
State and Market in Socialist Development: the case of Chinese industrial planning

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One of the fundamental aims of revolutionary socialist development in the marxist tradition has been that of transforming economic processes, replacing the 'anarchy' of markets under capitalism with the 'scientific' determination of social needs through planning [Bettelheim 1976]. Early theorists of Soviet socialism, such as Bukharin and Preobrazhensky, held that, as the new socialist society arose, it would displace the 'economic categories' characteristic of capitalism (value, price, wages, profits). The science of economics itself would become obsolete, to be replaced by a merely technical discipline of rational economic calculation in a society organised as a single 'people's workshop' [Bukharin 1920 (1971):12; Bukharin and Preobrazhensky 1920 (1969); Brus 1973:ch 6]. Marxist economists have argued that, while markets are not peculiar to the capitalist system, they have reached their peak of historical development therein, on the one hand operating as the underlying logic of economic processes and, on the other hand, (along with class conflict) as a fundamental source of capitalism's chronic instability and eventual collapse.

Over the past half century, while capitalism has sought to control the destructive potential of markets, socialism has grappled with the problem of constructing a productive alternative to them. In each case, the role of the state has been crucial. Revolutionary socialists in power have faced the challenge of translating mobilisational metaphors and academic constructs such as 'scientific planning' and 'cooperative production' into social mechanisms capable of surpassing the economic achievements of capitalism. While the founding fathers of Marxism were optimistic — overly so — about the capacity of socialist planners and organised populations to assume conscious and democratic control of economies already highly developed by capitalism, the actual conditions of revolutionary socialist success — in relatively undeveloped societies — have greatly restricted the choice of institutional embodiments of the 'plan'.

In the Soviet case, and in more recent Third World contexts, the logic of socialist aims (class transformation and planned economy) and of underdevelopment (low levels of savings and technology, pervasive scarcity, lack of trained personnel, economic dependence and international hostility) have combined to create an equation between the 'social mechanism of planning' and a pervasive, hierarchical state apparatus [Senghaas 1981]. It is the state which has taken on a dual historical role: as a developmental elite counterpart to the capitalist entrepreneurial class and as a system of economic coordination counterpart to markets. Though lamented by liberals and leftists alike, there is an inexorability about this equation in the early stages of socialist transformation. As we shall see later, however, the logic of statism grows weaker as its initial tasks are fulfilled, and the contradictions between a pervasive state and the requirements of social, economic and political development intensify.

Socialist Transformation of Chinese Industry

China provides a particularly dramatic example of both the capacities and limits of the socialist state as an instrument of industrialisation. Like their nationalist and imperial predecessors, the leadership of the Chinese Communist Party (CCP) who assumed power in Beijing in 1949 saw rapid and comprehensive industrialisation as the basic way to strengthen China as a nation-state — there was no question of whether or when to industrialise, but how. They inherited a sizeable state industrial sector from the Kuomintang regime, producing 34.7 per cent of total industrial output value in 1949 [Xue 1981:18]. The impetus towards industrialisation, particularly heavy industry, was further strengthened by the hostile international environment of the early 1950s and the influence of Soviet economic advice and assistance.

Given the specific conditions of the Chinese revolution, the new regime's attitude to indigenous industrial capitalists was far more favourable than

their bolshevik precursors in the aftermath of the October Revolution. The 'national bourgeoisie' was defined as an ally against imperialism and was initially recognised as one of the four collaborating classes which formed the official social basis of the post-revolutionary state. But indigenous Chinese industrial capital was weakly developed in 1949 (particularly in heavy industry) and was weakened further by an outflow of capitalists and managers, particularly to Hong Kong and Taiwan, in the immediate pre- and post-revolutionary period. Over the longer term, moreover, the CCP realised that capitalists as a class, and markets as social processes, were sources of potentially countervailing power. Transformation of the industrial mode of production was essential for political as well as economic reasons.

Though the transition to state control of industry was seen as essential, the mechanisms of transition were relatively moderate and incremental, using economic as well as politico-administrative methods. Indigenous private industrial enterprises were not appropriated at one fell swoop; there were two intermediate stages of 'state capitalism'. In the first, dominant up to 1953, the state regulated private enterprises by economic means — monetary measures, price controls, taxation — and by gradually expanding control over supplies of raw materials and wholesale trade in industrial commodities. In the second phase, the state gradually converted private enterprises into joint state-private concerns, sending party or government cadres to join or supplant the original managers.

