THE COTTON TEXTILE INDUSTRY
AS A CASE STUDY OF THE PLANNING OF
ECONOMIC DEVELOPMENT IN CHINA
1949-61

by

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A thesis submitted for the degree of
Doctor of Philosophy
in The Australian National University
October 1973
Except where otherwise indicated, this thesis is my own work.

Kevin Barry Bucknall
ABSTRACT

This dissertation is concerned with planning in China, 1949-61, and examines the cotton textile industry in order to reveal the actual operation of planning. The textile industry is discussed, for example its important role as an accumulator of capital and foreign exchange is considered, but this is not the main focus of attention.

The variety of significant problems involved in the courageous attempt to establish a system of comprehensive planning before the Great Leap Forward is disclosed. Some of these, such as problems of allocation between different geographical regions, ownership systems, and mills of varying size and technological levels, are to some extent specific to the textile industry. Many of the problems in planning were, however, of general application throughout the economy.

Various micro-planning problems are discussed. These occurred mainly at the level of the enterprise, and included poor collection of statistical information, problems of organising and running the unit, and a disproportionate growth in the number of staff. Numerous problems in incentives, sanctions and supervision methods, in order to encourage the managers to strive to fulfill the plans, were part of the syndrome.

The responses of the managers to the plans they received are considered. The features of managerial behaviour in the Soviet Union known as simulation and the seeking of safety factors are shown to have been widely used in the Chinese cotton textile industry, but blat was apparently less pervasive.

Finally, the inability to implement properly a system of comprehensive planning, together with the increasing rigidities involved, is established as an important factor in the change in the strategy of development and the emergence of the Great Leap Forward. The disruptive effects of this movement on the cotton textile industry are then traced.
I first became interested in the planning of economic development in China as a result of conversations with Dr K.R. Walker in the University of London, and I wish to thank him for his initial guidance. I must also thank the London Committee of the London-Cornell Project for East and South-East Asian Societies for scholarship funds which supported my family and myself in Hong Kong for eighteen months, during which time I improved my knowledge of Chinese, interviewed refugees and collected information on the Chinese economy.

I owe a debt to the Australian National University for the award of a two year scholarship which allowed the completion of this thesis. Miss Audrey Donnithorne, Head of the Contemporary China Centre and my supervisor, has helped greatly by suggestions, guidance and encouragement during these two years. During her absence in the last four months, Professor H.W. Arndt added to his onerous duties as Head of Department by kindly taking over the supervisory role.

For typing part of a preliminary draft I wish to acknowledge the help of Mrs Erica Harriss. Mrs Betty Parkes, with the assistance of Mrs Cheryl Dingle, typed the final work very well indeed.

The final tribute must go to my wife, Dorothy, who cheerfully bore the brunt of the burdens involved. I hope these words indicate how thankful I am for her encouragement throughout.
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<td>A.C.F.T.U.</td>
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<td>A.B.A.</td>
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<td>A.E.R.</td>
<td>American Economic Review</td>
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<td>A.H.J.P.</td>
<td>An-hui jih-pao (Anhwei Daily), Hefei, Anhwei Province</td>
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<td>C.B.</td>
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<td>C.N.S.</td>
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<td>C.P.</td>
<td>Common Programme</td>
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<td>C.P.C.</td>
<td>Communist Party of China</td>
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<td>C.P.G.</td>
<td>Central People's Government</td>
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<td>E. &amp; F.</td>
<td>Economic and Financial Committee of the Government Council</td>
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<td>E.C.A.B.</td>
<td>East China Textile Administration Bureau</td>
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<td>E.C.A.F.E.</td>
<td>Economic Commission for Asia and the Far East</td>
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<tr>
<td>Abbreviation</td>
<td>Full Form</td>
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<td>P.A.C.</td>
<td>Factory Administration Committee</td>
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<td>F.F.Y.P.</td>
<td>First Five Year Plan</td>
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<td>G.A.C.</td>
<td>Government Administrative Council</td>
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<td>H.B.R.</td>
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<td>I.C.O.R.</td>
<td>Incremental capital-output ratio</td>
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<td>M.F.T.</td>
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S.C. State Council
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T.T.A.B. Tsingtao Textile Administration Bureau
T.T.J.P. Tsing-tao jih-pao (Tsingtao Daily), Tsingtao, Shantung Province
Tu.C.Y.C. T'ung-chi yen-chiu (Statistical Research), Peking
U.R.S. Union Research Service, Hong Kong
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<td>Chih-piao</td>
<td>Target figures set at levels above the enterprise, carrying the force of an instruction. The enterprise cannot alter them without approval.</td>
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<tr>
<td>Chin</td>
<td>One catty = half a kilogram.</td>
</tr>
<tr>
<td>Ch'ü</td>
<td>A sub-division of a municipality, translated as a district. It can also be a sub-division between the levels of hsien and hsiang.</td>
</tr>
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<td>Hsia-fang</td>
<td>A transfer downward. It can refer to the physical transfer of persons to lower levels within a unit or to lower units, e.g. factories or villages and can also refer to the transfer of power and authority over decision taking to lower levels.</td>
</tr>
<tr>
<td>Hsiang</td>
<td>The lowest geographical unit of state administration, loosely equivalent to an administrative village.</td>
</tr>
<tr>
<td>Hsien</td>
<td>A county; below the level of province and special district.</td>
</tr>
<tr>
<td>Mou</td>
<td>One sixth of an acre = one fifteenth of a hectare.</td>
</tr>
<tr>
<td>Tan</td>
<td>One hundred chin = fifty kilograms.</td>
</tr>
<tr>
<td>Ting-eh</td>
<td>Target figures drawn up within an enterprise for its own use. These can be altered by the enterprise and are less important than chih-piao.</td>
</tr>
<tr>
<td>Yuan</td>
<td>The unit of currency, sometimes called jen-min pi. First issued in December 1948; a new currency issue was made in 1955, when 1 new yuan replaced 10,000 old yuan.</td>
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A-4 The Estimated Disaggregation of Capital Accumulation in the Textile Industry, 1953-57
A-5 The Estimated Profit Forwarded by the Textile Industry, 1950-52
A-7 The Estimated Profit Forwarded by the Textile Industry, 1958-61
This dissertation is about planning in China, and uses the cotton textile industry as an example of how planning worked, the problems encountered, and the responses to these problems. Much of the dissertation is descriptive, in order to provide a basis for analysis. As has been remarked [Reynolds L.G., 1969:402]

'...surely our central task is to understand the economic mechanism of the less developed countries. We are scientists before we are engineers. Our comparative advantage lies in building a systematic body of knowledge about how an economy operates, which improves our power to predict the consequence of policy actions.'

The main focus of attention is on the planning process rather than the plans themselves. Waterston A. [1965:106-107] pointed out,

'The document, whether a list of policies, a budget, a partial or a comprehensive plan, is far less important than the planning process....Development planning, then, is not the same as a development plan. Those who confuse the two mistake a product of the planning process for the process itself. Planning as a process is an indispensable precondition for the formulation of effective development policies and measures. Whether or not the bases and rationale for these policies and measures should be set forth in a paper plan is a separate matter.'

The cotton textile industry was selected for study for several reasons. It is the oldest modern industry in China and was the largest modern industry inherited by the Communist government in 1949. There is a conspicuous deficiency in our knowledge of this industry which remains to be filled. Finally, the information available on the industry is great; although not all the information desired has been released, the situation is better than in the case of many other industries. The major sources used in this study are Chinese books, newspapers and industrial, economic, planning and statistical journals, supplemented by interviews with refugees carried out in Hongkong and Macao.

There are four main objectives of the dissertation. The first is to trace the efforts to introduce a system of comprehensive planning in a large underdeveloped country and to reveal the difficulties involved in this ambitious attempt.

The second objective is to penetrate the level of undemanding generality by examination of one industry in depth, in order to show the planning system in operation, and by so doing to reveal the practice of planning rather than the theory. In this sense the study is positive
rather than normative, dealing with what happens rather than what should happen.

The third objective is to examine the major policy changes with regard to planning, to reveal the reasons and to discuss the results. This applies in particular to the set of major changes which occurred during 1956-57 and reached a climax with the emergence of a new strategy of development in 1958.

The fourth objective is to show to what extent certain managerial practices, known as simulation, the seeking of safety factors, and blat, undertaken by tolkachi, which are known to be prevalent in industry in the Soviet Union and other centrally planned economies in Eastern Europe, existed in the cotton textile industry in China.

The results of the research undertaken indicate several things. Comprehensive planning was extremely difficult to establish in China, it was never fully set up, and proper plan implementation was poor. Planning in general was slack, but, rather paradoxically, contained certain rigidities, which increased as China moved closer towards the full establishment of comprehensive planning. The change in development strategy which emerged slowly in 1956-57, culminating in the Great Leap Forward, had powerful economic causes, in addition to the ideological ones. The formal abandonment of the Soviet model of development in 1958 was due in part to the inability to implement properly what proved to be an unsuitable strategy for Chinese conditions.

Finally, during the period when China was actively trying to establish and operate the Soviet model of development, certain features of managerial behaviour common in the Soviet system also existed in China. Simulation and the seeking of safety factors was no less common in China at that time than it is in the Soviet Union. The evidence on blat and tolkachi did not prove conclusive, but in the case of the textile industry it appears that both may have been less pervasive in China than in the Soviet Union.
CHAPTER 1

THE EARLY YEARS

This Chapter considers the textile industry in the period of rehabilitation, 1949-52, when comprehensive planning did not exist. The general problems existing in 1949 are first considered and the inherited cotton textile industry is described. The early views on the anticipated role of the industry are then discussed and, finally, the course of restoration of production in the textile industry is traced.

I. THE INHERITANCE

General problems

China in 1949 had endured several decades of warfare and had suffered great devastation of life and property. As a result, the dislocation of the economy was extremely serious. Three broad groups of problems existed in and shortly after 1949: administrative problems, political, military and social problems, and economic problems. The administrative problems were to set up a viable network of government, to staff the government agencies and economic units with competent and reliable people, to extend the mass organisations, such as the Party, The Communist Youth League and the trade unions, to the whole country, and to introduce and implement a large range of new laws and decrees.

The political, military and social problems consisted primarily of consolidating the power gained and controlling the population, followed by ending the lawlessness, crime and bandit operations, terminating the fighting in the south and establishing control in Tibet, supporting the engagement in the war in Korea, building up defences against a possible invasion by the Kuomintang from Taiwan and developing the military in general, discovering and eliminating spies, saboteurs, counter-revolutionaries and remnants of the Kuomintang in China, and changing the social power structure, particularly in rural areas.

Given the dislocations in the war-torn economy, the economic problems were numerous. Po I-po [1952:4] described the economy in 1949 as being 'as full of holes as a sieve.' The problems consisted of a very low level of output in 1949, the existence of hyper-inflation, disrupted and partially destroyed communications and transport systems, damaged water conservatory schemes, a fragmented economy with little
rural-urban trade and a tendency to revert to subsistence agriculture, corruption, speculation, hoarding and black market activities. Other problems were the existing location of industry (largely in coastal areas), lack of knowledge of the overall economic situation, a raw material shortage at the factories, the United States blockade and embargo, a limited market for output owing to the low purchasing power of the people, and the flight of capital and managerial personnel abroad. Additional problems were large scale unemployment in towns and under-employment in the villages, poor labour discipline, and private managers, who being uncertain on their position and role, were afraid to make decisions or bear responsibility. Finally, some of the new policy measures adopted, such as land reform, raised new problems for the government.

A major effort was made to solve these problems, and the endeavour to restore the economy and to raise the level of output between the end of 1949 and 1952 was generally successful.

The textile industry

The textile industry made a considerable contribution to the economy of China. In 1944 over one quarter of all existing factories were reported to be textile mills, and 41.5 per cent of industrial employees were in the textile industry [C.M.I., 1947:364]. By 1947 little had changed, and according to a survey of principal cities [N.E.C., 1948:28], textile mills still made up more than one quarter of all factories, while employment in textiles was 43.8 per cent of all industrial employment. In short, the textile industry was the most important modern industry in China.

In 1949, the textile industry is believed to have contributed over one third of gross industrial output value, and about one quarter of value-added by industry (see Table 1). Employment in textiles had been reduced to one quarter of industrial employment but the industry was still the largest industrial employer.

The size of firms in the textile industry

The ease or difficulty of central control, socialisation and planning is closely related to the size and number of mills. The average size of mill in the modern textile industry varied with the nationality of the owners. Chinese-owned mills tended to be relatively small, Japanese-owned
Table 1: The Place of the Textile Industry in the Chinese Economy in 1949-50

<table>
<thead>
<tr>
<th>Year</th>
<th>Gross output value(^a)</th>
<th>Percentage of value-added in all industrial production(^b)</th>
<th>Employment(^c)</th>
<th>Output and consumption(^d)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All industry</td>
<td>Textile industry</td>
<td>All modern industry</td>
<td>Textile industry</td>
</tr>
<tr>
<td>1949</td>
<td>100</td>
<td>36.9</td>
<td>68</td>
<td>16</td>
</tr>
<tr>
<td>1950</td>
<td>100</td>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
</tbody>
</table>

1. The remaining 32 per cent was contributed by handicraft industry.

Sources:
- a. [S.S.B., 1960:92].
- d. [S.S.B., 1958a:182].
mills were considerably larger and British mills were the largest. It has been remarked [Liang L.S., 1955:123] that 'In the cotton manufacturing industry in China, a tendency has existed for the average size of the Chinese-owned mills to be roughly 25,000 spindles and of the Japanese-owned mills, 35,000.' In pre-Communist China, a mill of 35,000 spindles was considered to be of optimum size, although, according to Liang L.S., relatively little attention was paid to this concept. In the early 1930s [Lee B., 1933:605] it was believed in general that Chinese-owned mills had about 30,000 spindles, Japanese-owned about 45,000 spindles and British-owned about 60,000. In 1936, of the 148 modern cotton textile mills in China, 96 were Chinese-owned with an average of just over 30,000 spindles each, 48 were Japanese with an average of 52,000 spindles, and 4 were British-owned with an average of 58,000 spindles [Meng C.Y.W., 1950]. Blanchard F.S., [1944:22] reported that one year later there were 143 cotton mills; the 74 Chinese-owned mills averaged under 29,000 spindles, the 49 Japanese-owned averaged 46,000 spindles, and the 3 British mills averaged almost 74,000 spindles.

