

## Summary and Conclusions

This study is mainly concerned with Chinese economic policy and performance in the second half of the twentieth century. In these five decades, there was major institutional change and the trajectory of Chinese growth accelerated sharply. China now plays a much bigger role in the world economy, and its importance is likely to increase further. I have tried to assess why and how this acceleration occurred and to throw light on future potential. I have also made a considerable effort to recast the estimates of Chinese GDP growth to make them conform to international norms.

In order to understand contemporary China it is useful to take a long comparative perspective. In many respects China is exceptional. It is and has been a larger political unit than any other. Already in the tenth century, it was the world's leading economy in terms of per capita income and this leadership lasted until the fifteenth century. It outperformed Europe in levels of technology, the intensity with which it used its natural resources, and capacity for administering a huge territorial empire. In the following three centuries, Europe gradually overtook China in real income, technological and scientific capacity. In the nineteenth and first half of the twentieth century, China's performance actually declined in a world where economic progress greatly accelerated.

A comparative analysis of Chinese performance can provide new perspectives on the nature and causes of economic growth. It can help illuminate developments in the West as well as in China. In the past, analysis of economic progress and its determinants has had a heavy Eurocentric emphasis. Assessment of the Chinese historical record has been highly Sinocentric. A more integrated view can illuminate both exceptionalism and normality, and provide a better understanding of the reasons for the rise and decline of nations.

Adoption of more distant horizons can clarify causal processes. Growth analysis has concentrated on the past two centuries of capitalist development in which rapid technical change, structural transformation, and rising per capita incomes were the norm. Earlier situations where per capita income was fairly static are usually neglected because it is assumed there was no technical change. But extensive growth — maintaining income levels whilst accommodating substantial rises in population — may also require major changes in the organisation of production. Technological progress needs to be interpreted broadly. It should not be restricted to advances in manufacture, but should encompass innovations in administration, organisation and agricultural practice.

A long view can also help understand China's contemporary policies and institutions. Echoes from the past are still important.

China was a pioneer in bureaucratic models of governance. In the tenth century, it was already recruiting professionally trained public servants on a meritocratic basis. The bureaucracy was the main instrument for imposing social and political order in a unitary state over a huge area.

The economic impact of the bureaucracy was very positive for agriculture. It was the key sector from which they could squeeze a surplus in the form of taxes and compulsory levies. They nurtured it with hydraulic works. Thanks to the precocious development of printing they were able to diffuse best

practice techniques by widespread distribution of illustrated agricultural handbooks. They settled farmers in promising new regions. They developed a public granary system to mitigate famines. They fostered innovation by introducing early ripening seeds which eventually permitted double or triple cropping. They promoted the introduction of new crops — tea in the T'ang dynasty, cotton in the Sung, sorghum in the Yuan, new world crops such as maize, potatoes, sweet potatoes, peanuts, tobacco in the Ming.

Agricultural practice compensated for land shortage by intensive use of labour, irrigation and natural fertilisers. Land was under continuous cultivation, without fallow. The need for fodder crops and grazing land was minimal. Livestock was concentrated on scavengers (pigs and poultry). Beef, milk and wool consumption were rare. The protein supply was augmented by widespread practice of small scale aquaculture.

Agriculture operated in an institutional order which was efficient in its allocation of resources and was able to respond to population pressure by raising land productivity. Landlords were largely non-managerial rentiers. Production and managerial decisions were made by tenants and peasant proprietors who could buy and sell land freely and sell their products in local markets.

Between the eighth and the thirteenth centuries there was a major shift in the centre of gravity of the Chinese economy. In the eighth century three-quarters of the population lived in North China, where the main crops were wheat and millet. By the end of the thirteenth, three-quarters of the population lived and produced rice south of the Yangtse river. This had been a swampy lightly-settled area, but with irrigation and early ripening seeds, it provided an ideal opportunity for massive development of rice cultivation.

Higher land productivity permitted denser settlement, reduced the cost of transport, raised the proportion of farm output which could be marketed, released labour for expanded handicraft production, particularly the spinning and weaving of cotton, which provided more comfortable, more easily washable, and healthier clothing.