By 1956, all modern sectors of capitalist industry had been converted into joint enterprises. Though many managers retained their posts after that date and former owners continued to receive fixed interest payments on their capital (until the height of the Cultural Revolution in 1967), from 1956 onwards these were *de facto* state enterprises. Along with this transformation of private industry, the socialist state sector expanded through renovation and expansion of previous (Kuomintang or foreign) enterprises and an ambitious programme of industrial construction during the First Five Year Plan (1953-57). By 1956, all China's modern industry was, *de jure or de facto*, in state hands, as Table 1 shows.

Simultaneously, commerce was also socialised: in wholesale trade, state and (state-controlled) joint or cooperative commerce handled 97.2 per cent of total turnover by 1956; in retail trade, the figure was 95.8 per cent [Cheng 1982:ch 5].

Changes in formal ownership aside, the modern industrial sector was gradually incorporated into the new system of planned production and distribution constructed during the First Five Year Plan along the lines of the traditional centralised Soviet model. In this system, central planning agencies calculate overall economic balances, in static and dynamic terms, and government agencies at different levels specify and transmit orders on output and distribution to subordinate productive units. In China, state agencies specified eight quantitative and qualitative targets

Table 1

Transformation of private industry, 1949-56¹

year	state industry	state-capitalist industry		private industry
		joint state-private enterprises	private enterprises producing for the state	
1949	34.7	2.0	7.5	55.8
1950	45.3	2.9	14.9	36.9
1951	45.9	4.0	21.4	28.7
1952	56.0	5.0	21.9	17.1
1953	57.5	5.7	22.8	14.0
1954	62.8	12.3	19.6	5.3
1955	67.7	16.1	13.2	3.0
1956	67.5	32.5	—	—

¹ Percentages of gross industrial output value, excluding handicrafts.

Source: State Statistical Bureau 1960:38

which were binding on enterprise managers: total output value, product mix, quality, consumption of raw materials and energy, total wage bill, costs of production, profits (ie net revenue) and working capital. In such a system, market mechanisms play a marginal role: investment ratios are administratively determined and there are no capital markets; prices are administratively determined and regulated; money plays a passive, accounting role; the pattern of output is overwhelmingly determined by the preferences of state officials (not merely 'planners'), not market demand; and sectoral relationships are determined by a 'material balancing' process based on technical coefficients without any systematic opportunity-cost accounting based on real or shadow markets. In terms of official categories, relations among industrial enterprises and between state organs and enterprises were not (following Stalin) to be based on exchange of commodities based on the 'law of value', but were subject to unified accounting at the national level, as if industry were one large corporation.

There were important, but relatively residual, market elements: notably in relations between (state) industry and cooperative agriculture and in retail sales of industrial consumer goods. In the area of industrial labour allocation, however, where the Soviet Union and Eastern European states have made considerable use of (regulated) markets, the Chinese system has remained firmly under state regulation since the mid-1950s [White 1982:620-1].

Though these central managerial features of Chinese industrial economy remained consistent until the late 1970s, one must be careful not to confuse Chinese practice with any simple model of 'central planning'. During the maoist period industrial planning was a contradictory amalgam of procedures, formal and informal, built up coral-like over three decades. Though retaining the classic Soviet form, it was modified by successive waves of reform, notably during the Great Leap Forward and the Cultural Revolution. The main thrust of these reforms was towards organisational decentralisation of planning and managerial powers from central to local government (akin to Khrushchev's regional decentralisation of the Soviet planning system after 1957), resulting in a partial dispersion of regulative power. Moreover, though a lot of activity described as 'planning' clearly went on, it was poorly informed, weakly coordinated, circumscribed in scope and uneven in impact. The resulting system was not very 'centralised' nor particularly 'planned'. But it was heavily *administered*, a concept to be carefully distinguished from *planned*. 'Plan' instructions were issued as direct mandatory administrative requirements, rather than as indirect instructions designed to set parameters within which enterprise managers

could make their own economic decisions. The resulting degree of bureaucratisation was tempered to some extent in practice. The system was less 'top down' than its Soviet predecessor; there was scope for subordinate units to press their demands and considerable bargaining between state organs and their subordinate enterprises. Moreover, there was a trend towards the emergence of informal markets in raw materials, intermediate and finished products, as enterprises sought to remedy shortages and unplug bottlenecks by setting up barter networks manned by 'fixers'.

