A critical survey of recent research in Chinese economic history

By KENT G. DENG

China is a resilient dinosaur. It has a longer history than the other great empires in Eurasia—the Egyptian, Roman, Byzantine, Arabian, Ottoman, and Tsarist-Soviet. The Chinese empire kept expanding until the mid-nineteenth century when it effectively reached the physical limits for a predominantly agrarian economy. The size and wealth of the Chinese economy, the variety of its produce, and the degree of commercialization and urbanization made China one of the most popular international trading destinations from Roman times. With the rise of the opium trade in the early nineteenth century, however, the Chinese economy was severely impoverished, at least in relative terms. In response, from the 1870s, the Chinese sought to rescue their civilization by adopting a wide range of foreign examples in social engineering for social experiments and reforms. Nevertheless, China's per caput GDP is still very low despite its political influence in the world since the 1970s. Thus, it is justifiable to view China as a case of growth failure in recent centuries.

The study of Chinese economic history is as old as China's modern history itself. The field has been led and dominated by the West. Scholarly attempts have been made since the beginning of this century to explain China's premodern success and its downfall after the Opium

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2 As an illustration of China's disposable wealth in 1884: Japan invaded Korea and three provinces of north China and forced China to pay 200 million Chinese ounces of silver (7,460.3 tons) as war reparation. The amount has been estimated as one-quarter of the Japanese total national income. This sum was used by the Japanese to balance their trade deficit and to establish a gold standard. Contemporary Japanese scholars counted China's reparation as windfall of 'foreign capital'. See Minami, Economic development of Japan, pp. 12, 201.

3 The Meiji Restoration was mirrored in China's 1870-95 'Westernization movement' and the 1898 'One-Hundred-Day Reform'. The 1789 French Revolution was copied in Dr Sun Yat-sen's 1911 Revolution to end the monarchy. A Chinese version of the Bolshevik Revolution was witnessed in the Communist attempts under various leaders to reunite the country and cleanse society. The Stalinist ISI and command economy was transplanted c. 1956-8 in order to industrialize without the pains of capitalism. The Yugoslavian-Bulgarian institutional reform was imported in 1978 to soften the economic crisis under communism. The Asian tigers' EOI was followed since the mid-1980s and reached its climax with China's recent bid for its WTO membership. Malthusian birth control was carried out in the early 1970s.

4 This is not only because of the systematic, effective destruction of the Chinese academia under Maoism in the 1950s-1970s but also in terms of the analytical tools and methods in use, including Marxism, as well as the sheer volume of scholarly works. No doubt, Chinese studies has become a large enterprise in Japan (see Elvin et al., Water control in China and Brook and Blue, eds., China, pp. 110-57). However, since few such works have been translated into other languages, their influence has remained minimal outside Japan.

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War. Two approaches can be identified: the ‘Sinological approach’ which refers to China only and the ‘comparative method’ which compares China with the West. The former tries to find out what achievements China managed to make and when and how it made them, and the latter seeks to understand why premodern China was not industrialized.

I

The findings of the ‘Sinological approach’ can be categorized under five headings. First, China seems to have enjoyed superiority in premodern Eurasia in science and technology, agricultural productivities (in labour, of land, and total factor productivity), and military power. Various studies have indicated that the Chinese probably reached a premodern ceiling for development in all these areas. For example, the Chinese almost certainly held the world record on the eve of the European Renaissance with a long list of diverse inventions including metallurgy, gunpowder, the compass, the manufacture of silk and of porcelain, paper making and paper currency, block printing, mechanical clocks, and examinations to recruit civil servants.

Second, by premodern standards China achieved a high degree of commercialization and urbanization. Favourable conditions for commerce, including the use of paper currency and the establishment of credit institutions, existed in China much earlier than in Europe: for example, capitalist elements were evident in China long before the birth of Christ. Moreover, the construction and maintenance of long-distance roads throughout the country, the waterway arteries (known as the grand canals), the investment in large-scale irrigation and drainage schemes, the circulation of minted currencies, the manipulation of grain prices, and the use of standardized weights and measures lowered transaction costs throughout the economy. Furthermore, a remarkable degree of social mobility as well as internal migration provided citizens with some incentives to study and to accumulate wealth. The non-agricultural population, which accounted for some 20 per cent of China’s total, formed the cornerstone of the domestic market for cash crops, especially foodstuffs (including tea) and textiles. Apart from professional merchants and despite the fact that commerce was more highly concentrated in some favoured regions of the empire, the main feature of China’s

5 Mokyr catalogued the Chinese technological superiority into as many as 10 categories in Lever of riches, pp. 209-18.
6 Needham, Science and civilisation in China; Temple, Genius of China; Merson, Roads to Xanadu.
7 Ho, ‘Aspects of social mobility’; Perkins, Agricultural development; Rawski, Agricultural change, chs. 3, 6; Elvin, Pattern; Hsu, Han agriculture; Bray, ‘Agriculture’; Huang, Peasant economy; Smith, ‘Commerce, agriculture and core formation’; Deng, Development versus stagnation.
8 McNeill, Pursuit of power, ch. 2; Levathes, When China ruled the seas.
9 Typically see Elvin, Pattern.
10 Ibid., chs. 11-12; Jones, Growth recurring, p. 74.
11 Elvin, Pattern.
12 Ho, ‘Aspects of social mobility’; idem, Ladder of success; Eberhard, Social mobility; Hartwell, ‘Patterns of settlement’; Deng, Chinese maritime activities, chs. 4-5.
13 Rawski, Agricultural change.
commercialization was the ‘entrepreneurialization of the peasantry’: an ordinary peasant participated regularly and actively in the market by trading a considerable percentage of his output. According to Perkins and Feuerwerker, from the Ming period (1368-1644) to the early twentieth century as much as 20-40 per cent of China’s agricultural output was marketed, amounting to about one-sixth to one-third of the country’s total GDP. Even in relatively poor northern China, 25-40 per cent of rural households earned their income from non-farming activities. In terms of the scale and scope of the market, in Skinner’s account, China’s multi-regional, multi-layered trading network consisted of as many as 45,000 market towns, each of which had in its hinterland 15-20 villages on average.

Based on a stable surplus of food produced by the agricultural sector and the seasonality of farming, China had a fully fledged, rurally based proto-industrialization system which paralleled that of Europe until the nineteenth century. By Song times (960-1279), the total annual output of iron, for example, was estimated at 150,000 tons. Under the Song, large quantities of heavy iron coins were minted for circulation. Because of their weight they were used as ingots, not currency tokens. Thus iron must have been regarded as a monetary metal with great value—a fact which says much about the economy. During the heyday of the porcelain trade in the seventeenth century, exports of Chinese ceramics alone could often have reached a level of 1 million pieces per year. As late as 1800, China accounted for roughly one-third of the total world manufacturing output and was still ahead of the West. By about 1830 the shares were comparable. Household spinning and weaving in rural regions were already important before the Ming period. Subsequently, the trend moved towards full-time by-employment. In parts of China, ‘tilling by the male and weaving by the female’ implied that it was then the norm for at least one adult in a rural household to be engaged in non-farming production all year round. Household industry retained a competitive edge over factory production until the first quarter of the twentieth century. This division of labour and the pervasive by-employments supported the trade network that was manned by professional merchants to move goods over long distances across the empire, a phenomenon

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17 Skinner, ‘Chinese peasants’, pp. 272-3; see also *idem*, ‘Marketing and social structure’.
21 Huntington, *Clash of civilisations*, p. 86; also Kennedy, *Great powers*, p. 149.
23 Li, ‘Husband and wife tilling together’; see also Huang, *Peasant family*, pp. 44-57; *idem*, *Peasant economy*; Chao, *Cotton textile production*, pp. 174-80.

