*2000*. 'Great Leaps Backward: Poverty under Mao'
www.Fathom.com
LSE and Columbia University
August, 2000

# Great Leaps Backward: Poverty under Mao

*Kent G. Deng* (LSE, UK)

## A. Introduction

### *1. The issue*

China had a long history of premodern growth in just about all categories: empire building and expansion, high yield agriculture, a wide range of inventions and innovations, impressive commercialisation and proto-industrialisation, a very strong foreign trade record and a comfortable living standard.[1] However, all these were ruthlessly challenged by the rise of Western capitalism marked by the opium trade and the First Opium War (1840). If imperial China was noted as a country of political and socio-economic equilibrium,[2] modern China since the Opium War has been a place of swinging changes. Mao's era from 1949 to 1978 was such a period.[3]

At the heart of the changes, it is the issue of what new developmental path China needs to adopt in order to adapt to the altered world order and, if possible, to catch up with the wealthy West. The choices available are demonstrated in Figure 1. The choices available to post-Opium War China were of three types: first, the classical and neo-classical 'weak state–rich population' type; second, the 'strong state–poor population' type which was shared by Russia (under the Tsars and again under Lenin and Stalin) and Japan (Meiji); third, the 'strong state–rich population' type under the Western welfare system. Since China fell in the most inferior position of 'weak state–poor population', it could only go up. Thus, post-

---

[1] Numerous works document this, see for example, Needham 1954–94; Skinner 1964–6, 1971; Fairbank 1965; Hartwell 1966; Myers 1970; Elvin 1973; Feuerwerker 1976, 1984; Chao 1986; Gates 1996; Deng 1997a, 1997b, 1999a; Pomeranz 2000.

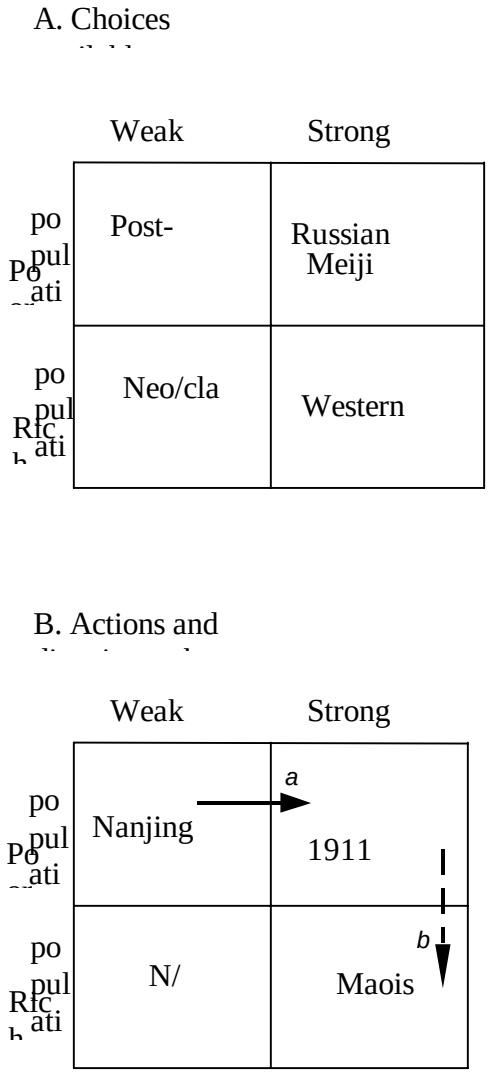
[2] Deng 1999b.

[3] Mao's era included the brief interim leadership under Mao's hand-picked successor Hua Guofeng.

Opium War China had the ‘advantage of backwardness’ (Gerschenkron 1962). And, the opportunity costs for China to move were extremely low (see Panel A of Figure 1).

In reality, the classical, neo-classical choice of ‘weak state–rich population’ was unachievable, so the feasible choices were just two. There is little doubt that the early changes associated with the Westernisation Movement (*yangwu yundong*) and the 1911 Nationalist Revolution pushed China in the direction of the ‘strong state–poor population’ type. The question here is whether Mao Zedong’s leadership changed this pattern for the better (see Panel B of Figure 1).

Figure 1. Developmental choices for China




Note: Solid arrow – commonly agreed change in history. Broken arrow – claims to be tested. *a* – China first move; *b* – China’s second move.

*2. Historical background of Mao's regime*

*a. Chinese nationalism*

In nature, the establishment of the People's Republic of China in 1949 was more of a victory of nationalism than communism. The recovery of China's national sovereignty (in which the communists claimed a considerable share in the heroic war against Japanese invasion and conquest) and the re-unification of the country after the long lasting civil wars (in which the communists finally succeeded) were both categorically nationalist goals. During the Period of Recovery of the National Economy (1949–52), nationalism prevailed in terms of the establishment of law and order, implementation of land reform, balancing of the state budget, stabilisation of price, nationalisation of the main industries and so forth.

On the diplomatic and national defence fronts, for example, nationalism has been the keynote of the People's Republic. Until the 1970s, China spared no effort to ally with the nationalist Third World. China broke away with the Soviet Camp in the early 1960s because of the alleged 'Socialistic Imperialism' of the latter. Military strength was given national priority. As a result, China was the first developing country to possess nuclear and space technologies. Nationalist colours were repeatedly shown in four military confrontations along China's boarders: the Korean War (1950–3), Sino-Indian War (1962), Sino-Soviet War (1969) and Sino-Vietnamese War (1979). So, the early overwhelming popularity of the Communist Party and the People's Republic was largely based on this nationalist thrust.

It is not so surprising that it was not until the mid-1950s, some three decades after the establishment of the Chinese Communist Party, that it promoted a communist programme on a large scale. After the mid-1950s, although Mao's programme had distinctive traces of practices from the Soviet Union, it was always heavily entwined with Chinese nationalism.

*b. Choice of the Stalinist type*

A communist/socialist approach was quite successful in Mao's China. It was not because it had been tested in China and proved successful. Rather, it was because the model had not been tested before while other models (mainly Westernisation and Nationalism) had been proven ineffective in helping the country out of weakness, poverty, inequality and underdevelopment. The 'demonstration effect' from the Soviet victory over Nazi Germany during World War Two, and the political alignment between the Western and Eastern camps after the world war, and especially after the Korean War, helped a great deal in persuading the Chinese population and thus made Mao's choice of the Stalinist type a much easier task.

In addition, there was a hidden agenda of populism and egalitarianism which had a longer tradition in China than either nationalism or communism but which overlapped with

communism in particular.[4] In Mao's later year, populism and egalitarianism eventually took over (Hu 1999). This is however beyond the scope of this essay.

[4] This overlapping has been coined as 'pseudo-communism' in post-Mao China.

*c. State-determinism*

The whole of Mao's era was marked by the belief in and practice of a top-down state-determinism. The function of the market was marginalised or simply eliminated.

This state-determinism was most obvious from the radical changes on the political and ideological fronts. Politically, although by definition contradicting 'republicanism', the adoption of Marxism-Leninism and Mao Zedong's thought as the state philosophies rationalised the one-party system. The abandonment of China's traditional examination system for civil servants facilitated proletarian dictatorship. The effectiveness of this dictatorship was demonstrated in six nation-wide purges to eliminate any potential competing power centre against party rule: the Movement against Three and Five Evils (*sanfan wufan*, 1951–2), Anti-Rightist Struggle (*fanyou*, known as 'One Hundred Flowers Movement', 1957), Socialist Educational Drive (*shejiao*, also known as 'Four Cleansings' *siqing*, 1964–5), the Cultural Revolution (*wenge*, 1966–76), and the Suppressions of the '5 April Protest' (*siwu shijian*, known as the 'Tian-anmen Incident', 1976). In addition, to eliminate different opinions and factions from within the party, there was more frequent party consolidation and party rectification which always affected state policy and governmental personnel. From 1949 to 1976, in his capacity as the lifetime Chairman of the Communist Party, Mao Zedong was in firm control of the party, the military, the state and the population in the fashion of theocracy.

All these necessarily strengthened the Maoist state politically.

## B. Mao's ideal versus the general track record

*1. Mao's ideal*

Mao's communism promised an enriching egalitarianism with a better material life for everyone: employment, education, health care, pensions and so forth, a new equilibrium.[5] Economically, China had an extensive programme for industrialisation under a series of five-year economic plans. In theory, these five-year plans were also developmental, allegedly aiming at bridging the 'three major gaps' (*sanda chabie*) between the industrial workers' class and the peasantry, between urban life and rural life and between mental labour and manual labour. This generated short-term incentives among the population to work hard in the early years of the regime. This also eased the pain of rapid and sweeping nationalisation of private and corporate industrial assets (which affected the urban elite) and brutal collectivisation (which affected the rural masses).

[5] But, according to the Marxian doctrine of 'depriving the exploiter', this process will never be of a Pareto optimum as the old elite is targeted and inevitably worse off.

*2. General track record*

In reality, a range of concessions was made from the ideal. Industrialisation and self-reliance, or simply 'self-reliant industrialisation' was given state priority during the whole Mao's era. This inevitably deviated from Mao's promotion of an enriching egalitarianism with a better material life for everyone. This was the case of Mao's institutional reform in a wholesale package of collectivisation in the mid-1950s in both rural and urban China to make the agricultural and service sectors compatible with the state-run industrial sector which was established through the nationalisation of private and corporate industrial assets. It has been commonly agreed that this move was at least too far ahead of its time, if not completely flawed. Society was not ready for the changes.

The following 'Great Leap Forward' (*dayuejin*) during the later 1950s fantasised the possibility of 'surpassing Great Britain and catching up with the United States' (*chaoying ganmei*), and 'dashing into communism' (*paobu jinru gongchanzhuyi*). Breaking all the 'natural laws' governing people's incentives to produce and invest, the 'Great Leap Forward' ended tragically in 'Great Steps Backward' marked by forced proto-industrialisation in the form of premodern, small scale, back-yard furnaces and mass starvation and extensive de-industrialisation and de-urbanisation.

As the economy and people's morale barely recovered after 1963, Mao launched his ten-year long Cultural Revolution, the deed that he was most proud of in his life. From the extensive political and economic damage inflicted by the Cultural Revolution, the Maoist state unmistakably stopped from behaving as a developmental state. Rather, the regime began to show its all-rounded developmental illiteracy. The economy was virtually on the brink of total self-destruction with the standards of living among ordinary people pushed back decades.

Obviously, the gap between Mao's ideal and the general track record of the economy under Mao's rule was simply nonnegotiable. However, this essay will not concentrate on the impact of man-made disasters during Mao's period. Rather, it will look at development in its entirety to sketch out the direction of the economy and how beneficial the growth was for the general public during that era.

## C. Growth/developmental strategy: unbalanced growth with ISI

*1. The Soviet origin of the strategy*

In 1924, after Lenin died, the Soviets were left at the crossroads with two contradicting approaches from Lenin: a command economy (under War Communism) versus the market-friendly 'New Economic Policy' (NEP). This led to a four-year long debate among the Soviet

elite who were divided in two rival camps: those who supported ‘balanced growth’ and those who favoured ‘unbalanced growth’.

Bukharin who seemed to understand economics was the leader of the ‘balanced growth’ camp. He emphasised, quite rightly, (1) the interdependence of industry and agriculture and the simultaneous growth between the two sectors; (2) the role of agricultural exports in obtaining advanced technology from the West; (3) the importance of peasant incentives, especially market incentives, to produce more and better; and (4) that Lenin’s NEP should continue. Bukharin sounded very much like President Liu Shaoqi (1898–1969) who proposed to ‘re-set the clock’ (*yao tuigou*) after the disastrous ‘Great Leap Forward’ and to revitalise agriculture under a new agrarian policy of ‘three economic freedoms and one production contract’ (*sanzi yibao*).

Preobrazhensky was the figurehead of the ‘unbalanced growth’ camp. The real leader was Trotsky who was more influential than Stalin at the time of the debate. Preobrazhensky argued that (1) heavy industry should be given the priority to grow; (2) agriculture must bear the main burden of capital accumulation; (3) ordinary people's consumption needed to be sacrificed; and (4) Lenin’s NEP should be abandoned. This sounds like Mao and his left-wing comrades under the banner of so-called ‘four modernisations’ (*sige xiandaihua*).[6]

Stalin seized this opportunity of divided opinions within the communist party for his personal bid to take over state power.[7] Stalin’s choice fitted in well with his peasant/*kulak* paranoia and his hunger for paramount power.[8] This piece of Soviet history reveals that unbalanced growth was not the sole choice available. Rather, it was a political decision to maximise Stalin’s personal power.

---

[6] The ‘four modernisations’ referred to modernisation in four areas: industry, agriculture, defence, and science and technology. The slogan represented the pinnacle of Mao’s unbalanced growth attempts in the early 1970s. The deadline for the four modernisations was set for 1999. Given that there was no mentioning of how to improve ordinary people’s living standards, this was just another licence to extract resources from the public *à la* the Meiji state.

[7] Shrewdly, Stalin first supported Bukharin's ‘balanced growth proposal’ to destroy Preobrazhensky and Trotsky. Trotsky was forced into exile. Once this was done, Stalin wasted no time to frame Bukharin and sent him to his firing squad. After that, Stalin switched back to the ‘unbalanced growth approach’.

[8] After several years of New Economic Policy, 5–7 per cent of Soviet peasants became wealthy *kulaki* (Nove 1992: 103); and Soviet agriculture recovered. This really means that the New Economic Policy provided the agricultural sector with the incentives to produce more and better and to invest more and wider. But, the honey-moon between the communists and the *kulaki* was soon over. In 1930-1, the *kulaki*, about 1.5 million of them, the best farmers and most active agrarian entrepreneurs, were deported to marginal land in Siberia under Stalin’s order (Nove 1992: 166).

However, to be fair, there is a technical side to this choice. Although in principle, 'total planning' for the economy was aimed at by the Soviet planners, the actual number of products subject to planning was about 30,000 (Gregory and Stuart 1994: 152). To work out a general equilibrium in a 'balanced growth' fashion, the total number of equations needs to be solved is nine billion and take as many as 12,000 pages. Even with all the nine billion equations in place, the Soviet planners had a constant problem with plan fulfillment: from 1932 to 1985, there was not a single period in which the Soviet plan was fully realised (Nove 1992: 228; Gregory and Stuart 1994: 101, 135, 155).

