiple rights were common.¹⁴¹ In this case new technology effectively delayed the onslaught of diminishing returns. With it, 'diseconomies of scale' in farming underpinned China's landholding evolution. Whatever the historical evolution of landholding rights the very nature of the peasantry (as a landholding class) and of the rural economy (as a private economy) remained unchanged. So did the centre of economic gravity and the developmental apogee.

The perpetuation of the development apogee was thus a result of a complex matrix of incentives and choices (or more precisely, a matrix of compromises/cancellations of incentives and choices) on the part of the peasants and the State.

VI. COMING FULL CIRCLE: SHOCKS AND BACK TO THE NORM

With the landholding peasantry and the physio-agrarianistic bureaucracy so tightly bound together, under normal circumstances, China's multi-symbiotic economy simply sailed on; it did not drift away. But Imperial China was far from idyllic. It was full of chaos: invasions, conquests, civil wars and territorial fragmentation. Each shock was a serious threat to the socio-economic equilibrium of the Empire. And, from time to time, the economy did collapse. But each time, the economy was rebuilt and recovered. The findings of the present research indicate that there were two mechanisms to bring society back to its old track: peasant rebellions (to veto and weed out an undesirable government) and the cultural-economic assimilation of alien conquerors (to adopt physio-agrarianism).

Internally, although the peasant-State alliance was in normal circumstances able to transcend power-abusive emperors/officials,¹⁴² things occasionally did go wrong. When a deviant State harmed the rural sector too much through, for example, excessive taxation (in kind, cash or labour services) affecting the critical mass of the peasantry, the seemingly docile peasants showed their original militia colours and rose up in arms to topple unpopular regimes. All the main dynasties, Qin, Western Han, Eastern Han, Jin, Sui, Yuan suffered this fate. The demise of the Tang, Northern Song and Ming was partly due to peasant rebellions, while the Qing, when faced by attacks from the Taipings and Nians, only managed to save its neck, thanks

to military and financial aid from the West. All this demonstrates the effectiveness of peasant rebellions in Chinese history.¹⁴³

Seven characteristics of Chinese rebellions can be identified:

1. Firstly, the Chinese peasantry easily qualifies as the most rebellious among all known farming classes in world history. From 210 B.C. to A.D. 1900 there were in all 2,106 major peasant rebellions in China, each on average lasting for seven years with 226,000 participants. Rebels were responsible for establishing at least 48 regimes.¹⁴⁴ The sheer number of rebellions in China suggests that socio-political and socio-economic controls under the empire system were rather loose, enough to allow separate power centres to rise and attract large number of followers. It also implies that, compatible with private land holding, the peasantry enjoyed a considerable degree of political freedom and mobility. Most important of all, it indicates that common interests were shared among peasant individuals.
2. Chinese peasant rebellions were clearly institution-driven and incentive-motivated. The political programmes of the rebels always included land distribution and private land-ownership.
3. It was the well to do regions that were the most prepared to rebel against State deviation from the physio-agrarianistic norm. The reason was that well to do peasants had a much lower threshold of tolerance for economic hardships, as well as the resources needed to rebel.¹⁴⁵
4. Chinese rebellions had little, if at all, to do with natural disasters. The alleged stereotype causality between rebellions and natural disasters is faulty.
5. The Chinese rebels were no revolutionaries. What they fought for was to maintain or re-establish the old socio-economic structure, rather than to change it. There were no exceptions throughout Chinese history, not even the Taiping, despite its Christian-communist camouflage.
6. The rebels were not even 'class strugglers' since the door for class mobility remained wide open.
7. This explains why after their victories, peasant rebels often passed State power on to Confucians. In this context, Chinese peasants were die-hard 'physio-agrarianists' and their rebellions, 'physio-agrarianistic uprisings'.

Peasant rebellions had the moral support and justification of Confucianism, which openly supports the peasants' right to rebel and maintains that a bad government does not deserve to last.¹⁴⁶ Confucians themselves, including Confucius' own descendant Kong Fu (c. 264-208 B.C.), played an important part in rebellions.¹⁴⁷ As a result, the expectation of a well-behaved physio-agrarianistic State was very high among ordinary peasants. Thus, in China the peasantry always had its political-economic

agenda, whereas merchants never managed to have one of their own. This is again paradoxical: (1) docile and scattered individual peasants were able to take on the centralised State and weed out a bad government; (2) the guru of Chinese statecraft (all of which was about order) was on the rebel's side.

The impact of rebellions was obvious. Apart from the deadly consequence to a corrupt regime, they functioned as a haunting deterrent to policy deviation from the physio-agrarianistic norm.¹⁴⁸ Indeed, the correlation between a heavy tax burden on the rural sector and armed rebellions was so obvious that increasing taxes became a taboo.¹⁴⁹ With such a double check, militarily (rebellions) and morally (Confucian values), when the State did drift away from physio-agrarianism, it never lasted long. Therefore, it was by sheer accident that the Song commercial adventure ended with the Tartar-Mongol invasion. Otherwise Chinese rebels, given the amount of public resentment that had built up against the deviant Song State would have ended it.¹⁵⁰

Rebellions also effectively reduced population density and, at the very least, increased the supply of available land (see Table 3). Due to the heavy loss of lives – and we can consider those victims as ‘physio-agrarianistic martyrs’ of a kind - the pre-rebellion political-economic deterioration was reversed, at least in the short run. This is, once again, paradoxical.

Alien conquests were just as brutal and disruptive as the rebellions of the Chinese. Often, alien institutions were imposed on the economy at the beginning of foreign rule. The best example was the Yuan. Under the early Mongol rule, Chinese labour and capital were destroyed on a large scale. In the north, the population loss was as high as 86 percent, as a result of the openly genocidal policy of the invaders. Large numbers of Chinese who survived the killing were made slaves or serfs (*quding*, literally ‘driven labourers’). They totalled some 14.1 million (derived from 2.8 million registered households).¹⁵¹ Vast areas of farming were first devastated and then enclosed for the Mongol army, temples and individuals (aristocrats and officials): some 2.5 million hectares in total (38 million *mu*).¹⁵² Livestock belonging to the Chinese was confiscated, and autumn tillage for the second crop was forbidden.