The size of mills also varied on a regional basis. The largest mills were located in East China and in the Central-south. By 1949 there were 247 cotton textile mills, with an average of under 21,000 spindles each, so that the average size of mill had reduced since the 1930s as the number increased [Meng C.Y.W., 1950].

The above discussion refers to modern industrial mills, but the textile industry also contained a large handicraft sector. By 1952, almost half of the labour in the textile industry was in the handicraft sector. Since the proportion in the handicraft sector was falling steadily, probably half of the labour employed in textiles at Liberation was engaged in handicraft production. Blanchard F.S [1944:23] had earlier reported that before 1937 some four-fifths of weaving was done on handlooms. The State Statistical Bureau [1958a:151,155] reported that in 1936 cloth produced by handicraft methods was 52 per cent of all cloth output, while native cloth production (cloth woven from homespun yarn) was 19.4 per cent of all cloth production. Yen Chung-p'ing [1963:251] estimated that cotton cloth output from handicraft industry in 1934-35 was 73 per cent of all cloth output if measured in linear yards or 61 per cent if measured in square yards.
The actual number of handlooms was apparently not known, but a report in 1953 stated that 'incomplete statistics' revealed the existence of approximately 180,000 handlooms, producing over 20 million bolts of cloth per annum [J.M.J.P., 1953/12/23].

The equipment in the mills

The new government inherited approximately 5,000,000 spindles and 127,000 looms in 1949. Official figures were 4,996,000 cotton spindles and 127,000 power-driven looms, of which 64,000 were in comprehensive mills [S.S.B., 1958a:154]. Meng C.Y.W. [1950] had earlier reported the existence of 5,156,987 spindles and only 68,869 looms. The condition of the machinery was not good; most of it was old and obsolete in design, and in addition it had been allowed to deteriorate physically. Little inspection and repair had been done in the eight years prior to 1949 [H.W.J.P., 1951/7/19], [J.M.J.P., 1951/9/22]. Systems for machine maintenance were frequently non-existent, a feature critically commented upon by a Russian expert in 1950 [F.C.C.S.Y.K., 1950].

A further characteristic of the existing equipment was an imbalance between spindles and looms. Traditionally in China, much of the machine-spun yarn was sold to the handicraft weaving industry and thus left the modern sector. The existing power looms were naturally insufficient to deal with the potential output of the spindleage. Based on figures in a survey conducted in 1933, where it was revealed that one loom working for twenty-four hours required twenty-seven spindles working for the same period to supply the loom [Myers R.H., 1967:42], the existing spindles could supply 185,000 looms. The shortage therefore amounted to about 58,000 looms at inheritance. This would not have been important on an input-output basis if the old relationship with handicrafts had been maintained, but it would have been a serious problem for the planners to try to build the handicraft industry into their calculations. In practice the handicraft weaving sector was deliberately cut back in the First Five Year Plan, so that the imbalance was real.

The capacity in use

All industries were working well below capacity in 1949. There are several different ways to measure capacity in use, although, given the restricted data available in China, only two fairly crude measures are

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possible. The first is to measure the output of 1949 as a percentage of the peak output before the war with Japan, and the second is to express the actual output of 1949 as a percentage of the estimated total capacity output possible for the given equipment. Both measures are open to obvious objections. In the case of the first method, the historical peak output might not have entailed full capacity working; and the capacity in 1949 was unlikely to have been identical with that of the previous peak years owing to damage and destruction in the war, increased age and obsolescence, and new investment. The main practical objection to the use of the second method is that the capacity in 1949 was unknown owing to lack of information.

Judging by the frequency of use, the Chinese authorities prefer the first measure. Yarn output in 1949 was 73.7 per cent and cloth output 67.8 per cent of the corresponding pre-war peak level of production [S.S.B., 1960:103]. Earlier official figures gave 72.4 per cent for yarn and 72.65 per cent for cloth output [Li Fu-ch'un 1951]. Measuring capacity in use, apparently by the second method, official figures reveal that spinning was working at 61.2 per cent capacity and weaving at 61.9 per cent in 1949 [S.S.B., 1958a:156]. Unofficial estimates from Taiwan give 45 per cent capacity working for spindles and 52 per cent for looms in 1949 [Lin Li-chien, 1964:5]. It would appear that between one-third and one-half of the capacity was not in use when the industry was acquired.

The degree of state control

The cotton textile industry was quite centralised and under government control after 1945, when reportedly over 46 per cent of the spindles and 83 per cent of the looms in China were handed over to the Kuomintang by the Japanese [Chu Hua, 1959]. These Japanese cotton mills were run by the Chinese Textile Construction Company until 1949. In 1947, 43.7 per cent of yarn output and 72.6 per cent of cloth output came from mills under the Chinese Textile Construction Company [S.S.B., 1958a:149]. In 1949, less than half the yarn output and only two-fifths of the cloth output, measured in value terms, was from private run mills [S.S.B., 1958a:158], so that a quite large degree of state control was already a feature in the cotton textile industry at Liberation, which undoubtedly facilitated the tasks of the planners.
II. EARLY VIEWS ON THE ROLE OF THE TEXTILE INDUSTRY IN DEVELOPMENT

Relatively little information is available about this and it appears most probable that in the period 1949-52 no detailed overall policy on development strategy had been formulated, other than that industrialisation was accepted as essential and a policy of priority to the development of heavy industry would be pursued.

The Common Programme [C.P. 1949] laid down a policy of industrialisation with the focus on heavy industry, although some development of light industry and textiles was to be encouraged in order to meet the needs of consumers. The concept of industrialisation was accepted without open discussion, since it was felt that agriculture was poor, agricultural techniques were backward, mechanisation had not been developed, and prior development of industry was necessary to promote agriculture [Li Chu-chen, 1950]. Liu Shao-ch'i [1951] advocated the transformation of China from an agricultural into an industrial society.

Li Chu-chen, a 'distinguished industrial specialist of the Central People's Government', was optimistic about the future of the textile industry, which already possessed a sound basis and could easily be developed. Ts'eng Shan-ching [1949] had been even more optimistic for a variety of reasons, and foresaw great development in textiles. On the demand side he pointed to a rising purchasing power, as well as to the fact that textiles were a basic necessity. On the supply side he expected that Soviet assistance would lead to increases in production, and large increases in cotton output would be obtained. He also pointed to the large linkage effect on other industries, which rendered future development of the textile industry very desirable. Po I-po [1952] indicated that the demand for textiles was income elastic, without using the term, since increases in income generated even larger increases in demand.
Such isolated references were made, but no overall policy on the strategy of development emerged until about 1953 with the start of the First Five Year Plan period and the formulation of the 'general line'. It was 1955 before the First Five Year Plan was actually completed and published.

There were four major reasons for this absence of a well-formulated and published policy. The first was that it simply takes time to work out such a strategy and the collapse of the Kuomintang at the end of the civil war came with a suddenness which was rather surprising at the time. The second was that it is not fully rational to take policy decisions affecting several years ahead, in the absence of information that could be obtained and upon which the decisions should be based. Not until the situation had been assessed with regard to destruction in the war, existing capacities, stocks of materials and so forth, could a detailed policy be drawn up. The third reason was that the Russian advisers themselves had to gain familiarity with the Chinese economy before they could tender useful advice. Finally, and more importantly, the existence of other problems of an economic nature, together with the major political, military, social and administrative problems which more urgently needed solution, took priority over the formulation of a detailed development strategy for the first few years.

III. RESTORATION OF THE COTTON TEXTILE INDUSTRY, 1949-52

A major economic goal of this period was to restore production and revitalise the economy, and a general objective was to restore output in each industry to the highest historical level. The peak years in textiles were 1933 for yarn and 1936 for cloth; the output of these years was surpassed in 1951.

Table 2 : The Restoration of Output in the Cotton Textile Industry, 1949-52.

<table>
<thead>
<tr>
<th>Units</th>
<th>Prewar peak</th>
<th>Index 1952 (1949=100)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1933</td>
<td>1936</td>
</tr>
<tr>
<td>Cotton yarn</td>
<td>thou. bales</td>
<td>2,447</td>
</tr>
<tr>
<td>Cotton cloth</td>
<td>Mill. metres</td>
<td>--</td>
</tr>
<tr>
<td>a) Includes handicraft production.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: [S.S.B., 1958a:155].
The rate of growth in the period 1950-52 was extremely rapid and as a result the output of both yarn and cloth doubled in these three years. The explanation of this impressive increase in output is found in two separate but related fields: the general restoration of the economy, from which the textile industry benefited automatically, and the operation of certain factors specific to the textile industry.

The general improvement of the economy is attributable to various factors. The inflation was brought under control, the transport and communications network was restored, markets widened as urban-rural trade resumed, and hoarded stocks were released. The existence of peace and stability in a unified country for the first time in several decades also played a part. Not the least important element was the general support of the new government, which had carried through the long-delayed Chinese revolution and united the country.

The specific factors which assisted the textile industry in its recovery were the gradual exploitation of the underused capacity available, an increase in the supply of labour together with an improvement in labour productivity, the construction of numerous new mills, an increase in the supply of raw materials, governmental assistance to private firms, and an improvement in work enthusiasm, working methods, and management.

Between 1949 and 1952, the capacity in use increased by almost one-half: in the case of spinning, from 61.2 per cent of existing capacity to 89.1 per cent, and in the case of weaving, from 61.9 per cent to 89.4 per cent. This understates the take-up of existing capacity, since the number of spindles and looms was also increasing at this period (see Table 3). In Shanghai the 'rate of utilisation of equipment' of spinning frames increased from 53.9 per cent in 1949 to 84.1 per cent in 1952 [Yen Tzu-ch'ing, 1958].

<table>
<thead>
<tr>
<th>Table 3: Installed Cotton Spindles and Looms, 1949-52</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit</td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>Cotton spindles</td>
</tr>
<tr>
<td>Cotton looms</td>
</tr>
</tbody>
</table>

Source: [S.S.B., 1958a:154]. The 1950 and 1951 figure for looms is estimated by means of geometric progression. The result is identical with that obtained by means of arithmetic progression owing to the short period and rounding.
The number of days worked each week and the number of shifts each day also increased, although erratically, over the period. In 1952 the three shift system really began to be adopted, although some mills, especially in the North-east, began to work three shifts in 1950 [T.P.J.P. 1950/2/6]. The first major effort to encourage this commenced in 1951 [J.M.J.P., 1954/9/10]. The number of staff and workers increased by almost one-third from 1949 to 1952, contributing to the increase in output, and the numbers of engineers and technicians increased at an even faster rate. At the same time striking improvements were recorded in labour productivity.

Table 4: The Supply of Labour and Productivity of Labour in the Textile Industry, 1949-1952

<table>
<thead>
<tr>
<th></th>
<th>1949</th>
<th>1950</th>
<th>1951</th>
<th>1952</th>
<th>Index 1952 (1949=100)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All staff and workers</td>
<td>745,105</td>
<td>794,267</td>
<td>864,448</td>
<td>969,803</td>
<td>130</td>
</tr>
<tr>
<td>Workers</td>
<td>583,259</td>
<td>622,032</td>
<td>686,193</td>
<td>777,528</td>
<td>133</td>
</tr>
<tr>
<td>Engineers and technicians</td>
<td>7,989</td>
<td>9,532</td>
<td>11,257</td>
<td>16,068</td>
<td>201</td>
</tr>
<tr>
<td>Average output per head of worker (in yuan)</td>
<td>6,812</td>
<td>7,463</td>
<td>8,680</td>
<td>10,309</td>
<td>151</td>
</tr>
</tbody>
</table>

Source: [S.S.B., 1958a:156-157].

Investment in the cotton textile industry increased rapidly from 21.3 million yuan in 1950 to 121.1 million yuan in 1952. By the latter year, some 520 new textile mills had been built, but of these only 4 were large scale enterprises [S.S.B., 1958a:154]. However, only a small portion of the extra output can be explained by the use of new equipment and the construction of new mills. The number of spindles and looms in 1949-52 each increased by some twelve per cent but the output of yarn and cloth doubled.

Great efforts were made to increase the supply of cotton, in terms of both increasing output and of increasing the quantity in state hands for delivery to mills. Price adjustments were made so that growing cotton became relatively more profitable than growing grain [Perkins D.H., 1966:33-38]. Exhortations to grow cotton rather than other crops were made, as were advance payments to farmers, and at certain times priority in the supply of fertilizers and tools to cotton producers was adopted.
In addition, state purchases of cotton commenced in 1950, guaranteeing a market for the produce. This was done by means of quotas, and any surplus output could be disposed of privately. Largely as a result of these efforts, the area under cotton doubled in 1949-52 and output increased almost three-fold.

Government assistance to private mills included loans, but mainly took the form of provision of raw materials, at a price claimed as being below the purchase price to the state, and the purchase of output by means of orders from the state. Thus a guaranteed market and perhaps an element of subsidy were the main methods used. By 1952, 73.2 per cent of the output of all private run textile mills was on state orders [S.S.B., 1958a:158], as opposed to only 49.6 per cent for private run industry in general [Ch'ien Hua etc. 1957:42]. In the first three years, output from private run mills increased, and at the same time a degree of control was established by the state.

Labour enthusiasm, the organisation of workers by the mass organisations, the holding of emulation drives, the commencement of honorary awards and the soliciting of rational suggestions played a part in increasing output. The tackling of labour indiscipline and the reforms of management also contributed to this.

Of the specific reasons for the rapid restoration of the cotton textile industry, the prime explanatory factors were the increase in the supply of raw materials and the exploitation of existing and unused capacity. Despite the notable success in obtaining rapid increases in output, the importance of the textile industry in the economy began to decline. Measured by shares of gross value of industrial output, in 1949 the textile industry contributed 36.9 per cent and in 1952, on the eve of the First Five Year Plan period, it contributed 29.7 per cent, although it remained the leading modern industry [S.S.B., 1960:92]. The tendency for the share of the textile industry to diminish continued throughout the first decade, as development of other industries proceeded.
CHAPTER 2

THE PLANNED AND ACTUAL DEVELOPMENT IN THE TEXTILE INDUSTRY, 1953-57

This Chapter is concerned with the development of the textile industry, largely during the period of the First Five Year Plan. The general policy for the development of light and heavy industry is considered, then the specific expectations for development of the textile industry are discussed. The annual plans and results are examined, then the actual developments in the industry 1953-57 are compared with the plan. Finally, two sections deal with the importance of the textile industry as a means of accumulating capital and raising foreign exchange.