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which has been described as ‘petty production at the household level and great circulation of commodities in the economy’. The production of non-food cash crops was on such a scale that during the period between 1750 and 1875, southern China was the main supplier of tea and of silk to the rest of the world. The empire traded with the outside world not just as a diplomatic gesture but of necessity. For example, China depended on imported war horses for the army and imported raw materials for medicines and coinage. Although foreign trade was often subject to state monopoly, bans on private trading represented only short episodes in China’s long-term history. In terms of exports, China supplied industrial goods such as lacquerware, ceramics, textiles, metal products (made of iron, lead, copper/bronze, silver, and gold), non-metal handicrafts, stationery, and books to Asia and, sometimes, beyond. Not until the early nineteenth century was China downgraded to the status of a primary exporter. Still, in the late Qing period (1760-1833), the ratio of domestic to international trade was 2.3-3.1:1 in volume, thereby reflecting the importance of foreign trade in the economy. It is perfectly valid to depict the Chinese government as protecting farming and tolerating trade and to represent the traditional Chinese economy as an ‘agrarian commercial’ one. Third, China protected and nurtured producers’ incentives with reasonably well-defined property rights. Thus, Tawney described the typical figure in Chinese country life not as the hired labourer, but the landholding peasant. Similarly, Rawski maintains that ‘for at least the last millennium, Chinese agriculture has been dominated by a large number of free, small-scale farmers, working under a system of private land-ownership’. This pattern of landholding remained dominant until after the First World War. Internally, the widespread system of ‘village-based responsibility for criminal offences’ and ‘neighbourhood watch’ systems safeguarded law and order upon which the property rights and their enforcement depended heavily. To guard its resources and investments, China had by the third century BC built an effective defence line marked by the Great Walls

24 Zhang, ‘Petty production’.
25 During the Qing period when tea and silk formed at least 90% of the total value of Chinese exports to Britain. For more information see Deng, Chinese maritime activities, ch. 5.
26 Morse, Chronicles; Hall, ‘Notes on the early Ch’ing’; Boxer, ed., South China; Wang, ‘Nanhai trade’; Hirth and Rockhill, Chau Ju-Kuo; Rossabi, ‘Tea and horse trade’; Le Corbeiller, China trade porcelain; Jörg, Porcelain; Chang, ‘Chinese maritime trade’; Ng, Trade and society; May and Fairbank, eds., America’s China trade; Tampoe, Maritime trade; Cushman, Fields from the sea; Fan, ‘Long distance trade’; Manguin, ‘Trading ships’; Gardella, Harvesting mountains; Deng, Chinese maritime activities, chs. 4-5; idem, ‘Foreign staple trade’; see also Greenberg, British trade; Iwao, ‘Japanese foreign trade’; Furber, Rival empires; Chaudhuri, Trading world; idem, Trade and civilisation.
27 Idem, Chinese maritime activities, ch. 5.
31 Idem, ‘Foreign staple trade’.
32 Idem, Chinese maritime activities, ch. 5.
34 Deng, Premodern Chinese economy, chs. 2-3.
35 Tawney, Life and labour, p. 34; Rawski, Agricultural change, p. 3; cf. Elvin, Pattern, ch. 15.
36 Fei, Peasant life; Buck, Land utilization.
37 Waverick, China: a model.
against looting and killing by nomads and was the only ‘walled empire’ in world history.

Even when peace and internal law and order prevailed, to maintain such a landholding peasantry over the long run was a major institutional achievement, given that landed property is an ideal commodity for business speculation and that China had an active market in land. In addition, the Chinese practised partible inheritance which split family property by the generation. Most of the time, China managed to keep a balance, avoiding the concentration of property ownership, as the imperial state maintained reliable communications for gathering information about disasters and fluctuations in food prices, and held disposable resources such as cash loans. It also took initiatives in respect of food storage, to provide the peasantry with relief so that individual households rarely lost all their property. The land-saving technology and high yields of Chinese agriculture also mitigated the shortage of land.

The ideology of physiocracy (‘agricultural fundamentalism’) current among the Confucian meritocrats also helped to check excessive rent-seeking by the state, although local instances of corruption and occasional derailment of the state apparatus occurred. This physiocratic policy pushed the expansion of the empire in all directions including offshore Taiwan. Such territorial expansion was the ultimate solution for land shortages. Until the second half of the nineteenth century when Tsarist Russia conquered parts of Siberia and Turkestan that had been controlled by the Qing, the empire possessed a territory of well over 10 million square kilometres, compared with 1.6 million square kilometres under the Shang (c. 1520-1030 BC).

Fourth, some long-term patterns of China’s premodern growth have been established. This work was pioneered by Elvin in 1973 and continued by Skinner in 1985. Both studies recognize regional shifts in the centre of economic gravity and changes in technology, productivity, demography, institutions, and economic structures. Both authors identify the Song period (960-1279) as the premodern peak, after which no significant progress took place. Elvin refers to this situation as a ‘high-level equilibrium trap’ and Skinner writes of ‘regional cycles’.

Last but not least, although scholars have generally agreed that China’s population experienced a rapid rise after the seventeenth century, some studies have suggested that average standards of living in the advanced south-eastern region (roughly Jiangsu, Zhejiang, Hunan, and Guangdong)

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35 Deng, Development versus stagnation, ch. 2.
37 Song, Regional cultures, p. 201.
38 Elvin, Pattern, p. 313; Skinner, ‘Structure of Chinese history’, p. 270.
matched standards in western Europe during the eighteenth century, an observation which is well supported \textit{a fortiori} by evidence from travelogues and commentaries of Europeans. Levels of education and popular literacy in China also remained high.

II

The credibility of those findings, however, is subject to debate. Although the information available on China’s socio-economic conditions over three millennia is extensive, it is incomplete. Speculative estimates are inevitable and contradictory conclusions are not uncommon. In terms of methodology, there have been two main problems for the Sinological approach. First, what was the relationship between regions and the empire as a whole? Second, where did ecological and political forces enter long-term economic history?

To deal with an empire such as China which has multiple regions with different climatic, hydraulic, topographical, and soil conditions, and diverse sub-cultural groups and behavioural patterns, studies of short- and medium-term developments of regions not only make sense but are also easily manageable. Since the late 1950s, there has been a clear trend towards studies of economic history by area or period although the groundwork was laid much earlier, in the 1930s by Chi.