*Table 3. War-related Population Fluctuations*¹⁵³

Year (A.D.)	Before war	After war	Decrease (%)
157*	10,677,960		
263		1,473,423	86.2
609*	8,907,546		
618		2,000,000	77.5
854*	4,955,151		

976		3,090,504	37.6
1193*	19,526,273		
1291		13,430,322	31.2
1330*	13,400,699		
1381		10,654,362	20.5
1626*	(51,655,459)		
1655		(14,033,900)	72.8

*Note: *The starting point of comparison. The numbers in brackets are numbers of people, otherwise households.*

But such destruction incurred mounting opportunity costs on Yuan revenue, especially once the initial looting was over. On the advice of Yelü Chucai, a Sinicised courtier with a Persian background, the Mongols decided to revive Chinese agriculture. In 1261, the Agriculture Promotion Bureau was established. More official posts were established than under the Song to take charge of rural production and water control. Agronomic books were compiled and distributed at the county level. Before long, Yuan's annual revenue began to increase to the level of over 900,000 metric tons of grain (12 million picul), over 600 tons of silk floss (one million *jin*), and a half million rolls of cloth.¹⁵⁴ By the end of the Yuan, population in China proper slowly recovered to the Tang level (50 million persons registered).¹⁵⁵ The Mongols began to enjoy good urban life, which deeply impressed outsiders. There can be no doubt that in the second half of the Mongol rule, the physio-agrarianistic State was fully restored, due to the rational choice of the conquerors.¹⁵⁶

Sometimes, alien rulers became more physio-agrarianistic than the Chinese. For example, the Xianbei, a nomadic tribe who established the Northern Wei Dynasty (A.D. 386-534) voluntarily converted themselves into farmers. In A.D. 400, Emperor Daowu set an example for all the Xianbei by ploughing his own farm.¹⁵⁷ Later, the Xianbei régime initiated the aforementioned land equalisation scheme to rebuild and expand farming, a scheme that was later copied by Chinese rulers. The Qing Manchus, who met minimum resistance from the Chinese,¹⁵⁸ went as far as freezing the total tax revenue from agriculture regardless of the increasing trend of land reclamation and yield level (*yongbu jiafu*, literally 'never increase tax'),¹⁵⁹ a policy which was closely observed in 1715-1840. Mao's utopian rural communes (1956-78), a carbon copy of Stalin's *kolkhozy*, can be viewed as a type of alien conquest and Deng's reform (1978), a reincarnation of China's old norm.¹⁶⁰ Yet again this is paradoxical: the military conquerors were themselves conquered, each one of them undergoing a Chinese cultural and economic conversion.

Overall, internal shocks from peasant rebellions and external shocks from alien conquests were successfully absorbed by the Chinese system and the economy was able to return to its norm every single time, until the Opium War. In this way, the developmental apogee was maintained. The secret lay in China's ability to return to the equilibrium after having endured shocks of the premodern type.

VII. CONCLUSION: CHINA'S DEVELOPMENTAL DEADLOCK

Now it becomes clear that Imperial China had a well-established, carefully balanced and jealously guarded incentive system (centred on private landholding rights) upon which a functional economic structure was built (a multi-symbiotic economic system under the dominance of the rural sector). The initial drive for institutional changes under the guidance of the *shi* was a product of 'externalities', of Qin's ambition to achieve military-political hegemony among the warring kingdoms and its pursuit of empire building. Such ambition and pursuit in turn led to the State's military-financial dependency on the peasantry. By granting the militia-peasantry private landholding rights, the Chinese State let the genie out of the bottle – a genie that was able to inflict damage as well as create wealth.

After the Qin, the State's military-financial dependency on the peasantry continued under the constant pressure of nomadic invasions from the north. On the other hand, from the economic point of view, as the Qin system continued to yield handsome dividends for society, a winning formula was developed: together with the proliferation of landed farming households, the advantage of *diseconomies of scale* (and indeed *economies of scope*) in farming and handicrafts was exploited to the full;¹⁶¹ and with it, paradoxically, the benefit of *economies of scale* in empire building was achieved. China expanded to its physical limits, while its family-cum-farms thrived and were well distributed across a vast territory. In the process, the peasantry obtained more land and the State more revenue: a Pareto optimum.

To allow the Qin system to continue, in the long run a balance between a seemingly mighty State and an ocean of powerless smallholders needed to be maintained. China did just that thanks to a set of self-regulating mechanisms developed in spite of the occasional megalomania of individual emperors.¹⁶² The most important development was the peasant rebellion, which toppled the glorious Qin. Since then, the Confucianism-backed, landholding, rebellion-ready, militia-peasantry became the principal 'shaper' of China's State policy as well as the chief pacemaker of China's growth. A physio-agrarianistic bureaucracy (sensitive to peasant interests), Confucian pro-peasant values (accommodating peasant needs) and cultural-economic assimilation of the alien conquerors all played their part.¹⁶³ These self-

regulating mechanisms led to a structural equilibrium among three interlocking sectors. There was no institutional barrier to the maintenance of the equilibrium. The Qin system proved to be compatible not only with the market but also with those 'Chinese-specific' factors such as Confucianism, kinship and lineage. After some eight centuries' practice, by the time of the Tang, social, political, economic and ecological convergence in China was so strong that it fundamentally and permanently changed the landscape of the East Asian mainland.

China's multi-symbiotic system was sophisticated, efficient and flexible enough to generate economic growth, as well as military power and political influence. China's position in Asia remained unchallenged for one millennium from the Tang until the Opium War. Until the early nineteenth century the developmental apogee had no severe negative impact on China, a civilisation which possessed the largest population in the world, the greatest land mass in Asia, an impressive literacy rate, respectable material life and indisputable comparative advantage in a number of commodities in great demand world-wide. China's multi-symbiotic system was thus a premodern success story: it did not show any disadvantage in per capita income until 1700. A 'Ricardian world' (in the orthodox sense with a perfect or nearly perfect market, tangible comparative advantages and extensive division of labour), China on its own did not automatically develop capitalism or capitalist industrialisation, and would not have done so, even given more time.¹⁶⁴ So, China's structural equilibrium proved to be dynamic and recurrent: a developmental apogee resulting in a lasting economic optimum. What made China so remarkable was thus not the multi-symbiotic system but its long-term sustainability.

In this context, the Chinese State was never 'too strong' or 'too weak': it was just of the right kind/degree that China's symbiosis needed. The same can be said about China's market, technology and Confucian ideology. It is unfair to label them as detrimental to indigenous growth.

Fundamental changes had to wait until China lost its supremacy in the course of a century of repeated defeats up to 1940.¹⁶⁵ The 'weakness' of China's rational, harmless developmental apogee suddenly loomed large.¹⁶⁶ This raises the issue of the Chinese system's performance against the new standards, which emerged after the Industrial Revolution and were qualitatively different from any previous ones.¹⁶⁷ One thing is sure, considering its humiliating, all-round defeat, China's developmental apogee, which had accommodated so much growth, appeared in the end to be deadlocked.¹⁶⁸ Although it may have been able to compete sometimes with the West in quantitative terms, China lost out in qualitative terms.¹⁶⁹ In a final paradoxical twist, China's growth asset now became its liability.

Undoubtedly China can be judged by two sets of standards, normative ones (Needham's) or positive ones (Jones'). The Chinese puzzle itself is,

however, methodologically neutral. It can be taken in either relative terms (compared to Western Europe) or absolute terms (to measure China's actual achievement against its own best performance). The present study shows that logically and factually the puzzle can indeed be solved.

Endnotes

¹ Lin, 'Puzzle'.

² Jones, *Growth Recurring*, 'Real Question'.