A start on drafting the First Five Year Plan was made in spring 1951 [J.M.J.P., 1955/4/5] and the plan was announced by Chou En-lai [1952] at a meeting of the National Committee of the Chinese People's Political Consultative Conference. The draft plan was approved at a National Conference of the Communist Party of China in March 1955 [C.P.C., 1955] and, after some minor revisions, was adopted at the Second Session of the First National People's Congress in July of that year. The late finalisation of the plan, halfway through the period covered, was caused by such difficulties as lack of experience in the work of planning, lack of knowledge of basic resources, low technical levels, and the co-existence of different economic groups, such as state run and private run firms [J.M.J.P., 1955/4/5]. Further reasons were the involvement in the Korean War and uncertainty about Soviet aid. Of the 156 projects built with the assistance of the Soviet Union, a decision on the final 91 was not made until May 1953 [Li Fu-ch'un, 1955a:9]. The plan was said to be based on the 'general line', proposed in 1952, which in turn was loosely based on Lenin's theory of the transition period. A reasonably cautious approach to development was evident. It was anticipated that it would take fifteen years to achieve a socialist society and about fifty years to become a powerful, industrial country [J.M.J.P., 1955/4/5], [Li Fu-ch'un, 1955a:18]. Three years later a very different mood was to sweep over China during the Great Leap Forward.
I. THE POLICY ON LIGHT AND HEAVY INDUSTRY

The policy adopted was priority to heavy industry together with some development of light industry. This strategy determined the general position of the textile industry in development. Since the investment planned for the textile industry was the most important part of investment for light industry as a whole [Ch'en Lin, 1953:35], the arguments used to justify the strategy do refer to the textile industry. The debate on investment preferences to heavy or light industry occurred essentially because capital was in limited supply and it was important to attain the best allocation of this scarce resource. However, suitable investment criteria seem to have been lacking. Although couched in general terms, the debate progressed as far as the rate of reinvestable surplus, capital-output rations, gestation periods, and supply constraints, even if these were described rather than used as terms.

It was generally accepted without much discussion that heavy industry should receive priority in development. As Kao Kang put it [1952]:

'There are two contrary paths for industrialisation of a country. To commence with light industry and to rely on accumulation of light industry for assisting the development of heavy industry is the general path of capitalism to developing industry and is a path which can only lead to genuine development of industry over several decades and even a century. The other path commencing with heavy industry and the development of industries producing the means of production is the socialist path to development of industry. Without any doubt we must build our industry along the socialist path of construction of industry.'

It was later remarked that the only two feasible ways of industrialising were either absolute priority to heavy industry and ignoring light industry, or else priority to heavy industry together with some development of light industry [Wei Yi, 1957].

There were many reasons for adopting the strategy of priority to heavy industry. The first was that this pattern had been set by the Soviet Union with apparent success [Jung Wen-tso, 1955:16-20]. The proportion of investment funds allocated to the means of production (loosely heavy industry) in China was 88.8 per cent, even higher than the 85.9 per cent in the Soviet First Five Year Plan.

The second reason for the adoption of the strategy was that development of heavy industry was seen to be essential for defence purposes and for the production of modern weapons [Li Fu-ch'un, 1955a:13-15].
Both Lenin and Stalin had said this and the necessity of achieving the liberation of Taiwan made the reason particularly significant [Jung Wen-tso, 1955:19-20].

These two reasons appear to have been the most important, but there were others. A third reason was a somewhat vague feeling that China virtually lacked heavy industry; the bulk of industrial output was from light industry and this was irrational or undesirable [Li Fu-ch'un, 1955a:47-48]. Development of heavy industry was therefore required to rectify an existing imbalance.

A fourth reason was that there was little use in pouring large amounts of investment funds into light industry. Surplus capacity already existed in much of light industry, which was supply constrained, owing to the shortage of agricultural produce. It therefore was sensible to allocate funds elsewhere, particularly, or so it was argued, in heavy industry [Li Fu-ch'un, 1955a:47-48], [Wei Yi, 1957]. It is clear that alternative sectors existed, and in particular agriculture and the transport system could easily and usefully have absorbed more capital.

A fifth reason was that the gestation period for heavy industry was often long, and projects had to be planned well in advance. It was easy and quick to build light industrial factories when, and if, bumper harvests solved the raw material shortage, which meant that many light industrial factories did not have to be planned well in advance and put in the plan [Li Fu-ch'un, 1955a:47-48]. This implies that extra-plan investment would be made available if required unless funds could be diverted from other sectors. It was also pointed out that the large handicraft sector could be used to supplement the output of light industry, which reduced the need to develop it greatly [Li Fu-ch'un, 1955a:48], [Wei Yi, 1957].

A sixth reason was the strongly held view that prior development of heavy industry was essential in order to assist other sectors of the economy. The transport and communications sector required locomotives, steamships, aircraft, and motor vehicles; light industry required machinery, fuel, chemicals, and buildings; and agriculture required socialisation and mechanisation in order to achieve technological transformation of traditional methods [Jung Wen-tso, 1955:2-22]. It was not possible to import all the necessary machinery from abroad [H.H., 1955]. Ma Yin-ch'u [1957a] confirmed this with respect to iron and steel, which he believed could not be supplied by either socialist or capitalist countries. It was held that in order to solve the problem of cotton shortage, priority development of heavy industry was essential. This would supply fertiliser and machinery
to agriculture and thereby increase the output of cotton [Mao Tsung, 1955], [Chiang Kuang-nai, 1955a], [Chang Fang-tso, 1955]. Chiang Kuang-nai added that new technology was needed in textile machinery, and this required heavy industrial development. Chang Fang-tso felt that the production of dyes and man-made or synthetic fibres was necessary and this required a strong chemical industry.

A seventh reason was that development in heavy industry was needed to ensure notable advances in technology, which in turn improved labour productivity generally and caused all-round growth [Li Fu-ch'un, 1955a: 13-15]. The argument is faintly reminiscent of the one sometimes proposed in more developed countries for large scale development of aircraft and space research, in order to achieve a 'spill-over' of technical advances. Wei Yi [1956] felt that priority to heavy industry resulted in more extended reproduction and faster growth in general: priority to light industry '....would make it inconceivable that the national economy would develop and even less conceivable that it could develop quickly.'

An eighth argument for developing heavy industry involved the creation of a market for light industrial produce. It was held that developing heavy industry would lead to an increase in agricultural output and peasant incomes. In turn this would create a growing market for light industrial products in rural areas, the largest market [Jung Wen-tso, 1955:22]. It is clear, however, that this misses the point that light industry was supply constrained and not limited by insufficient demand.

Despite the many arguments above, a good case was made for some development of light industry. Most of those engaged in the debate allowed for a subsidiary role of light industry. The first reason was the simple one that the Soviet Union had allowed some development of light industry [Jung Wen-tso, 1955:24-25]. This gave it a respectable air at that period in China. In the mid-1950s the Shansi Daily [H.H., 1955] reported that some people, and named two, wanted to give absolute priority to light industry and felt that the Soviet method of heavy industry first was neither necessary nor desirable, since China faced a much more favourable international situation than the Soviet Union had faced.

The second reason, or set of reasons, was the one most frequently used. This was that construction of light industrial factories was quick and easy, investment needs were small, the recoupment period was short, and substantial profits meant that a large amount of capital could be
accumulated for the state [Jung Wen-tso, 1955:2-3, 27], [Wei Yi, 1957], [Ma Yin-ch’u, 1956]. Wei Yi pointed out that the capital-output ratio in light industry was small and was sometimes even less than unity.

A third reason for allowing development of light industry was that it was necessary in order to increase the standard of living. Production per head of cotton cloth in 1956 was only 9.42 metres, as compared with 16.68 metres in India and 27.24 metres in the Soviet Union [S.S.B., 1958a: 195]. Population increase had to be catered for and the demand for textiles was apparently income elastic. When the income of peasants increased, apart from ploughing back into production and increasing expenditure on food, the most important thing the peasants did was to purchase textile products [Ch’ien Chih-kuang, 1956].

A fourth reason for allowing some growth in light industry was that increasing amounts of light industrial goods were necessary in order to sell them to the peasants in exchange for the food and raw materials that they produced. Development of light industry would also reduce the price of consumer goods and help to close the well-known 'scissors-gap' between the price of industrial and agricultural products. In economic terms, the availability of light industrial products acted as an incentive to peasant producers and was one means of increasing the size of the agricultural surplus and skimming it off. In political terms, in the absence of an increase in the supply of light industrial goods, the people would be discouraged from building socialism, the peasants would be dissatisfied, and this would damage the worker-peasant alliance [Jung Wen-tso, 1955:29-31], [Wei Yi, 1957], [Ma Yin-ch’u, 1956].

A fifth reason was that allowing development of light industry would help avoid inflation. The gestation period in light industry was short. As Blass W.P. [1962] pointed out:

'From the point of view of the time lag involved in the productive flow of money in an underdeveloped country, particularly in its inflationary impact, the more quickly the product is obtained after the investment of funds the more efficient the operation and the less inflationary is the impact of the investment.'

Maintenance of stable prices was a major economic goal of the new ruling elite. One of the causes of the defeat of the Kuomintang had been the social, economic, and political problems caused by inflation after 1937.

1 An estimate of capital accumulation in the textile industry 1950-61 is presented below, p.32.
The anticipated rise in incomes owing to development would cause an increase in demand and the output of consumer goods therefore had to increase [Wei Yi, 1956]. The average increase in wages in 1950-52 was 70 per cent and in 1953-57 was 42.8 per cent [Ma Wen-shui, 1959]. The wage reform of 1956 was responsible for an average rise in wages of 14.5 per cent, which resulted in an immediate increase in the demand for textile products [Ma Yin-ch'u, 1956]. Wei Yi [1957] also made the point that if demand increased faster than supply prices would rise and the markets would be in chaos.

A further reason adduced for developing light industry was that the textile industry was a source of exports for earning foreign exchange¹ [Chung Wen-tso, 1955:27-28].

In the absence of good investment criteria and in view of the considerable political ramifications, the debate was conducted in general terms. Apart from the two men named in the Shansi Daily, the contributors all supported the policy of heavy industrial priority but were sometimes trying to obtain a slightly better balance. About 1956 an increase was made in the proportion of investment funds allocated to consumer goods industries. The original ratio of investment in producer and consumer goods in the First Five Year Plan was 8:1 and this was reduced to 7:1 [J.M.J.P., 1956/7/9] in order to increase the output of consumer goods.

II. THE TEXTILE INDUSTRY IN THE FIRST FIVE YEAR PLAN

The targets for the textile industry in the First Five Year Plan reveal the anticipated development 1953-57. These targets fell into two groups: targets for yarn and cloth output, and the targets of various items that would enable their accomplishment. The latter group of targets were mainly investment allocation, labour supply and cotton supply. All targets were for 1957 only and annual breakdowns were not published in the plan.

The textile industry was planned to grow at a relatively slow rate. The expected annual compound rate of growth in output value of all consumer goods industries 1953-57 was 12.4 per cent, as compared with 17.8 per cent for industries manufacturing the means of production. No figure in

¹ Foreign exchange earnings by the textile industry 1950-61 are discussed below, pp. 33-37.
comparable value terms was released for the textile industry alone, but
targets for physical output by 1957 give an expected average compound
annual rate of growth of 6.7 per cent for yarn, 8.0 per cent for cloth if
cloth made from homespun yarn is excluded, and 5.3 per cent if such cloth
is included, owing to the planned reduction in cloth produced by native
methods. Not only was the cotton textile industry to grow slower than
heavy industry, but it was also to grow slower than the average for light
industry. Of the forty-eight industrial items with specific targets
[F.F.Y.P., 1955:48-49], only three had a planned increase lower than cloth
(including homespun). This was not because investment within light
industry was to go to other industries, for in fact the textile industry
was to receive the largest share. The real reason was that cotton supply
was insufficient, and it was apparently not expected that this problem
would be solved during the period of the plan [Wang P'ei-kun, 1955]. Since
the textile industry was so large, this reduced the average industrial
rates of growth in the plan. The Chinese First Five Year Plan contained
lower targets for industrial growth than had the Soviet First Five Year
Plan. The four explanations given were that the textile industry was so
much larger in importance in China that its relatively slow growth pulled
down the average; private run industry was larger in China and would grow
slowly; China had no lag between the period of rehabilitation and the start
of the First Five Year Plan, whereas the Soviet Union had an interim period
in which heavy investments were made in large scale industry; and technical
levels in China were lower than they had been in the Soviet Union 1928/29-
1932/33 [Wang P'ei-kun, 1955].

Table 5: The Targets for the Cotton Textile Industry in the First
Five Year Plan

<table>
<thead>
<tr>
<th></th>
<th>1952 output</th>
<th>1957 target</th>
<th>change %</th>
<th>change p.a. %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cotton yarn</td>
<td>thou. bales</td>
<td>3,618</td>
<td>5,000</td>
<td>38.2</td>
</tr>
<tr>
<td>Cotton cloth(a)</td>
<td>thou. bolts</td>
<td>111,634</td>
<td>163,721</td>
<td>46.7</td>
</tr>
<tr>
<td>Homespun cloth(b)</td>
<td>thou. bolts</td>
<td>26,270</td>
<td>15,000</td>
<td>-42.9</td>
</tr>
<tr>
<td>All cotton cloth</td>
<td>thou. bolts</td>
<td>137,904</td>
<td>178,721</td>
<td>29.6</td>
</tr>
</tbody>
</table>

a. Excludes cloth made from handicraft yarn; includes cloth from
individual handicrafts and handicraft co-operatives if the
cloth contained, in part or whole, yarn which was machine spun.
b. Approximate figure.

Possible means of achieving these targets were tangible and intangible. The former consisted of planned increases in investment, labour supply, and cotton supply, together with taking up underused capacity in existing enterprises; the latter included mobilisation of labour, emulation and production drives, exhortations, and socialisation of the economy. Socialisation was seen as a way of releasing a flood of energy fettered by private ownership. The intangible means are dealt with largely in Chapter 5.

Of the total state investment in the First Five Year Plan of 76,640 million yuan, some 42,740 million yuan was intended for capital construction. A further allocation of 5,300 million yuan was also to be made available for capital construction in various departments, making 48,040 million yuan in all. Of the original 42,740 million yuan, the industrial departments were to receive some 24,850 million yuan (58.2 per cent). The textile industry was to receive 1,160 million yuan, or 4.4 per cent of the funds for industrial departments.