While there is widespread agreement that this change in the locus of production and product-mix increased Chinese living standards, there has hitherto been no quantification of how big a rise occurred. My assessment is that it was relatively modest — a rise in per capita income of about a third. The rise in income was accompanied by a more intensive use of labour, so labour productivity did not rise as much as per capita income.

China's economic advance in the Sung dynasty relied heavily on exploitation of once-for-all opportunities for switching to intensive rice agriculture and there is little convincing evidence for believing that China was on the brink of developing a mechanised industry.

From the thirteenth to the eighteenth century, China was able to accommodate a fourfold increase in population whilst maintaining the average level of per capita income more or less stable over the long run. However, the pace of growth was far from smooth. In the fourteenth and seventeenth centuries, population dropped by more than 30 million. These crises were due largely to devastation that accompanied changes in regime and to epidemic disease (bubonic plague and smallpox). In the eighteenth century the demographic expansion was particularly large. It was in this century that China's extensive growth was most impressive.

Outside agriculture, China's bureaucratic system hindered the emergence of an independent commercial and industrial bourgeoisie on the European pattern. The bureaucracy and gentry of imperial China were quintessential rent-seekers. Their legal and customary privileges defined their status, lifestyle and attitudes. They were the group that dominated urban life. They had a strong regulatory bias. Entrepreneurial activity was insecure in a framework where legal protection for private activity was so exiguous. Any activity which promised to be lucrative was subject to bureaucratic squeeze. Larger undertakings were limited to state or publicly licensed monopolies.

China's merchants, bankers and traders did not have the city charters and legal protection which merchants had in European cities. International trade and intellectual contacts were severely restricted. This self-imposed isolation was also a barrier to growth.

Between the sixteenth and eighteenth centuries economic leadership passed from China to Western Europe. This was not due to a specially unfavourable conditions in China but to Western exceptionalism. There were several reasons why Europe was better placed to promote the emergence of modern capitalism.

The most fundamental was the recognition of human capacity to transform the forces of nature by rational investigation and experiment. Thanks to the Renaissance and the Enlightenment, Western elites gradually abandoned superstition, magic and submission to religious authority. The Western scientific tradition that underlies the modern approach to technical change and innovation had clearly emerged by the seventeenth century and begun to impregnate the educational system. China's education system was steeped in the ancient classics and bureaucratic orthodoxy. It was not able to develop the fundamental bases of modern science.

Europe had a system of nation-states in close propinquity. They were outward looking, had significant trading relations and relatively easy intellectual interchange. This stimulated competition and innovation.

Between 1820 and 1952, the world economy made enormous progress by any previous yardstick. World product rose eightfold, and world per capita income 2.6 fold. US per capita income rose eightfold, European income fourfold and Japanese threefold. In other Asian countries except Japan, economic progress was very modest but in China per capita product actually fell. China's share of world GDP fell from a third to one twentieth. Its real per capita income fell from parity to a quarter of the world average. Most Asian countries had problems similar to those of China, i.e. indigenous institutions which hindered modernisation, and foreign colonial intrusion. But these problems were worse in China, and help to explain why its performance was exceptionally disappointing.

China was plagued by internal disorder which took a heavy toll on population and economic welfare. The Taiping rebellion (1850-64) affected more than half of China's provinces and did extensive damage to its richest areas. There were Muslim rebellions in Shensi, Kansu and Sinkiang. In the Republican era there were three decades of civil war.

The colonial intrusions led to cession of extraterritorial rights and privileges to nineteen foreign powers in a welter of colonial enclaves. There were three wars with Japan and two with France and the United Kingdom. The Boxer rebellion involved a simultaneous armed struggle with all the foreign powers. Russia took 10 per cent of Chinese territory in the 1850s in what is now Eastern Siberia and in the first years of the Chinese republic, it helped detach Outer Mongolia. After all these foreign wars, the victorious powers added to China's humiliation by exacting large financial indemnities.

The Imperial regime and the Kuomintang were both incapable of creative response to these problems. They did not react positively or effectively to the Western technical challenge. The Ch'ing authorities were incapable of reactive nationalism because they themselves were Manchus not Chinese. After the imperial collapse the warlord regimes pursued regional rather than national objectives. The KMT was not effective in asserting China's national interests. It achieved very little in regaining Chinese territorial integrity and did not respond effectively to Japanese aggression. The Ch'ing and the KMT were fiscally weak and failed to mobilise resources for effective defence and development.