³ In Chinese historiography the Tang, rather than the Song, is commonly regarded as the pinnacle of China's economic, military, diplomatic, and cultural influence in Asia. Shiba, a Japanese economic historian, first suggested that there was a Song commercial revolution. However, neither those Chinese scholars nor Shiba view China's growth in the Eurasian context of intensive growth during the premodern period.

⁴ Needham often referred to the Renaissance as the watershed. But this only pushed the timing of the breakthrough back three centuries, which does not change the view that there was a sudden kink in the growth trajectory for parts of Europe.

⁵ Deng, 'Survey'.

⁶ The Opium War in 1840 has been commonly recognised as the end of China's 'traditional era' although the empire survived until 1911.

⁷ The conceptualisation of the problem was made by Hicks (*A Theory*). A more recent work on this issue is by Myers and Wang ('Developments'). However, Hicks did not see the possibility of long-term peaceful coexistence of the three economic types. Rather, he saw them as three main mutually exclusive landmarks of a linear development, a view fashionable in his time. The main contribution of Myers and Wang lies in the recognition of such long-term peaceful coexistence.

⁸ Here a concept of 'commercialised' or 'marketised' customary economy is avoided because (1) it does not capture the nature of China's rural economic symbiosis; and (2) such a concept suggests a linear progression, or a possibility of such progression, towards a fully-grown market economy which was not the case in China.

⁹ Based on Perkins, *Agricultural Development*, p. 115; Feuerwerker, *State and Society*, p. 86; Liu, 'Income', p. 113. By the 1930s, the rural population still occupied 73 percent of China's total and the rural sector provided 82 percent of the country's total employment (Liu and Liu 'Cob-Douglas'). This pattern continued: during 1949-78 China's urban-rural population ratio moved from 10:90 to 18:82 (Xu, *China's Population*, p. 493). It improved slightly to 30:70 in February 2000 after 20 years of reform, but had yet to reach a point of no return (Liu, 'Rural Population').

¹⁰ On Skinner's account, Qing China's multi-regional, multi-layered trading network consisted of 45,000 local market places, each affecting 15-20 villages (Skinner, 'Peasants', pp. 272-3, 'Marketing'). Earlier, Song China had 29,765 regular fairs in all, including 27,607 grassroots fairs (*caoshi*), 1,871 county

markets (*xianshi*), 287 prefecture markets (*zhoushi*) (Zhou, 'Grassroots Markets'). The frequencies of those fairs were determined by customary rules, varying from daily, twice a week, weekly, and bi-weekly under two main categories - major fairs (*daji*) and minor fairs (*xiaoji*), which in turn depended on the sizes of the affected market hinterland. In addition, there were yearly and bi-yearly market carnivals. Normally, major fairs were less frequent than minor ones; and overall the intensity of market exchange was well spread out over the year (Xu, 'Rural Markets').

¹¹ In the nineteenth century China's annual tea output reached 179,100 metric tons (3 million picul). An average of 107,460 tons of tea (1.8 million picul) was exported from Fujian Province alone (Dai, 'Forestry Economy', p. 13; Deng, *Maritime Activities*, pp. 131-2).

¹² In the early eighteenth century, the Yangzi-Han Plain, some 400,000-km², was able to produce 2.21 million metric tons of grain of which 62 percent was marketed (Zhang, 'Impact', p. 42).

¹³ Myers, *Peasant Economy*, pp. 12-13; Perkins, *Agricultural Development*, p. 115; Feuerwerker, *State and Society*, p. 86. A recent study shows that different farming groups had different marketing rates for their products: the grain-growers had 30-35 percent, the grain-cotton growers 35-40 percent and the cash-coppers (a minority) 60-70 percent (Li, 'Marketing Rates'). A recent government document admits that in 1954 China's rural Engel coefficient was 0.69, indicating that the population consumed a large proportion of what it produces. It also reveals that in 1998 the coefficient was still as high as 0.53 (see News Office, 'Human Rights', p. 6). Thus, China's marketisation will be a painfully slow process.

¹⁴ This had some profound impacts on the economy. For example, the limited marketing of food produce made the grain market fragmented and highly sensitive to local supply fluctuations (given that food is income and price inelastic). The fact that the government became so involved in monitoring and minimising regional price changes so early on in Chinese history only means a lack of market integration among different regions in the long run.

¹⁵ For example, the Tang capital Chang-an had some one million residents (with 40-50 million taxpayers) (Feng, et al., *Cultural History*, p. 588). During the Song, the northern capital Kaifeng and southern capital Hangzhou had 1.4 million and one million inhabitants, respectively (Feng, et al., *Cultural History*, pp. 694, 696). Tertiary industry rose strongly including restaurants, hotels, clinics, and money-dealers to support business and the urban life-style. A considerable number of foreigners lived in urban China. In 879, rebels under Huang Chao allegedly massacred in Guangzhou alone 120,000-200,000 foreigners (Muslims, Jews, Christians and Zoroastrians) who reflected sizeable foreign diasporas (Sima, *State Management*, vol. 232). Under the Song, one such group was known as the 'Kaifeng Jews' whose Arab counterparts concentrated in ports along the Fujian coast (Deng, *Maritime Activities*, pp. 151-5; Goldstein, *Jews*, ch. A.2).

¹⁶ The rural sectoral productivity measured by GDP-to-population ratio was low (67%: 80%), and so was the income per head. This could be taken as a start for Lewis's dualism (Lewis, 'Economic Development').

¹⁷ The Chinese army was often heavily involved in farming and thus quasi-rural. Civil officials did live in towns but their number was small. During the Song, officials made up some 20 percent of the capital's total

population (Feng, et al., *Cultural History*, p. 697). If their dependants are counted, the proportion could have been as high as 60-70 percent. But overall, the share of officials in China's total was tiny: averaging 0.26 percent (Deng, *Development*, app. 1). With officials' dependants the share was less than 5 percent of China's total population most of time.

¹⁸ Good examples are public projects such as the Great Wall, Grand Canal and national highways. Under the Ming Period, the overhauled Great Wall stretched over 7,300 kilometres (14,000 *li*) (Yu, *Great Wall*, pp. 81-2; Guo et al., *Military History*). Earlier, during the Sui Dynasty, the Grand Canal (2,500-kilometre long) and a national highway (1,500-kilometre long) were constructed within one generation (Han, *Pre-Qin to Han Times*, pp. 14-15; Cressey, *Foundations*, pp. 24-6).

¹⁹ Liang, *Dynastic Data*, pp. 351, 384; also Wu, 'Land-ownership'; Cao, 'Immigration'.

²⁰ For example, the Tang state had 83,200 tons of taxed grain (2 million picul) transported annually through canals (Zhang, *Maritime Technology*, p. 56). The Northern Song increased the shipment to over 278,900 tons (6 million picul) (Blunden and Elvin, *Atlas*, p. 104). The Qing once raised the annual shipment further to 362,450-5,763,920 tons (5-8 million picul) during the mid-seventeenth to mid-eighteenth centuries (Zhou, *Financial History*, pp. 419-21, 426). But in terms of the share in China's total output, it was very small.