Table 6: The Planned Allocation of Investment, 1953-57

<table>
<thead>
<tr>
<th>Total State Investment in Economic, Cultural and Educational Sectors</th>
<th>Mill. yuan</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment in Industrial Capital Construction of which:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ministry of Textiles</td>
<td>1,160</td>
<td>4.4</td>
</tr>
<tr>
<td>Ministry of Light Industry</td>
<td>690</td>
<td>2.6</td>
</tr>
<tr>
<td>Ministry of Heavy Industry</td>
<td>6,490</td>
<td>24.4</td>
</tr>
<tr>
<td>Ministries of Fuel Industry</td>
<td>6,790</td>
<td>25.5</td>
</tr>
<tr>
<td>Ministries of Machine Building Industry a</td>
<td>6,930</td>
<td>26.0</td>
</tr>
<tr>
<td>Ministry of Geology</td>
<td>200</td>
<td>0.8</td>
</tr>
<tr>
<td>Ministry of Building Industry</td>
<td>690</td>
<td>2.6</td>
</tr>
<tr>
<td>Local Industry</td>
<td>1,990</td>
<td>7.1</td>
</tr>
<tr>
<td>Industrial Investment of Non-Industrial Ministries</td>
<td>1,770</td>
<td>6.6</td>
</tr>
</tbody>
</table>

a. Includes local building enterprises. The figures exclude some anticipated investment by private firms and by joint state-private firms using their reserve funds.


Planned state investment in the textile industry was not large, which was in line with the relatively slow growth in output planned. Total investment in the textile industry would exceed the figure in Table 6,
since some investment in textiles could be expected out of the 1,990 million yuan for local industry (textiles and food were the major two industries run by local authorities), and some new joint state-private mills would be built, while some private mills might undertake some investment.

In physical terms, the textile industry was to build fifty-three above-norm mills in the five year period, of which thirty-nine would be new and fourteen would be rebuilt existing mills [F.F.Y.P., 1955:88], [S.S.B., 1958a:160]. Each category of capital construction had a figure set by the state which represented a 'normal' figure. Every project could then be classified as 'above-norm' or 'below-norm', depending on whether or not the planned investment funds exceeded the norm. The norm naturally varied from industry to industry and by type of project within an industry. Examples of norms set are: iron and steel, motor vehicles, and tractors - ten million yuan; power stations, coal mining and oil refining - five million yuan; rubber and paper-making - four million yuan. The norm for the textile industry was five million yuan, [the only light industry to reach that figure] [Li Fu-ch' un, 1955a:21]. Any project needing an investment total above the norm required approval by the State Council, whereas a project below the norm could be approved by the ministry, province, municipality or autonomous region.

Of the fifty-three mills, it was anticipated that forty-eight would be in operation by 1957. Thirty-eight of these forty-eight would be cotton mills. These would add an extra 1,650,000 spindles and 47,100 looms, all to be operating by 1957. The total number of spindles and looms in the plan was 1,890,000 and 54,500 respectively but some would go into operation during the Second Five Year Plan period. By comparison with the number existing in 1952, the planned increase in the number of spindles was 29.4 per cent (operating) and 33.7 per cent (total), and of looms 33.1 per cent (operating) and 38.4 per cent (total).

The second tangible method of achieving the planned increase in yarn and cloth was to increase the supply to and productivity of labour in the textile industry. The supply of labour was barely mentioned in the First Five Year Plan. This was because ordinary labour is not a scarce resource in underdeveloped countries such as China, and industry can usually obtain all the ordinary workers it needs. The provision of employment to absorb labour is more usually a cause for concern. As a result, detailed target figures for employment were not provided in the plan. Educated and skilled labour was scarce, and there was more about this in the plan.
The section on education broke the figures down by course, such as 'engineering', rather than by trade or industry. A figure was revealed for engineering students specialising in light industry 1953-57. Of the 214,600 engineering students enrolling, some 4,400, or 2.1 per cent, were for light industry [F.F.Y.P., 1955:179-180].

It was stated that over 920,000 skilled workers would be trained by the Ministries of Industry, Agriculture, Forestry, Transport, Posts and Telecommunications, and Labour. The Ministry of Textiles was expected to train 55,400 skilled workers, or 6.0 percent of the total. This exceeded the numbers to be trained by any one of the Ministries of Light Industry, Geology, Building Construction, Agriculture, Forestry, Communications, or Posts and Telecommunications, but was less than those to be trained by any one of the Ministries of Heavy Industry, Machine Building, Railways, or the Ministries in charge of fuels. In view of the rather low growth targets for the textile industry, the planned provision of skilled labour appears relatively generous.

Increasing the productivity of labour can be regarded as an alternative to increasing the level of employment in a labour surplus economy [E.C.A.F.E., 1961:3]. Both employment and productivity were planned to increase in China. With regard to state run industry as a whole, almost two thirds of the expected increase in output value during the period of the First Five Year Plan was to come from improved labour productivity [F.F.Y.P., 1955:171].

**Table 7: The Targets for Increasing Labour Productivity, 1953-57**

<table>
<thead>
<tr>
<th>Ministry</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ministry of Textiles</td>
<td>10.4</td>
</tr>
<tr>
<td>Ministries in charge of fuel</td>
<td>63.6</td>
</tr>
<tr>
<td>Ministries in charge of machine building</td>
<td>65.2</td>
</tr>
<tr>
<td>Ministry of Heavy Industry</td>
<td>67.9</td>
</tr>
<tr>
<td>Factories and mines under other ministries</td>
<td>68.5</td>
</tr>
<tr>
<td>Ministry of Light Industry</td>
<td>75.5</td>
</tr>
<tr>
<td>Factories and mines under local authorities</td>
<td>87.9</td>
</tr>
</tbody>
</table>

*Source: [F.F.Y.P., 1955:171].*

The low target for labour increases in labour productivity in the textile industry is revealed in Table 7. No reason for this low target was given in the plan, but certain possibilities exist. First, labour productivity was already high in textiles as it was a well established
industry, with skilled labour possessing experience: in a sense the other industries had to catch up. Second, the capacity worked in textiles in 1953 was quite high, so that there was perhaps less opportunity to increase productivity by taking up unused capacity. Third, the textile industry was constrained by the potential supply of raw materials, especially cotton. Fourth, the textile industry was to receive relatively little investment funds in the period which made it more difficult to increase the productivity of labour. Fifth, much of textile output was to come from local run industry, so that examination of the targets for central run industry is misleading.

Of these possible explanations the first is probably the weakest: gross value output per production worker was lower in textiles in 1952 than in electric power and paper-making, marginally higher than in iron and steel, but considerably higher than in metal processing [Chen Nai-ruei, 1966:486]. This is not enough to establish higher productivity in textiles. The relatively small amount of investment is better explained by the existing capacity and raw material shortage, and cannot be said to be a strong element in the low targets for productivity. It is not possible to be dogmatic about the other three possibilities, and all seem to have played a part.

The planned increase in cotton supply was an important means of helping to achieve the planned output of yarn and cloth. From Table 8 it can be seen that the output of cotton was expected to increase faster than the output of food crops, and both sown area and yield of cotton were expected to increase, but the increase in area was slightly more important than yield in achieving the greater output.

The final means of attempting to reach the planned output of yarn and cloth was to intensify the use of capacity of existing enterprises. This was a major hope for industry in general, where about seventy per cent of the increase in value output 1952-57 was expected to come from existing enterprises [F.F.Y.P., 1955:51]. The more intensive use of existing equipment in light industry was a main hope for the anticipated increase in output [M. of T., 1953], [Chih Shui-shan, 1956]. By 1957 the increase in operating spindles of 29.4 per cent and operating looms of 33.1 per cent could not be expected on its own to produce the target for increased yarn (38.2 per cent) and industrial cloth (46.7 per cent). This was partly because the increase in equipment was to be less than the increase in output and also because the new mills were less efficient than the old (see below, Chapter 4, pp.73-78). In 1956 some 19.2 per cent of
Table 8: The Planned Output, Sown Area and Yield of Cotton, Industrial Crops and Food Crops, 1953-57

<table>
<thead>
<tr>
<th></th>
<th>Output (Mill. chin)</th>
<th>Sown Area (thous. mou)</th>
<th>Yield (chin per mou)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1957 index 1952=100</td>
<td>1957 index 1952=100</td>
<td>1957 index 1952=100</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cotton</td>
<td>2,610</td>
<td>83,636</td>
<td>31.2</td>
</tr>
<tr>
<td></td>
<td>3,270</td>
<td>95,000</td>
<td>34.4</td>
</tr>
<tr>
<td></td>
<td>125.4</td>
<td>113.6</td>
<td>110.3</td>
</tr>
<tr>
<td>Industrial crops</td>
<td>..</td>
<td>178,446</td>
<td>..</td>
</tr>
<tr>
<td>Food crops</td>
<td>327,830</td>
<td>1,859,683</td>
<td>176.3</td>
</tr>
<tr>
<td></td>
<td>385,620</td>
<td>1,914,792</td>
<td>201.4</td>
</tr>
<tr>
<td></td>
<td>117.6</td>
<td>103.0</td>
<td>114.2</td>
</tr>
</tbody>
</table>

a. Aggregation of output and yield of different crops is meaningless; figures for other industrial crops are given in the same source.

yarn and 17.1 per cent of cloth output came from new mills or those that had undergone major reconstruction [S.S.B., 1958a:156]. With the retrenchment of investment in 1957 and the deliberate delaying of putting new mills into operation, it is unlikely that these percentages materially increased, and could have fallen in that year.

III. THE ANNUAL PLANS AND OUTCOME, 1953-57

The planned annual production of yarn and cloth is presented in Table 9, together with the actual production. Since targets were normally released in the form of percentage increases over the previous year, rather than in physical terms, most of the targets have been estimated from various statements. Several conflicting statements on targets exist with respect to 1956. The most probable explanation is that the plan was changed several times as more information became available, so that statements in percentage terms can refer to different absolute figures. It is known that the plan was changed, but it is not clear how many times.

It can be seen from Table 9 that the yarn plan was unambiguously filled in four of the five years and only in 1957 were some of the earliest targets for yarn unfulfilled. The cloth plan was clearly fulfilled in three years; in 1954 it was not fulfilled, while in 1957 the earlier target was not fulfilled but the revised (lower) target was achieved.
Table 9: The Annual Plans and Outcome for Cotton Yarn and Cotton Cloth, 1953-57

<table>
<thead>
<tr>
<th>Year</th>
<th>Cotton yarn (thou. bales)</th>
<th>Cotton cloth (mill. metres)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Plan Target</td>
<td>Outcome</td>
</tr>
<tr>
<td>1953</td>
<td>3,989^a</td>
<td>*4,100</td>
</tr>
<tr>
<td>1954</td>
<td>4,583^b</td>
<td>*4,600</td>
</tr>
<tr>
<td>1955</td>
<td>3,954^c</td>
<td>*3,970</td>
</tr>
<tr>
<td>1956</td>
<td>*4,800^d</td>
<td>**5,100^e</td>
</tr>
<tr>
<td></td>
<td>**5,100^g</td>
<td>5,121^h</td>
</tr>
<tr>
<td>1957</td>
<td>*4,635^i</td>
<td>**4,650</td>
</tr>
<tr>
<td></td>
<td>**4,400^o</td>
<td></td>
</tr>
<tr>
<td></td>
<td>*5,000^q</td>
<td></td>
</tr>
<tr>
<td></td>
<td>*5,600^r</td>
<td></td>
</tr>
</tbody>
</table>

Note: Reported figures are marked with an asterisk; where more than one figure was reported, the latest figure bears two asterisks; figures without an asterisk are estimates.

Sources:

a. Estimated: output was 102.77 per cent of the plan [J.M.J.P., 1954/1/15].
b. Estimated: the target was 11.77 per cent above 1953 [M. of T., 1954a]; where the original source was unclear the percentage is taken as referring to the actual output of the preceding year.
c. Estimated: output was expected to be 100.4 per cent of the plan [Chang Ch'in-ch'iu, 1956].
d. Reported: [Chang Ch'in-ch'iu, 1956]; the 4,800 was revised up to 5,000 by January 1956.
f. Estimated: the target was 29 per cent above 1955 [Li Hsien-nien, 1956].
g. Estimated: the target was 30 per cent above actual output in 1955 [Yang Ch'eng, 1956].
h. Reported: the 4,635 was later revised to 4,400 [Tu.C.Y.C., 1958].
i. Reported: [N.C.N.A., 1956b].
j. Estimated: output was 103.04 per cent of the plan [J.M.J.P., 1954/1/15].
k. Estimated: the target was 12.6 per cent above 1953 [M. of T., 1954a].
l. Estimated: output was expected to be 100.24 per cent of the plan [Chang Ch'in-ch'iu, 1956].
m. Estimated: output was expected to increase by 28 per cent approximately [S.S.S.T., 1956].
n. Reported: [Tu.C.Y.C., 1952].
o. Reported: [N.C.N.A., 1956b].
IV. THE OUTCOME OF THE FIRST FIVE YEAR PLAN

The most important targets for the textile industry in the First Five Year Plan were output of yarn and cloth, and the supply of investment funds, labour, and cotton. The simplest way of evaluating how well the output targets were achieved is to compare the planned and actual outputs for 1957. This suffers from the disadvantage that an unusually good or bad year, quite common in underdeveloped countries relying heavily on agriculture, can yield misleading results. Since 1957 was a poor year in the textile industry, the First Five Year Plan targets were not reached. The targets had been set at 5 million bales of yarn and 163,721 million bolts of cloth (excluding homespun). The plan took one bolt of cloth as equal to 36.576 metres, so that the cloth target for 1957 should have been equal to 5,988 million metres. However, the State Statistical Bureau [1958a:192] reported that the target in the First Five Year Plan was for 5,773 million metres in 1957, and this figure is accepted, since the higher figure is inconsistent with other statements. Actual production in 1957 was 4.65 million bales of yarn and 5,050 million metres of cloth [S.S.B., 1960:99], so that the planned target was not met. It was claimed that the target for 1957 had been surpassed in 1956 for both yarn and cloth [S.S.B., 1957]. The yarn output in 1956 of 5.25 million bales did surpass the target for 1957 in the First Five Year Plan; the cloth output of 5,770 million metres was very close to but less than the target of 5,773 million metres, but the discrepancy could easily be caused by the rounding process. It must be concluded that the First Five Year Plan targets for cotton textile output were fulfilled one year early, but, owing to a fall in cotton output in 1956, the running down of stocks in that year, and the subsequent poor year in the industry, it was not possible to achieve the targets in 1957.