The bottom line is that without market mechanisms, balanced growth under economic planning requires perfect knowledge, both quantitative and qualitative, of all aspects of economic life.[9] If such perfect knowledge is unobtainable, the planners may 'by-pass' this by adopting the strategy of 'unbalanced growth'. This will reduce the equations. And, blue-collar workers, according to Lenin's dream, may have their fingers on the planning. So, in reality unbalanced growth was the best the Soviet system could achieve.[10]

In addition, in accordance with Lenin's vision of establishing communism within one country, ISI (short for 'Import Substitution Strategy for Industrialisation') is the only possibility on the menu. However, ISI is inevitably haunted by resource constraints, which forms the main obstacle to further growth. The Soviet solution was simply to squeeze the agricultural sector as much as possible to finance the industrial sector. More often than not, coercion was required to obtain scarce resources. But such coercion was 'rationalised' by Stalin's ISI teleology.

---

[9] In the West, the absence of perfect knowledge in the market and its impact have been carefully addressed, typically in the forms of the 'asymmetrical problem' (referring to different business entities) and the 'principle–agent problem' (concerning the same business entity). Such discussion is politically incorrect under communism which in principle overrides any private, individual interest and thus assumes a common goal is shared among all the citizens at all times.

[10] Lenin's formulae are unsophisticated:

(1) Output of capital goods > capital goods replacement + new investment.

Hence,

(2) Output of capital goods > consumer goods.

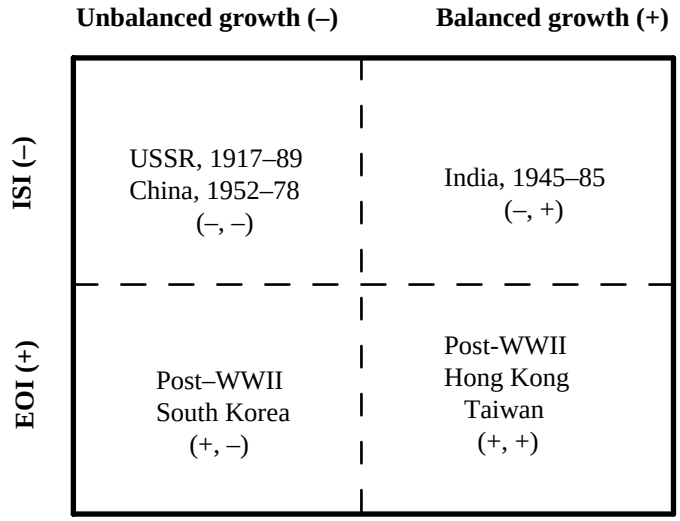
And,

(3) Investment in capital goods production > investment in consumer goods production.

This is a licence for the Soviet planners to have a free hand to make a mess of the economy. And they did.

But from a sustainability point of view, the unbalanced growth approach with ISI is the worst possible combination for modern growth simply because (1) it is bound to distort resource allocation to make ISI artificially affordable in the short run and (2) distorted resource allocation will in turn slow ISI in the long run. This is shown in Figure 2.

Figure 2. Different combinations of growth strategies and their ranking




Note: ISI – 'Import Substitution Strategy for Industrialisation'. EOI – 'Export-oriented Strategy for Industrialisation'. Positive for sustainable growth (+). Negative for sustainable growth (–).
Before 1955, the main agenda for the Indian leadership was to achieve economic stability. 1955 marked a turning point when Professor Mahanalobis switched the goal of planning from economic stability to economic growth. However, overall India pursued balanced growth with ISI (Tomlinson 1993). The secret lies in the government liability to its electorate under democratic socialism. South Korea is notorious for its government manipulation of the price structure known as 'to get the price wrong' for a heavy-industry-led growth (Alam 1989; Wade 1990; Amsden 1992). Chinese family firms formed the growth engine in Hong Kong and Taiwan where state intervention was less compared with the USSR, Mao's China, post-independence India and post-WWII South Korea (Rabushka 1979; Chou 1985; Rowen 1998: chs 2–3, 9 and 14).

*2. Mao's wholesale adoption of the Soviet system and growth doctrine*

Mao's wholesale adoption of the Soviet unbalanced growth with ISI doctrines became apparent in as early as 1956 (see Table 1).[11] Moreover, Mao pushed it at break-neck speed and beat Stalin's record (see Table 2). As the Stalinist institutions were growth pattern-specific, this change in China planted the seed of unsustainability of Mao's economy.

[11] To be fair, the initial push for industrialisation was provided by Stalin's Soviet Union. Thus, China did not have 100 per cent ISI from the start. Only after the first round when over 100 industrial projects were imported from the Soviet Union, China's industrialisation adopted the 'import-substitution' type as claimed by the party line of 'self-reliance'.

Table 1. Unbalanced Growth Approach under Mao: Shares in Total Capital Investment, 1953–75

| Period | Heavy industry (A) | Light industry (B) | A:B |
|---|---|---|---|
| 1953–7 | 36% | 7% | 5.1 |
| 1958–62 | 54%* | 7% | 7.7 |
| 1963–5 | 46% | 4% | 11.5 |
| 1966–70 | 51% | 4% | 12.8 |
| 1971–5 | 50% | 6% | 8.3 |
| Average | 47% | 6% | 7.8 |

Source: Based on Lan 2000: 110–11.

Note: *Figure that was inflated under the Great Leap Forward regime with industrial inputs and outputs which had little utility or value.

Table 2. Changes under Communism, China versus the USSR

| Time lag | Under Stalin (A) | Under Mao (B) | B–A |
|---|---|---|---|
| State take-over to collectivisation | 12 years (1917–29) | 5 years (1949–54) | –7 years |
| Process of rural collectivisation | 9 years (1929–38) | 1 year (1955–6) | –8 years |
| State take-over to the first FYP | 11 years (1917–28) | 3 years (1949–52) | –8 years |
| State take-over to industrial spurt | 15 years (1917–32) | 9 years (1949–58) | –6 years |
| Average | | | –7.3 years |

Source: Based on Gregory and Stuart 1994; DNS 1998: 70–88.
Note: FYP – Five-year plan.

## D. Economic structure and its change

In the late Qing, China's urban-rural ratio was 0.20 (from 17:83). In the early 1920s, it improved to 0.27 (from 21:79) (Jiang 1994: 70). But, in 1958–78, the ratio was 0.19 (from 16:84), worse than the Qing level (Cui 1997: 11). Thus, regardless of what was vigorously promoted during the Mao's era, and regardless of the industrial growth in absolute volume, the evidence clearly indicates that the total structure of the Chinese economy changed very little.

Tables 3 and 4 show that until the very end of the Mao's era, the Chinese economic structure was not fundamentally different from that of the Ming–Qing period was but very different from industrialising Russia and Japan. In other words, Mao's China stayed within the range for a traditional economy in a developmental spectrum as China was structurally un-industrialised until 1978, staying roughly at the same level of Tsarist Russia (1914 in

terms of employment pattern), Japan (1872 under Meiji in terms of employment pattern, or 1920 in terms of GDP shares) and colonial India (1901 in terms of employment pattern, or 1989 in terms of GDP shares).

Table 3. China's Economic Structure Seen in Employment Pattern, 1978

| | Total employment | Agriculture | Industry | Services |
|---|---|---|---|---|
| Mao's China | | | | |
| 1978 | 100% | 71%* | 17% | 12% |
| Ming–Qing China | 100% | 80% | 20% (including services) | |
| Russia/USSR | | | | |
| 1914 | 100% | 75%† | 25% (including services) | |
| 1926 | 100% | 86% | 12% (including services) | |
| 1939 | 100% | 54% | 45% (including services) | |
| Japan | | | | |
| 1872 | 100% | 72%† | 28% (including services) | |
| 1920 | 100% | 54% | 46% (including services) | |
| 1940 | 100% | 42% | 58% (including services) | |
| India 1901 | 100% | 65%† | 35% (including services) | |

Source: Based on Li 1995; Zhang 1998; Charlesworth 1982: 20; Feuerwerker 1984: 299, 302, 312–13; Chao 1986: ch. 3; Minami 1986: 24; Wheatcroft *et al*. 1986: 273; Maitra 1991: 101, 132; Francks 1992: 29; Davies *et al.* 1994: 112; Gregory 1994: 21, 42.

Note: *Minimal proportion: some data suggest that in 1978 the total rural population was 803.2 million out of China's 962.5 million which made the rural share 83 per cent of China's total (Ling 1997: 102). †Rural population as a proxy.

Table 4. China's Economic Structure Seen in Shares in GDP, 1960 and 1978 versus 1994 and other countries

| Year | Total | Agriculture | Industry | Services |
|---|---|---|---|---|
| China under Mao | | | | |
| 1960 | 100% | 27%* | 60%† | 13% |
| 1978 | 100% | 28%* | 49%† | 23% |
| China after Mao | | | | |
| 1994 | 100% | 19% | 49% | 32% |
| Japan | | | | |
| 1920 | 100% | 25% | 19% | 56% |
| 1930 | 100% | 21% | 24% | 55% |
| 1965 | 100% | 10% | 44% | 46% |
| India | | | | |
| 1965 | 100% | 44% | 22% | 34% |
| 1989 | 100% | 30% | 29% | 41% |

Source: Based on Li 1995; Zhang 1998; *People's Republic of China Year Book, 1996/97*: 397; *China's Statistic Year Book 1983*: 24; Ray 1979: 17; Lal 1988: 126–7; Rothermund 1993: 177; Gregory 1994: 28, 30.

Note: *Nominal value only, which should be considerably higher if the scissors pricing is taken into account.[12]
†Nominal value only, which should be considerably lower if the scissors pricing is taken into account.

What is more worrying is that compared to 1960, China actually went backwards in its degree of industrialisation: the agricultural sector gained a mere 1.4 percentage point in the total GDP share while the industrial sector lost as much as a shocking 11.4 percentage point (see Table 4). If the worsened scissors pricing is taken into account, the degree of de-industrialisation by 1978 may well have been greater than the nominal values shown in Table 4. Surely, the services sector gained 10 per cent. But, considering that China was not industrialised, the gain by the services sector did not help China in achieving its designated goal of self-reliant industrialisation.

This becomes more obvious if Mao's China is compared with inter-war Japan and post-independence India where industrialisation went along with a decline in the agricultural share of the total GDP and a rise in the industrial share of the total GDP. Post-Mao China of the 1990s had a similar trend although the share of the industrial sector did not change from its 1978 position (see Table 4). This is confirmed again by a cross-group comparison between the developed and developing economies. Not until 1994, 16 years after Mao's era, did China gradually move close to the developing countries' average in terms of reducing the agricultural share in the total GDP (see Table 5). It is worth noting that the seemingly small share for the industrial sector among the developing countries is largely due to the common practice of foreign trade which compensates the need for home-grown industrialisation (or ISI).

Table 5. Economic Structure in Comparison (in GDP shares)

| Country | | Primary industry | Secondary industry | Tertiary industry |
|---|---|---|---|---|
| China | 1978 | 28.4% | 48.6% | 23.0% |
| | 1994 | 18.8% | 48.5% | 32.7% |
| Developing countries' average (1993) | | 17.0% | 28.0% | 55.0% |
| Developed countries' average (1993) | | 2.0% | 26.0% | 64.0% |

Source: Based on *People's Republic of China Year Book, 1996-97*: 397; *China's Statistic Year Book 1983*: 24.

[12] Scissors pricing is the legacy of Mao's economic policy. In the early 1990s, analysts suggested that to equalise the sectoral incomes between agriculture and non-agriculture the price level for grain had to be increased fivefold (Fan 1995: 39). Here, a conservative 50 per cent weight is used for the estimation.

In addition, in the industrial spurt of 1958–60, 40 million of the rural population were employed full time in industrial projects. Soon, in 1962, all the rural industrial projects were abandoned. In addition, 26 million urban people – workers with their families – were sent to the countryside (Song and Qiao 1998: 183; Li and Zhang 1999: 205). In 1966–76, another 20 million urban residents – school and university graduates this time – were resettled in the countryside (Pan 1994: 13; Cui 1997: 11). These 20 million young people came from 100 million urban families which occupied about 36 per cent of China's total urban population (based on 29 per cent of the total of 962.5 million).[13] The actual impact of this resettlement scheme was further 'ruralisation' in Mao's China. But, as China's rural production did not experience any revolutionary change after the 'gain' of urban human capital, this resettlement proved to be a complete waste of time and resources.

Therefore, in terms of upgrading the economic structure in the process of modernisation or industrialisation, China did not progress well either in comparison to its own past (Ming–Qing) or in comparison to its neighbouring countries (Russia, Japan and India). In addition, in light of most cases of achieving modernity in the world since the eighteenth century, it has been the norm that economic development has been associated with changes in economic structure and ordinary people's living standards. The obvious lack of such changes under Mao simply means that although the country had some growth, whether it also achieved 'development' is highly questionable.

## E. Economic performance

### *1. Economy-wide growth*

To get an accurate picture for China's economy-wide growth, it is very important methodologically to obtain a growth rate of the real GDP by eliminating the effect of inflation. It is known that in 1950–78, China's inflation indexes were 135.9 (measured by retail prices) and 144.7 (measured by urban consumer good prices) (Li 1997: 49–50), China's long-term annual inflation rates during Mao's era were thus between 1.82 per cent and 2.20 per cent, averaging 2.01 per cent. This can be used as the basis to work out China's real growth rates (see Appendix).

It has been widely agreed that the first 17 years under Mao, which occupied two-thirds of Mao's era, was the best period of continued economic growth. It has also been agreed that the 'Great Leap Forward' (1958–60) marked the pinnacle of the first wave of growth under Mao. The 'Great Leap Forward' thus served as a divider of two sub-periods: 1949–60 and 1961–6.

---

[13] It is worth noting that sending youngsters to rural regions was precedented in Nazi Germany.

In Table 6, comparisons are presented between nominal and real growth rates as well as between different sub-periods during the short period of 1949 to 1966 when the Maoist state was intentionally developmental.[14] A pattern emerges from the comparison. The 'Pre-socialist Period' (1949–55), which was also called 'new democratic period', had by far the highest growth rates (either nominal or real). The 'Fast Growing Period' (1949–60), which also had two digit or near-two digit growth rates, was a close second. The growth rates slowed down considerably after 1956, which marked the beginning of the 'Socialist Period' (1956–66). The slow-down was unmistakably associated with Maoist socialism and, in particular, his 'Great Leap Forward' that plunged the economy into crisis.[15]

Table 6. China's GDP Annual Growth Rates (%), 1949–66

| Period breakdown | Nominal GDP {A} | Real GDP {B} | B–A |
|---|---|---|---|
| A. Overall (1949–66) | 9.2 (6.6) | 5.9 (3.3) | –3.3 |
| B. Institution-oriented sub-division | | | |
| (1) Pre-socialist period (1949–55) | 14.0 (11.4) | 11.5 (8.9) | –2.5 |
| (2) Socialist period (1956–66) | 6.1 (3.5) | 2.3 (–0.3) | –3.8 |
| C. Growth-oriented sub-division | | | |
| (3) Fast growing period (1949–60) | 11.8 (9.2) | 9.0 (6.4) | –2.8 |
| (4) Slow-down period (1961–6) | 9.7 (7.1) | 4.5 (1.9) | –5.2 |

Source: Based on Tables i and ii in Appendix.
Note: Figures in parentheses – net GDP growth by discounting population growth at a rate of 2.6 per cent per year during Mao's era (He 1994: 7).