The establishment of the People's Republic in 1949 marked a sharp break with the past. It provided a new mode of governance, a new kind of elite and a marked improvement on past economic performance. It was the Chinese equivalent to the 1868 Meiji revolution in Japan. However, China set out to create a socialist command economy inspired in substantial degree by the Soviet model,

whereas Japan embraced a dirigiste variant of capitalist institutions. Both countries executed their development strategy without intending to provide any role for foreign capitalist interests.

The new Chinese regime was successful in the areas in which the Ch'ing and the KMT had failed. It was able to impose internal order, its ideology was a brand of reactive nationalism, and it was able to mobilise resources for defence and development. The commitment to communist ideology and techniques of governance was strongly influenced by China's peculiar history. The colonial intrusion in China had involved all the major capitalist countries, and the failure to end it after the Treaty of Versailles in 1919 gave an anti-Western bias to Chinese nationalism. In the 1920s the USSR provided military and organisational support to the KMT and in the aftermath of the Second World War helped the Communist forces to take military and political control in Manchuria. The outbreak of the Korean war in 1950 created an unusual degree of international economic and political isolation for China and meant that the USSR was its only source of technical and financial assistance.

Although the ideological commitment to a socialist economy and rejection of capitalism was very strong in China, the alliance with the USSR was in substantial degree opportunistic. Russia had been one of the major colonial intruders in the past. The USSR had at times supported the KMT against the interests of the Chinese communist party. After the Second World War it treated East European countries as puppet states. The Chinese situation was very different. The new government was not created as a Soviet dependency. It had developed substantial intellectual and political autonomy in two decades of armed struggle.

The new regime had three major objectives: *a)* to change the sociopolitical order; *b)* to accelerate economic growth; *c)* to improve China's geopolitical standing and restore its national dignity.

There have been two very distinct phases of policy and performance since the creation of the People's Republic. The first of these, the Maoist phase lasted until 1978, and the Reform period from 1978 onwards.

From 1952 to 1978 there was a major acceleration in the pace of growth, with GDP rising threefold and per capita income by 80 per cent. The economic structure was transformed. The industrial share of GDP rose from 10 to 35 per cent. The acceleration in performance was due to a massive increase in inputs of physical and human capital. The capital stock grew by 7.6 per cent a year, labour input rose faster than population. Human capital was improved by significant advances in education and health. However, the productivity picture was dismal. This was a boom period in many parts of the world economy, particularly in Europe and Japan. In spite of its growth acceleration, China grew somewhat less than the world economy as a whole. There were several reasons for these disappointing results.

Economic development was interrupted by major political upheavals. There were changes in property rights, the Korean war, the disruption caused by the Sino-Soviet split, the self-inflicted wounds of the Great Leap Forward and the Cultural Revolution. All these had adverse effects on efficiency and productivity by making the growth path unstable.

Production units were too large. This was particularly evident in agriculture. The 130 million family farms of 1957 were transformed into 26 000 people's communes in 1958 with an average size of 6 700 workers. This was a disastrous move. Within three years, farm management reverted to 6 million production teams with an average size of 30 workers. In industry and services there was also an overemphasis on bigness. By 1978 the average industrial firm in China had eleven times as many workers as in Japan.

China was relatively isolated from the booming world economy. Its share of world trade fell and it was cut off from foreign investment. Resources were allocated by government directives and

regulation. Market forces played a negligible role. Hence there were inefficiencies in the production process (as witnessed by the massive investment in inventories) and neglect of consumer welfare.

In the reform period from 1978 onwards major changes policy were successful in generating substantially higher growth in per capita income. There was a modest increase in the growth of capital stock, but the major reason for the improvement was better use of resources and substantial growth of total factor productivity.

There were several forces which contributed to the greater efficiency and higher productivity growth of the Chinese economy.

Peasants regained control and management of their land. The average production unit became the farm household employing 1.4 people on less than half a hectare. There were better prices for farmers, and greater access to markets. The result was a large improvement in incentives and productivity.

There was a huge expansion of small-scale industry, particularly in rural areas. The average size of state enterprise did not change, but elsewhere it fell from an average of 112 to 8 persons, so the overall average fell from 175 to 14 employees per firm. Productivity growth was much faster in the non-state sector, which has lower labour costs, virtually no social charges, much smaller and more efficient use of capital.