²¹ Feuerwerker, 'State and the Economy', pp. 300, 322; Will, *Bureaucracy and Famine*; Deng, *Premodern Chinese Economy*, app. 7.

²² Perkins, 'Obstacle'.

²³ Zhou, *Financial History*; Sun, *History of Finance*; Xing, 'Budget and Revenue'.

²⁴ Rawski, *Economic Growth*, p. 193; Deng, *Maritime Activities*, ch. 5; *Maritime Sector*, ch. 2.

²⁵ Deng, *Maritime Sector*, pp. 80-96.

²⁶ Fairbank, *United States and China*, ch. 4.

²⁷ Deng, *Premodern Chinese Economy*, ch. 3.

²⁸ Deng, *Premodern Chinese Economy*, pp. 228-9.

²⁹ Here, economists tend to use 'developmental floor' and 'developmental ceiling', terms that capture well the features of the problem in a snapshot fashion. The terms of 'apogee' and 'perigee' show instead the long-term dynamics.

³⁰ In Chinese history, only the Stalinist-Maoist command economy outlawed and 'sacked' in the market. But it backfired to discredit communist rule.

³¹ There were numerous cases: (1) China's maritime trade centres (Deng, *Maritime Activities*, chs. 5-6), (2) inland trading hubs (Xu, 'Linqing') and (3) the Song trade boom (Deng, *Premodern Chinese Economy*, ch. 6).

³² This paradox is based on a linear growth model to judge a non-linear universe.

³³ Elvin, *Pattern*.

³⁴ Deng, 'Survey'.

³⁵ Mao's notorious tactic of 'encircling cities by the countryside' to seek power (*nongcun baowei chengshi*) and his later murderous 'Great Leap Forward' for a growth miracle (*dayuejin*) were both based on this centre of gravity. Nothing new.

³⁶ Deng, *Premodern Chinese Economy*, chs. 2-4.

³⁷ Gregory and Stuart, *Soviet*, chs. 3, 5.

³⁸ Davies, *From Tsarism*, pp. 47-8.

³⁹ Harrison, 'Peasant Mode'; Siskind, 'Kinship'.

⁴⁰ Marx, 'Manifesto', 'Economic Works'; Chayanov, *Theory*; Scott, *Moral Economy*.

⁴¹ Lewis, 'Economic Development'; Skinner, 'Marketing' and 'Peasants'; Gates, *Motor*; Kelly, 'Dynamics'.

⁴² Perkins, *Agricultural Development*; Feuerwerker, *State and Society*; Myers, *Peasant Economy*.

⁴³ Chayanov, *Theory*; Dalton, 'Theoretical Issues'; Scott 'Patron-Client Bonds', *Moral Economy*; Feeny, 'Rational Peasant'.

⁴⁴ Schultz, *Transforming Traditional Agriculture*, pp. 37, 72; Popkin, *Rational Peasant*.

⁴⁵ Ellis, *Peasant Economics*, p. 13; Huang, *Peasant Family*, pt. 1.

⁴⁶ Until 1700, China's per capita income remained comparable to England's (see Liu, 'Income') and Europe's (Maddison, *Performance*; p. 25). Also see Pomeranz, K., 'Rethinking Eighteenth-Century China: A High Standard of Living and Its Implications', Paper for All-U. C. Group in Economic History Conference (Davies, California), November 1997 and his *Divergence*.

⁴⁷ See Deng, *Premodern Chinese Economy*, ch. 2; Li, 'Early Form'. In fact, the first known land transaction occurred as early as in the mid-tenth century B.C. (see Zhao, 'Origin').

⁴⁸ Based on Zuoqiu, *Chronicle*, Entry 'Twenty-fifth Year under Duke Zhao of Lu'; Ban, *History of the Han*, pt. 1: ch. 'Economy'; Li, 'Agricultural Production'.

⁴⁹ Sima, *Book of History*, 'Biography of Shang Yang'; Xing, 'Inheritance'.

⁵⁰ Shi, *Marriage and Family*.

⁵¹ In Chinese tradition, the problem of free riding is known as the 'dilemma of three thirsty monks' (*sange heshang meishuichi*), indicating that communal activities without private ownership are the hotbed of free riding, which in turn jeopardises communal welfare.

⁵² As highlighted by Sun Wu (?-512 B.C.), the forefather of Chinese military strategists, 'Soldiers are critical in state affairs and determine life and death of a nation', but 'armies will not survive without sufficient food in storage' (Sun, *Strategy and Tactics*, pp. 19, 81); and by Shang Yang (c. 390-338 B.C.), 'Once attracted by farming, men become simple-minded and thus reliable to fight the war'. Shang specified that to build a strong political unit the ideal proportion of land-holding peasants should occupy 90 percent of the total population (Shang, *Master Shang*, ch. 'Agriculture and War'), a target well achieved under his administration.

⁵³ The rural (mainly agricultural) sector's position as the main taxpayer remained unshaken until 1903 (Liang, *Dynastic Data*, pp. 10, 253-4, 256-7, 264-7, 380, 400-1, 414-18, 426; Tang, *Revenue*, pp.

126-8.) with the Southern Song probably the only exception (Deng, *Premodern Chinese Economy*, ch. 6).

⁵⁴ In Chinese silver ounces, based on Zhou, *State Finance*, pp. 419-21, 426.

⁵⁵ See Marks, 'Rice Prices'; Wang, 'Secular Trends'.

⁵⁶ Qin was so unimportant that Confucius ignored its existence in his China-wide tour (call *xixing budao qin*).

⁵⁷ The policy was called 'allowing commoner-farmers to claim and own land' (*shi qianshou zishitian*) (Sima, *History*, ch. 'Emperor Qin Shihuang').

⁵⁸ Under the Qin, the process of state building, nation building and empire building were closely entwined.

⁵⁹ In China, the prerequisite for a centralised bureaucracy and thus an empire was undoubtedly the rise of the *shi* in Spring and Autumn Period (770-476 B.C.), well educated meritocrats who did not inherit their position and who specialised in statecraft (Deng, *Development*, pp. 18-22). Without the *shi* stratum China was prone to feudalism as during the Western Zhou (c 1030-771 B.C.).

⁶⁰ The size of the jackpot was determined by the physical limit of the amount of surplus that could be produced. It was also determined by the moral limit of the proportion of surplus to be extracted. Thus a low tax rate may mean either a low-level surplus capacity (and thus low productivity) or a benevolent State, or both. In premodern China, the moral limit seemed to be the main factor considering the room left for population growth and trade, domestic and foreign (see Deng, *Premodern Chinese Economy*).

⁶¹ The calibre of this peasantry was fully manifested in as late as the 1940s-50s. With minimum modern inputs, the army of Chinese peasants fought two top modern war machines: it completely destroyed the ferocious Japanese (in China) and ended in a draw with the US (in Korea), not to mention the Pal's victory over its better-equipped rival of the KMT.