In some respects the investment achieved was as important as the output, since the investment laid a foundation for future growth over what was intended to be a series of plans. In the First Five Year Plan the textile industry was to receive 1,160 million yuan or 4.7 per cent of investment in basic construction in all industries [F.F.Y.P., 1955:29-30]. A later source gave a target figure of 1,237.12 million yuan for investment in the textile industry 1953-57 [S.S.B., 1958a:159]. It seems probable that the later figure represents a revision in the First Five Year Plan, but no revised versions of the plan were published.

In the first four years, the textile industry invested 1,251.92 million yuan which was equal to 7.0 per cent of industrial investment,
not only exceeding the planned investment target for five years but also 
achieving more than the average [S.S.B., 1958a:159]. However 1957 was a 
year of recession in construction in textiles and investment funds were 
supposed to be retrenched. This proved difficult to enforce and as a 
result the investment total in textiles over the whole five year period 
was 1,550 million yuan. This exceeded the target [Ch'ien Chih-kuang, 
1959]. Investment in the textile industry as a percentage of all 
industrial investment fell slightly to 6.4 per cent, but was still well 
above the original target [Chiang Kuang-nai, 1959].

The planned installation of 1,890,000 spindles and 54,500 looms 
over the five years was convincingly beaten. By 1957 some 2,400,000 
spindles and 61,000 looms had been installed [C.K.F.C., 1958b]. A later 
report [Ch'ien Chih-kuang, 1959] gave a figure for newly installed 
spindles 1953-57 of 2,010,000, which still exceeded the plan, although by 
a smaller margin.

Of the fifty-three above-norm textile mills to be built during the 
period, thirty-eight were for cotton textiles. This target was also 
exceeded. By the first half of 1956, construction work had actually 
begun on three cotton mills originally scheduled for the Second Five 
Year Plan period [N.C.N.A., 1956a]. Between 1949 and 1957, some sixty-
nine new textile mills were built, and two were rebuilt. Of these, 
forty-four were cotton mills and four were dyeing and printing mills 
that, in the textile industry, sixty-eight above-norm units had been put 
into production or were just starting production.

Between 1952 and 1956, the number of employees in the textile 
industry increased from 969,803 to 1,219,693 [S.S.B., 1958a:174]. With 
base 1952=100, this gives an index of 125.8 for 1956. A reported change 
in the number of textile employees in percentage terms can be used to 
estimate the numbers in 1957 at 1,184,457 approximately [Chiang Kuang-nai, 
1957b]. This yields an index for 1957 of 122.2. It is possible, but 
unlikely, that the number of workers decreased greatly in 1957, for state-
ments on the handling of the problem of that year made much of reductions 
in shirt numbers or days worked, and use of substitute raw materials. With 
regard to surplus workers in that year it was pointed out that the new mills 
could take on workers transferred from mills with too many workers, although 
some workers could be admitted into technical schools and temporary workers 
could be dealt with according to their individual contracts [Lo Jih-yün, 
1957]. In addition, managers preferred to retain labour even if there
was not really enough work for them all. Shao Ching-wa [1958], the vice-
chairman of the Textile Trade Union of China, gave a figure for textile
workers in 1957 of 1,282,440, but the figures may not be comparable, since
his figure for 1952 was 801,278 workers, less than the State Statistical
Bureau figure for employees and greater than the Bureaus' figure for
production workers. If Shao Ching-wa's figures are used, the index for
1957 stood at 160.0.

In the absence of a target in the First Five Year Plan, these results
cannot be compared with the intentions. However, the results can be
compared with the index of all industrial workers; in 1957 this stood at
182.4 [S.S.B., 1960:183]. Clearly the textile industry increased employment
at a rather lower rate than average.

The productivity of labour increased markedly faster than the
intentions expressed in the Five Year Plan. The target was a 10.4 per cent
increase in labour productivity in five years. By 1956, the productivity
of labour had increased by 15.7 per cent measured in value of production
[S.S.B., 1958a:170], or by 31.6 per cent with no indication of method of
computation [Shao Ching-wa, 1958]. Corresponding figures for 1957 have
not been found.

The planned increase in the supply of cotton was the final important
target for the development of the textile industry. Cotton yield was
planned to increase by 11.9 per cent to 3,270 million chin, cotton yeild
to increase to 34.4 chin per mou, and the sown area to increase to 95
million mou in 1957. Actual cotton output in 1957 was 3,280 million chin,
exceeding the target; the yield increased to 38 chin per mou, exceeding
the target; and sown area increased to 86.63 million mou, not attaining
the target. The shortfall in sown area was more than compensated for
by the increased yield.

Overall, the hopes for the textile industry as expressed in the First
Five Year Plan were fulfilled.

V. THE TEXTILE INDUSTRY AS AN ACCUMULATOR OF CAPITAL

The textile industry played an important role as an accumulator of
capital for the state. This section, like the subsequent one on the role
as an earner of foreign exchange, deals with a period longer than that of
the First Five Year Plan. An estimate has been made of the amount of capital
accumulated, and it seems needlessly restrictive to confine this to 1953-57.
Consequently the estimates were extended to cover the period 1950-61. The
extensions to 1950-52 and 1958-61 are almost certainly less accurate, particularly in the case of the latter period, but the degree of inaccuracy is uncertain.

There are two main issues involved in the amount of capital accumulated by the textile industry: an apparent inconsistency in certain statements covering the profits and investment in the industry, and the size of accumulation together with its importance to the state.

The apparent inconsistency was first pointed out by Donnithorne A. [1967:371]. It was reported that the textile industry remitted profits to the state amounting to 2,900 million yuan during the period of the First Five Year Plan, and this was equivalent to 240 per cent approximately of state investment in the industry in the same period [Chiang Kuang-nai, 1957a]. This yields an estimate for investment of approximately 1,208 million yuan. This is inconsistent with a reported figure of 1,600 million yuan invested in the textile industry in the period of the First Five Year Plan [Chiang Kuang-nai, 1959]. This latter figure appears to be a rounded version of the 1,550 million yuan reported elsewhere [Ch'ien Chih-kuang, 1959].

A second possible inconsistency was that the total accumulation of the textile industry, which included profit, depreciation reserves, industrial and commercial taxes, return of surplus working capital, receipts from any sale of fixed assets and receipts from any other business activity engaged in, was reported as being 10,000 million yuan [Yeh Fang-t'ien, 1961]. This seems rather high when compared with the 2,900 million yuan forwarded as profit to the state.

Two hypotheses were developed to explain the problem, both based on confusion caused by different coverage of the statistics which was not made clear in the original statements. Hypothesis one, later rejected, was that the profits forwarded were 2.4 times the planned investment rather than the actual investment. Two different figures exist for planned investment in the textile industry: 1,160 million yuan [F.F.Y.P., 1955:30] and 1,237.12 million yuan [S.S.B., 1958a:159]. Using these figures the percentages of profit forwarded to planned investment are 250 and 234 respectively, bracketing the stated 240 per cent but not particularly close. The hypothesis was therefore rejected.

Hypothesis two, which was later accepted, was that the figure of 2,900 million yuan profit referred only to the mills directly under the jurisdiction of the Ministry of Textiles, and did not refer to the entire
industry. This appeared plausible, as the figures were all issued by the
Ministry, which did not cover local run textiles, nor did it know much
about local industry as late as 1958. (See Chapter 3, pp.41-42. The
hypothesis was confirmed by an editorial in Chinese Textiles [C.K.F.C.,
1958b] in which it was stated that state run mills directly under the
control of the Ministry of Textiles could hand over about 3,000 million
yuan in the period of the First Five Year Plan. This figure for central
run mills had earlier been given by Ch'en Wei-chi [1958] with the
additional information that the target in the First Five Year Plan for
central run mills' profit forwarding was 2,780 million yuan.

Both the apparent contradictions, can thus be resolved. The
reported 2,900 million yuan profit is 2.4 times the investment in central run
mills only. This yields a figure for such investment of 1,208 million yuan.
This is close to the original 1,160 million yuan target in the First Five
Year Plan, and to the revised target of 1,237 million yuan, which also
suggests that the hypothesis is valid. If 1,208 million yuan were invested
in central run mills, then of the total investment in the textile industry
of 1,550 million yuan, 342 million yuan must have been invested in textile
mills under local control. This figure may appear small in relation to the
1,208 million yuan invested in central run mills, but the First Five Year
Plan dealt largely with central run industry, local run industry tended
to be ignored prior to 1956, and relatively little investment went to
coastal areas where most of the inherited textile industry was located.
Most of the new investment was in non-coastal areas and was done by the
central state authorities.

The second apparent inconsistency, that 2,900 million yuan profit
forwarded was small in relation to total accumulation of 10,000 million
yuan, is explained, as the profit figure refers only to one section of the
industry, not to it all. The estimates below suggest that total profit
handed over was of the order of magnitude of 5,655 million yuan, a more
acceptable figure.

The amount of capital accumulation and its importance, 1950-61

The estimates were first made for the period 1953-57 and then
extended forward and backward. The results are presented in Table 10, the
methods of estimation are given in Appendix A. Examining the period of
the First Five Year Plan, the textile industry played an important role as
an accumulator of capital. The 10,000 million yuan accumulated was
equivalent to 40.2 per cent of the target for state investment in capital
construction by all industrial departments in the First Five Year Plan and was more than 6 times the reported actual investment in the textile industry of 15,500 or 1,600 million yuan. Despite this important role, the food industry achieved even more, reportedly accumulating 15,000 million yuan, or twenty times the state investment in the food industry in that period [J.M.J.P., 1958/4/11]. These two branches of light industry together accumulated funds equivalent to 100.5 per cent of the target for state investment in capital construction by all industrial departments in the First Five Year Plan.
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</tr>
</thead>
<tbody>
<tr>
<td>A. Central Run Mills</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Profit</td>
<td>287</td>
<td>349</td>
<td>437</td>
<td>535</td>
<td>626</td>
<td>492</td>
<td>669</td>
<td>578</td>
<td>652</td>
<td>856</td>
<td>687</td>
<td>343</td>
<td>6,511</td>
</tr>
<tr>
<td>Industrial and commercial tax</td>
<td>173</td>
<td>197</td>
<td>217</td>
<td>338</td>
<td>352</td>
<td>281</td>
<td>369</td>
<td>305</td>
<td>361</td>
<td>473</td>
<td>380</td>
<td>190</td>
<td>3,636</td>
</tr>
<tr>
<td>Depreciation reserves etc. a</td>
<td>58</td>
<td>71</td>
<td>101</td>
<td>109</td>
<td>111</td>
<td>93</td>
<td>118</td>
<td>155</td>
<td>115</td>
<td>143</td>
<td>135</td>
<td>68</td>
<td>1,277</td>
</tr>
<tr>
<td>Accumulation by central mills</td>
<td>518</td>
<td>617</td>
<td>755</td>
<td>982</td>
<td>1,089</td>
<td>866</td>
<td>1,156</td>
<td>1,038</td>
<td>1,128</td>
<td>1,472</td>
<td>1,202</td>
<td>601</td>
<td>11,424</td>
</tr>
<tr>
<td>B. Non-central Run Mills</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Profit</td>
<td>273</td>
<td>331</td>
<td>415</td>
<td>508</td>
<td>595</td>
<td>468</td>
<td>635</td>
<td>549</td>
<td>620</td>
<td>815</td>
<td>652</td>
<td>326</td>
<td>6,187</td>
</tr>
<tr>
<td>Industrial and commercial tax</td>
<td>164</td>
<td>187</td>
<td>206</td>
<td>321</td>
<td>334</td>
<td>267</td>
<td>350</td>
<td>290</td>
<td>343</td>
<td>450</td>
<td>360</td>
<td>180</td>
<td>3,452</td>
</tr>
<tr>
<td>Depreciation reserves etc. a</td>
<td>55</td>
<td>68</td>
<td>96</td>
<td>104</td>
<td>106</td>
<td>89</td>
<td>112</td>
<td>148</td>
<td>109</td>
<td>136</td>
<td>128</td>
<td>64</td>
<td>1,215</td>
</tr>
<tr>
<td>Accumulation by non-central mills</td>
<td>492</td>
<td>586</td>
<td>717</td>
<td>933</td>
<td>1,035</td>
<td>824</td>
<td>1,097</td>
<td>987</td>
<td>1,072</td>
<td>1,410</td>
<td>1,140</td>
<td>570</td>
<td>10,854</td>
</tr>
<tr>
<td>C. Total accumulation by the textile industry</td>
<td>1,010</td>
<td>1,203</td>
<td>1,472</td>
<td>1,915</td>
<td>2,124</td>
<td>1,690</td>
<td>2,253</td>
<td>2,025</td>
<td>2,200</td>
<td>2,873</td>
<td>2,342</td>
<td>1,171</td>
<td>22,278</td>
</tr>
</tbody>
</table>

a. Depreciation reserves and any other income.

Source: See Appendix A.
The capital accumulated by the textile industry during the period of the First Five Year Plan made a useful contribution to state revenue. The contribution by this industry was larger than many receipt items in the state budget.

### Table 11: State Budgetary Receipts, 1953-57 (mill. yuan)

<table>
<thead>
<tr>
<th>Receipts</th>
<th>Value (mill. yuan)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural taxes</td>
<td>14,978</td>
</tr>
<tr>
<td>Salt taxes</td>
<td>2,566</td>
</tr>
<tr>
<td>Customs receipts</td>
<td>2,385</td>
</tr>
<tr>
<td>Industrial and commercial taxes</td>
<td>47,345</td>
</tr>
<tr>
<td>Miscellaneous taxes&lt;sup&gt;a&lt;/sup&gt;</td>
<td>234</td>
</tr>
<tr>
<td>Profits from state enterprises</td>
<td>47,007</td>
</tr>
<tr>
<td>Depreciation reserves and other income from state enterprises</td>
<td>9,663</td>
</tr>
<tr>
<td>Receipts from foreign loans</td>
<td>3,119</td>
</tr>
<tr>
<td>Receipts from domestic bond sales</td>
<td>2,712</td>
</tr>
<tr>
<td>Receipts from insurance operations&lt;sup&gt;a&lt;/sup&gt;</td>
<td>233</td>
</tr>
<tr>
<td>Other income</td>
<td>4,723</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$134,965</strong></td>
</tr>
</tbody>
</table>

<sup>a</sup> Excludes 1956 which is not available.

Source: Ecklund G.N. [1966:20].

It can be seen that the 10,000 million yuan accumulated by the textile industry exceeded the individual receipts from salt taxes, miscellaneous taxes, and receipts from customs, foreign loans, domestic bond sales, and insurance operations. This contribution was not inconsiderable by one industry which was a single branch of the low priority light industry.