That is not all. If we take China's population growth rate into account, the net growth rates look un-impressive. During the period 1952 to 1980, under state encouragement, China's population doubled with an annual growth rate of 2.6 per cent (He 1994: 7).[16] If this long-term population growth rate is applied to the entire 1950 to 1978 period, much of the growth

[14] It is another matter of whether the intention was materialised.

[15] The economic slowing down during 1956 to 1966 has been tackled by scholars (see for example Wang 1999: 81).

[16] As usual, there is a debate on China's population growth rate. But a consensus has been reached that the growth rate was over two per cent per annum during Mao's era (see Jiang 1994: 70; Cui 1997: 10–11; see also ZJB 1999: 52, 109, 181, 189, 198, 206, 216, 223, 229, 234, 243, 252, 258, 265, 270). In 1963, the growth rate reached 3.3 per cent (ZJB 1999: 189). He's estimate is most realistic as a rate of 2.6 per cent per annum allows a population to double its size in 28 years. This matched perfectly China's demography under Mao (1949–78).

was cancelled out. Indeed, the gross growth during 1956 to 1966 may have well been wiped out by China's population expansion.

Thus, there is good reason to believe that after 1955, China's economy was stagnant. Such stagnation is most visible in terms of per capita GDP growth (see Table 7).[17] Such stagnation was highly compatible with the stagnation of China's economic structure (see Tables 3, 4 and 5). In comparison, Soviet growth was far more vigorous than Mao's by 1970, even by the conservative estimation of the West (see Table 8).

Table 7. Official Statistics, per capita GDP, 1956 and 1966

| Year | GDP (current price) | Nominal index | GDP (1956 price)* | **Real index** |
|---|---|---|---|---|
| 1956 | U$ 109 | U$ 109 | 100 | 100 |
| 1966 | U$ 159 | U$ 123 | 146 | 113 |
| Annual growth | | | 3.9% | 1.2% |

Source: Based on Wang 1999: 82.
Note: *Conversion is based on the average inflation rate of 2.01% per year for the period of 1950 to 1978 (Li 1997: 49–50).

Table 8. Soviet Growth Performance (%, annual), 1951–85

| Period | Official figure (I) | Real value (II)* | II–I |
|---|---|---|---|
| 1951–60 | 10.3 | 5.1 | –5.2 |
| 1961–5 | 6.5 | 4.8 | –1.7 |
| 1966–70 | 7.8 | 5.0 | –2.8 |
| 1971–5 | 5.7 | 3.1 | –2.6 |
| 1976–80 | 4.3 | 2.2 | –2.1 |
| 1981–5 | 3.6 | 1.8 | –1.8 |
| Soviet long-tern annual | 6.4 | 3.7 | –2.7 |
| Mao's long-term annual† | 6.1 | 2.3 | –3.8 |

Source: Based on Gregory and Stuart 1994: 236.
Note: *Estimated by CIA. †'Socialist period': 1956–66.

Logically, (1) if industrial growth was given priority to grow, and (2) the whole economy was rather stagnant, there must have been a 'zero-sum game' amongst sectors within the national economy. This judgment is strongly supported by recent studies of Chinese agriculture itself (see Ling 1997; DNS 1998; Zhang 1998). Evidently, despite the fact that the

[17] Table 6 shows the same calibre of China's growth during the same period regardless of some nuances.

agricultural sector remained the largest employer of the economy, food production and food supply were a constant problem (Table 9).

Table 9. China's Food Availability Seen from Food Export (in 10,000 tons)

| Year | South China | North China | China total |
|---|---|---|---|
| A. Pre-socialist Period | | | |
| 1953 | 257.3 | 43.2 | 300.5 |
| 1954 | 165.9 | 106.5 | 272.4 |
| 1955 | 265.3 | 54.7 | 320.0 |
| B. Socialist period | | | |
| 1956* | 345.1 | –8.7 | 336.4 |
| 1957 | 426.4 | –161.1 | 265.3 |
| 1958 | 432.5 | –12.1 | 420.4 |
| 1959† | 438.3 | 151.5 | 589.8 |
| 1960 | 308.3 | –138.8 | 169.5 |
| 1961* | 19.1 | –428.5 | –409.4 |
| 1962 | 26.2 | –359.4 | –333.2 |
| 1963 | 130.3 | –428.1 | –297.8 |
| 1964 | 230.8 | –351.5 | –120.7 |
| 1965 | 263.1 | –446.1 | –182.9 |
| 1966 | 201.0 | –179.6 | 21.4 |
| 1967† | 164.6 | 11.7 | 176.3 |
| 1968 | 197.5 | –173.5 | 24.0 |
| 1969 | 187.0 | –256.3 | –69.3 |
| 1970 | 191.7 | –198.7 | –7.0 |
| 1971 | 239.0 | –150.0 | 89.0 |
| 1972 | 181.5 | –392.0 | –210.5 |
| 1973 | 159.4 | –390.1 | –230.7 |
| 1974 | 227.5 | –281.5 | –54.0 |
| 1975† | 145.1 | 54.7 | 199.8 |
| 1976 | 70.8 | –125.5 | –54.7 |
| 1977 | 11.5 | –406.0 | –394.5 |
| 1978* | –105.2 | –574.9 | –680.1 |

Source: Based on DNS 1998: 251.
Note: *Turning points in terms of food shortage. †Exceptional harvest.

Interestingly, 1956 and 1978 serve as two turning points. From 1956 onwards, North China suffered food shortages. From 1978, China as a whole faced the same problem after South China ceased to be a food surplus region. Thus, during the socialist period, it became the norm that somewhere in China food needed to be imported to feed the population, the exceptions being 1959, 1967 and 1975. Even worse, 1961 marked the beginning of China's need for foreign supplies of food. Overall, China's food availability declined under Mao: it

did not match China's Ming–Qing past,[18] nor did it match contemporary post-independence India.[19]

As food is a basic human need, the lack of it says a lot about the economy-wide performance under Mao.[20]

*2. Low capital efficiency*

Similar to the problem in the Soviet Union, Mao's China had deteriorating capital efficiency. During the period of 1953 to 1980, China's average return-to-investment ratio was 0.30 and its return-to-reinvestment ratio was only 0.18, a clear case of diminishing returns in capital investment (He 1994: 8).[21] In other words, there was a great deal of over-investment in Mao's economy. Much of the over-investment was made in regions and sectors where the returns were minimal. In 1958–78, the aggregate state investment was 500 billion yuan of which 80 per cent (400 billion) was allocated in the 'rear' or 'outback' provinces (Cui 1997: 19). This was what can be called 'pseudo-development' with resources ruthlessly wasted.[22]

Table 10 shows this pattern of 'pseudo-development': in the hinterland regions, the decline in capital efficiency was 1.3 times faster than its coastal counterpart but the speed of fixed capital investment in the hinterland increased twice as fast as than in the coastal regions. The acid test for this investment pattern comes from the fact that by 1978 the hinterland-biased investment did not change China's regional growth differentiation: not only did the per capita income level of hinterland remain marginalised, but also the regional per capita income gap increased by 32.5 per cent (Hu *et al.* 1995: ch. 2, especially p. 54). Indeed, most

---

[18] During the Ming–Qing Period, Chinese agriculture was able to produce comfortably 25 per cent food surplus most of the time to feed China's 20 per cent population in the urban sector (Feuerwerker 1984: 299, 302, 312–13).

[19] Since independence, India has never suffered from large-scale famine (Sen 1981; Nolan 1993).

[20] Deliberately I avoid using the large-scale of starvation immediately after Mao's 'Great Leap Forward' which cost 30 million lives as the main evidence of Maoist deficiencies. My point is that *even* if the 'Great Famine' from 1960 to 1962 is ignored, Chinese agriculture still did not perform well by China's own premodern standards.

[21] China's low capital efficiency was clearly reflected by its poor energy input-to-output ratio. In the early 1990s, China's energy input-to-output ratio was twice that in the US and 6 times that in Japan (Zhang 1994: 65).

[22] This sounds like a cliché but still true: quite the opposite to what Marx predicated, it is the inflexibility of the centrally planned command economy that has led to its demise in a developmental race with capitalism (see Harriss 1995: 22).

hinterland regions are still regarded as poverty-stricken areas today (Zhou and Lu 1997; Zeng and Guan 1998). This simply means that the growth from the investment in hinterland did not trickle down to benefit the general public as it should have done.

Table 10. Geographic Allocation of Capital Investment and Capital Efficiency

| | Year | Total fixed capital (billion *yuan*) Coast | Total fixed capital (billion *yuan*) Hinterland | Total net product (billion *yuan*) Coast | Total net product (billion *yuan*) Hinterland |
|---|---|---|---|---|---|
| A. Invested amount | | | | | |
| | 1952 | 10.7 (100) | 4.2 (100) | 23.8 (100) | 10.5 (100) |
| | 1978 | 140.0 (1,380) | 179.3 (4269) | 257.5 (1082) | 165.6 (1577) |
| | Year | Total net product/total fixed capital Coast | Total net product/total fixed capital Hinterland | | |
| B. Capital efficiency | | | | | |
| | 1952 | 2.2 (100) | 2.5 (100) | | |
| | 1978 | 1.8 (82) | 0.9 (36) | | |

Source: Based on Cui 1997: 19.

This legacy of 'pointless investment' (*mangmu touzi*) continued in the post-Mao period with multiple symptoms. First, until the early 1990s, of the total of 2,200 billion *yuan* of fixed capital, one-third was idle which was a waste for the economy. Second, only one-third of all the state-owned enterprises (presumably modernised to their teeth by Chinese standards) managed to break even or make some profit. The remaining two-thirds made losses and a great many such enterprises were virtually on the brink of bankruptcy (as at 1995, see Pan 1995: 51). So, the ship of state-owned enterprises was sinking.[23]

In addition, as aforementioned, the same proportion of population in rural China produced less and less food in relative terms. In 1953, China's total grain output was 177 million metric tons; in 1978, the total grain output reached 300 million tons (Cui 1997: 10, 11, 15). But this was achieved by 3–4 times increased labour input with a doubled rural population (Xie 1999: 30). Here, conceptually, the agricultural sector must have suffered diminishing returns so bad that the marginal product of labour was almost certainly negative.[24] More

[23] There can be no doubt that in the state sector the 'asymmetrical problem' and the 'principle–agent problem' loomed large. The former took the form of unrealistic and inaccurate planning; and the latter, discord and non-cooperation of enterprise managers with the ministries. Indeed, if these two problems could be solved under communism, capitalism would be replaced everywhere by communism.

[24] A conservative estimate suggests a rate of –0.2 per cent per year during 1957 to 1978 (Zhao 2000: 99).

seriously, Mao's self-reliance proved to be a farce even in a sector where China had had a recognised comparative advantage from its archaic past (see Table 9).

By definition, low capital efficiency implies unsustainability in economic growth which shows clearly in China's business cycles and crises.

*3. Business cycle and economic crises*

The data in Table 11 are for the 'golden age' of Soviet growth during the inter-war period (1919–40) while the worldwide economic recession hit hard in the West. It was during this period that an illusion occurred that the Soviet planned economy was an alternative system superior to the Western market economy. Even so, when one examines carefully the Soviet performance of this period, there was a five-year growth cycle, similar to the Western business cycle.[25] In comparison, not only did Mao's economy during its own golden age have a similar five-year cycle, it also had two-digit negative growth, unprecedented in Soviet history, not to mention the fact that the overall growth rate of Mao's economy was slower than its Soviet counterpart (see Table 12).

Table 11. Yearly Growth of National Income in the USSR, 1926–40

| | Year | % growth of previous period |
|---|---|---|
| | 1926 | 22.2 |
| Cycle I | 1927 | 6.0 |
| | 1928 | 8.7 |
| | 1929 | 15.6 |
| | 1930 | 21.1 |
| | 1931 | 16.8 |
| | 1932 | 11.2 |
| Cycle II | 1933 | 6.6 |
| | 1934 | 15.0 |
| | 1935 | 19.6 |
| | 1937 | 20.0 |
| | 1940 | 10.0 |
| Long-term average | | 14.4 |

Source: Based on Bandera 1984: 21.

[25] Marx's early prediction that the communist system can secure economic growth without a business cycle and economic crises has proven to be a fairy tale.

Table 12. Yearly Growth of China's Nominal, Real and Net Total GDP, 1949–66 (in billion *yuan*)

| | Year | Nominal | % growth of previous period | **Real*** | **% growth of previous period** |
|---|---|---|---|---|---|
| Cycle I | 1949 | 35.8 | – | 35.8 | – |
| | 1950 | 42.6 | 19.0 | 41.7 | 16.5 |
| | 1951 | 49.7 | 16.7 | 47.7 | 14.4 |
| | 1952 | 58.9 | 18.5 | 55.3 | 15.9 |
| | 1953 | 70.9 | 20.4 | 65.0 | 17.5 |
| Cycle II | 1954 | 74.8 | 5.5 | 67.0 | 3.1 |
| | 1955 | 78.8 | 5.3 | 68.8 | 2.7 |
| | 1956 | 88.2 | 11.9 | 75.0 | 9.0 |
| | 1957 | 90.8 | 2.9 | 75.1 | 0.1 |
| | 1958 | 111.8† | 23.1† | 89.9† | 19.7† |
| | 1959 | 122.2† | 9.3† | 95.3† | 6.0† |
| Cycle III | 1960 | 122.0 | **–0.2** | 92.1 | **–3.4** |
| | 1961 | 99.6 | **–18.4** | 72.7 | **–21.1** |
| | 1962 | 92.4 | **–7.2** | 65.1 | **–10.5** |
| | 1963 | 100.0 | 8.2 | 67.9 | 4.3 |
| | 1964 | 116.6 | 16.6 | 76.0 | 11.9 |
| | 1965 | 138.7 | 19.0 | 86.7 | 14.1 |
| | 1966 | 158.6 | 14.3 | 94.8 | 9.3 |
| Cycle IV | 1967–76§ | | | | |
| Gross average | | | 9.7 | | 6.4 |
| **Net average¶** | | | **7.1** | | **3.8** |

Source: Based on *China's Statistic Year Book 1983*: 13–14, 22–3.