⁶² Buck, *Farm Economy*.

⁶³ Feuerwerker, 'State and the Economy', p. 313.

⁶⁴ In the Qing dynasty, for example, the average farm size was 20-30 *mu* (1 Qing *mu* = 0.67 ha) in the North and 12-15 *mu* in the South (Feuerwerker, *State and Society*, p. 81).

⁶⁵ Tawney, *Life and Labour*, p. 34; Chao, *Man and Land*, ch. 8.

⁶⁶ Fei, *Peasant Life*, pp. 191-4; Tawney, *Life and Labour*, pp. 34-5, 38, 71; Buck, *Land Utilization*, pp. 194-7; Myers, *Peasant Economy*; Chao, *Man and Land*, p. 107.

⁶⁷ See Deng, *Premodern Chinese Economy*, app. 4. The common conception of 'negative marginal product of labour' in farming is groundless, assuming that a peasant will destroy his crop or kill himself. This is completely irrational from the peasant point of view and only occurred briefly under Mao's 'theological' regime full of miscalculations (see Li, 'Agricultural Resources'; Wang, 'Agro-ecology'). By the same token, Huang's 'involution hypothesis' does not reflect the general trend in Ming-Qing China (Huang, *North China*).

⁶⁸ From the widely practised household production pattern known as ‘husband tilling and wife weaving’, it is clear that in much of south China, the labour of one adult male was sufficient for farming so that the labour of the wife was devoted to handicrafts (Li, ‘Husband Tilling’).

⁶⁹ Skinner, ‘Marketing’, ‘Peasants’, and *City*.

⁷⁰ For peasant marketing, see Latourette, *Chinese*, p. 575; Myers, *Peasant Economy*, pp. 12-13; Skinner, ‘Peasants’, pp. 272-3; Gates, *Motor*. In terms of trade autonomy, with an average of some 125,000 officials in the bureaucracy (Deng, *Development*, app. 1), to monitor the Song fairs (29,765) or the Skinnerian fairs (45,000) would mean 2.8-4.2 officials per fair on the watch all the year around. This was an impossible task for the empire’s limited resources, not to mention whether 2.8-4.2 officials were sufficient for the job. Market autonomy was inevitable. Not surprisingly, during the Northern Song, of the total of 29,765 regular fairs/markets, only 3.4 percent (1,013) paid tax and merely 1.2 percent (369) were administered by officials. In addition, it was a common practice to set up fairs/markets outside country/prefecture town walls with a symbolic distance of some 100 paces (\pm 50 meters) to mark their autonomy (Zhou, ‘Grassroots Markets’).

⁷¹ So much so that Imperial China is portrayed as a world of (1) ‘petty capitalism’ (Gates, *Motor*) although the term does not capture the essence of capitalism as an economic system - wage labour and profit pursuit; (2) ‘economy-wide market’ (Kelly, ‘Dynamics’) despite the fact that the degree of marketisation was at best half of China’s GDP.

⁷² A recent study indicating that during the mid-nineteenth century in the northern farming province of Shandong the annual aggregate value of commodities traded was 55-60 million *liang* of silver (2051.6-2238.1 metric tons) with the following composition: grain (31.7%), cotton products (25.0%), land property (8.3%), livestock (8.0%), silk (6.7%), tobacco (6.7%), salt (4.0%) and others (9.6%). Among them, salt and ‘others’ (\pm 14% combined) were the items exclusively for merchants to trade with (Xu, ‘Growth of Shandong’). This challenges two dogmas (1) that ordinary peasants were price-takers and thus subject to merchant exploitation and (2) that the Chinese State was able to curb the merchant class single-handedly thanks to its efficiency. First, price taking had no causal connection with exploitation. As merchants were never imperative in China’s ‘pan-peasant’ market, merchant exploitation was never definite. Second, the bureaucracy was poorly manned for the size of the empire and government economic surveillance was at best inadequate. Beside, the Confucian State was never blindly anti-merchant. It never condemned mammon although it was concerned at the formation of merchant monopoly (Deng, *Maritime Sector*, pp. 150-3; Mann, *Local Merchants*, pp. 42-5).

⁷³ This was clearly the case of government indirect taxes from cities during the Song economic revolution (Lin, ‘Urban Taxation’, p. 36).

⁷⁴ To take family-based pawnshops (which functioned as loan providers) as an example, in 1812, China had a record number of 23,139 pawnshops with an estimated total investment of 1,157 million *liang* of silver (43,154.2 metric tons) vis-à-vis a total population of 361.7 million at 119.3 grams of silver per person which was not trivial (Wang, ‘Pawnshops’).

⁷⁵ Under the service-licence system (from the Song to the Qing), in return for their supply services to the frontiers merchants were granted licences to trade state-controlled commodities such as salt. As these controlled commodities were usually income inelastic, the scale of the operation was limited. Even so, the State deliberately blocked the formation of small, privileged merchant groups by granting a large number of merchants' licences. During the early eighteenth century in coastal Shandong, for example, 1,226 merchants obtained salt licences with an average of 400.5 loads (normally 200 *jin* per load, or 119.4 kg) vis-à-vis a tax at 100 *liang* of silver (3,730 g) per merchant (Liu, 'Salt Dealership', pp. 32-3). The total FOB price for the 400.5 loads was at most 1,600 *liang* of silver (at 4 *liang* per 200 *jin*) (Xu, 'Growth of Shandong', Table 9), which means that the total investment required was not prohibitive for any middle-rank merchant although the merchant had to bear transport and storage costs.

⁷⁶ During the mid-eleventh century under the Northern Song, of the 27,607 grassroots fairs (*caoshi*), only 1,013 were subject to government taxation, partly because of the pro-trade policy and partly because of the low business turnover (Xu, *Administrative Statutes*, ch. 'Economy', Entry 'Commercial Tax'). To show the 'localisation' of markets, in Shandong during the Qing, the trading radius of each market was 4-6 kilometres, slightly shorter than that of 7-9 kilometres during 475-221 B.C. (Xu, 'Growth of Shandong'; Li, 'Market').

⁷⁷ Indeed, there was a group of chartered dealers for salt (*yanshang*) and foreign trade (*hangshang*). But they were the privileged few.

⁷⁸ Students of Chinese history seldom question the demand side of the merchant capital market as if it was the supply side of the market that solely went wrong. Such a prejudice comes from a fantasy that the demand is unlimited which is untrue in reality as well as in classical and neo-classic economic theories.

⁷⁹ Feng, 'Merchant Capital'.

⁸⁰ In effect, land property, education and official titles can be viewed as items for consumption instead of investment. Or, at least they were investment-consumption combined.