The rigid monopoly of foreign trade, and the policy of autarkic self-reliance were abandoned after 1978. Foreign trade decisions were decentralised. Between 1980 and 1997 there was a fivefold devaluation of the yuan. Special enterprise zones were created as free trade areas. In response to the greater role for market forces, competition emerged, resource allocation was improved, and consumer satisfaction increased. The volume of foreign trade rose by 13.5 per cent a year, and China's share of world trade rose from 0.8 to 3 per cent. There was a significant inflow of foreign direct investment, which became very large after 1992.

As a consequence of successful policy in the reform period, Chinese per capita income rose by 6 per cent a year from 1978 to 1995, faster than any other Asian country except Korea, very much better than the 1.5 per cent a year in Europe and the United States, and six times as fast as the world average. China's per capita GDP rose from a quarter to a half of the world level. Its share of world GDP rose from 5 to 10 per cent, and it became the world's second biggest economy, after the United States. The big question is how long this catch-up process can last and how far it can go.

At the close of the twentieth century, China is still a relatively poor country. In 1995 its per capita income was only 11 per cent of that in the United States, 13 per cent of that in Japan, 20 per cent of that in Taiwan and 22 per cent of that in Korea. Countries in this situation of relative backwardness and distance from the technological frontier have a capacity for fast growth if they mobilise and allocate physical and human capital effectively, adapt foreign technology to their factor proportions and utilise the opportunities for specialisation which come from integration into the world economy. China demonstrated a capacity to do this in the reform period, and there is no good reason to suppose that this capacity will evaporate. It is sometimes suggested that China is so big that it is difficult to make a place for it in the world economy. But in 1996 its exports were only 3 per cent of the world total, they were smaller than those of Belgium or the Netherlands and about 11 per cent of the Asian total. In any case, a rise in China's export share will produce a corresponding increase in its imports.

In this as in other aspects of comparative growth analysis, it helps to quantify. If we look ahead, to the year 2015, and use rather conservative forecasts, one might expect the following scenario.

Labour input will probably grow no faster than population as the proportion of working age will no longer be rising and there is less scope for further increase of female participation. The rate of increase in the educational level will slow down as it has already quintupled since 1952. It is not

likely that the growth of capital stock per worker can be raised much above 5 per cent a year without diminishing returns. There may well be some slowdown in total factor productivity growth from that in the reform period, which contained once-for-all elements in agriculture.

For these reasons I would expect China's GDP growth to slow down from 7.5 to 5.5 per cent a year, and its per capita growth to be about 4.5 per cent. In the light of past experience this appears to be a feasible rate of growth. It is, in fact, a good deal less than per capita growth achieved by Hong Kong, Japan, Korea, Singapore and Taiwan in the 20 years after they reached China's 1995 level of per capita income (5.0, 7.2, 6.8, 7.2, and 7.0 per cent respectively).

With such a performance, China would probably reach US levels of total GDP by 2015, would account for about 17 per cent of world GDP, and have a per capita income close to the world average. It would still be a relatively poor country with one fifth of the US GDP per capita but its role in the world economy, and its geopolitical leverage would certainly be much greater.

There are clearly some important problems China will have to solve in order to fulfil this scenario.

A major problem, which is now clearly recognised by the Chinese authorities, is to shut down a large proportion of state industrial enterprises. In 1996 there were 114 000 of these, employing nearly 43 million people. A large proportion were making substantial losses. They were kept in operation by government subsidy and failure to service loans which the state banks were constrained to give them. They accounted for a large proportion of an estimated \$270 billion in non-performing assets of the state banking system.

The condition of state enterprise deteriorated in the reform period due to increased competition from imports and non-state enterprises, and to misuse of greater managerial discretion. These enterprises are much more heavily capitalised than non-state industry, but have lower labour productivity. They have huge inventories of unsaleable goods. Their workers enjoy welfare benefits in the form of housing, pensions, job security, health and education benefits which workers in non-state enterprise do not get.

In the reform period, very little attempt was made to deal with these problems, though the relative importance of state manufacturing was eroded by much more rapid growth of the non-state sector. In mining and utilities about 90 per cent of activity is still in the hands of the state, whereas the proportion is only a third in manufacturing.