### VI. THE TEXTILE INDUSTRY AS AN EARNER OF FOREIGN EXCHANGE

The textile industry played an important role in the foreign trade of China. Textile trade with non-Communist countries is first examined, followed by trade with the Soviet Union, and finally the two are combined together. A good discussion of problems of trade data and exchange rates can be found in Eckstein A. [1966:779-300].

The textile industry was a net loser of foreign exchange in trade with non-Communist countries 1951-61. The deficit over this period amounted to US$138 million; until 1956 a textile deficit was recorded each
<table>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Textile raw materials</td>
<td>-44.2</td>
<td>-104.4</td>
<td>-38.5</td>
<td>-66.3</td>
<td>-76.8</td>
<td>-38.3</td>
<td>-77.1</td>
<td>-88.2</td>
<td>-74.0</td>
<td>-105.1</td>
<td>-74.1</td>
<td>-787.0</td>
</tr>
<tr>
<td>Textile machinery</td>
<td></td>
<td></td>
<td></td>
<td>1.5</td>
<td>1.1</td>
<td>4.5</td>
<td>3.3</td>
<td>4.5</td>
<td>4.4</td>
<td>1.2</td>
<td>3.0</td>
<td>-23.5</td>
</tr>
<tr>
<td>Semi-finished &amp; finished textile products</td>
<td>-8.7</td>
<td>8.4</td>
<td>22.7</td>
<td>12.7</td>
<td>26.4</td>
<td>54.1</td>
<td>72.1</td>
<td>102.3</td>
<td>92.8</td>
<td>148.8</td>
<td>141.1</td>
<td></td>
</tr>
<tr>
<td>Total net textile exports</td>
<td>-52.9</td>
<td>-96.0</td>
<td>-15.8</td>
<td>-55.1</td>
<td>-51.5</td>
<td>11.3</td>
<td>-8.3</td>
<td>9.6</td>
<td>14.4</td>
<td>42.5</td>
<td>64.0</td>
<td>-137.8</td>
</tr>
<tr>
<td>Gross textile exports</td>
<td>62.4</td>
<td>26.2</td>
<td>49.7</td>
<td>49.2</td>
<td>75.2</td>
<td>130.2</td>
<td>137.5</td>
<td>150.5</td>
<td>161.7</td>
<td>214.8</td>
<td>192.3</td>
<td></td>
</tr>
<tr>
<td>All gross exports</td>
<td>524.7</td>
<td>367.9</td>
<td>432.7</td>
<td>379.7</td>
<td>487.1</td>
<td>641.4</td>
<td>624.0</td>
<td>755.8</td>
<td>698.3</td>
<td>776.6</td>
<td>732.4</td>
<td></td>
</tr>
<tr>
<td>Textile exports as a % of all exports (gross)</td>
<td>11.9</td>
<td>7.1</td>
<td>11.5</td>
<td>13.0</td>
<td>15.4</td>
<td>20.3</td>
<td>22.0</td>
<td>19.9</td>
<td>23.2</td>
<td>27.7</td>
<td>26.3</td>
<td></td>
</tr>
</tbody>
</table>

- stands for 'none' or 'negligible'.

Source: [M.D.A.C.A.A.].
year, in 1956 a small surplus was earned, in 1957 a small deficit emerged and in and after 1958 small but increasing surpluses were earned each year.

Disaggregation of trade with non-Communist countries provides a clearer picture. Semi-finished and finished textile products were a net earner of foreign exchange in every year after 1951, and earnings on this item increased rapidly to US$141.1 million in 1961. The remainder of the textile industry, raw materials and machinery, was a net loser of foreign exchange in every year 1951-61. Raw material imports were particularly high and recorded a total deficit of US$787 million over the period 1951-61. A general policy existed of increasing the degree of self-sufficiency and carrying out import substitution, but imports of textile materials increased from an average of US$63.3 million in 1951-54 to $85.3 million in 1958-61. In view of the increase in size of the textile industry and of exports of textile goods, the increase in raw material imports does not seem unreasonable.

The trade pattern with the non-Communist world can be described as large importation of raw materials, accompanied by smaller exportation of finished and semi-finished products to the same area. The raw materials were destined for processing for internal use and particularly for processing and re-export to the Communist world.

Textile trade with the Soviet Union was significantly more important than with the non-Communist world, both absolutely and as a percentage of all Chinese exports to each.

Identified exports of textile products were a relatively small proportion of total Chinese exports to the Soviet Union in 1950, amounting to nine per cent only. Textile exports increased rapidly and became the dominant export to the Soviet Union; by 1961 some fifty-eight per cent of all Chinese exports to the Soviet Union consisted of textile products.

China ran an overall trade deficit with the Soviet Union in 1950-55 and a surplus in each year 1956-61. Textile earnings were positive throughout the entire period. During the years of positive trade surplus, textile earnings were of major importance in this surplus.

Textile earnings exceeded the total trade surplus with the Soviet Union in all years except 1957 and 1958. In these two years the textile surplus made up 98.1 per cent and 99.7 per cent of the trade surplus with the Soviet Union, or virtually all of it. The most exceptional year was 1960, when the textile surplus was twelve-and-a-half times the overall trade surplus with the Soviet Union. To put into perspective the role of
### Table 13: Trade with the Soviet Union, 1950-61
($US mill.)

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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Textile raw materials</td>
<td>16.7</td>
<td>27.1</td>
<td>31.4</td>
<td>43.4</td>
<td>42.3</td>
<td>43.8</td>
<td>44.7</td>
<td>44.8</td>
<td>36.9</td>
<td>38.8</td>
<td>31.0</td>
<td>14.8</td>
<td>415.8</td>
</tr>
<tr>
<td>Textile finished products</td>
<td>-3.7</td>
<td>-11.2</td>
<td>10.1</td>
<td>16.1</td>
<td>34.0</td>
<td>57.6</td>
<td>92.3</td>
<td>135.8</td>
<td>209.6</td>
<td>376.6</td>
<td>358.6</td>
<td>305.4</td>
<td>1,581.3</td>
</tr>
<tr>
<td>Total net textile exports</td>
<td>12.9</td>
<td>15.8</td>
<td>41.5</td>
<td>59.5</td>
<td>76.3</td>
<td>101.4</td>
<td>137.0</td>
<td>180.6</td>
<td>246.5</td>
<td>415.4</td>
<td>389.7</td>
<td>320.3</td>
<td>1,997.0</td>
</tr>
<tr>
<td>Gross textile exports</td>
<td>16.7</td>
<td>30.6</td>
<td>44.8</td>
<td>59.9</td>
<td>78.0</td>
<td>102.8</td>
<td>137.2</td>
<td>181.0</td>
<td>247.2</td>
<td>415.9</td>
<td>390.0</td>
<td>320.3</td>
<td>2,024.2</td>
</tr>
<tr>
<td>All gross exports</td>
<td>188.3</td>
<td>331.3</td>
<td>413.8</td>
<td>474.7</td>
<td>578.3</td>
<td>643.5</td>
<td>764.2</td>
<td>738.1</td>
<td>881.2</td>
<td>1,100.3</td>
<td>848.1</td>
<td>551.4</td>
<td>7,513.4</td>
</tr>
<tr>
<td>Textile exports as a % of all exports</td>
<td>8.8</td>
<td>9.2</td>
<td>10.8</td>
<td>12.6</td>
<td>13.5</td>
<td>16.0</td>
<td>17.9</td>
<td>24.5</td>
<td>28.0</td>
<td>37.8</td>
<td>46.0</td>
<td>58.1</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** Minor inconsistencies result from rounding.

Roubles were converted to dollars at the official rates of exchange.

**Source:** [M.F.T., 1967:210-212].
the textile industry as an earner of foreign exchange, between 1950 and 1961 China incurred a deficit with the Soviet Union of US$172 million, but the textile industry earned a surplus with the Soviet Union of US$1,997 million. This was sufficient to repay 88.9 per cent of all Soviet long term loans to China, if the reported loans of 5,294 million yuan [Li Hsien-nien, 1957] are converted at the rate of 2.355 yuan to the dollar, to yield a figure for loans of US$2,247 million. If the reported figure for loans of 1,816 million roubles [Suslov M.A., 1964] is converted at the official rate of exchange, then the loans totalled US$2,018 million and the textile earnings with the Soviet Union 1950-61 were sufficient to repay 99.0 per cent of the Soviet loans.

Putting together the textile trade with the non-Communist world and the Soviet Union, the industry was still an important earner of foreign exchange. The large surplus with the Soviet Union far exceeded the deficit with the non-Communist world. Deficits were recorded in 1951 and 1952, after which an overall textile trade surplus was earned each year, reaching a peak of US$432.2 million in 1960, and declining in 1961 to a level which was still above that of 1958 or any preceding year.

The total trade surplus with the Soviet Union and the non-Communist world 1950-61 amounted to some US$920.2 million, far less than the identified textile trade surplus of $1,859.5. This figure is slightly enlarged owing to the inability to identify textile trade with the non-Communist world in 1950, almost certainly a deficit item. Leaving aside 1950, the textile trade surplus 1951-61 amounted to US$1,846.5 million which was approximately twice the total trade surplus. Without the export earning ability of the textile industry, the overall trade surplus would have been turned into a substantial deficit.
A great number of problems existed in the attempt to establish a system of comprehensive planning. These are referred to as problems for the planners, but in fact they could appear at all levels: in top level decision making by the Central Committee, at national planning bodies, at ministries, and at lower level government and planning agencies. The problems faced by the basic level enterprises are examined in Chapters 5 and 6.

This Chapter considers first the structure of planning, then the plans themselves, including their compilation, number and content, punctuality, changes, and the realism and accuracy of their targets. It concludes with a discussion of a series of problems of a rather mixed nature. These include the shortage of trained men, attitudes adverse to planning, the lack of attention to implementation, statistical and data problems, the effects of the harvest, the wastes in investment, the lack of coordination, poor financial planning, inadequate local planning, dilatory procedures combined with increasing burdens of work and the effects of abrupt changes in policy. Many of these problems existed in industries other than textiles; planning problems specific to the textile industry are considered in Chapter 4.

I. THE STRUCTURE OF PLANNING

In order to establish a system of planned economic development, it was necessary to set up a planning apparatus at national, regional and local levels. There were four institutional structures which could have participated in the planning of industry: the administrative structure, the Communist Party, the trade union and the Communist Youth League. The latter two organisations had various functions, including the transmission of policies to the workers, listening to their response, mobilising them for specific tasks, and raising the level of productivity. Neither institution appears to have taken an active role in the preparation or implementation of plans, although they had some indirect effects in implementation. They held competitions among the workers, encouraged them to set targets to try to beat, and the union was in principle involved in draft plan compilation discussions on the factory floor. Attention is
focussed on the two major institutions: the administrative structure and the Party. In principle, an organ of the former must issue the orders to lower levels, but in practice the Party frequently had the real power of control. Since the relative division of power between administrators and Party varied over time, the distinction was not always clear cut.

The administrative structure

Some confusion of systems and overlapping of organs existed in the early years up to 1954, as first efforts were made to establish a planning system and to set up other administrative and political systems. The planning structure can conveniently be discussed at three levels, national, regional (intermediate) and local (province, municipality or autonomous area, and below). ¹

At the national level, the Financial and Economic Affairs Committee was the supreme planning authority at the start, under the jurisdiction of the Government Administrative Council. The North-east alone had a different system. It had its own Financial and Economic Committee which succeeded in drawing up a rough plan in 1949, predating the national achievements. In 1951 a Planning Commission was also established in the North-east [Ku Tso-hsin, 1959]. In the national system, the Central Financial and Economic Planning Bureau, part of the Financial and Economic Committee, produced control figures in 1951 and 1952, and these served as an approximation to an annual plan. In the industrial section the figures were produced mainly for state run enterprises.

The State Planning Commission was established in November 1952, and the first annual plan was made in 1953. This may have been more the result of greater experience in the Financial and Economic Affairs Committee than the establishment of the Planning Commission, since Wang Kuang-wei [1956] reported that the Planning Commission became the assistant of the State Council in national planning work after September 1954. His statement is a little ambiguous, as the State Council itself was established at that time. Wang Kuang-wei reported that until 1956 the State Planning Commission had seven functions, including drawing up

¹ Henceforth in the Chapter references to the province level include municipalities directly under the central government and autonomous regions, unless otherwise stated, as these were regarded as being of the same level.
annual and perspective plans, examining draft plans produced by ministries and provinces, examining how ministries and provinces fulfilled their plans, compiling an annual plan for resource allocation and state stocks, compiling annual and perspective financial plans and examining the state budget and the financial plans of the economic departments, setting up methods and procedures for planning, and conducting research into major economic problems.

By 1954 the Financial and Economic Affairs Committee had become redundant, and in the major administrative changes and adoption of a constitution in that year, the Committee was abolished, and the State Planning Commission took over the responsibility for planning the economy. By 1956 the planning system was still not functioning efficiently enough, and in order to secure an improvement, perspective and annual planning were separated. The State Planning Commission henceforth dealt only with perspective plans; the newly established State Economic Commission dealt with annual plans. This separation is unusual in countries that plan the economy. Waterston A. [1965:388] pointed out that 'In every country with a central planning agency, the agency which prepares the medium- and long-term plan also prepares the annual operational plan' He continues with the statement that Russia separated them in 1960 but rejoined them in 1964. He seems, however, to be unaware of the Chinese counter-example.

At the intermediate level, China was divided administratively into six Large Administrative Areas between 1949 and 1954. Until 1952 this level appears to have been effectively responsible for controlling all enterprises, in all but the North-east. The central ministries were not able to undertake the task of running enterprises nominally under them, and so they were given to the Large Administrative Areas or the Military Administrative Commissions to run [Wang Hong-Ting etc. 1958]. Local state run enterprises also came under these, as these commissions were the highest level of local government in China. In November 1952 a major change occurred, and industrial control was divided into two parts: the central ministries took over the running of central state run enterprises, and industrial bureaus under the Large Administrative Areas ran local state run enterprises. In the same year the enterprises became separate units responsible for their own profit and loss accounting [C.K.F.C.K.J., 1957d]. In 1954 the Large Administrative Areas were in turn abolished and local state run industry was completely run by the provinces, which seem to have come under the Local Industry Ministry, set up in 1954 and then abolished in 1956.
Planning at local levels was mainly centred at the provinces, although a good number of hsien set up a simple structure below the province level. Industrial enterprises of any size were controlled by the province, and the hsien level was supposed to concentrate on agriculture [Yang Ying-chieh, 1955a]. With the termination of the Large Administrative Areas in 1954, most provinces and many hsien set up planning committees for local run industry. All local state run, local joint state-private run, handicraft run and private run enterprises came under this system of planning. The local organisation was often quite a close duplicate of the central government organisation.