⁸¹ As the norm, apart from a currency specimen issued by the central mint for each provincial mint to replicate, provinces often issued their own. Many types of currencies were circulated simultaneously at any given time. This practice continued during the first half of the twentieth century. In 1911-46 there were 124 currencies from 20 provinces (Sun, et al. *Currencies*; also Wang, 'Outline'). Private communities were equally able to take initiatives as seen from the invention and use of paper currency and silver (Xiao, *History of Currencies*; Li, 'Currency systems').

⁸² Skinner, 'Peasants', 'Marketing'; Zhang, 'Petty Production'.

⁸³ China was not natural disaster-free. However, in the long run, the land yield level increased steadily (Deng, *Development*, pp. 160-1). Agricultural surplus remained at least stable judging from the increased export volumes and in particular by the increased population (Deng, *Maritime Activities*, p. 132). It is another matter completely of whether the Chinese should have used their food surplus to feed more pregnant women and babies instead of adding more value to it for marketing: it is a question of how the existing surplus was used not of whether surplus was available.

⁸⁴ As openings into the professional merchant class were limited due to the limited market opportunities, the knowledge and capital threshold could be formidable. Thus, together with the entrepreneurialisation of the peasantry, it was easier to leave the professional merchant class than join in.

⁸⁵ For the early Qin period, see Zhang, 'Merchant Capital'; for the Ming-Qing, see Xiao, 'Trend'. It is worth noting that to divert commercial wealth to land and official titles was not uniquely Chinese. What was unique though was its long-term prevalence in China. Given the variable of natural disasters in the Chinese rural production function, such investment propensity simply suggests that the risk of natural disasters in the rural sector was considerably lower than disasters associated with the market. Moreover, a low risk is in this context a synonym of stable, sizeable returns and thus stable and sizeable surplus from the rural sector.

⁸⁶ It was also fashionable, under the Song and Qing for example, for merchants to purchase official titles at ridiculously high prices. But it had far less impact on commercial capital than investment in land considering the purchased titles were merely honorary.

⁸⁷ Wang, *Examinations*, pp. 65-6; also see Chang, *Gentry*, pp. 83-92; Fairbank, *Thought and Institutions*, pp. 251-68; Ho, *Ladder*, p. 262; Deng, *Examination*, pp. 163-4.

⁸⁸ Some retired rank officials certainly joined the urban rentiers. But, as the norm, bureaucrats were usually poorly paid and few were able to live on their salary savings after retirement, as government pensions did not exist. To take Qing times as an example, many bureaucrats working for the ministries in Beijing were rather poor and some could hardly make a living without a second income and were often in debt (see Zhang, *Life* pp. 46-50). When the financial situation went bad, officials had to leave their positions and return to the rural sector (ibid. p. 54). Thus, the fact that the retired officials had to live on rent from farming land generated incentives for them to return to villages. The incentives were enhanced as retired officials were highly respected in villages but faced status depreciation in cities.

⁸⁹ Evidence suggests that about two-thirds of the total investment in traditional pawnshops were made in villages and one-third in urban centres, which was highly compatible with the centre of the economic gravity (see Liu, 'Usurious Capital', pp. 83-4).

⁹⁰ Marx, 'Manifesto'; Rostow, *Stages*.

⁹¹ This was for both 'internal' and 'external' growth of a household. Internally, a minimum number of one male child (greater than one considering the premodern infant mortality rate) was required to secure the family property through inheritance, not to mention pension for the parents. If the benefit of intensive farming (such as paddy farming) was also tangible, more children (at least three to over-compensate the labour input of the parents) promised a greater capacity to capture such benefit in the foreseeable future. Externally, as the land supply was from time to time elastic and even abundant, a bigger family meant a real possibility to gain more land either under government distributional schemes or privately sponsored migration. As the number of persons in a household was the key criterion for possession of land, there was an incentive to reach the biological limit for child bearing.

⁹² Differing from the Meiji Japanese, until the nineteenth century, Chinese rural families never regularly sent young girls to cities. Nor did a great many younger sons in rural China make their careers outside the rural sector as the medieval Western Europeans did. Until the 1920s, the rural emigration rate was only

3.9-5.5 percent (Chi, 'Labour Migration'). Superficially it was Chinese family bondage which prevented youngsters from leaving. Ultimately, it was the landholding institution that dictated the pattern.

⁹³ In absolute terms during the Qing virgin land in Manchuria still attracted migrants from crowded Shandong, Sshanxi, Hebei and Henan. In relative terms, multiple cropping, which was common in post-Song China, allowed the same land to produce many times more than mono-cropping and thus reduced the minimal acreage to make a living. Also during the Qing, discount rates of 60-90 percent were widely applied to less fertile land for tax fairness (called *zhemu*). Thus, the actual land supply was considerably higher than that shown in the government registries (Jiang, 'Cultivated Land').

⁹⁴ Here, the concept of physio-agrarianistic State indicates that the State not only supported agricultural production but also protected individual landholding rights. Its influence was felt in recent Chinese history (Lai, 'Economic Ideas', p. 372).

⁹⁵ Revisionist historians in China have recognised such alliances (Zhang, 'Dual Structure'). But they maintain that the State was always in the driving seat, which did not match the factual capacity of the weak and passive State in China. Unfortunately, most Western literature has missed this phenomenon completely. Even worse, there has been in the West a worrying trend to view the premodern Chinese State *ad hominem* on the model of the Stalinist-Maoist dictatorship, a totalitarian police State that premodern China never had. Among other things, the indigenous Chinese State never claimed that it detained all the truth for or the rights over the people and that the ordinary citizens only had obligations to serve the State. The main concern for the indigenous Chinese statecrafts was not how to divide society up according to political correctness and how to manipulate resource allocation for the benefit of the ruling but how to rule benevolently under the underlying assumption that the citizens were always right with the full recognition of state's dependency on citizens' support (called *minben*). Indeed, Mao's teleological State was a product totally alien from the Chinese tradition.

⁹⁶ Under the patron-client relationship, the ruler has more control over his weaker client partner. Under the modern electorate-government relationship, the electorate has more power than the clients and is able to rebel frequently.

⁹⁷ Orthodox Confucianism justifies such expansion, see Deng, *Maritime Sector*, pp. 147-9.

⁹⁸ Numerous Chinese classics are available on the physio-agrarianistic State and statecrafts, see Wu, *Treasure-House*, ch. 18; Ke and Zhang, *Economic Classics*.

⁹⁹ Su, *Qin Law*, pp. 481-92.

¹⁰⁰ The maintenance of a standing army could have some positive impact on the rural sector as it delayed the decline of marginal produce of labour by taking labour out of farming.

¹⁰¹ The fate of the Qin indicates two important forces in Chinese society: the monarch and the peasantry. A 'wise' and strong emperor could have more than his 'fair share' in history making. But there was a limit if his input eroded the State-peasant alliance. The militia-landed peasantry proved to be far more powerful than the emperor and his state apparatus combined: the peasantry was able to reset the clock by overthrowing unpopular regimes through rebellions. So, Qin was a legitimate 'teething period' for the new institution.