Regional studies over the short or medium term have contributed greatly to the understanding of the mechanisms of Chinese development. Yet, they often overlook a basic structural factor—namely that for most of the time most of China had a nationwide market, a single government (which was active in maintaining food supply, famine relief, and price control), a standardized written language, a uniform calendar and system of weights and measures, a dominant Confucian code of conduct, a nationwide transport network, and the mechanisms for social mobility and inter-regional migration. Together, to some considerable degree,
these factors were able to iron out regional differences. Thus, these differences may be less significant than some scholars suppose.

In contrast to the strong growth in regional studies, long-term and empire-wide studies are becoming an endangered species, although these two approaches are largely complementary and Chinese economic history needs both. One reason for the scarcity of the wider studies is the information and knowledge constraint that any individual faces. For example, The official histories of the twenty-five dynasties contains over 33 million words in classical Chinese.\(^{45}\) It takes at least 10 years’ linguistic and historical training for a student to be able to understand the material. In addition, long-term and empire-wide studies which take a ‘broad-brush’ approach are notoriously inclined to overgeneralization, which easily attracts criticism. All these make long-term and empire-wide studies a risky business. Nevertheless, some heuristic attempts have been made.\(^{46}\)

Turning to the second problem, it is acknowledged that the main difference between economics and economic history is that economics makes certain parti pris assumptions about the environment and the political framework for economic activity. But throughout its history China was not only invaded many times by nomadic peoples from outside its borders but was also turned upside down many more times by its own citizens, mainly the peasants: in all, there were 1,109 main military conflicts between the Chinese and the northern nomads from 215 BC to AD 1684\(^{47}\) and as many as 225,887 recorded armed rebellions between 210 BC and AD 1900.\(^{48}\) The impacts of these conflicts and rebellions were not trivial in terms both of accounting costs and of opportunity costs, as huge numbers of people and animals were killed, vast areas of cultivated land abandoned, and farming equipment and facilities destroyed. Severe natural disasters such as the periodic flooding of the Yellow River had similar effects. To ignore disasters such as these in dealing with China’s economic past can thus be very misleading. Although periodic outbreaks of political turmoil are now recognized by all Sinologists,\(^{49}\) it was not until the early 1980s that the disaster as a major factor in long-term economic history was systematically explored by Jones, who saw the Mongol invasion of Song China during the thirteenth century as the turning point leading to economic downfall for the Chinese.\(^{50}\) For a more recent period, Rawski gave great weight to the economy-wide damages caused by the invading Japanese in the period 1937-45.\(^{51}\)

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45 S and S, *Official histories*.


47 Fu et al., *Military history*.


49 See, e.g., Fairbank’s ‘dynastic cycle’ in his *United States and China*, ch. 5.

50 Jones keeps nothing as a constant. See his *European miracle* and ‘Real question’.

51 Rawski, *Economic growth*. 

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The ‘comparative’ approach is more complicated and controversial than the Sinological approach. The main debate in the field of premodern Chinese economic history focuses on the key question of why China failed to advance further from its outstanding achievements under the Song. The implicit benchmark for such comparison is west European economic growth since the Renaissance, especially the British industrial revolution. Jones’s well-known statement that China came within a hair’s breadth of industrializing in the fourteenth century sums up the problem. Needham asked the same question when he investigated why the Chinese never passed the threshold required to develop controlled scientific experimentation of the post-Renaissance type.

With very different clusters of endowments, very different price structures for factors of production, and equally different institutions, China and western Europe were almost different ‘Darwinian species’ and comparison is problematic, because in the end the question inevitably becomes why China was not another western Europe. Philosophically, although the growth in western Europe was real and thus ‘Darwinian positive’, the use of the European experience as a gauge to measure China can be ‘Hegelian normative’ due to its built-in ‘counterfactualism’. This acultural and non-endowmental approach is deeply rooted in European beliefs such as Marxism, in a unilinear and unipotent developmental path. It is worth noting that the fantasy of unilinear development violates Marx’s own ‘historical materialism’ which is Darwinian in nature.

A recent work by Wong viewing China as a distinct system of economic functions/mechanisms marks an important step towards the Darwinian end, although one also needs to be careful not to glorify ‘Darwinian longevity’ simply because survival in itself is not a necessary criterion of growth and development. In the long run, as Keynes has told us, we are all dead.

Alternatively, it would be possible to compare different economic performances during different historical periods to see trends within the same civilization—an approach pioneered by Jones who asks why the Chinese did not repeat their Song achievements. Although he departs from a simplistic acultural and non-endowmental comparison, the approach posits socio-economic hegemony under the Song and socio-economic inferiority afterwards. Hegelism will always be with us.

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52 Jones, European miracle, p. 160.
53 Wong, China transformed, pt. 1.
54 Hegel, Philosophy of world history; Marx, ‘Manifesto’; Rostow, Stages of economic growth.
55 See Darwin, Origin of the species.
56 Marx claims that ultimately the ‘force of production’ determines ‘relations of production’ and thus determines the developmental path. His ‘force of production’ is clearly ‘shaped’ by the relationship between nature and man. If societies live in dissimilar physical environments with different endowments, price structures, and institutions, how can they be destined for the same end and in the same way? In other words, how can fatalistic Hegelism (which ranks superiority with developmental paths) and naturalistic Darwinism (which rejects a unilinear path and allowed for mutation and extinction and defines superiority as survival) ever be combined?
57 Jones, ‘Real question’. © Economic History Society 2000
Yet, no matter how conscious economic historians are of the differences between China and the West, the ready convertibility of Chinese economic performance to indices of west European performance has made comparisons attractive (with a long list including per caput outputs and incomes, man-to-land ratios, crop yields, population densities, degrees of commercialization or urbanization, and standards of living measured by calorie intakes). 58

The development of acultural and non-endowmental comparison approaches probably also has something to do with the constraints of knowledge about the world. Thus, some visible or tangible universal yardsticks are needed to measure technological and economic status. It is easy to gauge superiority by rank in a technical, economic, and military pecking order. Thus, to some extent, it is justifiable to use western Europe as a benchmark. Nevertheless, this European benchmark will, pace Darwin, remain as a second-best solution regardless of opposition from both the camp of the ‘reference’ (western Europe) and the ‘comparer’ (China).

IV

When post-Renaissance Europe is used as the benchmark for comparison, China’s past presents a huge paradox. Given all the achievements mentioned earlier, China seems to have possessed nearly all the important ingredients for further development and at times even displayed major characteristics of an incipient industrial revolution. 59 It appears to have been a genuine candidate to become the first industrialized society and yet it never did so. The Hegelian development broke down. 60 So much so that China has been labelled ‘exceptional’ and ‘counterfactual’. 61

However, from a Darwinian perspective, a linear development is not only optional and probably random but also relative. 62 China is indeed factual and anti-theoretical instead. Whether the economy was ever truly a candidate to become the first industrialized society becomes irrelevant. 63 In this light, China seems much less puzzling. Sinologists tend to favour this Darwinian vision, viewing China as unique. Nevertheless, attempting to explain China’s failure to develop along European lines has been mainstream historical practice. There are numerous comparative works which have contributed to our understanding of the premodern Chinese economic performance.