Hitherto, powerful elements in the political hierarchy were lobbyists for state enterprise. Their leverage has weakened, but there are still major political obstacles to rapid compression of state activity. It is concentrated in urban areas, and large scale closures would create major welfare problems for a substantial portion of the urban population which has hitherto enjoyed a relatively privileged position and is well placed to vent its displeasure.

Another major problem lies in the financial system. In the reform period there was an explosive growth of household savings and rapid monetisation of the economy. The savings were captured by the state-owned banking system and the government had large seigniorage gains from the monetisation process. The new funds offset the disappearance of the operational surplus of state enterprise and the decline in tax revenue.

Although these developments were very helpful to the authorities in maintaining financial stability, there are clear dangers in a continuing diversion of private saving to prop up state enterprises which by any normal standard would be regarded as bankrupt. The magnitude of the non-performing assets has so far not weakened public confidence in the safety of deposits and savers have only limited opportunities for alternative investments within China. The movement of funds abroad is not feasible for small investors because of controls on foreign exchange and capital movement. China does not

have important short-term liabilities to foreign creditors. Nevertheless, a substantial element of the 1997 financial crisis in other Asian countries was the large proportion of non performing assets of banks and financial institutions. The similarity in this respect to the situation in China should spur the Chinese authorities to reform their banking system to hive off non-performing assets, allow banks to use commercial judgement in making loan decisions, and to stop the growth in non-performing assets by ending subsidies to state enterprise.

A third related problem is the weak fiscal position of central government. Total government revenue fell from 31 per cent of GDP in 1978 to 11 per cent in 1996. The tax base was seriously eroded by the large range of tax concessions granted by provincial and local governments, as well as by the dramatic fall in revenue from state enterprise. The lower levels of government derive substantial extra-budgetary income from the activities of the non-state enterprises in which they participate. There is a need to reduce and standardise these tax concessions in order to remove distortions in resource allocation. Central government will require more revenue to extend the range of social protection when the welfare responsibilities of state enterprises are terminated. Increased revenue is also needed to strengthen health and education facilities in poorer parts of the country where they have been eroded.

One reason why traditional China was overtaken by the West was its isolation from world trade. In the reform period, China made a major effort to change this. It became better integrated in the world economy by expanding imports and exports and by demonstrating a capacity in the 1990s to attract a substantial inflow of foreign capital. It was fortunately much more cautious in opening itself to destabilising short-term capital movements than several other Asian countries, maintaining controls on the foreign exchange market and on capital movements. It also maintains large exchange reserves, has had a substantial surplus on foreign trade, and kept its exchange rate competitive through a very substantial devaluation of its currency between 1978 and 1994. It was thus much better able than other Asian countries to withstand the financial crisis of 1997. In the longer run its competitiveness may have been weakened in some degree by devaluations in neighbouring countries, and its freedom of action on the exchange rate is now constrained by the need to avoid repercussions on Hong Kong.

China's openness is usually exaggerated by comparing its foreign trade with its GDP at exchange rates. If one adjusts the GDP estimate for the purchasing power parity of the yuan, its trade dependence is in fact quite small, with exports less than 5 per cent of PPP adjusted GDP. Import restrictions are still important in China, but are likely to be substantially reduced when and if it is admitted to the World Trade Organisation. Some of the most contentious issues in its application to join are concerned with its protection of state enterprise. Reform in that area would hasten its integration in the world economy.

In the course of the reform period, there have been huge changes in the Chinese economy, with a lessened role for the state, increased use of market forces, and new opportunities for individual initiative and entrepreneurship. However, the basic system of property rights is ambiguous. Peasants control their land and can lease it, but they cannot buy or sell it. The lower levels of government are engaged in both administration and entrepreneurship. The legal system and property rights are much more fuzzy than in Western countries. This situation has been inevitable, because the reform process has been legitimised as a modification of socialism rather than an embrace of capitalism. However, a prolonged continuance of this situation will weaken the performance of the economy. Under the imperial regime, the Chinese economy was overtaken by the West, in good part because the West developed a legal system and an institutional framework in which capitalism could flourish, in which profit seeking rather than rent seeking had a bigger role than in China.