¹⁰² Confucianism was established in around 500 B.C. (by Confucius: 551-479 B.C.) and was officially adopted in around 100 B.C. (under Emperor Wudi: r. 140-87 B.C.). This 400-year time lag says much about the ‘second order’ nature of the philosophy as a factor.

¹⁰³ Mengzi, *Mencius*, chs. ‘Gongsu Chou Shang’ and ‘Lilou Shang’. The essence of Confucius’ statecrafts (in his *Great Learning, Doctrine of the Mean and Analects*) is three-fold: (1) benevolent rule is the optimal goal (*ren*); (2) rulers’ self-cultivation is the least costly way to reach the goal (*xiudao yiren*); and (3) such cultivation is based on self-discipline (*keji*).

¹⁰⁴ Like Christianity, Confucianism is to a great extent an exogenous factor and thus can be adopted by various societies with very different growth trajectories (as seen in Singapore, Taiwan, Hong Kong and South Korea).

¹⁰⁵ Deng, *Premodern Chinese Economy*, chs. 2-3. One must admit that some of the Confucian syntaxes are open for debate since classical Chinese contains a range of linguistic possibilities. For example, in Chapter ‘Taibo’ of *The Analects*, it reads *min ke shi youzhi buke shi zhizhi*. There are at least three ways to understand it. First, ‘if the masses approve, let the policy go ahead; if not, let them know more about the policy’ (*min ke, shi youzhi; buke, shi zhizhi*). Second, ‘if the policy is useful to the masses, continue on; if not, let them know more about the policy’ (*min ke shi, youzhi; buke shi, zhizhi*). Third, ‘the masses are allowed to follow orders, not allowed to know too much’ (*min ke shi youzhi; buke shi zhizhi*). But if one reads the same sentence in the immediate context (on the issue of cultivation by poetry, rites and music with the aim of benevolence), the first and second interpretations are more relevant. Thus, the core of Confucianism is very stable. Modern speculations (especially in an historical mode) are distortions.

¹⁰⁶ Deng, *Development*, p. xxiii.

¹⁰⁷ Ban, *History of the Han*, vol. 69: ‘Zhao Chongguo’.

¹⁰⁸ Zheng, et al., *Chinese Economic History*, pp. 114, 119; Zuo, ‘Colonies’; also see Cao, *Agro-Economic History*, pp. 256-9, 349-51, 407-8, 465, 579, 676, 723.

¹⁰⁹ Ban, *History of the Han*, vol. 24: ‘Economy’; also see Fu and Wang, *Materials*, pp. 319-36; Cao, *Agro-Economic History*, pp. 137, 220-4, 256-9, 347-52, 406-9, 465-9, 579-86, 674-7, 721-5, 803-10.

¹¹⁰ Chen, *History of the Three Kingdoms*, vol. 28: ‘Deng Ai’.

¹¹¹ Zheng, et al., *Chinese Economic History*, p. 172; Lee, *Economic History*, p. 68.

¹¹² Lee, *Economic History*, pp. 73, 85-6, 104, 113, 117; Liang, *Dynastic Data*, pp. 322-8, 360-4, 420-2, 464.

¹¹³ Liang, *Dynastic Data*, pp. 384-5.

¹¹⁴ Fang, *History of the Jin*, vol. 26: ‘Economy’ no.16.

¹¹⁵ Wei, *History of the Wei*, vol. 7: ‘Emperor Gao Zu’.

¹¹⁶ Wei, *History of the Wei*, ch. ‘Economy’.

¹¹⁷ Li, *Law of the Tang*, vol. 3; Liang, *Dynastic Data*, pp. 476-85; Du, ‘Distribution’.

¹¹⁸ Zheng, et al., *Chinese Economic History*.

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- ¹¹⁹ Weng, *Compact History*, p. 180.
- ¹²⁰ Private schemes also existed. The most well known cases were ‘populating Hubei, Hunan and Guangdong from Jiangxi’ (*jiangxi tian huguang*) from the tenth century till the sixteenth century and ‘advancing to Manchuria’ (*chuang guandong*) during the Qing (which alone involved a staggering 14 million migrants) (Zhang, ‘Advancing’).
- ¹²¹ Liang, *Dynastic Data*, p. 382. In 1743-8 alone, some 243,000 new migrants settled in Sichuan (see Anon., *Emperor Gaozong*, vol. 311 Entry ‘Shisannian Sanyue’).
- ¹²² Wei, *Military Glory*, vol. 8.
- ¹²³ Weng, *Compact History*, p. 772.
- ¹²⁴ Indeed, in later dynasties, Chinese kinship and lineage became ‘portable’ to serve migration.
- ¹²⁵ Luan, ‘Transactions’.
- ¹²⁶ Deng, *Development*.
- ¹²⁷ Deng, *Development*.
- ¹²⁸ Will, *Bureaucracy and Famine*; Song, *Water Control*; Geeing, *Water Control*. See also Eleven, et al., *Water Control*.
- ¹²⁹ Woo *Reformers*.
- ¹³⁰ This rebuts the Marxian hypothesis that ‘power of production’ determines ‘mode of production’. China’s past shows unmistakably the other way round.
- ¹³¹ See Deng, *Development*; Wang ‘Ecological Viewpoint’.
- ¹³² By 1900, China’s farming frontier was still expanding, especially in Manchuria despite the fact that the old farming region along the Yellow River suffered regular flooding. Even along the disaster-stricken Yellow River Valley, land remained habitable despite soil erosion and deforestation. It is no secret that severe and systematic environmental damage in China’s farming zones was a direct result of Mao’s communes which aimed at short term gains country-wide. This was not the case in the Imperial era.
- ¹³³ Liang, *Dynastic Data*, pp. 1-14; Pomeranz, *Divergence*, pp. 37-8.
- ¹³⁴ Peng, ‘Mortgage’.
- ¹³⁵ Tuo, *History of the Song*, ch. ‘Economy’.
- ¹³⁶ Zhou and Xie, *Tenancy*, ch. 7; Yang, *Deeds*, ch. 2.
- ¹³⁷ Marsh, *Mandarins*, p. 62.
- ¹³⁸ Xiao, ‘Water Rights’.
- ¹³⁹ Li, ‘Tenancy’, p. 46.
- ¹⁴⁰ Many scholars are confused by the opposite price trends for freehold and leaseholding rights and misinterpret the landholding reshuffling as evidence of a high bankruptcy rate and concentration of land-ownership, which is utterly misleading.
- ¹⁴¹ This was reflected by the degree of irrigation (Buck, *Farm Economy*, p. 187). To take contemporary China as a proxy, cultivated land in the well-irrigated south occupied 36 percent of China’s total (with 81 percent of China’s total water for framing) which implies roughly the geographic distribution of freehold and multiple rights (Chen and Zhang, ‘Water Puzzle’, p.182).