Note: *Conversion is based on the average inflation rate of 2.01% per year for the period of 1950 to 1978 (Li 1997: 49–50). †Figures that were inflated under the Great Leap Forward regime with industrial inputs and outputs which had little utility or value and agricultural outputs which were boasted out of proportion. Thus, the maximum of a one-digit growth was more realistic. §Period known as the Cultural Revolution when real growth came to a complete halt due to nation-wide anarchy. ¶Net value by discounting population growth at a rate of 2.6 per cent per year during Mao's era (He 1994: 7).

Evidently, Table 13 shows that the period between 1958 and 1960 was marked as a period of severe economic crisis: China suffered an all-rounded economic landslide. Most worrying of all was that the total collapse of capital returns which virtually dropped to zero. This is reflected by data in Table 12 where China had negative growth for three years. With it, there was a process of de-urbanisation and de-industrialisation: by 1962, as mentioned earlier, 26 million urban residents were mobilised to resettle in rural regions (Song and Qiao 1998: 183; Li and Zhang 1999: 205). It was not surprising that China also had severe inflation after the Great Leap Forward: in 1960, the total volume of cash in circulation was increased to 9,590 million *yuan*, an increase of 28 per cent from that of the previous year (Li and Zhang 1999: 190).

Table 13. Official Statistics for the aftermath of the Great Leap Forward, 1960–2

| | 1958 | 1960 | 1962 |
|---|---|---|---|
| Agriculture nominal (billion *yuan*) | 56.6 (100)* | 45.7 (81) | – |
| Agriculture real (billion *yuan*) | 56.6 (100) | 43.8 (78) | – |
| Light industry nominal (billion *yuan*) | 61.6 (100) | 43.4 (70) | – |
| Light industry real (billion *yuan*) | 61.6 (100) | 41.6 (67) | – |
| Capital investment nominal (billion *yuan*) | – | 31.2 (100) | 6.0 (19) |
| Capital investment real (billion *yuan*) | – | 31.2 (100) | 5.8 (18) |
| Budget deficit (billion *yuan*) | 6.6† (100) | 8.2 (124)† | ±5 (78)† |
| Iron and steel (10,000 tons) | – | 1,886 (100) | 600 (32) |
| Investment projects | – | 1,800 (100) | 1,000 (56) |
| State-owned enterprises | – | 96,000 (100) | 52,300 (54) |
| Capital returns (%) | 100 | 0.73 (0.7) | – |
| Labour Productivity (%) | 100 | 62 (60) | – |

Source: Based on Lu 1999: 44; Li and Zhang 1999: 188, 201.

Note: GDP figures in parentheses – real GDP at the 1958 constant price by discounting an annual inflation rate of 2.01% (Li 1997: 49–50). But, in reality, there was a price surge in 1960 for consumer goods (Song and Qiao 1998: 168; Li and Zhang 1999: 190). Thus, this average rate of 2.01% should be taken as the minimum. Index figures in parentheses – real GDP index unless indicated. *Figures that were inflated under the Great Leap Forward regime with agricultural outputs being boasted out of proportion. †1959 figure. †Current price.

Table 14 reveals the outcome of the crisis in terms of goods production and consumption.

Table 14. Decline of Consumers' Goods in 1960 (1959=100)

| | Grain | Sugar | Cotton | Oil | Egg | Poultry | Pig | Meat |
|---|---|---|---|---|---|---|---|---|
| A. Government procurement | 66 | 36 | 77 | 58 | – | – | 69 | – |
| B. Retail sales | – | – | – | – | 70 | 49 | – | 71 |
| C. Consumption | 81 | – | 41* | – | – | – | – | 30† |

Source: Based on Song and Qiao 1998: 174; Li and Zhang 1999: 189–90.

Note: By 1979 the state controlled 100% of the pricing of all industrial goods, 97.8% of the pricing of all the goods marketed (Chen *et al*. 1999: 33). Thus, the decline had little to do with price fluctuations. *Cotton cloth as a proxy. †Pork as a proxy.

The economic crisis after 1960 proved that Mao's romanticised 'Great Leap Forward' was nothing but a great step backward in economic performance. But the Great Leap Forward was only one of the three crises during Mao's era. There were two more to be accounted for. Earlier, there was a slightly minor crisis associated with rural collectivisation. Later, there was the notorious Cultural Revolution.

From 1955 to 1957 agricultural production and rural income had significant setbacks. Table 15 demonstrates how agricultural yields dropped according to a nation-wide survey.

This simply reflected a decline in total factor productivity after the rural collectivisation. The reduced numbers of large animals means a loss of capital. This crisis was then translated into a nation-wide decline of rural household income (see Table 16). Ironically, those who were surveyed were considered the die-hard supporting groups of Mao's revolution after 1927. The ultimate cause of the 1955–7 crisis has been commonly identified as an institutional shock which reduced peasants' confidence in the security of their property rights and therefore reduced their incentives to work hard and invest more (see for example, Ling 1997; Zhang 1998). Later, Mao's frequent political purges led to a much bigger economic disaster in the decade between 1966 and 1976. The damage caused by his Cultural Revolution must have been many times greater than the two-year long Great Leap frenzy.[26] Judging from the

[26] Among other things, the Cultural Revolution created ample opportunities for large number of 'working class' members (factory workers, commune farmers and army soldiers) to drop from productive forces and become sinecurists as the ultimate reward for being Mao's loyalists: officials without any qualification and usually completely incompetent (called *tigan*, literally 'upgrading to the official rank'). On the other hand, intellectuals and professionals – managers, administrators, journalists, lawyers, doctors, teachers, technicians and scientists were forced to leave their professions for years to take up hard labour to be de-intellectualised and de-professionalised (called *laogai*, literally 're-moulding through labour'; *he gongnong dacheng yipian*, meaning 'completely identified with manual workers and peasants'). Even the potential intellectuals and professionals were not spared. School and university graduates were sent to countryside for re-education in order to be de-intellectualised and de-professionalised (called *zhishi qingnian shangshan xiaxiang*, literally 'youth settlement in mountains and villages'). This deliberate policy of replacing intellectuals and professionals in a centrally command economy with people with minimum education and no qualification inevitably resulted in a sharp decline in quality of China's human capital and a wide range of sate failure and economic disaster, not to mention the widespread regional civil war for state power (called *duoquan*, literally 'seize power by force'), political violence (known as *wudou*, literally 'armed fighting'), unlawful killing and unlawful imprisonment from 1966 to 1970 which led to nationwide marshal law (called *junguan*, literally 'army direct control' imposed on government departments, factories and other urban enterprises; *junxun*, literally 'army supervision' applied to schools and universities; and *quanmin jiebing*, meaning 'everybody is under the military regime') and hence ushered in the rise of Mao's most trusted successor Marshal Lin Biao (till 1973) and a high degree of cronyism at the top, just to mention Mao's wife Jian Qing and his nephew Mao Yuanxin. To a great extent, the Great Cultural Revolution was in effect a Great Cronyist Revitalisation. From economic development point of view, though, such policy and practise of anti-specialisation (in terms of downgrading intellectuals and professionals) and anti-diversification (regarding upgrading manual workers) were utterly irrational.

crises during Mao's era, conditions for growth and development deteriorated as the intervals between crises became shorter and crises lasted longer.[27]

Table 15. Fluctuations of Agricultural Yields, 1955 versus 1957

| Year | Wheat kg/*mu* | Soya kg/*mu* | Oil-seed kg/*mu* | Sugar cane kg/*mu* | Beet kg/*mu* | Tobacco kg/*mu* | Large animals (10,000) |
|---|---|---|---|---|---|---|---|
| 1955 | 57.5 | 53.0 | 47.0 | 2,647 | 926.5 | 79.0 | 8,775 |
| 1957 | 57.0 | 52.5 | 40.5 | 2,599 | 628.0 | 48.0 | 8,323 |
| Increase | –0.5 | –0.5 | –6.5 | –48 | –298.5 | –31 | –452 |

Source: Based on DNS 1998: 88.

Table 16. Rural Income Decline at 1959

| | Number of households surveyed | % of households with income loss |
|---|---|---|
| Total households surveyed | 195,354 | 28.9 |
| Poor households | 65,394 | 26.5 |
| Lower middle households (I) | 39,184 | 23.0 |
| Lower middle households (II) | 25,333 | 31.1 |
| Upper middle households (I) | 17,268 | 28.0 |
| Upper middle households (II) | 23,542 | 33.2 |
| *Sub-total* | *170,721* | *28.4* |

Source: Based on Su 1976: 151.

This echoed what happened in Stalin's Soviet Union. Collectivisation sent such a strong shock wave through the agricultural sector that by 1933 Russia's grain output dropped 30 per cent, the number of cattle 44 per cent, pigs 55 per cent, sheep and goats 65 per cent, horses 50 per cent. The losses in livestock represented a heavy loss of capital. This was coupled with a large-scale famine in 1932–3. It is commonly agreed that as many as four million died

[27] To indicate this point, in all there were five such intervals between major drives: *five* years between the Movement against Three and Five Evils (1951–2) and Anti-Rightist Struggle (1957), *one* year between Anti-Rightist Struggle and the Great Leap Forward (1958–60), *two* years between the Great Leap Forward and the Rectification of Communes (*zhengshe*, 1962), *three* years between the Consolidation of People's Communes and the Socialist Educational Drive (*shejiao*, 1964–5), and *one* year between the Socialist Educational Drive and the Cultural Revolution (1966–76).

of starvation (Nove 1992: 165–6). The difference between Stalin's Russia and Mao's China was only a matter of degree.

*2. Sectoral growth: industry and agriculture*

The Soviet unbalanced growth type with ISI necessitates exploitation of the agricultural sector for labour supply, capital accumulation and capital formation. Thus, it is rational to nurture the agricultural sector for the 'golden eggs'. To achieve this, it is equally rational to secure sustained growth in the agricultural sector at all times.

However, as shown in Table 17, real agricultural growth in terms of total output volume was as little as 0.6 per cent a year. It is under these circumstances that China changed from a net grain exporting economy to a net food importing economy (see Table 9). The situation changed only after Mao when the agricultural sector was given the opportunity to catch up with its industrial counterpart. A lower growth rate of industry (down to 7.9 per cent a year), and a higher growth rate of agriculture (up to 7.9 per cent a year) gave the economy more balance after 1978. Undoubtedly, during Mao's era, the distortion was deliberate and worse that Stalin's USSR (see Table 17).

Table 17. China's Output Growth (1952–83) Compared to the USSR (1928–32)

| | Gross increase | Net increase* | Gross increase |
|---|---|---|---|
| China | Mao's era 1952–78 (% annual) | Mao's era 1952–78 (% annual) | Post-Mao 1978–83 (% annual) |
| Industry (A) | 11.2 | 8.6 | 7.9 |
| Agriculture (B) | 3.2 (2.7†) | 0.6 (0.1§) | 7.9 |
| A:B | 3.5 (4.1§) | 14.4 (86.0§) | 1.0 |

| | Stalin's super-industrialisation |
|---|---|
| USSR | 1928–32 (% annual) |
| Industry (A) | 12.5¶ |
| Agriculture (B) | 9.0¶ |
| A:B | 1.4 |

Source: Based on Lippit 1987: 107; Ellman 1975: 845; *cf. China's Statistic Year Book 1985*: 239; He 1994: 7–8.

Note: *Net growth rate by discounting population growth at a rate of 2.6 per cent per year during Mao's era (He 1994: 7). †China's own statistics (*China's Statistic Year Book 1985*: 239). §Derived from China's own statistics (*China's Statistic Year Book 1985*: 239). ¶GDP growth as a proxy.

Most strikingly, from Table 17, the net growth rate of the industrial sector was at least 13 times higher than that of the agricultural sector. This echoes Stalin's 'super-industrialisation' or 'industrial dictatorship' some four decades earlier during the inter-war years in the Soviet

Union. Even the internal growth patterns in the industrial sector were very similar (see Table 18).

Table 18. China's Industrial Structure (% in Sectoral GDP), 1978 versus 1995, Compared to the USSR

| Year | Heavy Industry | Light industry |
|---|---|---|
| China | | |
| 1978 | 57% (100) | 43% (100) |
| 1995 | 50% (88) | 50% (116) |
| USSR | | |
| 1932 | 47% (100)* | 53% (100)† |
| 1937 | 58% (123)* | 42% (79)† |

Source: Based on Li 1998: 54; Nove 1992: 228.
Note: *Capital goods output as a proxy. †Consumers goods output as a proxy.

Back to agriculture itself, Table 19 portrays an even more gloomy picture considering the value of agricultural output: if both inflation and population growth are taken into account, the growth was largely negative (Indices II and IV).[28]

Table 19. Agricultural Output and GDP Performance, 1952–77

| Year | Gross output (billion *yuan*) (Current price) | Index (I) | (1952 price)* | Index (II) | Nominal GDP (Billion *yuan*) | Index (III) | **Real GDP*** (Billion *yuan*) | **Index** (IV) |
|---|---|---|---|---|---|---|---|---|
| 1952 | 41.7 | 100 | 41.7 | 100 | 34.0 | 100 | 34.0 | 100 |
| 1957 | 53.7 | 129 | 48.1 | 115 | 42.5 | 125 | 38.1 | 112 |
| 1962 | – | – | – | – | 44.4 | 131 | 34.6 | 102 |
| 1965 | 59.0 | 141 | 41.6 | 100 | – | – | – | – |
| 1967 | – | – | – | – | 70.3 | 208 | 45.8 | 135 |
| 1972 | 70.4 | 169 | 36.0 | 86 | 83.0 | 244 | 42.4 | 125 |
| 1977 | 80.7 | 194 | 28.7 | 69 | 98.1 | 289 | 34.9 | 103 |
| Gross annual | | 2.7% | | –1.5% | | 4.3% | | 0.1% |
| **Net annual†** | | **0.1%** | | **–4.1%** | | **1.7%** | | **–2.5%** |

Source: Based on *China's Statistic Year Book 1985*: 239; *cf.* ZJB 1999: 24, 40, 51, 64–5, 76–7, 99–100, 108–9, 128, 141, 155, 222–3, 257–8, 291–2.
Note: *Conversion is based on the average inflation rate of 2.01% per year for the period of 1950 to 1978 (Li 1997: 49–50). †Net growth by discounting population growth at a rate of 2.6 per cent per year during Mao's era (He 1994: 7).

[28] Not to mention under Mao the sudden, man-made decline of 56.5 million metric tons in food output (1959–61) which cost over 30 million rural lives.

Table 20 illustrates a sectoral comparative perspective: during the Great Leap Forward, agricultural output declined (back to the level of the previous decade in terms of value).