The maoist system of industrial planning was thus a complex mixture of administrative regulation, political bargaining (vertically and horizontally) and 'grey' markets. But it was also a system in which the defining characteristics of market processes were absent, weak or driven underground: productive units lacked autonomy, economic linkages were predominantly vertical (state-enterprise), not horizontal (between enterprises) [Liao 1980], production dominated exchange (ie market demand had little impact on the pattern of output) and the regulating role of prices was very circumscribed.

Chinese Industrial Performance: Achievements and Problems

The results achieved with this cumbersome framework should not be underestimated. China was successful, in a little over two decades, in establishing a relatively comprehensive industrial structure while avoiding dependence on foreign countries (except perhaps in the mid-1950s). During the 1950s the ratio of investment rose by an estimated 3.2-3.6 times compared to 1931-36 [Yeh 1968:510-11] and consistently high (though fluctuating) rates of overall accumulation¹ have been maintained since then (for figures, see State Statistical Bureau 1983:25 — hereafter SSB). Most of these investment funds were channelled into directly productive investment [SSB 1983:27], the lion's share going to industry, especially heavy industry [SSB 1983:326-34]. The industrial proportion of total national product rose substantially and a formidable heavy industrial capacity was established [SSB 1983:15, 216-17]. For example, the value of machine-building output rose from 11.4 per cent of total industrial output value in 1952 to 27.7 per cent in 1975. The annual rate of growth in industrial output value (in constant prices) was 10.9 per cent

¹ The 'accumulation fund' is officially defined as 'that part of the national income which is used for expanded reproduction, non-productive construction and increase of productive and non-productive stock. Its material formation is the newly added fixed assets of material and non-material sectors (less depreciation of the total fixed assets) and the newly acquired circulating fund in kind by the material sectors during the year' [State Statistical Bureau 1983:579-80].

between 1952-80, with the advance of heavy industry (13 per cent) outpacing that of light (9.5 per cent) [Ishikawa 1983:245-6].² State industry dominated the collective sector — the respective proportions were 77.8 per cent and 21.4 per cent of gross industrial output value in 1982 [SSB 1983:222]. However, though the industrial proportion of net output value in industry and agriculture rose from 25.3 per cent in 1952 to 54.1 per cent in 1979, China had hardly been transformed into an industrial society. As of 1979, 84.9 per cent of the total industrial and agricultural workforce still worked in agriculture [Yang and Li 1980:103-4].

Impressive though these achievements appear, they conceal certain basic problems which became increasingly acute during the 1960s and 1970s. Respectable (though fluctuating) statistical growth figures were purchased at the cost of heavy constraints on popular consumption. Levels of *per capita* earnings and consumption of non-agricultural workers rose sluggishly up to the mid-1970s, remaining static or declining in certain periods (for varying estimates see Ishikawa 1983:252-3 and Field 1983:652). While levels of capital intensity in state industry were steadily rising [White 1982:617], labour productivity and efficiency of capital utilisation were falling. Marginal capital-output ratios decreased significantly [Ishikawa 1983:253-60] and the net value of output per industrial worker declined from 2763 to 2593 (current) *yuan* between 1965 and 1975 [Nolan and White 1984:Table 8; compare Field 1983].

While there were a number of basic factors contributing to this increasingly problematic performance — such as political instability, international isolation, and the intractability of the problem of raising agricultural productivity — perhaps the main factor identified by Chinese economists in the post-Mao era was the negative impact of the state, both on the structure and the functioning of the industrial economy. First, there was a 'state bias' in development strategy which privileged accumulation over consumption, 'productive' over 'unproductive' investment and heavy over light industry and agriculture (for 'state bias' in Chinese rural-urban policy, see Nolan and White 1984; for a Chinese critique of investment strategy, see Dong 1982). If accumulation and industrialisation constituted the original *raison d'être* of state control over industry, they were increasingly converted into *raison d'état*, the means whereby the state apparatus (and state workforce) expanded and legitimised their dominance in society (this 'over-accumulation' or 'accumulation bias' is a familiar feature of state socialist economies; see Nuti 1979:246-52).

² For the official Chinese definitions of 'heavy' and 'light' industry, see SSB 1983:585-6.

Second, not only did state-owned industry formally hold the dominant position in industry (and commerce), but state organs gradually encroached on the non-state sector, converting formally independent collective enterprises into *de facto* state enterprises (the same process of state encroachment also affected agriculture, as Gray's contribution to this *Bulletin* shows). Behind this lay a conception of socialist development which equated *étatisation* with a higher level of 'socialism'. Similarly the replacement of remaining market elements with directive 'planned' regulation was equated with 'socialist transition'.