Superficially there appear to have been two planning systems before the Great Leap Forward, locally planned and centrally planned, but it is more realistic to say that there were three. The ministries under the State Council compiled a plan for all the enterprises that they controlled, and the various levels of local government compiled a plan for the enterprises they controlled. Both of these two systems were quite separate. The third 'system' was grouped on a remainder basis and consisted of all firms not in the main two systems. These were industrial firms under the non-industrial ministries, industry run by the public security service for labour reform, industrial co-operatives, and enterprises processing for supply and marketing co-operatives^[S.S.B., 1954a].

As far as can be gathered, the plans for central and local run industry were totally separate and the central ministry did not even see the plan for local industry. Yang Ying-chieh [1955a] pointed out that the Heavy Industry Planning Bureau of the State Planning Commission had a wider task than the Ministry of Heavy Industry, since the former also covered local run industry plans; in short it covered the plan for the whole iron and steel industry. By implication, the Ministry was not concerned with the plans of local run firms.

If in heavy industry, relatively easy to plan, the Ministry did not see the local run industry plan, it is even less likely that the Textile

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1 Industrial investment by non-industrial ministries alone made up a not insubstantial 6.6 per cent of the total investment in the First Five Year Plan. To put this in perspective this was 54.3 per cent of state investment in capital construction by the three Ministries of Agriculture, Water Conservancy and Forestry [P.F.Y.P., 1955:30,114]. In 1957, 13.1 per cent of total industrial output value came from this third section, which provided 28.4 per cent of central run industrial output value [Ch'i Chün, 1957].
Ministry saw the plan for local run textile firms, as planning was more difficult owing to sheer number and different techniques in the mills. Liao Li-li [1958] also reported that central ministries did not make arrangements for or a comprehensive plan for local run firms. A further piece of indirect evidence is that as late as 1958 the Ministry of Textiles was unable to include any local run mills in a competition it was holding, owing to the fact that the Ministry did not know enough about the local run firms [C.K.F.C., 1958d]. This suggests that not only did the Ministry not see the plan, but it did not receive reports on the mills either, otherwise it is difficult to see why the Ministry had such poor information. It seems so obvious that local plans should go to the central industrial ministries that it is tempting to assume without question that they did. A report on the effort in 1955 to improve the system for passing up reports and tables from the enterprises stated that statistical materials from local run enterprises went to the provincial level and were then forwarded to the State Statistical Bureau. The Ministry was only involved in receiving reports from central state run enterprises [T.C.K.T.T.H., 1955a]. Yang Ying-chieh [1955a] reported that the two plans, central and local, went to the State Planning Commission for balancing and co-ordinating. These examples also suggest that information on local firms by-passed the industrial ministries concerned.

The Party structure

The Party maintained a structure which closely paralleled the administrative structure. The Central Committee was the highest organ of the Party and represented the real seat of power in China. Below this were the Provincial Party Committees and below these were the town and hsien Committees. The basic unit of the Party at grass root level was the branch in factories, mines and other establishments. In addition to the Party structure parallel to the administrative structure, there was a Party unit within each organ of the administrative structure, which could receive instruction and information from the level of Party above it, both directly within the structure and from Party organs outside this structure. It was in this way that control over the administrative side was exercised. The existence of this system provided the possibility of, but did not ensure, tight control of industrial planning. The degree of control varied from time to time.¹

¹ See Chapter 5, pp. 98-101 for the shifts in power as it affected the mills.
The organisation of financial planning

There were two institutions closely concerned with financial planning and control of industry: the People's Bank and the Ministry of Finance. There was some overlap of function between the two, but the People's Bank was more concerned with day to day running as money was moved between the accounts of firms, while the Ministry of Finance tended to take a broader view.

The People's Bank had many functions. All enterprises maintained an account with the Bank in which all funds were deposited, with the exception of sufficient cash for (normally) three days running. All accounts were settled through the Bank. The Bank had responsibility for seeing that inter-enterprise payments were in accord with the plans, and supervised and inspected financial discipline in general. The People's Bank could inspect anything relevant to the control of industrial funds.¹

The People's Bank rapidly established a network of branches. It is believed that in 1955 there were 43 main branches, over 2,200 branches and more than 20,000 sub-offices employing in all over 700,000 people.

The Ministry of Finance also established offices at national, provincial and hsien levels. The Ministry had wide ranging powers over the control of industrial financial planning. It examined financial policy, directives, systems and plans, and it could inspect budgets and financial statements of all enterprises and the implementation of the enterprise budget. It could also look at the use of capital, tax payments, the audited enterprise accounts and even the financial work of the People's Bank. Rather surprisingly, the finance office within an enterprise was not part of this system but was part of the administrative controlling system [S.S.B., 1954a].

The People's Bank and the Ministry of Finance, together with their subordinate organs, constituted the major part of financial control. There were other institutions that also possessed some power in this area. The planning organs themselves had the power to visit any enterprise and inspect all the plans, including financial plans, and their fulfillment [Ming Chi, 1950].

The State Economic Commission had a Financial Planning Bureau which compiled the national annual financial plan and had the power to

¹ A useful description of the other functions of the People's Bank is given by Donnithorne A. [1967:402-407].
supervise and inspect implementation, and to suggest ways of improving weak areas in financial work. The State Council had a Finance and Trade Office which also had a supervisory and directing role over financial affairs. No evidence was found that these bodies were at all important in the supervision and inspection of financial work.

II. THE PLANS

An economic plan has been defined as 'the entire complex of development activity contemplated for a year or a multiyear period' [Hagen E.B., 1963:19]. Plans are customarily divided into long range (or perspective), medium term and annual; in western literature, perspective plans are commonly defined as covering ten years or more, and medium term plans as anything between two and ten years. In China an attempt was made to formulate a Twelve Year Plan for the period 1956 to 1967. A Twelve Year Plan for textiles was mentioned once [Yang Ch'eng, 1956], but nothing further was reported and it seems improbable that it was completed, unlike the plan for agriculture. In western terms, the medium term plans in China cover five years. Only the First Five Year Plan (1953-57) was ever completed in detail and published. An outline of proposals for the Second Five Year Plan was published but the plan appeared to be abandoned during the Great Leap Forward. The Third Five Year Plan, due to commence in 1963, was deferred until 1966. It was rarely mentioned and never published. The Fourth Five Year Plan (1971-75) has so far followed the example of its immediate predecessor. This section considers the short term plans, annual and shorter.

Annual plan compilation

In a centrally planned economy of the Soviet type, the administrative level at which targets are set is important. If targets are set by the central authorities, the results are extremely likely to be a plan remote from reality, but if the targets are set by the enterprises, the result is the abandonment of centralised planning. As a consequence of this, an up-and-down process is commonly practised in plan compilation.

In China a four stage process, known as 'two down and two up', was practised in the first half of the 1950s. Under this system, the enterprise first suggested rough figures for production in the following year to the controlling authority, either central bureau or local government bureau. These suggestions were synthesised into one plan.
for the area and sent to Peking, preferably in May, but often later:
in 1953 it was July before the central run plan was sent [Lo Jih-yün, 1954].
At the second stage, control figures prepared by the highest planning
authority of the time were passed down from Peking through one of the
control systems, central or local, to the bureaus and thence to the
mills. At the third stage, a draft plan was compiled in the enter-
prises and forwarded to the bureau, which synthesised all the draft
plans into one. This, in the case of central mills, was sent to the
Ministry of Textiles, and in the case of local run mills was sent
apparently direct to the highest planning authority of the time. At
the fourth and final stage, a formal annual plan was sent down from the
Ministry of Textiles, or the highest planning authority, to the bureaus,
and finally to the mills. The first draft plan at the top was broad
in nature and contained aggregate figures, more details being added as
the appropriate part of it passed to successively lower levels.

This system persisted until 1955, according to one report [Fang Fa,
1956], or until 1958 according to another [Chen Ta-lun, 1958]. It
seems possible that the earlier reference did not represent general
current practice and that the 'two down and two up' system carried on
until changed at the time of the Great Leap Forward. The whole system
was found to be cumbersome and it was suggested in 1957 that it would be
an improvement if a national planning meeting could allocate control
figures directly to the bureau, which, after discussion with the mills,
could itself make the formal plan [Shou Han-ch'ing, 1957]. There is no
evidence that this suggestion was ever implemented; such a national
meeting was not well-publicised, and the change to 'one down and two up'
suggests that it was not. The 'one down and two up' system commenced with
control figures from the top being sent down, an enterprise draft plan
going up and a final formal plan going down. In short, the first stage
of the older method was dropped. This system was still operating in
the early 1960s.

Plan formulation in practice seems to have been rather less neat.
Informant number one, a high level mill manager, said that in his mill
there was a two stage process, plan suggestions up and a formal plan
down. Lin Li-chien [1964:77] reported that a simple one stage system
of passing plans down was actually in operation, despite the talk of ups
and downs. Informant number ten described a somewhat complex system of
passing plans in local industry down. The Ministry sent a draft plan
to the province, which considered it before returning it with suggestions
to Peking for discussion and revision. It then came back to the province
as a formal plan. On this basis, plans were drawn up for enterprises
directly run by the province and became their formal plans. If any
enterprises were run at sub-province level, such as hsien, a plan was
sent to the hsien, which returned it to the province with suggestions,
which after consideration might or might not be embodied in the final
plan for the hsien. The hsien level then drew up formal plans for its
terprises.

When an enterprise was compiling a draft plan, the workers and
masses were supposed to take a prominent part in discussions and to
make suggestions which could be incorporated. In practice this was
rarely achieved and constant complaints were made that workers were
largely excluded from plan compilation. Indeed, they often did not
see the current plan until it became formal and it was too late to
suggest changes.1

It is obviously desirable that an enterprise should receive its
formal annual plan as early as possible in the year, and preferably
at the start of the year. In fact, plans were usually very late in
arriving at the mills, partly because the national plans were compiled
late and partly because enterprise plans were held up in the bureau-
ocratic machinery. The control figures for the forthcoming year's plan
were normally set about August or September by the state planning
organs: a start on compiling the draft national economic plan was
made in November; and it was not possible to send down the formal plan
before March-April at the earliest or June-July at the latest [C.H.C.C.,
1957]. Richard Diao [1966:42] reported that it was not possible to
secure approval of the state budget and national economic plan before
February, as in 1953 and 1958, while it was March or April before
approval was given in 1956 and 1960, and June or July in 1954 and 1957.
Approval of enterprise plans could be slower, as they were a breakdown
of the national plan. Towards the end of a year some enterprises had
still not received a formal plan. This late transmission of formal
annual plans to enterprises was adversely commented upon by Richard
Diao, Li Fu-ch'un, [1956a], [1956b] and Wang Ssu-hua [1958]. The latter
reported that it was frequently the second half of the year before
the annual plans were sent down. Informant number eight corroborated
the fact but not the degree of lateness; he felt that the formal plan

1 See for example [C.C.H.J.P., 1952/3/29], [Ch'i Wu, 1953:45], [N.F.J.P.,
1954/4/16], [Lo Jih-yin, 1954], [Yen T'ao., 1957].
usually arrived in textile mills about March, although there were exceptions to this. Yang Ying-chieh [1956] remarked that not only were plans not made on time, but even when the plan had been formally approved some units did not send it down for a long time, so that some basic units had no formal plan to follow.

The delay in making and securing approval for the national economic plan was caused by the planners being forced to wait for the harvest before beginning to plan for the forthcoming year, by the time lags in statistical information being available to the centre, and by a shortage of planners. The extra delay in getting a formal plan to the mills was caused partly by some units not passing down the plan, but largely by the time needed to break down a simple aggregate plan into a detailed operational plan for enterprises, when good planning personnel were scarce. Faced with the non-arrival of a plan, the managers carried on work as well as they could, using the earlier control figures as guidelines until the formal annual plan arrived.

Changes in the plan were also a matter for concern. It is not necessarily the case that revisions in annual plans are a sign of poor planning. Such revisions may be necessary and desirable if later and better statistics become available, if there are unforeseen domestic changes - such as poorer second or later harvests, or in government policies - or if international markets suddenly change. The latter reason perhaps applied less strongly in China, in view of the state monopoly in international trade and small involvement in international trade. However if there were any effect it would occur more commonly in the case of textiles than most products, since textiles were prominent in international trade.

In China, changes in the plans were too frequent for the planners and the enterprises to cope adequately, but, rather ironically, were too infrequent to deal effectively with a changed situation. Li Fu-ch'un [1956a] referred to this by criticising the changes in plans when handed over and also the inability to adjust plans quickly to meet changed conditions. Plan changes at the enterprise level caused difficulties of adjustment in output and some losses; Chiang Kuang-nai [1955b] reported

\[1\] Statements that plans were changed too much are more common than the charge that they were not adjusted enough: see for example [Chou En-lai, 1954:9], [K'ung Sang, 1957], [Huang Yen-p'ei, 1957], [C.H.C.C., 1957], [H.H.P.Y.K., 1957].
that if raw materials could be supplied as planned and if production plans were not changed, state run textile mills could save about sixty million yuan in 1955 alone. At the planning level, the planners were apparently unable to cope with the necessity for adjustments in many plans if one part were changed. One undesirable feature was a tendency in some enterprises to change their plans on their own initiative, without requesting approval from higher levels. Some units even had several plans for the same year, a situation which caused 'chaotic conditions' in the unit and that should never have occurred [Yang Ying-chieh, 1956].

The number and content of plans

There would normally be several plans covering different time periods at a cotton mill. A long range plan might exist, for three, five or ten years, although as late as 1963 it was held that for some enterprises the compilation of a long range plan was still an unfamiliar problem [Li T'ieh-ch'eng etc., 1963:33]. Reference to a Two Year Work Plan in statistics was made once in 1956 [T.C.K.T.T.H., 1956b]. A simple annual plan existed in state run enterprises after 1953, becoming more detailed and complex as time went by. This plan was set by the state. Informant number one reported a six month plan in his mill, but said that it was unusual to have one. He was uncertain why they received one but felt it might be because his mill was very large, modern and efficient and the authorities wanted closer control over it as a result. There would also be a quarterly plan, set by the state, usually at lower levels, such as by an administrative bureau of the ministry, or by the province. Shorter plans than this existed, usually for the period of a month and one third of a month. All plans for periods less than the quarter were referred to as 'domestic plans' and were normally drawn up in the mill for its own internal use. They were in effect work schedules to be followed so as to attain the longer period state plans. Some informants reported that the monthly plan was sent by higher levels, not made in their mill. A directive was issued in 1957 which allowed controlling departments to decide which enterprises could make their own quarterly and monthly plans, and which must be compiled by the ministry or bureaus [S.C., 1957b]. It would seem that the controlling bodies took advantage of this to increase their sphere of operations.