Nine schools of thought are singled out in this survey: those for which

58 A recent attempt was Maddison’s *Chinese economic performance in the long run*.
59 Elvin, *Pattern*.
60 See, e.g., Lin, ‘Needham puzzle’.
61 See Elvin, ‘China as a counterfactual’.
62 I reject the application of Darwinism the way ‘social Darwinism’ presents it, especially in terms of competition for resources with non-peaceful means and pursuit of political, military, and economic hegemony. Rather, my application of Darwin’s idea is limited to a process of evolution with a set of specific economic conditions. Thus, my approach should be termed ‘socio-economic evolution’ rather than ‘social Darwinism’.
63 See, e.g., Wong, *China transformed*, pp. 101, 111.
the key hypothesis is, respectively, ideological determinism, the market model, environmental determinism, the class-struggle paradigm, population models, technological determinism, the rent-seeking government and exploitative landlordism conjecture, the role of the state, and the world-system paradigm.

Ideological determinism owed much to Hegel who believed that socioeconomic development is determined by spirit. Such spirit can be interpreted as religions, ideologies, and ideas. Since religions, ideologies, and ideas are not difficult to identify and they are often more or less unique to individual civilizations or ‘cultures’, everything can be attributed to them.64 For ideological determinists, a conclusive answer to China’s puzzle can thus be given. For example, Weber represented the Chinese mindset as the main reason for China’s lack of indigenous capitalist growth.65 Fairbank in 1957 and Qian in 1985 went further and pointed to ‘deficiencies’ in Chinese ideology and cultural values, deficiencies that froze Chinese creativity, misled talent, wasted energy, and led the economy into backwardness. Needham, the doyen of the study of Chinese premodern science and technology, is among those who agree with such views.66

Although such studies promote cultural understanding, the approach has the flavour of fatalism, associating development with pre-programmed choices that have been made for later generations long before they are born. More significantly, it is known that in history peoples who shared similar cultures or beliefs had very different paths of economic development. In Asia, one can ask why the Confucianized (or partly Confucianized) Japanese succeeded in adapting Western industrialization while the Chinese who had patented Confucianism did not; neither, until after the Second World War, did the other Confucian peoples (such as the Koreans and Vietnamese). Similarly, the adoption from Europe of a ‘modern’ ideology (Marxism-Leninism) after 1949 did not help much in mainland China’s economic growth, whereas during the same period the Confucian values supported rapid growth in ‘Asian tigers’. There can be little doubt that ideology and cultural values do not provide sufficient conditions for the explanation of growth or retardation.

The entrepreneurial spirit is often attached to this school of thought, and China’s problem is frequently attributed to a lack of entrepreneurship.67 But this suggestion is incompatible with the volume and range of Chinese inventions and innovations in premodern times or with the scale, scope, and profitability of Chinese commercial activities.68

As regards the market model, a great many scholars view the market as

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64 Weber, Protestant ethic; see also Tawney, Rise of capitalism. A renewed attempt was made by Landes, Wealth and poverty of nations. When this bulky, narrative book is stripped to the kernel, the subject is ‘culture’ and cultural determinism.
66 Fairbank, Chinese thought and institutions; Qian, Great inertia; Needham, ‘History of scientific thought’; idem, Grand titration, p. 115; see also Mokyr, Lever of riches, pp. 227–9.
67 Scherer and Perlman, eds., Entrepreneurship; see also Leff, ‘Entrepreneurship and economic development’.
68 Needham, Science and civilisation in China; see also Deng, Chinese maritime activities, ch. 4.
a locomotive for economic growth. Hicks elaborated this idea.\textsuperscript{69} According to Hicks, Europe enjoyed favourable conditions for the diffusion of markets, including the rise of an agricultural surplus, specialization, professional traders, the establishment and maintenance of law and order, money and credit, as well as mercantile policies.\textsuperscript{70} Alas, Hicks ignored the fact that Europe was not unique. These conditions also existed in China, where private ownership and basic property rights emerged as early as the sixth century BC. China had a highly productive agricultural sector which yielded a surplus, and was considered by Europeans to be one of the most orderly and lawful societies on earth.\textsuperscript{71} In terms of the market economy, China had a sophisticated monetary system and extensive domestic and international trading networks.\textsuperscript{72} As Feuerwerker observed, ‘from the Song onward, China’s economy was essentially a market economy in which most of the economic results were determined by decisions made and actions taken in the private sector’.\textsuperscript{73} A recent work by Kelly shows that Song China had an ‘economy-wide market’ without parallel elsewhere in the world until the eighteenth century.\textsuperscript{74}

Perhaps Hicks’s model is too romantic about the function of the market. Why these favourable conditions did not lead China anywhere near the achievements of western Europe becomes far less puzzling if we go back to the basics of classical and neo-classical economics. Although a functioning market can optimize the allocation of resources, it does not automatically give rise to sustained technological and economic development. Instead, the market may lead to a general equilibrium and hence a Ricardian ‘stationary state’. Indeed, China merely looks like an economy with a high degree of commercialization in a stationary state. So, the market model itself has a problem: it expects too much from the market.

Deep in Hicks’s market model is the core of \textit{environmental determinism}. This was revealed unmistakably when he cited Europe’s geographic advantages over Asia and consequently attributed growth to the bounty of nature.\textsuperscript{75} Such a view is still influential.\textsuperscript{76} But what is often overlooked is that there is an ‘Asian Mediterranean’ in the China seas.\textsuperscript{77} In the past, different peoples met, migrated, and traded there. Monsoon winds favoured shipping in the Asian Mediterranean and there is no reason to view Asia as geographically inferior to the Mediterranean on the other side of Eurasia.\textsuperscript{78} Therefore, geographic difference no longer provides a safe haven for environmental determinism in studying China. Elvin’s study of long-term environmental changes in China in fact indicates that

\textsuperscript{69} Hicks, \textit{Theory of economic history}, p. 7.
\textsuperscript{70} Ibid., pp. 23-6, 42, 68-71.
\textsuperscript{72} See Skinner, ‘Marketing and social structure’; \textit{idem}, \textit{City}; Elvin, \textit{Pattern}.
\textsuperscript{73} Feuerwerker, ‘State and the economy’, p. 304.
\textsuperscript{74} Kelly, ‘Smithian growth’, pp. 952-62.
\textsuperscript{75} See Hicks, \textit{Theory}, pp. 38-9.
\textsuperscript{76} See Diamond, ‘Peeling the Chinese onion’.
\textsuperscript{77} Deng, \textit{Chinese maritime activities}, chs. 1-2.
\textsuperscript{78} Ibid., chs. 2-3.
it was human economic activities that determined environment rather than the other way round.\(^{79}\)

There are two inter-related aspects to the marxist class-struggle paradigm. First, a society is made up of rival classes with contrasting economic interests: slaves versus their masters, serfs versus feudal lords, wage workers versus capitalists, and so on. Secondly, political and economic struggles between rival classes are the driving forces of socio-economic change.\(^{80}\) But it is extremely doubtful whether a population can or should be divided into different interest groups in the way portrayed. It is even more questionable to view the tension between classes as the norm since half Eurasia was under Marx’s own classless ‘Asiatic mode of production’. Moreover, from this particular paradigm, a classless society may well be the end of growth. Marx’s communism turned out to be a Pandora’s box.