Table 20. Sectoral growth and decline during the fast growing period (in billion *yuan*, current price)

| | Total GDP | Industrial gross output | Agricultural gross output |
|---|---|---|---|
| 1949 | 46.6 (45) | 14.0 (22) | 32.6 (53) |
| 1950 | 57.6 (56) | 19.1 (30) | 38.4 (63) |
| 1951 | 68.4 (67) | 26.4 (41) | 42.0 (69) |
| 1952 | 67.9 (66) | 34.9 (54) | 48.4 (79) |
| 1953 | 82.4 (80) | 45.0 (70) | 51.0 (84) |
| 1954 | 85.9 (84) | 51.5 (80) | 53.5 (88) |
| 1955 | 91.0 (89) | 53.4 (83) | 57.5 (94) |
| 1956 | **102.8 (100)** | **64.2 (100)** | **61.0 (100)** |
| 1957 | 106.6 (104) | 70.4 (110) | 53.7 (88) |
| 1958 | 130.7 (127)† | 108.3 (169)† | 56.6 (93)† |
| 1959 | 143.9 (140)† | 148.3 (231)† | 49.7 (81)† |
| 1960 | 145.7 (142) | 163.7 (255) | 45.7 (75) |

Source: Based on ZJB 1999: 24, 40, 51, 64–5, 76–7, 99–100, 108–9, 128, 141, 155; *cf. China's Statistic Year Book 1985*: 239.
Note: †Figures that were inflated under the Great Leap Forward regime with industrial inputs and outputs which had little utility or value and agricultural outputs which were boasted out of proportion.

Although China's agriculture was crippled, pressure from the ISI policy kept mounting as more and more materials were demanded from agriculture to support industrial growth (see Table 21).

Table 21. Agricultural Products for the Non-Agricultural Sector, 1962–78 (in billion *yuan*)

| Year | Total nominal value (Current price) | Index | Total real value (1962 price)* | Index |
|---|---|---|---|---|
| 1962 | 21.1 | 100 | 21.1 | 100 |
| 1978 | 55.8 | 264 | 34.9 | 165 |
| Annual growth | | 6.3% | | 3.2% |

Source: Based on Lu 1999: 46.
Note: *Conversion is based on the average inflation rate of 2.01% per year for the period of 1950 to 1978 (Li 1997: 49–50).

## F. Material life of the people

### *1. Forced savings to finance ISI*

*a. Scissors pricing*

One of the Soviet methods to soften the financial constraint closely associated with ISI was to distort the terms of trade systematically between the industrial and agricultural sectors, known as 'scissors pricing' which can be traced back to 1922–3 (Gregory and Stuart 1994: 62–5).[29] Under Stalin's reign, this temporary tactic under the NEP became a permanent measure in 1929–53 (*ibid*: 90). The gap between the two sets of prices was the profit made by the Soviet state for capital accumulation. Thus, in nature, scissors pricing is a form of forced saving scheme through what can be better defined as 'economy-wide arbitrage by the state'. Such a policy was copied from the very beginning of Mao's era and remained unchanged until its end (see Table 22).

Table 22. China's price indices, 1950–6

| Year | Industrial goods price index | Agricultural goods price index | Profit index |
|---|---|---|---|
| 1950 | 100 | 100 | 0 (0) |
| 1951 | 108 | 93 | 15 (100) |
| 1952 | 110 | 90 | 20 (133) |
| 1953 | 120 | 80 | 40 (267) |
| 1954 | 123 | 78 | 45 (300) |
| 1955 | 120 | 80 | 40 (267) |
| 1956 | 125 | 77 | 48 (320) |
| Average | 115 | 85 | 30 |

Source: Based on National Price Commission 1964: 21.

This government arbitrage was the fundamental reason (1) why the agricultural sector produced as little as some 28 per cent of China's total GDP while employing as much as 71 per cent of China's total labour force, and (2) why the industrial sector was able to 'generate' some 49 per cent of the total GDP while employing only 17 per cent of the total labour force (as at 1978, see Tables 3 and 4). So, after the distortion of terms of trade, the per capita GDP

[29] The original idea was to attract more grain sale from the peasantry with the assumption that peasants would have the propensity to maintain their consumption pattern and hence their standard of living even if they have to pay higher prices for the same industrial goods and services. However, the Russian peasantry did not swallow the bait. The sale of grain remained at 50–57 per cent of the WWI level despite the fact that grain output recovered to the level close to the eve of WWI (Gregory and Stuart 1994: 65). A food shortage crisis soon re-occurred.

in agriculture was 61 per cent below the economy-wide unity ratio while that in industry was 188 per cent above the economy-wide unity ratio.[30]

By comparison, the Qing economy had a better balance. The agricultural sector during the Qing provided the Chinese with 80 per cent of the total employment and produced around 70 per cent of the total GDP (grain production alone occupying 60 per cent of the GDP) (Wang 1973: 80; Feuerwerker 1984: 299, 302, 312–13). This means that the per capita GDP in agriculture was only 12.5 (in terms of agricultural total output) to 25 per cent (in terms of food production) below the economy-wide unity ratio. The non-agricultural sector with a total employment of 20 per cent of population was able to produce 30 per cent of the total GDP, a rate of return 50 per cent above the economy-wide unity ratio. Thus, under Mao the sectoral differentiation in the per capita GDP capacities between the agricultural and industrial sectors was about four times worse than the situation during the Qing.

The whole purpose of this government arbitrage was to impose forced savings on the agricultural sector. If one takes the Qing price structure as the norm, after state intervention under Mao the state was able to take away each year in excess of 36 to 49 per cent of agricultural GDP (61 per cent minus 25 per cent, and 61 per cent minus 12.5 per cent) via unequal exchange for industrial goods and services which had a hyper 138 per cent of price mark-up (188 per cent minus 50 per cent).

From the 1978 data, the impact of the scissors pricing was far greater than that of agricultural taxes (at a rate of 10–12 per cent of the total agricultural output) during the 1950s) (Chen 2001: 14) which made up only 2.8–3.4 per cent of China's total GDP.[31] Given that 2.8–3.4 per cent of China's total GDP equalled 10–12 per cent of China's agricultural output, the drained 36 to 49 per cent of agricultural GDP from scissors pricing is thus 10–14 per cent of China's total GDP. Together with taxes, the state would take away as much as 39–52 per cent of total agricultural output, an equivalent of 11–15 per cent of China's total GDP. Mao's state was not only far more efficient than China's past imperial state in syphoning revenues from the economy, it also broke the record of rent-seeking Tsarist Russia, colonial India and Meiji Japan.[32]

---

[30] This 61 per cent mark should be taken as the minimum, as data suggest that the rural population in 1978 was as high as 83 per cent of China's total (Ling 1997: 102). If so, the per capita GDP in agriculture was 66 per cent below the economy-wide unity ratio.

[31] The rate was likely to be higher: the rate set up in 1958 was 15.5 per cent of the total output (Cui 1997: 13).

[32] China's old tax norm was around 10 per cent of the total output (Deng 1999b: app. G; Feuerwerker 1984: 299–300). A Comparison of rural taxes in Russia, India and Japan (Gatrell 1986: 199, 200; Francks 1992: 30–1; Rothermund 1993: 83–4):

| Country | Period | Type | Tax rate (% of total output) |
|---|---|---|---|

The aggregate revenue from the agricultural taxes in 1958–78 totalled 341 billion *yuan* (Lu 1999: 46). During the same period, the profit from grain monopsony and monopoly alone (made from the price difference between purchase and sale) amounted over 600 billion *yuan*. (Cui 1997: 13, 19). These two sums added a total of a staggering 941 billion *yuan* to the state coffers. Of this 600 billion *yuan* profit, half (300 billion *yuan*) was made directly from the lower price of grain purchased by the state (Cui 1997: 13, 19). If this 300 billion *yuan* is taken as the result of an indirect tax from the agricultural sector, the total revenue from agriculture was 641 billion *yuan*, more than enough to cover the total investment by Mao's state of 500 billion *yuan* for the same period.

This means that the agricultural sector handed over to Mao's state on average 32.1 billion *yuan* (counting direct and indirect taxes on agriculture) or 47.1 billion *yuan* (counting taxes on and profiteering from agriculture) each year. Against this background, the total asset of the agricultural sector (excluding land) was only 15 billion *yuan* (as at 1978, see Guo 1998: 54). So the 'golden egg' from the agricultural sector was over two to three times of the value of the 'hen' itself.

The hangover of scissors pricing can be felt after Mao. Recent observations show (1) that judged by world market prices, till the end of the 1980s, the average income of the Chinese peasantry was 45 per cent lower than it deserved (Chen and Han 1995: 14–15), (2) that the grain price in China had to increase five times even during the 1990s in order to correct the inter-sectoral price distortion under the Maoist scissors pricing policy (Fan 1995: 39), and (3) that the ridiculously inflated value of industrial assets under the scissors pricing regime faced severe depreciation in the post-Mao marketisation: it has been estimated that in 1982–92, a total of 500 billion *yuan* worth of state-owned industrial assets was 'lost' in the process of marketisation (Zhang *et al*. 1996: 132). This was equivalent to the total capital investment during the whole of Mao's era.

Much of the loss was claimed to be the result of 'selling short' in joint venture deals with foreign firms (Zhang *et al*. 1996: 142–3). Apart from official embezzlement (CCTV 2000; Chen 2000), the whole issue stems from either Maoist nostalgia or economic ignorance (or both). Indeed, all Chinese economists have accepted that there is an international market price for commodities. But, not all of them have accepted that there is also an international market price for production factors, especially capital goods. Even less have agreed that all of China's industrial assets are inevitably subject to a 're-pricing' process if China wants to have a full membership in the trading world. The alleged heavy loss of China's state-owned

| | | | |
|---|---|---|---|
| Japan | Meiji | Land | 30–50 |
| India | 1920s | Land | 6–22 |
| Russia | 1901 | Rural inclusive | 15–18 |

assets is a necessary process to remove the compounded impact of government distortion for decades in the form of artificial price mark-up for the industrial sector. From the market economy viewpoint, such 'loss', no matter how heavy it sounds, is well deserved. Judging from this angle, the state-owned sector under Mao was in nature a false or bubble economy which depended heavily on scissors pricing.

China's 'scissors price' structure distorted the market price and artificially increased production costs in farming and at the same time cut back the returns from investment in agriculture. As a result, the incentives for investment were removed. In as late as the early 1990s, even after several waves of price lifting, total investment in farming was only 0.37–1.18 per cent of China's total (Fan 1995: 40). It was also rational for individual farmers not to work hard despite the vigorous campaigns by the Maoist state to persuade the masses to follow the ideology of 'devoting arduous efforts' to socialism (Zhang 1998: pt 3). With such inferior conditions, it was logical for the agricultural sector to experience a prolonged recession during Mao's era. It is agreed that the agricultural recession in turn dragged Mao's industrial growth to the point of collapse (numerous works, eg. Cui 1997; Xie 1999).

But, on the other hand, monopolistic profit was yielded through scissors pricing. From 1958 to 1978, the profit from grain monopsony and monopoly alone (made from the price difference between purchase and sale) amounted to over 600 billion *yuan*, more than the total capital investment by the state of the same period (500 billion *yuan*) (Cui 1997: 13, 19).

Together with the early discussion associated with Tables 15 to 22 and, especially, with the fact that the total revenue from agriculture was 641 billion *yuan*, more than enough to cover the total investment by Mao's state of 500 billion *yuan* for the period of 1958 to 1978, it is so obvious that (1) heavy industry became the net investment recipient in the industrial sector, (2) the industrial sector as a whole became the net investment recipient in the entire economy and (3) the agricultural sector served as the net investment donor in the economy to support Mao's industrial scheme. Given that China's agricultural sector at best-experienced stagnation, under ISI any industrial growth in Mao's China was most likely to be a result of a 'zero-sum' game rather than a Pareto optimum.

*b. Frozen wages*

To take away 36 to 49 per cent of per capita GDP from the agricultural sector in order to mark up 138 per cent of prices for industrial goods did not however mean that urban workers were much better off. Forced savings also took the form of frozen wages from 1957 onwards. Even worse, what was frozen was only the nominal wage. With inflation, the real wage eroded badly: by 1978, the real average wage in the industrial sector was virtually halved from its 1957 level (see Table 23). The deteriorating real wage is positively confirmed by the real income level seen from dependant-supporting capacity per wageworker during the same

period (see Table 24). This basically means that as in the USSR during the 1930s industrial growth and the price mark-up for industrial output did not benefit the urban working class.

Table 23. Frozen Wage in the State Sector, 1957–78

| Year | Nominal wage rate (monthly) | Index | Real wage rate (1957 price)* | Index |
|---|---|---|---|---|
| 1957 | 637 | 100 | 637 | 100 |
| 1961 | 537 | 71 | 493 | 77 |
| 1965 | 652 | 93 | 539 | 85 |
| 1970 | 609 | 88 | 429 | 67 |
| 1976 | 605 | 86 | 327 | 51 |
| 1978 | 644 | 88 | 310 | 49 |

Source: Based on Lippit 1987: 150; *cf.* Zhao 2000: 100.
Note: *Conversion is based on the average inflation rate of 2.01% per year for the period of 1950 to 1978 (Li 1997: 49–50).

Table 24. Average Income Measured by Dependant-Supporting Capacity per Wage Worker

| Year | Average family (persons) | Dependents (persons) |
|---|---|---|
| Pre-1949 | – | 4.0 |
| 1957 | 4.47 | 3.3 |
| 1964 | 5.80 | 3.4 |
| 1970 | – | 2.5 |
| 1977 | 4.49 | 2.1 |

Source: Based on Cui 1997: 17–18.

To compensate for the decline in real wages, Mao's economic planners followed closely Stalin's model of 'total employment' (Gregory and Stuart 1994: 273): more and more workers were employed for a minimal wage (see Table 25). China's industrial labour and total factor productivities suffered in a vicious circle of constant decline. This policy created an enormous problem for the industrial sector known as the 'surplus labourers' in the state-owned sector. The total number of surplus workers counted for 30 to 37 million of the total out of 100 million employees of the sector (as at the mid-1990s, see Gu 1998: 61; Niu 1998: 56). Rural China was no better. In the early 1980's, surplus labourers in the rural sector reached 300 million. This was about one-third of China's total rural population (Xia and Zhu 1996: 48). Surplus labourers were a symptom of unsustainability of economic growth.

Table 25. Mao's 'Total Employment' in the Urban Sector, 1957–77

| Year | Average family size (Persons) | Index | Employed number (Persons/household) | Index |
|---|---|---|---|---|
| 1957 | 4.47 | 100 | 1.05 | 100 |
| 1962 | 5.31 | 119 | 1.56 | 149 |
| 1964 | 5.80 | 130 | 1.61 | 153 |
| 1965 | 5.34 | 119 | 1.70 | 162 |
| 1977 | 4.49 | 100 | 2.07 | 197 |
| **Annual growth** | | **0%** | | **3.4%** |

Source: Based on Cui 1997: 17–18.