Third, the system of centralised directive planning was defined as an increasing impediment to more efficient utilisation of resources and greater economic and technical dynamism. Though these factors are closely interrelated, for reasons of space we shall concentrate on the third in the remainder of this article.

Chinese Industrial Planning: the market reform critique

Chinese market reformers in the post-Mao era concentrated their fire on the economic irrationalities of the previous pattern of state involvement in industry (for a more detailed discussion, see White 1983b). They have identified two crucial sets of problematic relationships between state and economy: first, between administrative systems and economic processes and, second, between state organs of economic management and basic-level productive units.

According to the first set of critical arguments, direct state involvement in industry creates a tension between the different (but not necessarily contradictory) social logics of the state and of 'natural' economic processes. Pervasive state intervention can impede economic development because it imposes an inflexible network of administrative subdivisions which break up the 'natural relations of the objective economy'. Economic development involves an increasing density of economic relationships, ('socialisation of production' in marxist terms) with an increasingly complex pattern of differentiation and coordination between economic units. To the extent that administrative units cut across these proliferating 'organic connections' of specialisation and exchange, they may distort and obstruct economic progress [Xue and Ma 1982; Ma Hong 1981].

This administrative segmentation of the economy has two basic forms, regional and departmental. Each politico-administrative level — be this province or township — restructures the economy in its own image

and tends to operate as an independent entity, adopting 'protectionist' measures against competing regions and striving to strengthen local autarky. The policy issues thus raised are miniaturised versions of debates about self-reliance and integration which are usually posed at the national level. Turning to vertical or departmental segmentation, industrial administration exercised by central departments on the 'branch principle' creates bureaucratic 'systems' (the Chinese word is *xitong*), each of which has a tendency to become an 'independent kingdom', thereby impeding intersectoral coordination and technical change.

This departmental and regional segmentation has led Chinese economists to propose two broad avenues of reform. First, they argue that administration and economy, politics and economics should be separated more clearly and the latter allowed to operate according to their own 'organic' logic. On the one side, this implies less state involvement and a change in the nature of regulative procedures from direct to indirect, 'administrative' to 'economic'. On the other side, it involves a revitalisation of markets and greater awareness on the part of economic policy-makers of the commoditised character of a socialist economy. Second, to the extent that directive state regulation remains appropriate in selected areas, its efficiency should be improved by strengthening the ability of planning departments to curb 'departmentalism' and establish a more rational division of labour between central and local governments.

Turning to the second main set of critical arguments, Chinese reformers have held that directive planning, whether by central or local state organs, has robbed industrial enterprises of all initiative, turning them into beads on an abacus pushed hither and thither by bureaucratic fingers [Ma 1981:19]. Under the previous system of industrial planning, the level and type of output and key elements of the production process were determined by mandatory administrative fiat. Investment funds were disbursed as (interest-free) budgetary allocations; technical innovations and new products needed approval from above; sources of materials supply and sales outlets were arranged by state organs, which also fixed prices; nearly all profits were remitted to state financial organs and most of the enterprise depreciation funds reverted to the state.

On the production side, the target of total output value tended to outrank other (efficiency oriented) targets — Chinese economists call it the 'father of the emperor' [He 1979]. As a result, enterprises were impelled to seek increased output value without sufficient regard for cost or quality. On the materials supply side, industrial enterprises suffered from defects in the state-organised system of 'unified

allocation', which caused shortages and delays in production [Ji and Rong 1979; Koziara and Yan 1983]. On the sales side, although output was theoretically linked to demand through planning calculations, responsibility for selling rested not with the enterprise itself but with state commercial organs which had to 'sell what they produced'. The hiring of labour was subject to strict administrative controls, so that enterprises with idle material and equipment found it difficult to reallocate or take on extra labour. Enterprise managers' lack of financial power in the context of 'unified receipts and unified expenditures' meant that efficient enterprises often failed to gain rewards for good performance and inefficient enterprises received state subsidies for losses — this form of redistribution was known as 'eating from the same pot'. Since the discretionary funds of enterprise managers were so limited, moreover, they were unable to design incentive schemes to improve labour productivity.

The central theme running through these criticisms was the severe economic cost of a system of industrial management which either reduced enterprises to passivity or, where it did stir their initiative, drove them in unproductive directions. The 'key link' in reforming this system, argued Chinese economists, was the need for greater decision-making power for enterprise managers *vis-à-vis* their bureaucratic superiors [Jiang 1980], in a context of increasing inter-enterprise linkages and market signals.