Fundamentally, slavery, feudalism, and capitalism are not universal. They were largely absent from China where landholding peasants were much less divided by ‘class’ than their counterparts in other parts of Eurasia.\(^{81}\) At best, China had a ‘gentry’ stratum, partly rural and partly urban with possession of land and a good Confucian education and an easy access to state power at the highest level.\(^{82}\) Ordinary members of the gentry were involved in grass-roots administration.

Numerous works published during the 1950s and 1960s revealed distinct differences between the Chinese gentry and the feudal landholding class in medieval western Europe and Tokugawa Japan.\(^{83}\) The Chinese gentry was in principle non-inheritable and non-rigid. The average landholding of its members was in real terms far smaller than that of the feudal upper classes of medieval western Europe and Tokugawa Japan.\(^{84}\)

Even if the Chinese gentry can be treated as a feudal class, the fact that the feudal landholding class in these comparable societies facilitated capitalism, and the Chinese gentry did not, presents a paradox. Treating the Chinese gentry as a feudal class, as many marxist historians have done, is utterly misleading, and represents a major step backward from Marx’s ‘Asiatic mode of production’ which at least admits classless features in Asia. It is worth noting that historians in mainland China have divided into two deeply opposed camps in accordance with Marx’s own contradictory views on the Eurasian world: the ‘party scholars’ are die-hard class-strugglers who stick to the ‘Hegelian Marx’, while the ‘liberal scholars’ are attracted by the ‘Darwinian Marx’ with the ‘Asiatic

\(^{79}\) Elvin, ‘Three thousand years of unsustainable growth’.
\(^{80}\) Marx, ‘Manifesto’.
\(^{81}\) See, e.g., Fei, Peasant life, pp. 191-4; Tawney, Life and labour, pp. 34-5, 38, 71; Buck, Land utilization, pp. 194-7; Mousnier, Peasant uprisings, pp. 237-41; Hsu, Han agriculture, pp. 10-11, 13-14, 66-7; Chao, Man and land, chs. 7-8.
\(^{82}\) Overall, the landholding of the gentry class was more or less that of the middle or upper-middle, well-to-do peasants. This was the pattern in the most advanced Jiangsu province during the 1920s; see Li, ‘“Ten Mu” per farmer’ and Buck, Chinese farm economy.
\(^{83}\) See Fei, China’s gentry; Chang, Chinese gentry; Marsh, Mandarins; Ho, Ladder of success; Eberhard, Social mobility.
\(^{84}\) Rawski, Education and popular literacy, p. 23; see also Chang, Chinese gentry.
Recent research in Chinese economic history

As the liberal Darwinian Marx was proved politically incorrect in Mao’s era, the debate on ‘the preliminary stage of capitalism’ based on the Hegelian Marx has reached a fruitless dead-end.\(^{86}\)

Population models are the next key presumption. Those who regard population growth as having a negative impact on socio-economic development are Malthusians whose model has been one of the most frequently used in explaining China’s past.\(^{87}\) Chao portrayed over-population as the main source of Chinese economic backwardness,\(^{88}\) but his work was based on four questionable assumptions: that there existed no economic divergence in peasant households which produced almost the same things generation after generation; that there were few technological and/or structural changes, especially in the later period of the empire; that the supply of land was inelastic; and that there was no preventive check on population growth. Thus the decline in the man-to-land ratio was taken as the sole indicator of economic deterioration in China.

Recent research has suggested a different picture. China’s rural economy was highly divergent during the Ming-Qing period when vigorous population increase occurred. In places such as the Yangzi Delta surplus rural labour was absorbed almost completely by handicraft industries so that the actual land-labour ratio in farming changed little.\(^{89}\) During the same period technological changes continued to stave off diminishing returns. For example, the vast interior region of the Yangzi-Han Plain, some 400,000 square kilometres, was redeveloped and transformed into a highly productive, remarkably commercialized and urbanized regional economy, renowned for its regular net export of large quantities of rice, raw silk/cotton, and cloth. This development was underpinned by a new method of land use and reclamation (known as ‘diked paddies’), new crops, and new market opportunities. The total annual grain output of the region was at least doubled between the Chenghua reign (1465-87) and the Yongzheng reign (1723-35) to 2.21 million tonnes. Of this output, 62 per cent was marketed.\(^{90}\)

During the same period, in Shandong in the north east, a province with one of the poorest man-to-land ratios in China,\(^{91}\) similar changes took place. The acreage under cultivation was doubled, and a multi-cropping system was adopted with a range of newly introduced plant species. Consequently, despite a doubling of the population, Shandong maintained its position as a net exporter of salt, wheat, dried fruits, soy beans and groundnut products, raw cotton/silk and cloth, raw and

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85 Brook ed., *Asiatic mode of production in China*.
87 Malthus, *Essay on population*.
88 Chao, *Man and land*.
89 Li, ‘“Ten Mu” per farmer’; idem, ‘Husband and wife tilling together’.
91 Liang, *Dynastic data*, pp. 207, 263, 272, 274.
processed tobacco, pottery, and bamboo or sorghum mats, with an estimated aggregate value of 2,050-2,240 tonnes of silver a year.92

Evidence also shows that in some of the richest farming areas of Jiangsu province, population control was practised, resulting in a growth rate of only 0.3 per cent per year.93 Recent research has indicated that the observed increase in food prices (often quoted as evidence for the alleged deterioration of the man-to-land ratio in Qing times) was in effect a symptom of a 'price revolution' caused by the importation of large quantities of silver over time, together with the impact of China's integration into the capitalist world economy.94 After all, there was no empire-wide famine in Ming-Qing China as evidence of a universal shortage of food.

Since agricultural technology and the amount of land under cultivation were both elastic, it is unlikely that any crisis of diminishing returns occurred in the advanced farming regions where rural 'over-employment' rather than 'under-employment' was the norm.95 Therefore, the Malthusian man-to-land ratio approach loses its appeal in explaining China's economic performance in the late imperial period, because, overlooking other vital variables, a man-to-land ratio remains almost meaningless, like the face value of any unconverted currency in a foreign market.

In contrast to Malthus, Boserup argued that there is a built-in mechanism in human society to have sustainable technological growth at times of increase in human biomass and that in history population pressure could be a generator of technological change rather than a retardant for it.96 Similarly, neo-institutionalism views population pressure as the driving force throughout history of institutional changes which in turn generated growth.97 Elvin is among a few 'Boserupians' who indicated that continuous technological change in late traditional China was a key factor in allowing the empire to cope with population pressure until the seventeenth century.98 Nevertheless, the Boserupian model cannot explain why densely populated east Asia lost its superiority to the less populous western Europe. Boserup treated China as an exception by arguing that the Chinese population went too far away from the 'Boserup space', an optimal range for population growth and technological advancement.99 She then slid into the Malthusian camp.

As regards technological determinism, Elvin's core thesis is that China's
problem was chiefly technological in that rapid population growth finally ate up the benefit of earlier, high-level technological achievements, and thus handicapped the country’s growth. He described this as ‘quantitative growth, qualitative standstill’, or extensive growth with no improvement in per caput income. Elvin’s more recent works have suggested a technology-cum-investment lock-in which led to low-growth path dependency. Similarly, Kelly attempted to portray the Song period as a case of one-off growth of a Smithian type without technological breakthroughs.