Jointly with scissors pricing and wage freezing, Mao's state was able to accumulate capital at a very high rate as demonstrated in Table 26, where it is the norm for the rate for capital accumulation to surpass that for consumption. Forced saving was arguably the engine for growth under Mao. At this point it is worth noting that the tax burden on the industrial sector was extremely high at an average rate of 86 per cent (as at 1980) (Yang 1995: 44). This was determined by Mao's state-owned enterprise structure. But, this effectively removed incentives to produce more and better at the micro level.

Table 26. Capital Accumulation Rate versus Consumption Rate

| Year | Accumulation Rate | Index (I) | Consumption Rate | Index (II) | I:II |
|---|---|---|---|---|---|
| A. Fast growing period | | | | | |
| 1952 | 21.4 | 100 | 78.6 | 100 | 1.0 |
| 1953 | 23.1 | 108 | 76.9 | 98 | 1.1 |
| 1954 | 25.5 | 119 | 74.5 | 86 | 1.4 |
| 1955 | 22.9 | 107 | 77.1 | 98 | 1.1 |
| 1956 | 24.4 | 114 | 75.6 | 96 | 1.2 |
| 1957 | 24.9 | 116 | 75.1 | 96 | 1.2 |
| 1958 | 33.9 | 158 | 66.1 | 84 | 1.9 |
| 1959 | 43.8 | 205 | 56.2 | 72 | 2.8 |
| 1960 | 39.6 | 185 | 60.4 | 77 | 2.4 |

(Table 26, continued)

| Year | Accumulation Rate | Index (I) | Consumption Rate | Index (II) | I:II |
|---|---|---|---|---|---|
| B. Slow-down period | | | | | |
| 1961 | 19.2 | 90 | 80.8 | 103 | 0.9 |
| 1962 | 10.4 | 49 | 89.6 | 113 | 0.4 |
| 1963 | 17.5 | 82 | 82.5 | 105 | 0.8 |
| 1964 | 22.2 | 104 | 77.8 | 99 | 1.1 |
| 1965 | 27.1 | 127 | 72.9 | 93 | 1.4 |
| 1966 | 30.6 | 143 | 69.4 | 88 | 1.6 |
| 1967 | 21.3 | 99 | 78.7 | 100 | 1.0 |
| 1968 | 21.1 | 98 | 78.9 | 100 | 1.0 |
| 1969 | 23.2 | 108 | 76.8 | 98 | 1.1 |
| 1970 | 32.9 | 154 | 67.1 | 85 | 1.8 |
| 1971 | 34.1 | 160 | 65.9 | 84 | 1.9 |
| 1972 | 31.6 | 148 | 68.4 | 87 | 1.7 |
| 1973 | 32.9 | 154 | 67.1 | 85 | 1.8 |
| 1974 | 32.3 | 151 | 67.7 | 86 | 1.8 |
| 1975 | 33.9 | 158 | 66.1 | 84 | 1.9 |
| 1976 | 30.9 | 144 | 69.1 | 88 | 1.6 |
| 1977 | 32.3 | 151 | 67.7 | 86 | 1.8 |
| 1978 | 36.5 | 171 | 63.5 | 81 | 2.1 |

Source: Based on Lippit 1987: 155.

*2. Control over consumption through rationing of consumers' goods*

It is no secret that (1) the Soviet planned economy never gave priority to the production of consumers' goods and (2) the subsistence level of living was used as the sole reliable parameter for the Soviet economic planners to organise ordinary people's consumption. In other words, the Soviet planners had no desire or the necessary knowledge to improve the material life of the masses. Thus, in the entire Soviet history, there was no consumers' revolution. What the ordinary Soviet citizens could hope for was at best Khrushchev's infamous 'goulash communism' as the fruit of his virgin land farming campaign from the late 1950s (Nove 1992: ch. 12). Did Mao's economy perform better that its Soviet counterpart? The answer is negative. Apart from the fact that the agricultural sector was systematically tapped and that the industrial wages were frozen, food availability was kept very low during the whole of Mao's era.

*a. Low food availability*

In 1953, China's total grain output was 177 million metric tons for a population of some 450 million, or 393.3 kilograms per head. In 1978, the total grain output reached 300 million tons for a population of 962.5 million, only 311.7 kilograms of grain per head. This was a drop of 21 per cent in per capita terms (Cui 1997: 10, 11, 15). Given that maintaining an

adult at the subsistence level requires a minimum of 182.5 kilograms a year (0.5 kilograms of grain a day), it is not possible to claim that under Mao ordinary people were able to eat more and better. A pathetic 'goulash communism' was certainly not on offer.

In the same year (1978), a total rural surplus of 141.7 million tons (47 per cent of the total output) was purchased by the state as agricultural surplus. Given that by 1978 a total of 71 per cent of China's work force was agricultural (hence 683.4 million rural residents, see Table 3), the state took away 207.3 kilograms of grain from each rural resident as surplus. Consequently, the per capita rural grain consumption was at most 231.7 kilograms a year (derived from 158.3 million tons and 683.4 million rural residents) as these 231.7 kilograms had to cover also famine relief and seed. This is only some 20 per cent above the subsistence level of food consumption of 182.5 kilograms a year.

The remaining 29 per cent of China's urban population, some 279.1 million, lived on 507.7 kilograms a year. The urban citizens seemed 1.2 times better off than their rural counterparts. But these 507.7 kilograms a year needed to be discounted as a significant proportion of the 141.7 million tons was utilised as industrial inputs, not for human consumption. Indeed, it was the norm for an urban adult to live on 180–240 kilograms of grain a year under Mao's perpetual food rationing under which human calorie intake chiefly depended on grain; meat (and thus goulash) being regarded as a luxury.[33] The subsistence living was definitely applied to urban China, too. It is no exaggeration that under Mao, the vast majority of the Chinese population were at the mercy of hunger. This inevitably affected the quality of human capital in China.

The ultimate reason for low food availability was that the planned economy allowed China's food production to fall behind China's population growth (see Table 27). Thus, the availability of food declined absolutely over time. The most severe decline was after the Great Leap Forward. In 1962, China's per capita grain was 240 kilograms, a drop of some 40 per cent from the 1953 level (Cui 1997: 10; Lu 1999: 46). It was not until 1984 (when China's total grain output reached 400 million tons) that the per capita grain level bounced back to 386 kilograms, roughly the 1953 level (Wang 1996: 45). At this point, Mao's self-

---

[33] Mao's food rationing applied to each child immediately after birth. In 1978, each urban adult was granted the following items and quantities for each calendar month (Ling 1997: 101):

| Eggs | Pork | Sugar | Bean-curd | Bean noodles |
|---|---|---|---|---|
| 4 | 250 grams | 100 grams | 300 grams | 50 grams |

It was not until the mid-1980s that the rationed grain consumption in urban China slowly reached 250 kilograms, together with 25 kilograms of meat a year (Chen and Han 1995: 10). As the treat of hanger was constant, the life expectancies in Mao's China had to be very poor regardless of what the official propaganda claimed.

reliance was broken. Grain shortage led to food imports. In 1961–78, China's net import totalled 59.8 million tons, or 3.5 million tons a year (Lu 1999: 46). This would feed 19.2 million people at the subsistence level.

Table 27. Growth in Total Grain Output versus Growth in Total Population

| | Year | Number | Index |
|---|---|---|---|
| A. Total grain (million tons) | | | |
| | 1953 | 177 | 100 |
| | 1978 | 300 | 169 |
| | Annual growth | | 2.1% |
| B. Total population (million persons) | | | |
| | 1949 | 450.0 | 100 |
| | 1958 | 659.9 | 147 |
| | 1978 | 962.5 | 214 |
| | Annual growth | | 2.6% |

Source: Based on Cui 1997: 10–11, 15; Jiang 1994: 70.

*b. Poverty*

It was taboo and a political crime to talk about poverty during Mao's era. But the phenomenon was nation-wide. In terms of 'relative poverty', a term coined by Karl Marx referring the gap between the rich and the poor, the entire period between 1957 and 1978 was marred by deteriorating standards of living among the majority of the population. In rural China, by 1978, two-thirds of the rural population had a living standard below that of 20 years earlier. The remaining one-third had a living standard below that of 40 years earlier (Ling 1997: 102–3). Indeed, the entire peasantry became seriously worse off under Mao. Nation-wide, things were not any better. Table 28 highlights the shortage of basic consumers' items.

Table 28. Decline in Actual Consumption per Capita, 1957 versus 1978

| | Grain | Oil | Meat | Sea food | Housing (I) | Housing (II) | Shops/10,000 persons |
|---|---|---|---|---|---|---|---|
| 1957 | 203.06 kg | 2.42 kg | 1.61 kg | 4.34 kg | 4.5 $m^2$ | 11.30 $m^2$ | 41.81 |
| 1978 | 195.46 kg | 1.60 kg | 1.19 kg | 3.42 kg | 3.6 $m^2$ | 10.17 $m^2$ | 13.04 |
| Index* | 96 | 66 | 74 | 79 | 80 | 90 | 31 |

Source: Based on Zhao 2000: 100.
Note: Housing (I) – urban China. Housing (II) – rural China. *1957=100.

In terms of 'absolute poverty' to borrow Marx's terminology again, Table 29 shows that Mao's regime impoverished China more than the regimes did in the USSR and post-independence India. A move towards a Pareto optimal only started after Mao (see Table 30).

Table 29. Poverty Rate in China, Compared to the USSR and India

| | Year | Decades of industrialisation | % in all households |
|---|---|---|---|
| USSR | 1967 | 4.0 | 33.0% |
| India | 1968 | 1.5 | 24.2% |
| China | 1978 | 2.5 | 49.3% |

Source: Based on Chaudhuri 1979: 205; Gregory and Stuart 1994: 257; Chen 2000: 132–3.

Table 30. China's Population below the Official Poverty Line (% in households), 1978–88

| Type | 1978 | 1980 | 1982 | 1984 | 1986 | 1988 |
|---|---|---|---|---|---|---|
| A. Urban sector | 10.7* | 10.7* | 9.7 | 4.8 | 9.0 | 8.3 |
| Index | (100) | (100) | (91) | (45) | (84) | (78) |
| B. Rural sector (I) | 65.1 | 51.3 | 32.7 | 18.1 | 15.3 | 15.7 |
| Index | (100) | (79) | (50) | (28) | (24) | (24) |
| Rural sector (II)† | 44.1 | 27.6 | 16.5 | 8.2 | 7.5 | 6.0 |
| Index | (100) | (63) | (37) | (19) | (17) | (14) |
| C. China's total (I) | 49.3 | 44.0* | 30.8 | 17.5 | 15.9 | 15.9 |
| Index | (100) | (89) | (62) | (35) | (32) | (32) |
| China's total (II)† | 31.3 | 19.6 | 14.5 | 7.4 | 6.6 | 5.2 |
| Index | (100) | (63) | (46) | (24) | (21) | (17) |

Source: Based on Chen 2000: 132–3.[34]
Note: *1981 figure as a proxy. †Those below the official 'abject poverty line'.

It is thus not surprising that the majority in Mao's China had a hand-to-mouth existence. In the 1960s to 1970s, China's overall Engel's coefficient was as high as 0.7 (He 1994: 8). In 1978, the Engel's coefficient for the urban sector (16 per cent of China's total) was 0.58. The

[34] For more damning data see Cui 1997: 12 (indicating that in 1949–78, at least 33 per cent of rural population constantly lived in poverty), He 1994: 4 (demonstrating that in 1985 as many as 20 per cent of the population lived on less than 20 *yuan* a month and were on the brink of starvation), and He *et al*. 1997: 63 (saying that in 1995, after two decades of vigorous efforts to alleviate poverty, at least 65 million in rural China still lived in absolute poverty).

rural Engel's coefficient for the rest of the 84 per cent of population was thus 0.72 (Cui 1997: 12). Poverty was just another symptom of unsustainability in economic growth.

Anecdotally, compared to Khrushchev's 'a-goulash-per-day communism' and Kim's 'an-apple-per-day communism' (North Korea), Mao only offered in the 1960s–70s a mortification communism of, *ad verbum*, 'a diet of liquid food for the slack season and solid for the busy one'. Here, indeed no attention was given to alleviating or eliminating poverty. It is not difficult to imagine just how appealing Mao's communism could be in both the short and long runs. As poverty perpetuated under Mao, a strategy of 'class struggle under proletarian dictatorship' was created and actively implemented to distract people's attention.[35] Clearly, the early maxim of 'serving the people' (*wei renmin fuwu*) during the Yan-an decade (1937–47) was abandoned. A new doctrine of 'severing the people' (*luxian paidui*, literally 'screening the population according to Mao's line') in the name of class struggle was permanently given the policy priority.[36]

*c. Equity and Equality*

In terms of poverty alleviation and elimination, Mao's regime did not score well at all. But, what about equality? After all, Mao's China was portrayed itself to the outside world as a country of egalitarianism after the elimination of private ownership and market profiteering.

The term 'equality' can be interpreted in many ways. But in essence, it is a normative concept which means that citizens are or should be treated equally or fairly with basic dignity. Thus, it is closely related to people's rights. There is of course a vision of positivism: equality can mean that everyone is treated equally badly as in the case of POWs and subjects of a tyrant. It is thus important to use the term 'equity and equality' to avoid any misconception of the agenda.

It is commonly agreed that under collectivisation Chinese farmers were stripped of their (1) landholding rights, (2) production decision-making rights, (3) marketing rights, (4) travelling and migration rights. What to produce, how to produce, when to produce and for whom to produce were all decided by the party. Farmers had no economic and political freedom, and

---

[35] Mao's 'class struggle under proletarian dictatorship' was fundamentally flawed as orthodox Marxism (to be precise, orthodox historical materialism) associates classes only with private ownership. Thus, under communism there will be no class let alone class struggle. Thus, from 1957 to 1976 Mao and Maoist theocrats were at best busy attacking a man of straw. In contrast, Chinese traditional Confucianism is far superior in massaging human relations among all strata.

[36] Under Mao, snitching and tattling was vigorously encouraged as an act of loyalty to Mao. It was very common that family members were forced to take sides politically with severe personal consequences. Basic law and order broke down. As a result, cannibalism came back to parts of Maoist China (Hodgkinson 2001).

instead developed personal bondage to the party machine (Cui 1997: 11–12). This resembles Tsarist state serfdom rather than Marxian communism. Moreover, the rural population, about 70 to 80 per cent of China's total, did not have the luxury of health care and pensions. This was not trivial in terms of what the rural population got from the hundreds of billion *yuan* they paid in taxes (including scissors pricing).