¹⁴² From the 25 official histories of the empire, there are in total 224 monarchs whose dates of birth and death are traceable. It is known that a half of these monarchs were crowned under the age of 20, of whom a half was crowned under the age of 10. It is also known that their average life span was only 39. Thus, the policy input from emperors had to be very limited. The norm was that the empire was run by older bureaucrats.

¹⁴³ In Chinese history, urban unrest, army mutinies and coups d'état took place but were often ineffective unless they rode on the back of peasant rebellions.

¹⁴⁴ Deng, *Premodern Chinese Economy*, app. 10.

¹⁴⁵ This challenges the Marxist-Leninist-Maoist prejudice that the poorer were the more ready to rise against the State because they had nothing to lose. Such a view is logically flawed: people rebel only because they have much to lose.

¹⁴⁶ Deng, *Premodern Chinese Economy*, ch. 4. Thus, despite its bias toward a perfect social order Confucianism was designed not for an elitist, divine civilisation but for a populist, mundane society.

¹⁴⁷ One should never under-estimate the effect of Confucianism as an informal institution to empower the ego, psyche and behaviour of the Chinese peasantry: about 10 percent of the public were literate and educated peasant sons were granted priority to enter officialdom (see Rawski, *Education*; Deng, *Development*; app. 1; also Goody, *Literacy*).

¹⁴⁸ Deng, *Premodern Chinese Economy*, ch. 4.

¹⁴⁹ This was to a great extent not applicable to merchants as they were taxed with a higher rate. This is often viewed as the hard evidence for an anti-merchant tradition in China. But if one agrees that the utility of the same amount money is often lower for merchants, a higher tax rate was well justified as in any modern progressive taxation.

¹⁵⁰ Deng, *Premodern Chinese Economy*, ch. 6.

¹⁵¹ Based on Liang, *Dynastic Data*, p. 307.

¹⁵² Liang, *Dynastic Data*, pp. 318-21.

¹⁵³ Based on Liang, *Dynastic Data*, pp. 4-11. These figures should be taken as proxies as accuracy is not always guaranteed.

¹⁵⁴ Liang, *Dynastic Data*, pp. 303-4.

¹⁵⁵ Liang, *Dynastic Data*, p. 8.

¹⁵⁶ In theory, these nomads had three patterns to choose from: pastoralism, settled farming and some kind of mercantilism. But without exception, they, including the Manchus, all went for settled farming. To prove that the Mongol agrarian choice was highly conditional, after their defeat in 1368 most Mongols returned to nomadism and so continue to this day.

¹⁵⁷ Fan, *Chinese History*, vol. 2, pp. 455, 458.

¹⁵⁸ The elite Manchu Eight Banners (*baqi*) had only 20,000 members vis-à-vis approximately 52 million Chinese (Hong, et al., *Genealogies*; Liang, *Dynastic Data*, p. 10). The Bannersmen-Chinese ratio was shockingly low at 1:2,600.

¹⁵⁹ Zhao, *History of the Qing*, p. 467.

¹⁶⁰ It was regressive on at least three accounts. First, Mao's collectivisation reduced peasants to state serfs: it systematically expropriated the largest landholding peasantry in world history and effectively made Chinese peasants powerless politically. Second, it was an efficient machine to extract all rural surpluses and kept the entire peasantry living in absolute poverty for the first time in Chinese history, not to mention under Mao the sudden, man-made decline of 56.5 million metric tons in food output (1959-61) which cost, criminally, over 30 million rural lives (Huang, 'Agricultural Production'). In 1996, after 18 years of reform, China's rural population under absolute poverty was still 65 million according to the most conservative estimates (He, et al., 'Income Distribution'). Thus, the poverty suffered by peasants under Mao was much more severe than under the Manchus (pre-Opium War) or KMT (pre-WWII). Incidentally, compared with Khrushchev's 'a-goulash-per-day communism' and Kim's 'an-apple-per-day communism' (Korea), Mao only offered in the 1960s-70s a mortification communism of, *ad verbum*, 'a diet of liquid food for the slack season and solid for the busy one'. Third, it consequently stripped peasants of the incentive to produce which led to a thirty-year long agricultural recession leading Mao's industrial growth to collapse and Maoism itself to bankruptcy (numerous works, eg. Qi, 'Historical Changes'; Cui, 'Urban-Rural Relationship'; Xie, 'Commune System'). There was no secret that there was always a strong undercurrent to restore peasant landholding at the grassroots level with its sympathisers among the highest communist leaders. This forced Mao to purge his party repeatedly, ranging from the damaging "rectification of communes" (*zhengshe*) and 'four cleansings' (*siqing*) to the physical elimination of his comrades like President Liu Shaoqi (1898-1969). Deng's popular reform abolished Mao's neo-serfdom with the re-offering of landholding rights: history thus came full circle as the marriage between the State and the peasantry resumed.

¹⁶¹ Mao tried to break this by creating 'large-scale production' (*dashengchan*) with his "people's communes" (*renmin gongshe*) which failed completely.

¹⁶² One must bear in mind that the Chinese 'authoritarian' bureaucracy differs *toto caelo* with modern Hitler-Stalin-Mao's dictatorship in terms of the scale and scope to control resources as well as how far irrational decisions could go/last.

¹⁶³ This study thus challenges the conventional view that Chinese history was nothing but a State-Confucianism duet (or an emperor-bureaucracy-Confucianism trio). In the historical time sequence, Confucian pro-peasant values emerged after private land-ownership; and the physio-agrarianistic bureaucracy, after the Qin rebellion. So, Confucian values and physio-agrarianistic bureaucracy were at best second-order factors.

¹⁶⁴ During the whole millennium from the Song till 1900 China did not change its trajectory. In comparison, during the same period, Western Europe followed a different orientation, flirting with capitalism and eventually made the industrial revolution in the eighteenth-nineteenth centuries. This rebuffs the Maoist fantasy that China was already well under way towards capitalism under the Ming but that the process was hijacked by Western imperialism (e.g. Xu and Wu, *Sprouting of Capitalism*; Yin, 'Sprouting of Capitalism in Agriculture'; Li, 'Sprouting of Capitalism in Agriculture').

¹⁶⁵ Deng, *Premodern Chinese Economy*, ch. 5.

¹⁶⁶ But, so far, few have asked why the use of military force was the only way to make a point to China. Even fewer have noticed the unilateral change of rules in the game by the West in the Opium War. Hegemony does not necessarily mean supremacy in market dealings (Deng, *Maritime Sector*, chs. 5-6).

¹⁶⁷ There is a common ‘deficit approach’ in judging China by listing what China did not have in comparison with what Western Europe did, ignoring China’s own ‘balanced account’.

¹⁶⁸ No doubt, China can be and often is taken as a case of ‘path dependency’. However, such an explanatory framework is problematic and is thus avoided: first, it often overlooks the dynamics of the path forming, path re-adjustment, path recurrence and path perpetuation; second, path dependency is the result, not the cause of a developmental status. The framework runs into the real danger of a circular argument.

¹⁶⁹ For quantitative similarities, see Pomeranz, *Divergence*.