Technological determinism describes the Ming-Qing period fairly well because unprecedented population growth did occur. Alas, it does not explain how and why China managed to reach such a high technological level in the first place. It is hard to prove the case that while early generations were able to delay the impact of diminishing returns by inventing new technology by ‘guessing right’ ahead of time, the later generations lost this ability to some extent. It is particularly doubtful whether technological growth really slowed down during Ming-Qing times. If historians take account of the ‘green revolution’ which was marked by the adoption of the European calendar-making technique, a wide range of new crops from Europe (such as the potato) and from the New World (sweet potatoes, maize, chilli, cotton, and groundnuts), it is indeed a period of technological ‘windfall’. Also, in reality technical inventions and innovations do not always translate directly into output and income. It is normal to have a time lag between inventions and their applications. So, invention rate alone is not the sufficient condition for an economy to slow down at the same time and to the same degree. China’s economy may not have been ‘trapped’, as a recent study suggests that living standards there were still high by world standards during the late Qing.

Furthermore, although the efficiency of traditional technology was not continuously improvable, it certainly had a very long ‘shelf life’. In Europe, ‘traditional’ technology based on trial and error promoted some far-reaching changes including geographical discoveries in the fifteenth century and a long line of technical improvements to machinery at the hands of artisans including James Watt. In China, according to Buck, as much as 25 per cent of agricultural growth during the 1930s was attributable to streamlining of traditional technology. If the invention rate and new technology are not sufficient conditions for modern growth to take place, China’s retardation is likely to have been much more than merely a failure to take full advantage of the indigenous technology or to adopt European technology.

100 Elvin, Pattern, chs. 17-18.
101 Ibid., p. 313; see also Fei and Liu, ‘Population dynamics’.
102 Elvin and Su, ‘Engineering the sea’; also see Elvin, ‘Environmental legacy’.
103 Kelly, ‘Smithian growth’.
104 Pomeranz, ‘Rethinking eighteenth-century China’ (see above, n. 40); idem, Economy, ecology, comparisons and connections.
105 Buck, Land utilization, p. 203.
Bray blamed the unique technical feature of rice cultivation which is allegedly able to suck in any amount of capital and labour inputs without reaching the point at which the marginal product of labour equals zero.\textsuperscript{106} Thus, rice farming has no negative returns since its potential is never to be fully realized. Rice-farming Asia, she argued, has little surplus labour and capital available for non-agricultural and non-rural development. Her theory indicates that an Asian rice economy will only break away from this trap when subject to external shocks. Naturally one would ask why rice-producing Japan modernized and why China, which never had a mono-crop agriculture, did not make it. The fact that greater external shocks like the Opium War were felt in Qing China than in Tokugawa Japan helped but little. Wet rice cultivation is thus not the determining factor in development in east Asia. To find a way out, Bray treated Tokugawa Japan as a petty commodity producer that could escape from the constraint of rice farming, ignoring the fact that China was a far more ancient and active petty commodity producer than Japan.\textsuperscript{107}

In light of the \textit{rent-seeking government and exploitative landlordism conjecture}, a revisionist view treats China as a unique case in which owner-farmers and small landlords prevailed, in contrast to the large feudal holdings in much of medieval Europe and pre-Meiji Japan. Based in mainland China and orchestrated by Maoism, scholars of this school held that smallholdings farmed by their owners could barely maintain subsistence because of the combination of their low productivity and heavy tax burdens. Most tenants on larger estates also lived at subsistence level for they were ruthlessly exploited by landlords for rent. Because the government had only non-productive fiscal policies while landlords were interested only in re-investing in land and maintaining an extravagant lifestyle, the economy as a whole was locked into stagnant agriculture with a lack of economies of scale, weakness in the social division of labour, and a deficiency in the formation of both the capitalists and the proletariat—all harmful to capitalist industrialization. The school thus claimed that China’s indigenous capitalist growth potential was retarded by the country’s income distribution system.\textsuperscript{108} Western imperialism was often added as another key retardant for native modern growth.

Some scholars have attributed China’s stagnation to the widespread small scale of family farming. Bray viewed the underdevelopment of capitalism in Chinese agriculture as a result of the overwhelmingly small landholding pattern in the entire post-Han period (220-1911).\textsuperscript{109} Huang’s study suggests that since around AD 1000 the ‘familization’ of rural

\textsuperscript{106} Bray, \textit{Rice economies}.
\textsuperscript{107} Ibid., p. 217.
\textsuperscript{109} Bray, ‘Agriculture’.

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production in the Yangzi Delta, China’s most advanced farming zone, led to economic ‘involvement’.110 But in terms of tiny holdings, China was not alone. Land reforms in Russia (1906-11), Japan (1873) and South Korea (1947-8) all aimed to create small farms with owner occupiers as a necessary step towards capitalist industrialization.111 Large-scale farming is thus not necessary to help industrialization, a phenomenon which is called ‘diseconomies of scale’ in agriculture. Why, then, should such a landholding pattern be perceived as a problem for Chinese economic development?

Regarding exploitation, supposing that all the agricultural surplus were taken away from the producers in the forms of rent and tax, the ordinary farmer would have little left to support a bigger family. Population growth would thus have to be modest simply because of the prevailing poverty among the vast majority in society. Indeed, the Tokugawa feudal system put the Japanese population under such a check, as convincingly argued by Feeney and Hamano.112 On the other hand, if population increase is a sign of the retention of agricultural surplus by the masses, the notion of the excessive rent-seeking landlord class/state collapses.

Despite the fact that the rise in landlordism is often represented as its central feature, the period between the mid-eighteenth century and the end of the nineteenth saw China’s population triple, at an annual rate of 1.45 per cent.113 One possible explanation could be that the Chinese landlords and bureaucrats generated the population growth by their good life. If so, the annual growth by these two strata would have to be impossibly high: 2.5-4.8 per cent (if landlords and bureaucrats with their families accounted for 40 per cent of the total population) or 3.3-6.3 per cent (if they represented 30 per cent), both being too high a proportion in the population according to most works, or 5-19 per cent (if they constituted 10 to 20 per cent, which is more likely).114 However, these rates are beyond the human biological capacity for reproduction. So, a rapid demographic growth must have been a result of a better material life among the general public.

To elaborate this point further, it is often mentioned that during the Ming-Qing period the tenancy rate was higher in southern than in northern China.115 The landlord determinism thesis expects to see less population growth in the south than in the north. But evidence shows just the opposite. Southern China had a higher population growth than northern China, which means the landlord class was unable to siphon

110 Huang, Peasant family.
113 Based on the data for 1741-1851 and 1863-87 from Liang, Dynastic data, pp. 4-11, 251-4, 256-7; cf. McEvedy and Jones, Atlas of world population history, p. 167.
114 See Chang, Chinese gentry; Rawski, Education and popular literacy, p. 23.
115 Chao, ‘Land ownership patterns’; Li, ‘Intensification of rice production’; idem, ‘Rational application of agricultural resources’; idem, ‘“Ten Mu” per farmer’; idem, ‘Husband and wife tilling together’.