From the viewpoint of economy-wide income distribution and redistribution, Mao's state as an economic agent (*legalis homo*) not only played an important role (just to mention forced savings) but also claimed a lion's share of China's total GDP. This is shown in Table 31 where the state got half the 'cake', which was apparently unprecedented in Chinese history and has to be corrected by reform.

Table 31. Distribution of GDP in China, 1978 versus 1995 and Late Qing

| | State | | | |
|---|---|---|---|---|
| | Government | Enterprises | Sate total | Individual citizens |
| 1978 | 33.5 | 16.1 | 49.6 | 50.4 |
| 1995 | 13.2 | 18.3 | 31.5 | 68.5 |
| Late Qing | | | 24.0 | 76.0 |

Source: Based on He 1997: 62; Stover and Stover 1976: 10.

From the early analysis, it is known that throughout Mao's era the Chinese economy had modest real and net growth (assuming constant prices and a constant population) and individual income was at best frozen. In addition, the growth was unbalanced with a clear bias towards heavy industry that eventually became self-serving. Under theses circumstances, it is almost certain that there was a 'zero-sum' game between the state and individual citizens. And it is almost certain that the state was the sole beneficiary of growth during Mao's era. This can only be justified by Stalin's ISI teleology, although whether the goal of industrialisation was achieved is a completely different matter.

Perhaps a high degree of income equality existed among ordinary citizens after the extraction by the state. Evidence suggests the opposite. Table 32 demonstrates that during Mao's era income distribution measured by the Gini coefficient was unequal across the board. What this testifies to is that the 'three major gaps' (*sanda chabie*) were not reduced.

Table 32. Trend in Inequality Seen from the Gini Coefficient

| | Year | Gini coefficient | Index |
|---|---|---|---|
| A. Mao's era | 1952 | 0.25 | 100 |
| | 1958 | 0.37 | 148 |
| | 1978 | 0.31 | 124 |
| B. Post-Mao period | 1983 | 0.28 | 112 |
| | 1992 | 0.33 | 132 |

Source: Based on Zhang 1994: 41.

## G. Final remarks

First, throughout Mao's era, China had problematic growth and problematic development: the growth was unbalanced and unsustainable. China seemed to start with an equilibrium by 1954 and ended up with a severe disequilibrium in 1978. This was largely due to a lack of understanding of how to pursue modernisation and a lack of imagination (hence everything being copied from Stalin). Mao's Great Leap Forward was not the end of the beginning of fast growth. Rather, it was the beginning of the end of a state failure under Maoism which was proved unsuited to China, a country that had a very long history of a market economy. Thus, despite the alleged surge in economic growth, Mao's China remained largely rural and a structural change in the economy was negligible. This becomes most obvious when the real growth and net growth stances are revealed.

Second, the industrial sector became pathetically parasitic on the agricultural sector. Much of the industrial gain in GDP/GNP was to a great extent a result of the deliberate price distortion and should thus be severely discounted. Meanwhile, due to the same scissors pricing policy, the nominal share of the agricultural sector in China's total GDP/GNP needs to be multiplied.

Third, Mao's economy was not designed to enrich and empower the masses in society and the latter in turn responded to his policy with apathy and low morale.

All these fundamentally challenge the notion that Mao's period was a period of great economic growth and development. [37]

Now, back to Figure 1. Did Mao's China do any better in achieving a status of a strong state with a rich population? Judging by China's general track record, growth/developmental strategy, economic structure, economic performance and the material life of the people, the answer is definitely 'No'. All these mark a clear case of state failure in the forms of

[37] There are numerous works with romantic pro-Mao views, see for example Riskin 1987.

excessive rent-seeking and economic mismanagement. All the evidence indicates that at the end of his life, Mao degenerated from being development-illiterate to anti-developmental. In short, the Maoist sate was a liability, not an asset, for China's growth and development. And, Mao's China paid a heavy price for Mao's personal interest and propensity.

It was not until 1978 did a developmental state was revitalised when Deng Xiaoping launched his marketisation reform, an equivalent of Lenin's NEP, with a clearly stated goal for the first time since 1949 of improving ordinary people's living standards (*xiaokang*, literally meaning 'modest prosperity'). This made it possible for China to move towards a combination of 'strong state and rich population'.

# Appendix
## Growth Statistics and Estimates, 1949–66

Table i shows China's nominal growth rate and Table ii shows its real and net growth rates. Table iii is presented as a comparison where the nominal growth is even lower than in Table i.

Table i. Growth Statistics for Nominal Total GDP, 1949-66 (in billion *yuan*)

| Year | Overall growth | | | | Pre-socialist and socialist growth | | | |
|---|---|---|---|---|---|---|---|---|
| | Nominal GDP | Index (I) | Index (II) | Index (III) | Index (IV) | Index (V) | Index (VI) | Index (VII) |
| 1949 | 35.8 | 100 | 100 | – | 100 | – | – | – |
| 1950 | 42.6 | 119 | 119 | – | 119 | – | – | – |
| 1951 | 49.7 | 139 | 139 | – | 139 | – | – | – |
| 1952 | 58.9 | 165 | 165 | – | 165 | – | – | – |
| 1953 | 70.9 | 198 | 198 | – | 198 | – | – | – |
| 1954 | 74.8 | 209 | 209 | – | 209 | – | – | – |
| 1955 | 78.8 | 220 | 220 | – | 220 | – | – | – |
| | | | | | *14.0%** | | | |
| 1956 | 88.2 | 246 | 246 | – | – | 100 | 100 | – |
| 1957 | 90.8 | 253 | 253 | – | – | 103 | 103 | – |
| 1958 | 111.8† | 312† | 312† | – | – | 127† | 127† | – |
| 1959 | 122.2† | 341† | 341† | – | – | 139† | 139† | – |
| 1960 | 122.0 | 341 | 341 | – | – | 138 | 138 | – |
| | | | *11.8%** | | – | | *8.4%** | |
| 1961 | 99.6 | 278 | – | 100 | – | 113 | – | 100 |
| 1962 | 92.4 | 258 | – | 93 | – | 105 | – | 93 |
| 1963 | 100.0 | 279 | – | 100 | – | 113 | – | 100 |
| 1964 | 116.6 | 327 | – | 117 | – | 132 | – | 117 |
| 1965 | 138.7 | 387 | – | 139 | – | 157 | – | 139 |
| 1966 | 158.6 | 443 | – | 159 | – | 180 | – | 159 |
| | | | | *9.7%** | | *6.1%** | | *9.7%** |
| **Nominal annual** | | | **9.2%** | | | | | |

Source: Based on *China's Statistic Year Book 1983*: 13–14, 22–3; *cf.* ZJB 1999: 24, 40, 51, 64–5, 76–7, 99–100, 108–9, 128, 141, 155, 168–9, 181–2, 189–90, 197–8, 206, 261.

Note: Index (I) – Overall growth (1949–66). Index (II) – First sub-period growth (1949–60). Index (III) – Second sub-period growth (1961–6). Index (IV) – Pre-socialist growth (1949–55). Index (V) – Socialist growth (1956–66). Index (VI) – First socialist sub-period (1956–60). Index (VII) – Second socialist sub-period (1961–6). *Annual growth rate for sub-period. †Figures that were inflated under the Great Leap Forward regime with industrial inputs and outputs which had little utility or value and agricultural outputs which were boasted out of proportion.

Table ii. Growth Statistics for Nominal and Real Total GDP, 1949–66 (in billion *yuan*)

| Year | Nominal | Index (I) | **Real*** | Index (II) | (III) | (IV) | (V) | (VI) | (VII) | (VIII) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1949 | 35.8 | 100 | 35.8 | 100 | 100 | – | 100 | – | – | – |
| 1950 | 42.6 | 119 | 41.7 | 116 | 116 | – | 116 | – | – | – |
| 1951 | 49.7 | 139 | 47.7 | 133 | 133 | – | 133 | – | – | – |
| 1952 | 58.9 | 165 | 55.3 | 154 | 133 | – | 133 | – | – | – |
| 1953 | 70.9 | 198 | 65.0 | 182 | 182 | – | 182 | – | – | – |
| 1954 | 74.8 | 209 | 67.0 | 187 | 187 | – | 187 | – | – | – |
| 1955 | 78.8 | 220 | 68.8 | 192 | 192 | – | 192 | – | – | – |
| | | | | | | | *11.5%†* | | | |
| 1956 | 88.2 | 246 | 75.0 | 210 | 210 | – | – | 100 | 100 | – |
| 1957 | 90.8 | 253 | 75.1 | 210 | 210 | – | – | 100 | 100 | – |
| 1958 | 111.8§ | 312§ | 89.9§ | 251§ | 251§ | – | – | 120§ | 120§ | – |
| 1959 | 122.2§ | 341§ | 95.3§ | 266§ | 266§ | – | – | 127§ | 127§ | – |
| 1960 | 122.0 | 341 | 92.1 | 257 | 257 | – | – | 123 | 123 | – |
| | | | | | *9.0%†* | | | | *5.3%†* | |
| 1961 | 99.6 | 278 | 72.7 | 203 | – | 100 | – | 97 | – | 100 |
| 1962 | 92.4 | 258 | 65.1 | 182 | – | 90 | – | 87 | – | 90 |
| 1963 | 100.0 | 279 | 67.9 | 190 | – | 93 | – | 91 | – | 93 |
| 1964 | 116.6 | 327 | 76.0 | 212 | – | 105 | – | 101 | – | 105 |
| 1965 | 138.7 | 387 | 86.7 | 242 | – | 119 | – | 116 | – | 119 |
| 1966 | 158.6 | 443 | 94.8 | 265 | – | 130 | – | 126 | – | 130 |
| | | | | | | *4.5%†* | | *2.3%†* | – | *5.4%†* |
| **Gross annual** | | | 9.2% | | **5.9%** | | | | | |
| **Net annual¶** | | 6.6% | | **3.3%** | | | | | | |

Source: Based on *China's Statistic Year Book 1983*: 13–14, 22–3.

Note: Index (I) – Nominal growth (1949–66). Index (II) – Real growth (1949–66). Index (III) – First sub-period growth (1949–60). Index (IV) – Second sub-period growth (1961–6). Index (V) – Pre-socialist growth (1949–55). Index (VI) – Socialist growth (1956–66). Index (VII) – First socialist sub-period (1956–60). Index (VIII) – Second socialist sub-period (1961–6).

*Conversion is based on the average inflation rate of 2.01% per year for the period of 1950 to 1978 (Li 1997: 49–50). †Annual growth rate for sub-period. §Figures that were inflated under the Great Leap Forward regime with industrial inputs and outputs which had little utility or value and agricultural outputs which were boasted out of proportion. ¶Net growth by discounting population growth at a rate of 2.6 per cent per year during 1952–80 (He 1994: 7).

Table i. GDP Estimates by Wang, 1956-65

| Year | Nominal total (million *yuan*) | Index |
|---|---|---|
| 1956 | 682 | 100 |
| 1960 | 1,055 | 155 |
| 1965 | 1,122 | 166 |
| **Nominal annual** | | **5.8%** |

Source: Based on Wang 1999: 81; *cf*. ZJB 1999: 99–100, 155, 205.

## References

Alam, M. S. 1989. *Governments and Markets in Economic Development Strategies: Lessons from Korea, Taiwan, and Japan.* New York: Praeger.

Amsden, A. H. 1992. 'A Theory of Government Intervention in Late Industrialization'. In L. Putterman and D. Rueschemeyer (eds) *State and Market in Development: Synergy or Rivalry*. Boulder: Lynne Rienner Publishers, pp. 53–84.

Bandera, V. N. 1984. 'Capital Accumulation and Growth in a Mixed Socialist Economy'. *Journal of Economic History*, 13, 1 (1984): 7–27.

CCTV (Chinese Central Television). 2000. *Tongji Fubai* (*Combat Corruption*). Beijing: Huayi Press.

Chao, Kang. 1986. *Man and Land in Chinese History: An Economic Analysis*. Stanford: Stanford University Press.

Charlesworth, Neil. 1982. *British Rule and the Indian Economy*. London: MacMillan.

Chaudhuri, Pramit. 1979. *The Indian Economy, Poverty and Development*. New York: St. Martin's Press.

Chen Bo. 2000. *Zhongguo Fanfubai Ershinian* (*Twenty Years Counter-Corruption in China*). Beijing: People's Press.

Chen Jiyuan and Han Jun. 1995. 'Nongmin Shouru Zengzhang Yu Nongcun Jingji Jiegou Biandong Guanxide Yanjiu' ('A Study of the Correlation between Growth in Peasant Income and Structural Change in the Rural Economy'), *Zhongguo Nongcun Guancha* (*Observation of Rural China*), 1 (1995): 3–16.

Chen Zongsheng, Wu Zhe and Xie Enquan. 1999. *Zhongguo Jingji Tizhi Shichanghua Jincheng Yanjiu* (*A Study of the Process of Marketisation of the Chinese Economy*). Shanghai: Shanghai People's Press.

Chen Zongsheng. 2000. *Shouru Chabie Pinkun Ji Shiye* (*Income Differentiation, Poverty and Unemployment.* Tianjin: Nankai University Press.

Chou, T. C. 1985. 'The Pattern and Strategy of Industrialization in Taiwan'. *The Developing Economies*, 23 (2): 138–57.

Cui Xiaoli. 1997. 'Xinzhongguo Chengxiang Guanxide Jingji Jichu Yu Chengshihua Xianxiang' ('The Economic Basis of the Urban-rural Relationship and Urbanisation in New China'), *Zhongguo Jinjishi Yanjiu* (*Study of Chinese Economic History*), 4 (1997): 1–22.

Davies, R. W., Mark Harrison and S. G. Wheatcroft. 1994. *The Economic Transformation of the Soviet Union, 1913–1945*. Cambridge: Cambridge University Press.

Deng, Gang. 1997a. *Chinese Maritime Activities and Socio-economic Consequences, c. 2100 B.C.–1900 A.D.* New York, London and West Port: Greenwood Publishing Group.

Deng, Gang. 1997b. 'The Foreign Staple Trade of China in the Premodern Era'. In *The International History Review* (May 1997): 253–83.

Deng, Gang. 1999a. *Maritime Sector, Institutions and Sea Power of Premodern China*. New York, London and West Port: Greenwood Publishing Group.

Deng, Gang. 1999b. *The Premodern Chinese Economy – Structural Equilibrium and Capitalist Sterility*. London and New York: Routledge.