Industrial Reforms in Action: progress and prospects

The overall strategy economic reforms which emerged during 1978-79 contained four major sets of measures. First, the national planning system was to be streamlined, taking on a narrower range of macro-economic functions, notably determination of the size and growth-rate of national income, the ratio between investment and consumption and the allocation of strategic investments. The state was to continue to play the crucial role of maintaining overall balances in physical and financial, domestic and international terms, and overseeing major changes in the industrial structure. Second, planners were to make greater use of 'economic levers' (such as credit, taxation, subsidy, etc) to achieve their objectives in place of mandatory targets. Third, 'natural' economic linkages were to be allowed greater scope in defining relations between enterprises and in setting the context for governmental regulations (through the emergence of 'economic regions' which cut across administrative boundaries). Fourth, enterprises managers were to be granted greater decision-making autonomy and their performance 'verified' by increasing involvement in competitive markets.

Though considerable progress has been made over the past five years, it has been very uneven, both over time and across sectors and policy areas (for a more detailed analysis, see White 1983b). The statistical basis for accurate industrial planning has been improved and greater attention has been paid to refining macro and micro planning techniques, drawing on Eastern European, Japanese and Western experience. There was substantial progress towards clarifying the spheres of market and plan. The CCP's 12th party congress in September 1982 stipulated that in future, industry should be regulated in three basic ways: 'directive' (*zhilixing*) plans (with mandatory targets) for key sectors and products (mainly strategic producer goods, basic materials, and certain key consumer goods), 'guidance' (*zhidaoxing*) plans with reference targets, for non-strategic or relatively plentiful producer goods and a considerable proportion of consumer goods, and 'market' (*shichang*) allocation for non-staple foodstuffs and smaller consumer items [White 1983a:9-11]. Each of these processes involved progressively greater amounts of enterprise autonomy and market links, the second category, 'guidance planning', being a hybrid with both plan and market elements.

Given the continued complexity of the tasks it continues to tackle, however, the industrial planning system is still basically unreformed. The scope of 'directive' plans has not contracted as much as reformers would have liked — the 'eight targets' still remain dominant. Though the importance of 'guidance' planning is strongly asserted, there is still a considerable lack of clarity about what this means in both theory and practice. Thus the fundamental relationship between state and enterprises has changed little. Though there has been some progress in financial reforms (towards imposing capital charges on investment funds, expanding the discretionary funds of enterprise managers and substituting taxation for the old system of profit remission), in other areas change has been relatively marginal (production planning and marketing, materials procurement and labour recruitment).

Nor has the range of market processes expanded as much as some of the original blueprints of 1978-79 envisaged. Though the scope of markets varies across sectors, in general they have not generated the salutary efficiency pressures and productive competition which reform analyses promised. In particular, the authorities have still to tackle the thorny problem of price reform; without this, any serious expansion of the sphere of 'market regulation' is unthinkable. Without market pressures working through price signals, the expansion of decision-making autonomy for industrial managers is hardly likely to bear fruit in terms of increasing enterprise efficiency.

The prospects for moving towards a more productive relationship between state and economy and greater complementarity between plan and market are very uncertain. While the past five years has brought greater clarity about the analytical and practical problems of combining plans and markets, the constraints on reform have also become clearer. Efforts to implement reform policies ran into serious *economic* problems, notably budgetary deficits, inflation, hyper-investment, price instability. There was also formidable *political* opposition from former supporters of radical maoism and from entrenched interests within the state apparatus.

Indeed, the last five years have highlighted one of the basic dilemmas of a socialist developmental state. The record of the 1960s and 1970s suggests the growing incapacity of the state institutions to direct the economy in socially productive ways through the traditional mechanisms of political mobilisation and bureaucratic control. To respond to escalating economic problems by strengthening traditional methods could only make matters worse. On the other hand, to embrace the reform programme fully would bring about such a radical shift in relations between state and society as to undermine the very basis of leninist socialism. The state as problem-solver thus confronts the state as an organised interest; the path to reform will probably be tortuous and long.