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off the agricultural surplus. In the north, where the tenancy rate was low, population growth was also strong which suggests that the government was inefficient in tapping away the surplus, too.116 Here, population growth itself provides an acid test of the rent-seeking government and exploitative landlord explanation. In reality, the rent-seeking tendency of the Chinese state was checked by society and the bureaucracy was fairly professional by most standards.117 After all, the state controlled only a low percentage of GDP.118

Moreover, if excessive rent seeking by the landlord class and the government had taken place, the marxian concept of ‘primitive capital accumulation’ and the formation of a ‘proletariat’ should have been present, and China should have headed for capitalism. That was not the case.

The role of the state was given strong emphasis by Gerschenkron, North, and Thomas in explaining growth in the West.119 The same ‘visible hand’ approach appears in analysis of the Asian tigers’ miracle growth experience in recent writings by Alam, Amsden, Wade et al.120 With the benefit of hindsight, the contemporary concept of ‘predatory’ and ‘developmental’ states has been used to examine China both implicitly and explicitly. Bureaucratic efficiency and rent-seeking behaviour are neatly embodied in many depictions of the Chinese state including ‘Oriental despotism’ (referring to the state apparatus),121 ‘conservatism’ (applied to the entire elite),122 and ‘all-encompassing’ power of the state (combining both the apparatus and elite).123 At its centre, Fairbank’s ‘dynastic cycle’ has a highly efficient predatory state. Mokyr’s recent view that Chinese technology depended on the state is another conjecture.124 The Marxian Asiatic mode of production, which portrays the Oriental state as the sole economic decision-maker, falls into the same category.125 In any case, the state is held responsible for China’s retardation. The underlying assumption of these works is that the Chinese state was highly efficient in expropriating resources from the economy, distorting the market mechanisms, jamming business links, and hindering further growth. For example, Fairbank maintained that as a well-organized institution the imperial bureaucracy possessed enormous coercive power to control the merchant class and to obstruct any undesirable or ‘non-orthodox’ growth in the economy. Moreover, as an attractive profession, state service

116 Liang, Dynastic data.
117 Deng, Premodern Chinese economy, chs. 2-4; Wong, China transformed, pt. 2.
118 Feuerwerker, ‘State and the economy’, p. 322; Will, Bureaucracy and famine.
119 Gerschenkron, Economic backwardness in historical perspective; North and Thomas, Rise of the western world.
121 See Wittfogel, Oriental despotism.
122 See Wright, Chinese conservatism.
123 Landes, Unbound Prometheus, p. 15.
124 Mokyr, Leaver of riches, pt. 3.
125 See Krader, Asiatic mode of production; Brook, ed., Asiatic mode of production.
siphoned off a continuous supply of the best educated and most talented citizens. 126

Some evidence can certainly be found to support claims that the Chinese state was both efficient and rent-seeking. China has remained one of the largest political units since the time of Christ. From the thirteenth century to the end of the nineteenth, hundreds of thousands of tons of grain from taxation were shipped each year from southern China to feed the northerners. This formed the most enduring, long-distance, non-market-driven shipment of goods in world history. The Great Walls, the most expensive defence system in the premodern world, were initiated and supported by the state with huge material and labour inputs. Most dramatically, there were cases of the sudden abandonment of the multiple voyages by the Ming imperial navy to south-east and south Asia, the Middle East, and (probably) east Africa and the sweeping imposition of embargoes on shipping along the empire’s coastlines. 127

However, to balance extreme versions of the predatory state, there is also plenty of evidence to suggest that the Chinese state was benign and weak—or it appeared benign because it was a very inefficient predator for rent. How can the widespread market activities (regional, inter-regional, and overseas) be explained over the long run? 128 By definition, commercialization on that scale can hardly be ‘engineered’ and ‘controlled’ by a single centre of power, even with modern information technology. Given the scope of commercial activity, one must assume either that the anti-market policies of the state were cancelled out by the market, or that the state was persuaded to be friendly to markets. A lack of control explains why arts, urban centres, science, and technology flourished in China. 129 These achievements in turn dispute the judgement that an institutional barrier was more prohibitive in bureaucratic China than in Europe where an authoritarian bureaucracy was supposedly absent. After all, the first recorded large-scale intensive growth (growth in per caput terms) occurred in Song China, not in Europe or Japan. 130

Also, for argument’s sake, if the postulation of a super-efficient Chinese bureaucracy were accepted, historians would still ask what the incentive was for the Chinese state to distort the market, interfere with business, and hinder growth, and why the Chinese state persisted in ‘misusing’ its power over the centuries. Given the degree of economic sophistication that China managed to reach, such a policy could only have entailed enormous opportunity costs for the economy as a whole as well as for the revenue and popularity of the government and thus backfired for the state.

126 Fairbank, Chinese thought and institutions; idem, United States and China; idem, Cambridge history of China. See also Balazs, Chinese civilization; Qian, Great inertia. Perkins, ‘Government as an obstacle’, put it straightforwardly: the Chinese state was an obstacle to economic growth in the nineteenth century. Many scholars support such views.

127 Cf. Deng, Chinese maritime activities, chs. 1, 4.

128 Skinner, ‘Marketing and social structure’; idem, City; Elvin, Pattern.

129 See Needham, Science and civilisation in China; Skinner, ‘Marketing and social structure’; idem, City; Elvin, Pattern.

130 Jones, Growth recurring; see also Goudsblom et al., Course of human history, ch. 5.

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Turning to the drain of talent, evidence shows that openings in the bureaucracy were extremely limited.\textsuperscript{131} In the Northern Song dynasty (960-1127), the national average candidate success ratio was 10.2:1; while the estimated ratio for the Qing dynasty was even poorer, varying between 30:1 and 100:1.\textsuperscript{132} The long-term pass rate in the examinations is estimated as less than 10 per cent of all candidates.\textsuperscript{133} Only a minority of the educated became officials. The majority of the Chinese literati had to, and did, make a living outside officialdom, which inevitably benefited, rather than harmed, the economy with quality human capital.\textsuperscript{134}

Alternatively, perhaps China’s failure was rooted in its centralized state structure which overruled internal competition while inter-state competition in Europe worked in ways comparable to market competition and led western Europe towards an industrial revolution.\textsuperscript{135} Mokyr’s suggestion does not explain why and how this centralized state tolerated growth in China until at least the sixteenth century and possibly later. More important, China always faced competition from the Steppes and increasingly so after AD 1000: from the Tartars, Mongols, and Manchus, to name just a few. So, competition among political units does not seem to have been a necessary condition for growth to continue after the Song.

Many scholars tend to forget that the traditional Chinese state was premodern, if not primitive. It was neither ‘predatory’ nor ‘developmental’. Compared with early modern states in western Europe and Japan, the Chinese state looks weak and inefficient. It is therefore not valid to blame the Confucian state for something for which it was not designed and over which it had virtually no control.\textsuperscript{136} In particular, in the Gerschenkronian model the role of the state is relevant to objectives to generate modern growth. This agenda looks rather irrelevant to the Chinese bureaucracy of premodern times (whose designed tasks and commitments were chiefly to maintain social order and to secure people’s other basic needs).\textsuperscript{137} It would be asking too much of the premodern Chinese state to demand that it should behave like a developmental institution since that kind of state of ‘good behaviour’ was yet to be developed, tested, and refined.