DNS (Nongyebu Nongcun Jingji Yanjiu Zhongxin, Dangdai Nongyeshi Yanjiushi, Contemporary Agricultural History Study Group, Rural Economy Institute, Ministry of Agriculture, ed.). 1998. *Dangdai Zhongguo Nongye Biange Yu Fazhan Yanjiu* (*A Study of Agricultural Reforms and Development in Contemporary China*). Beijing: China's Agriculture Press.

Ellman, Michael. 1975. 'Did the Agricultural Surplus Provide the Resources for the Increase in Investment in the USSR during the First Five Year Plan?' *The Economic Journal*, (Dec, 1975): 844–64.

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

Fairbank, J. K. 1965. *The United States and China*. Cambridge [Mass.]: Harvard University Press.

Fan Gang. 1995. 'Lun Jiejue Woguo Liangshi Gongji Wentide Changqi Zhanglue Yu Duanqi Duice' ('Long Term and Short Term Strategies for China's Food Supply'), *Xinhua Wenzhai* (*Xinhua Compilation*), 12 (1995): 38–41.

Feuerwerker, Albert. 1976. *State and Society in Eighteenth-Century China: the Ch'ing Empire in Its Glory*. Ann Arbor: Center for Chinese Studies of the University of Michigan.

Feuerwerker, Albert. 1984. 'The State and the Economy in Late Imperial China', *Theory and Society*, 13: 297–326.

Francks, Penelope. 1992. *Japanese Economic Development, Theory and Practic*e. London: Routledge.

Gates, Hill. 1996. *China's Motor, A Thousand Years of Petty Capitalism*. Ithaca and London: Cornell University Press.

Gatrell, Peter. 1986. *The Tsarist Economy, 1850–1917*. London: B. T. Batsford.

Gerschenkron, Alexander. 1962. *Economic Backwardness in Historical Perspective*. Cambridge: Harvard University Press.

Gregory, P. R. 1994. *Before Command: An Economic History of Russia from Emancipation to the First Five-Year Plan*. Princeton: Princeton University Press.
Gregory, P. R. and R. C. Stuart. 1994. *Soviet and Post-Soviet Economic Structure and Performance*. New York: HarperCollins.
Gu Xin. 1998. 'Danwei Fuli Shehui Zhuyi Yu Zhongguode Zhiduxing Shiye' ('Enterprise-based Welfare Socialism and China's Structural Unemployment'), *Xinhua Wenzhai* (*Xinhua Compilation*), 11 (1998): 61–4.
Guo Lulai. 1998. 'Jingji Tizhi Gaige Yilai Woguo Nongcun Jiti Suoyouzhi Jiegoude Biange' ('Changes in the Rural Collective Ownership Structure since 1978'), *Xinhua Wenzhai* (*Xinhua Compilation*), 7 (1998): 54–7.
Harriss, John, Janet Hunter and C. M. Lewis (eds). 1995. *The New Institutional Economics and the Third World Development*. London: Routledge.
Hartwell, R. M. 1966. 'Markets, Technology, and the Structure of Enterprise in the Development of the Eleventh-Century Chinese Iron and Steel Industry'. *Journal of Economic History*, 1: 29–58.
He Bochuan. 1994. '2000 Nian Zhongguo Mubiao Xitongde 20 Ge Cuiruodian' ('Twenty Weak Points in China's Targets for the Year 2000'), *Xinhua Wenzhai* (*Xinhua Compilation*), 5 (1994): 7–8.
He Keng, Zheng Jiaheng, Qiu Xiaohua and Zheng Jingping. 1997. 'Dui Dangqian Shouru Fenpeide Toushi' ('Analysis of Current Income Distribution'), *Xinhua Wenzhai* (*Xinhua Compilation*), 5 (1997): 62–4.
Hodgkinson, Thomas. 2001. 'Cannibalism: A Potted History'. *The Independent Magazine* (UK), 17 March (2001): 27 – 9.
Hu Angang, Wang Shaoguang and Kang Xiaoguang. 1995. *Zhongguo Diqu Chayi Baogao* (*Regional Disparities in China*). Shenyang: Liaoning People's Press.
Hu Sheng. 1999. 'Mao Zedongde Xin Minzhuzhuyi Lun Zai Pingjia' ('Re-assessment of Mao Zedong's Theory of New Democracy'), *Zhongguo Shehui Kexueyuan Tongxun* (*Newsletter of the Chinese Academy of Social Sciences*), 20 April (1999): 1–3.
Jiang Tao. 1994. 'Zhongguo Jindai Renko Wentide Zai Renshi' ('Rethinking of China's population during the Modern Era'), *Xinhua Wenzhai* (*Xinhua Compilation*), 5 (1994): 70–1.
Lal, Deepak. 1988. *The Hindu Equilibrium, Cultural Stability and Economic Stagnation: India c. 1500 B.C. – A.D. 1980*. Vol. 1. Oxford: Clarendon.
Lan Xia. 2000. '1957–1976 Nian Woguo Jingji Jilei Yu Fenpei Zhuangkuang' ('Capital Accumulation and Distribution in the Chinese Economy, 1957–1976'), *Chengdu Daxue Xuebao* (*Bulletin of Chengdu University*), 1 (2000): 21–3.
Li Jingwen. 1995. 'Lun Woguo Chanye Jiegoude Biandong Qushi' ('Trend of Structural Change in China's Economy', *Xinhua Wenzhai* (*Xinhua Compilation*), 12 (1995): 46–8.
Li Jingwen. 1997. 'Zhongguo Jingji Tizhi Zhuanxing Guochengzhongde Hongguan Tiaokong' ('Macro Control in the Process of Switching China's Economic System'), *Xinhua Wenzhai* (*Xinhua Compilation*), 4 (1997): 49–51.
Li Jingwen. 1998. 'Zhongguo Chanye Jieguode Bianhua Yu Fazhan Qushi' ('Change and Trend in China's Economic Structure'), *Xinhua Wenzhai* (*Xinhua Compilation*), 8 (1998): 52–4.
Li Rui. 1996. *Dayuejin Qinli Ji* (*Personal Experience of the 'Great Leap Forward'*). Shanghai: Shanghai Far East Press.
Li Zongzhi and Zhang Runjun. 1999. *Zhonghua Renmin Gongheguo Jingjishi, 1949–1999* (*An Economic History of the People's Republic of China, 1949–1999*). Lanzhou: Lanzhou University Press.
Ling Zhijun. 1997. *Lishi Buzi Paihuai* (*History, No Longer Hesitated*). Beijing: People's Press.
Lippit, V. D. 1987.*The Economic Development of China*. Armonk, New York and New York: M. E. Sharpe.
Lu Shihong. 1999. 'Renmin Gonshe Tizhide Diaozheng Weihe Paihua Buqian' ('Reasons Why the People's Commune Failed'), *Guihai Luncong* (*Guizhou Forum*), 5 (1999): 44–6.
Maitra, Priyatosh. 1991. *Indian Economic Development. Population Growth and Technical Change*. New Delhi: Ashish.
Minami, Ryoshin. 1986. *The Economic Development of Japan*. London: MacMillan.
Myers, R. H. 1970. *The Chinese Peasant Economy: Agricultural Development in Hopei and Shangtung, 1890–1949*. Cambridge [Mass.]: Harvard University Press.
National Price Commission. 1964. *Wujia Tongji Ziliao Jianbian* (*Price Statistics*). Beijing: People's Press.
Needham, Joseph (ed.). 1954–94. *Science and Civilisation in China*. Cambridge: Cambridge University Press.
Niu Renliang. 1998. 'Lun Zai Jiuye', ('Re-Employment'), *Xinhua Wenzhai* (*Xinhua Compilation*), 2 (1998): 56–9.
Nolan, P. 1993. 'The Causation and Prevention of Famines: A Critique of A. K. Sen'. *Journal of Peasant Studies*, 21, 1: 1–39.

Nove. 1992. *An Economic History of the USSR, 1917–1991*. London: Penguin Books.
Pan Shi. 1995. 'Guanyu Muqian Woguo Tonghuo Pengzhangde Jide Lilun Renshi Wenti' ('Theoretical Debate on Current Inflation'), *Xinhua Wenzhai* (*Xinhua Compilation*) 10 (1995): 48–52.
Pan Yiyong. 1994. 'Lu Chuantong Nongye Wenming Xiang Xiandai Gongye Wenming Zhuanhuande Huji Zhang-ai' ('Residence Control as a Barrier to Transforming a Traditional Agrarian Civilisation to a Modern Industrial Civilisation'), *Xinhua Wenzhai* (*Xinhua Compilation*), 5 (1994): 12–15.
*People's Republic of China Year Book, 1996/97*. Hong Kong: NCN Ltd.
Pomeranz, K. 2000. *The Great Divergence, Europe, China and The Making of the Modern World Economy*. Princeton [N.J.]: Princeton University Press.
Rabushka, Alvin. 1979. *Hong Kong: A Study in Economic Freedom*. Chicago: Graduate School of Business, the University of Chicago.
Ray, R. K. 1979. *Industrialization in India: Growth and Conflict in the Private Corporate Sector, 1914–47*. Delhi and Oxford: Oxford University Press.
Riskin, C. 1987. *China's Political Economy: the Quest for Development since 1949*. Oxford: Oxford University Press.
Rothermund, Dietmar. 1993. *An Economic History of India, from Pre-Colonial Times to 1991*. London: Routledge.
Rowen, H. S. 1998. *Behind East Asian Growth*. London and New York: Routledge.
Sen, A. K. 1981. *Poverty and Famines: An Essay on Entitlement and Deprivation*. Oxford: Clarendon.
Skinner, G. W. 1964–5. 'Marketing and Social Structure in Rural China'. *Journal of Asian Studies*, 24: 3–44, 195–228, 363–400.
Skinner, G. W. 1971. 'Chinese Peasants and Closed Community: an Open and Shut Case'. *Comparative Studies in Society and History*, 13: 270–81.
Song Qiang and Qiao Bian. 1998. *Renmin Jiyi Wushinian* (*People's Memories of the Last 50 Years*). Lanzhou: Gansu People's Press.
Stover, L. E. and T. K. Stover. 1976. *China: an Anthropological Perspective*. Pacific Palisades [Calif.]: Goodyear Publishing Co.
Su Xing. 1976. *Woguo Nongyede Shehui Zhuyi Gaizao* (*Socialist Reform of China's Agriculture*). Beijing: People's Press.
Tomlinson, B. R. 1993. *The Economy of Modern India, 1860–1970*. In Gordon Johnson (ed.) *The New Cambridge History of India*. Vol. 3. Cambridge: Cambridge University Press.
Wade, Robert. 1990. *Governing the Market: Economic Theory and the Role of Government in East Asian Industrialisation*. Princeton: Princeton University Press.
Wang Defa. 1999. 'Zhongguo 1956–1966 Jingji Fazhan Yu Shijie Qita Guojia Huo Diqu Jingji Fazhan Zhi Bijiao' ('A Comparison between China's Economic Growth and that of Other Countries/Regions during the Period of 1956–1966'), *Shanghai Dangshi Yanjiu* (*Study of Party History of Shanghai*), Supplement (1999): 79–84.
Wang Jiadong. 1996. 'Tudi Liyong Guoced Hexin Shi Baohu Gengdi' ('Preservation of Arable Land as the Key of Land Utilisation Policy'), *Xinhua Wenzhai* (*Xinhua Compilation*), 1 (1996): 45–7.
Wang, Yie-chien. 1973. *Land Taxation in Imperial China, 1750–1911*. Cambridge [Mass.]: Harvard University Press.
Wheatcroft, S. G., R. W. Davies and J. M. Cooper. 1986. 'Soviet Industrialization Reconsidered: Some Preliminary Conclusions about Economic Development between 1926 and 1941'. *Economic History Review*, 39, 2 (1986): 264–94.
Xia Jizhi and Zhu Hong. 1996. 'Woguo Jiuye Wenti Yanjiu' ('Employment Problems in China'), *Xinhua Wenzhai* (*Xinhua Compilation*), 1 (1996): 48–52.
Xie Zhikui. 1999. 'Lun Renmin Gongshede Zhuzhi Yiyi' ('Impact of the Commune System'), *Xueshu Jie* (*Academia*), 6 (1999): 26–31.
Yang Peixin. 1995. 'Dui Guoyou Qiye Gaige Wentide Tantao' ('State-owned Enterprises and Reform'), *Xinhua Wenzhai* (*Xinhua Compilation*), 10 (1995): 43–5.
Zeng Tianshan and Guan Xiliang (eds). 1998. *Xiang Pinkun He Yumei Xuanzhan* (*Campaign against Poverty and Ignorance*). Nanning: Guangxi Education Press.
Zhang Daoge. 1994. 'Bufen Xianfude Gaige Xiaoying' ('Effect of Allowing A Few To Become Rich First'), *Xinhua Wenzhai* (*Xinhua Compilation*), 4 (1994): 39–41.
Zhang Letian. 1998. *Gaobie Lixiang* (*Departure from Utopia*). Shanghai: Orient Press.
Zhang Li, Zeng Tianshan and Guan Xiliang (eds). 1998. *Miandui Pinkun* (*Facing Poverty*). Nanning: Guangxi Education Press.

Zhang Wenmin, Song Guangmao, Zheng Hongliang, Zan Xiaohong and Wang Limin. 1996. *Zhongguo Jingji Dalunzhan* (*Grand Debate on the Chinese Economy*). Beijing: Economy and Management Press.

Zhang Yulai, 'Tigao Guojia Jingji Zhiliang' ('Enhance Quality of the Economy'), *Xinhua Wenzhai* (*Xinhua Compilation*), 5 (1994): 64–5.

Zhang Zhuoyuan. 1998. 'Zhongguo Jingji Tizhi Gaigede Zongti Huigu Yu Zhanwang' ('Review and Speculation of the Reform of China's Economic System'), *Xinhua Wenzhai* (*Xinhua Compilation*), 7 (1998): 48–50.

Zhao Deqin. 2000. 'Zhongguo Jingji Wushinian Fazhande Lujing Jieduan Yu Jiben Jingyan' ('Path, Stages and Main Lessons from the 50-year long Growth of the Chinese Economy', *Zhongguo Jingjishi Yanjiu* (*Study of Chinese Economic History*), 1 (2000): 73–85.

*Zhongguo Tongji Nianjian* (*China's Statistic Year Book 1983*). Beijing. Economy Press.

Zhou Wei and Lu Jing (eds). 1997. *Pinkun Zhongde Qipan* (*Hope in Poverty*). Nanning: Guangxi Education Press.

ZJB (Zhongyang Caijing Lingdao Xiaozu Bangongshi, Central Financial and Economic Office, ed.). 1999. *Zhongguo Jingji Fazhan Wushinian* (*Fifty Years of Development of the Chinese Economy*). Beijing: Central Party Academy Press.