Conclusion

What, if any, lessons can be drawn from the experience of the Chinese state's role in the industrialisation process? First, it may help to resist any simple, ahistorical generalisations about the economic impact of state intervention and support a case that different forms and degrees of state involvement are appropriate at different stages of the industrialisation process, with traditional directive methods having greater relevance and effectiveness in initial periods of basic construction of structural change. Chinese experience also argues that at *all* stages, not merely in more 'mature' phases of industrialisation, state involvement needs to be more selective in its *scope* (whether in terms of types of economic decisions or of different economic sectors) and more flexible in the *forms* of involvement adopted (notably between 'directive' and 'guidance' methods). The Chinese case also points to the importance of striking a balance between state agencies and productive units (whether state collective or private enterprises) and developing a lively microeconomy which can be channelled and not stifled by state action. Finally, the Chinese experience illustrates the general point that questions of economic management and reform in state socialist contexts are deeply political and not susceptible to merely technical solutions — they are problems of political economy in the full sense of the term.

References

- Bettelheim, C., 1976, *Economic Calculation and Forms of Property*, Routledge and Kegan Paul, London
- Brus, W., 1973, *The Economics and Politics of Socialism: collected essays*, Routledge and Kegan Paul, London
- Bukharin, N. I., 1920 (1969), *Economics of the Transformation Period*, Moscow, (Bergman Publishers, New York)
- Bukharin, N. I. and E. Preobrazhensky, 1920 (1969), *The ABC of Communism*, Moscow, (Penguin, Middlesex)
- Cheng, Chu-yuan, 1982, *China's Economic Development: growth and structural change*, Westview Press, Boulder
- Dong Fureng, 1982, 'Relationship between accumulation and consumption' in Xu et al, op cit, pp 79-101
- Field, R. M., 1983, 'Slow growth of labour productivity in Chinese industry, 1952-81', *China Quarterly*, no 96 (December), pp 641-64
- He Jianzhang, 1979, 'Problems in the planned management of the economy owned by the whole people and the orientation of reform', *Jingji Yanjiu* (Economic Research), Beijing, no 5 (20 May), pp 35-45
- Ishikawa, S., 1983, 'China's economic growth since 1949-an assessment', *China Quarterly*, no 94 (June), pp 242-81
- Ji Chongwei and Rong Wenzuo, 1979, 'How are we to reform the system of industrial administration', *Jingji Guanli* (Economic Management), Beijing, no 6 (25 June), pp 8-12
- Jiang Yiwei, 1980, 'The theory of an enterprise-based economy', *Social Sciences in China*, no 1, pp 48-70
- Koziara, E. C. and Yan C-s, 1983, 'The distribution system for producers' goods in China', *China Quarterly*, no 96 (December), pp 689-702
- Liao Jili, 1980, 'A talk on structural reform in terms of horizontal and vertical integration', *People's Daily*, Beijing (26 August)
- Ma Hong, 1981, 'On several questions of reforming the economic management system', *Jingji Yanjiu* (Economic Research), Beijing, no 7 (20 July), pp 11-24
- Nolan, P. and G. White, 1984, 'Urban bias, rural bias or state bias? Urban-rural relations in post-revolutionary China', *Journal of Development Studies*, vol 20 no 3
- Nuti, D. M., 1979, 'The contradictions of socialist economies: a marxist interpretation' in R. Miliband and J. Saville (eds), *The Socialist Register 1979*, Merlin Press, London, pp 228-73
- Senghaas, D., 1981, 'Socialism in historical and developmental perspective', *Economics*, no 23, pp 94-115
- State Statistical Bureau, 1960, *Ten Great Years*, Foreign Languages Press, Beijing
- 1983, *Statistical Yearbook of China 1983*, Beijing
- White, G., 1982, 'Urban employment and labour allocation policies in post-Mao China', *World Development*, vol 10 no 8, pp 613-32
- 1983a, 'Industrial planning and administration in contemporary China: transcript of a research trip June-July 1983', IDS, Sussex
- 1983b, 'Socialist planning and industrial management: Chinese economic reforms in the post-Mao era' *Development and Change*, vol 14, pp 483-514
- Xu Dixin et al, 1982, *China's Search for Economic Growth*, New World Press, Beijing
- Xue Muqiao, 1981, *China's Socialist Economy*, Foreign Languages Press, Beijing
- Xue Xin and Ma Biao, 1982 'It is imperative to practice planned economy if we are to stay on the socialist road', *Guangming Ribao* (Glorious Daily), Beijing, 9 May, p 1,3
- Yang Jianbai and Li Xueceng, 1980, 'The relations between agriculture, light industry and heavy industry in China', *Social Sciences in China*, vol 1 no 2 (June), pp 182-212
- Yeh, K. C., 1968, 'Capital formation' in A. Eckstein et al (eds), *Economic Trends in Communist China*, Edinburgh University Press