The last hypothesis to be considered in this context is the \textit{world-system paradigm}. Both Lenin and Wallerstein wrote of the existence of a developmental hierarchy in a super-macro system embracing the entire


\textsuperscript{133} Eisenstadt, \textit{Decline of empires}, p. 60.

\textsuperscript{134} See Deng, \textit{Development versus stagnation}, espec. app. 1.

\textsuperscript{135} Mokyr, \textit{Lever of riches}, ch. 9.

\textsuperscript{136} Feuerwerker, ‘State and the economy’, pp. 321-4; Jones, \textit{Growth recurring}, ch. 8. Any forced analogy between the Soviet command economy under Stalin’s totalitarianism and the function of the premodern Chinese state is misleading.

\textsuperscript{137} Wong, \textit{China transformed}, pt. 2.
Within this world system, economic growth in less developed societies is dictated by the advanced countries. Imperialist/colonialist powers exploit the underdeveloped countries in the interests of the metropolitan populations. It is in the interest of such powers not to see modern economic growth taking place in the Third World. It is an appealing thought, with the diktat imposed on China by the West, Russia, and Japan after 1840, exemplifying the point. The symmetry in timing of the downfall of China vis-à-vis the rise of the West and of Japan since the Opium War in 1840 implies that some kind of worldwide causality may have been at work. But given that China and western Europe reached more or less the same technical and economic levels around the seventeenth century, world-system determinism does not tell us how and why followers eventually became leaders and vice versa, as if the world order is given both ab extra and a priori.

Goldstone suggested from another angle that there existed a macro system across Eurasia during the early modern period. Key societies (namely England, France, Germany, the Ottoman empire, China and Japan) synchronized in at least two areas—population pressure and resource constraints (as seen in food prices, elite employment opportunities, and government budgets). Crises and ‘revolutions’ were the universal result. If this is true, why did revolutions in seventeenth-century England, eighteenth-century France and, to a certain extent, nineteenth-century Japan, usher in a new era of industrial growth, but proved unhelpful to their Ottoman and Chinese counterparts? To put it another way, why did a further developmental synchronisation have to fail, which left mainland Asia to poverty but led Western Europe to abundance?

No doubt, it is always easier to blame external factors for internal problems. World-systems analysis serves such purposes. The world-system paradigm has been the official line in mainland China and appeared in most textbooks there. We only have to ask why economies such as Taiwan, South Korea, Malaysia, and Indonesia, which had been treated just as badly as China by the same world system, have so far developed so much further than China.

The sheer number of possible hypotheses reviewed here shows just how many variables need to be taken into account in dealing with the Chinese experience of the past millennia. This survey also indicates just how far apart scholars are in solving the paradox in China’s past. These hypotheses are valid in explaining the development in many parts of the world or for some parts of the Chinese past. But when dealing with long-term

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138 Lenin, 'Imperialism'; Mao, Selected works; see also Wallerstein, World-system.
139 Hartwell, Iron and early industrialism; idem, ‘Cycle of economic change’; Elvin, Pattern; idem, ‘China as a counterfactual’; Bray, ‘Agriculture’.
140 Goldstone, Revolution and rebellion, ch. 1 and pp. 352-3, 355, 359-60.
premodern Chinese history as a whole, they become in one way or another inadequate. A synthesis is far from being easy. The real challenge comes from how to embrace numerous variables, none constant, in a framework to explain how rational choices led a sophisticated system to a developmental dead end. With such pluses and minuses, caveat emptor.

There are two common problems. First, although all these models have offered sensible hypotheses of why China declined, they cannot satisfactorily explain why China rose in the first place, or vice versa. The cause of this problem is the seeming inconsistency or incompatibility between China’s achievement and decline, which forms the very core of China’s paradox. Second, in the use of Europe as a universal benchmark the factors contributing to European growth are often taken as the norm. If a society enjoyed these conditions or factors, growth is expected to have taken place. If not, something must have gone wrong. In searching for an answer, anything which made China distinct from the West is inevitably considered to have been responsible for China’s downfall. One tends to fall into the trap of counterfactualism.

To avoid these common pitfalls, my own framework for explaining Chinese economic history over the long term is that there existed a convergent and self-regulating ‘three-pronged structure’ of agricultural dominance, the landholding peasantry, and physiocratic government. This structure created an overall equilibrium and allowed long-term growth of a particular type. In this system, the peasantry, not the state, played a central role in determining China’s path.¹⁴¹

VI

Economic history seeks to understand the nature and pattern of economic change over time. Chinese experience over the last millennia reached premodern peaks in terms of the sheer size of territory, the extent of the market, the number of people, the magnitude of output, range of technological inventions, degrees of environmental manipulation, types of institutions, varieties of policies/regulations, scopes of international influence, and so forth. The Chinese experience thus forces economic historians to treat the country’s development as seminal. Also, with rich historical materials to work on, China embraces in its past almost all the key issues for economic history. The country’s importance and utility in world economic history will remain, and research in Chinese economic history will attract even greater attention from the scholarly world in this new millennium. Among the great diversity of topics, the function of the Chinese state including the standardization of time, language, roads, currency, weights and measures, as well as construction and maintenance of the Great Walls and grand canals, may well have been the state response to the demand for public goods from the general public to lower transaction costs in the economy rather than the means to strengthen imperial rule.¹⁴² Although regional, sectoral, and short-term

¹⁴¹ Deng, Premodern Chinese economy.

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studies will continue to play their roles in the study of Chinese economic history, there will be a good chance for general, cross-regional/sectoral and long-term studies to gain in importance because of their comparative advantage to reflect scale, scope, duration, and aggregates. New analytical tools will doubtless be used to facilitate wider research into China’s long-term experience.¹⁴³ Methodologically, a positive approach will be consciously preferred to a normative approach. In particular, actual development in the economy will overrule what the imperial court said about the economy. For example, the effectiveness of government control cannot be fully assessed unless one goes beyond the government sector and even beyond the Chinese territory.¹⁴⁴ Last but not least, study of the transformation of the Chinese socio-economic system will tell us more about the nature of the Chinese system in the past. Such a task will rely heavily on horizontal comparisons between mainland China and other ‘Chinas’— Taiwan, Hong Kong, Singapore, and millions of ‘overseas Chinese’.¹⁴⁵ Systematic comparisons in ideologies, family structures, inheritance patterns, market responsiveness and incentives, policy sensitivities, economic propensities, and so forth will help to identify the critical conditions necessary for China either to change or not to change.

London School of Economics and Political Science

¹⁴²See Wong, China transformed, pt. 2; cf. Landes, Revolution in time, p. 33.
¹⁴³Among them, Jones’s macro- and multidimensional, comparative framework which can be defined as a ‘panorama model’, may be more widely adopted because of its obvious advantages over many other frameworks. See, e.g., Jones, European miracle.
¹⁴⁴See Deng, Chinese maritime activities.
¹⁴⁵For Taiwan, see Chao and Myers, First Chinese democracy.

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