1 In the west a three or five year plan is often considered to be medium term; they are referred to as long term in China.
In terms of operational significance, only the quarterly and annual plans can be considered to have been important for the enterprise managers. Although the literature in 1956 and 1957 is full of references to overfulfilling the First Five Year Plan, it was the annual and quarterly plans that contained the specific targets to achieve the broad goal. The plans for one month or less were not set by the state before the directive late in 1957; it would be 1958 before state institutions could draw up monthly plans, there is no indication of how many mills actually had monthly plans set by the state, and the Great Leap Forward intervened shortly afterwards. All internal plans were important within the mills, especially for the workers, but had less significance for the director except as a guide to how well the quarterly plan would be achieved: the state authorities did not concern themselves with plans of less than a quarter before late 1957.

A casual reading of the literature suggests that annual plans had much operational significance because the fulfillment of them was so frequently mentioned. This view can be deceptive. If the quarterly plans when added together equal or exceed the annual plan, as they should, then fulfilling the quarterly plans automatically guarantees that the annual plan will be achieved. In addition, changes made during the course of a year, such as in government policy, are made in the quarterly plans [C.K.F.C.K.J., 1957b] and the old annual plan is no longer relevant. The quarterly plans provide for necessary flexibility, which annual plans were unable to provide, and therefore in many ways became more important. Informant number six reported that in ten years in his mill, the annual plan was laid aside as soon as there was any change in policies or a movement began, and the plan was forgotten and never even mentioned by anyone after that. It would seem that the quarterly plans had far more operational significance than the annual plans.

The bonus systems, considered in Chapter 5, pp.109-121, are closely related to the degree of the operational significance of different plans in most planned economies. In China, bonuses to workers were paid monthly or quarterly, varying in different enterprises. Some bonuses were calculated monthly and paid quarterly, others calculated quarterly and paid monthly. Judging by the evidence of frequency of mention, monthly bonuses were probably more common than quarterly in internal worker bonuses, but quarterly bonuses were more common in socialist emulation competitions between firms. Textile mills were allowed freedom to decide many practical aspects of bonus payments, including the period covered, and no unified bonus system was ever achieved in the textile
industry 1949-61. This suggests that operationally significant plans could be either monthly or quarterly as far as the ordinary workers were concerned.

The content of plans changed over time, so that sources from different periods can be slightly contradictory. In 1953 it was said that in industry in general six plans should exist: a product plan, a labour and wage plan, a material supply plan, a cost of products plan, a financial plan, and a technical organisation and measures plan [Chi Wu, 1953:38-40]. A Russian expert reported in 1954 that plans in textiles mills should have nine items, but did not specify the number of plans themselves [C.K.F.C., 1954]. Lo Jih-yün [1954] reported that there were eight plans in textiles in 1954: total output value, products, labour, costs, wages, supply and sales, finance, and basic construction. Other references exist, each with similar but not identical lists of plans.

These reports were concerned with the ideal, but in practice the number of plans could be less. In 1956, very many local state run enterprises in Shanghai only had a poor quality production plan and totally lacked material supply and financial plans [Kuo Chien, 1956].

By 1957, the year when comprehensive planning had been developed as far as it ever would be, six plans stood out as the most important. These were commonly called 'the six big plans' or sometimes 'the production, technology and financial plans'. They consisted of plans for production, labour and wages, material supply (or material and technical supply), costs, finances, and technical organisation and measures [C.K.F.C.K.J., 1957a]. The latter plan was regarded as a means of helping to fulfill the first five.

In principle the contents of these six big plans were quite detailed and were published in Chinese Textile Worker [C.K.F.C.K.J., 1957a]. The production plan included physical outputs of the various kinds of yarn, cloth and dyed products, together with their quality standard, the total output value, value of different products, and various techno-economic norms, such as the number of machines to be used and their speed of running, output of yarn per spindle hour, and the quantity of cotton to be used per bale of yarn. This plan also included some fixed capital items, such as materials for factory housing, and a major overhaul plan. The production plan was the basis for the compilation of all other plans.

The labour and wage plan included the total number of staff and workers, a breakdown of total workers by types (e.g. production workers, technicians), the total wage bill and the average wage, the total value
output per worker and output per production worker. It also included a training plan for staff and workers.

The material supply plan included the quantity of raw materials to be supplied and used, the supply of other materials, fuel, power, semi-finished products and the size of material stocks.

The cost plan was divided into three parts; first, the budget of expenditures for production purposes, which included the total value of raw materials, other materials, fuel, wages and other expenditures; second, the cost plan, which included total cost and cost per unit for the various different yarn counts and cloth products, and the wage cost of the various products; third, the size of cost reduction in the planned period compared with the previous period.

The financial plan consisted of a plan for income and expenditure, a plan for the use of circulating capital, a profit (or loss) plan and a plan for tax payments, the depreciation of fixed assets, bank loans and the enterprise bonus fund.

The technical organisation and measures plan was meant to improve production techniques and methods, and covered such items as quality improvement, increasing labour productivity, economising on materials, reducing costs and speeding up the circulation of capital.

In addition to the six big plans, a mill might possess several others, such as a basic construction plan, an equipment maintenance plan, a subsidiary plan, a transport plan, a new products trial manufacture plan, and an increase output and economise plan. The last was drawn up in the enterprise for its own internal use.

Naturally not every item of all these plans carried the same weight. In 1957, there were twelve norms regarded as having commanding force, i.e. that the centre insisted must be filled. These were total output value, the output of major products, trial manufacture of new products, major techno-economic norms, the rate and size of cost reduction, the number of staff and workers, the number of workers employed at the year end, the total wage bill, the average wage, the productivity of labour, and profits. The actual preferences of state planners and mill managers are considered in Chapter 6.

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1 Some versions put depreciation in the financial plan, others put it in the cost plan.
2 This plan only existed if the mill was a major subsidiary supplier of a parent mill, or was a subsidiary producer for materials handled on state unified allocation.
The question remains as to how realistic and accurate were the plans. At the factory level there were two types of plan norms, chih-piao, which were set at higher levels and had the force of an instruction, and ting-eh, which were drawn up within the mill, were much less important, and could be altered by the mill. Both sets of norms had quite a low accuracy level. As Yang Ying-chieh [1956] remarked, 'The major deficiency [in planning work] is that the plan is "incomplete, superficial and inaccurate".' Parts of a plan were often missing: even at the level of the State Planning Commission some plans lacked all the private run industry section, while some even lacked the state run industry part [Yang Ying-chieh, 1955a]. Presumably these two situations rarely coincided or there seems little left for inclusion. Plan targets set for private run industry and for the individual economy were very poor, as they were most often estimates by higher levels, based on samples rather than on actual reports. This procedure was recommended [Yang Ying-chieh, 1955b]. [Zielinski J.G., 1968:5] has suggested that the operative plans must be complete, but that the perspective plans need not be. It would seem that the First Five Year Plan, on the whole a reasonable document, was better made and more complete than the annual and quarterly plans in China between 1953 and 1957.

There were several reasons for the inaccuracies and lack of completeness in plans. There was a dire shortage of skilled statisticians and planners, compounded by the extension and increasing complexity of the planned part of the economy. Targets sent down were based in part on statistical reports sent up, and these were often of indifferent quality. In addition, the norms were frequently set by a few people sitting in an office with no real recognition of the actual problems in production. The practice of factory management of seeking low targets by making minimal suggestions affected the accuracy of norms, as did the occasional occurrence of target inflation at intermediate levels when passing down plans. The stimulatory element in plans, that is to say, the habit of setting 'advanced' plans or ones difficult to achieve, common in 1958 and 1959, also had a distorting effect on realism of targets. One problem in standardisation and target realism was the custom of staff in different mills of drawing up norms in different ways and on different bases; in 1957 this still occurred in the Shanghai textile industry [E.C.A.B., 1957c].
III. PROBLEMS IN PLANNING

A major problem in planning work was the extreme shortage of skilled men, coupled with backward personnel practices which resulted in a misallocation of part of the pool of available talent. Lo Jih-yün [1954] commented on the textile industry that,

'....the plan organs and organisation are unhealthy, the planning cadres are insufficient, the experience of planning personnel is insufficient, the various scientific intellectuals are poor, obviously planning work at present cannot catch up with the needs of objective reality.'

The people engaged in economic planning had been transferred from other work and received no training in the new work they had to undertake. The higher levels were unconcerned about this and did not even hold specialist meetings, at which experiences could be exchanged. In this respect, planners were in an even worse position than the statistical and accounting personnel [Ch'uan Kuang-t'ai, 1956].

The shortage of well-trained professional men was general. In 1956 there were over 60,000 graduates of higher education released for work, but the needs were for over 190,000 such graduates in that year [J.M.J.P., 1956/8/2]. Despite the efforts in education, described by Orleans L.A. [1961] and Cheng Chu-yüan [1965], the shortage of well-educated personnel persisted. Some of the graduates were placed in unsuitable positions: of the 1606 requests for a change in work received between January and May 1956, 735 (45 per cent) complained that they were irrationally employed.

The private managers in joint state-private enterprises were often underused; they had position but no power and their suggestions were frequently ignored [Hu Tzu-ang, 1957]. Non-Party men were excluded from certain work [Shou Mo-ch'ing, 1957]. Hsia Hsün-yüan [1957] stated that in the textile industry sectarianism existed, that relations between Communist Party cadres were very easy and they joked together, but they treated non-Party cadres as 'unsuitable guests.' Wu Pen-fan [1957] pointed out that in the relationship between Party and non-Party cadres, superficially they treated each other politely but actually there was little mutual respect. Some non-Party cadres felt that some of the Party cadres were not good enough at both business and study, while some Party cadres felt that non-Party cadres had backward ideology and bad attitudes. If a group of either Party or non-Party cadres were standing talking and one of the other group came up, talk immediately ceased. Huang Yü-ch'eng
[1957] reported that many old engineers and specialists had been transferred from the provinces to the Ministry of Textiles, but their new work was irrational and they were dissatisfied.

The discrimination against non-Communists was admitted by Chou En-lai [1957] in his report to the National People's Congress in June 1957, although he tempered his remarks by also criticising non-Party people who stood aloof, while conceding that the Party had often made insufficient attempts to approach them. Hsü Chang-ch'ing [1957] said that in his experience the old cadres were easier to approach, and it was the new Communist cadres that were more difficult.

Labour was often misallocated between mills even under the same controlling body. Some mills would have surplus labour, others would have a labour shortage. In an effort to alleviate this, the East China Textile Administration Bureau [E.C.A.B., 1957b] divided the twenty-eight state run and fifty joint state-private run mills under its jurisdiction into nine groups. One cadre from a mill in the group was given the power to transfer workers within the group, and the Bureau could transfer workers between the groups. In the first half of 1957 some 350 such transfers were made, which undoubtedly helped the situation in this part of China.

Despite the overall shortage of educated personnel, there existed overstuffed departments with insufficient work for all their employees.\(^1\) The problem had been recognised as early as 1951 by Chou En-lai [1951], but matters did not seem to improve. Five years later, Chou En-lai [1956:57] reported that:

'At present the various departments of the State Council are overstuffed and divided into too many levels, causing the lower organisations to be inundated with official documents, telegrams and forms. There are leading cadres in certain departments who are not even aware what directives have been issued from and what regulations have been made in their departments.'

The People's Daily [J.M.J.P., 1954/2/24] reported that the administrative organs tied up many cadres while many factories, mines and middle schools were short of cadres and teachers. Cadres in the organs with insufficient work did less than half a days work and sometimes had nothing to do for even longer periods. The First Five Year Plan [1955:231] had indicated that some state organs did not comply with state regulations concerning

\(^1\) The situation at the level of the enterprise is described in Chapter 5, pp.101-108.
personnel and freely enlarged their administrative apparatus and staff numbers.

The Ministry of Textiles was criticised by Hsü Chang-ch'ing [1957]. Although the Ministry had not released figures on personnel numbers, he alleged that simple inspection of the Ministry dining room revealed that personnel numbers increased each year. In 1955 the Basic Construction Bureau of the Ministry of Textiles had discussed a reduction in their seventy-five employees, but by the spring of 1957 the figure exceeded ninety. The personnel were numerous but had little to do except read newspapers, in groups or individually, or else sit and talk. Many bureaus within the Ministry had their own personnel department and the Basic Construction Bureau even had four such departments. Hsü Chang-ch'ing simply asked 'Is it necessary?' As Yuan Chi-ch'in [1957] put it when discussing the talked-about, but not achieved, streamlining of personnel within the Ministry of Textiles, 'One only hears the sounds on the stairs, but one can see no one descending.' The Ministry of Textiles appears to have been no better than the average government department in the matter of overstaffing.

A second problem in planning was that for some years attitudes adverse to the concept of planning persisted in China. The attitude of the people involved can help or hinder the establishment of a planned system of development. Planning really commenced in 1953 and immediately it was reported that 'Some cadres still do not regard planning seriously' [T.K.P., 1953/7/26]. Opposition to domestic planning was common when trial efforts to introduce it were made in the textile industry in 1953 [Kao Fen, 1954]. The leaders of the Kwangtung Textile Mill were criticised for having a weak planning standpoint and lacking a serious attitude of responsibility towards the state plan [N.F.J.P., 1954/4/16]. A Russian expert criticised the leading personnel of some textile mills who felt that they could work without any production plan [C.K.F.C., 1954], as well as the attitudes of not wanting, or wanting to defer the introduction of, domestic plans. Yang Ying-chieh [1955a] criticised various areas (apparently provinces) where planning work was not taken seriously and planning could not develop properly. He also criticised some ministries for not paying enough attention to compiling labour, cost, and financial plans, some non-industrial ministries for being deficient in making plans for industrial enterprises under their control, and some ministries that '...basically do not compile certain plans.' As late as 1957 some planning cadres felt that they had little function and their morale was low [Kao Hsiang-chang, 1957]. The lack of wholehearted acceptance
of planning undoubtedly hindered the establishment of a viable system.

A third problem was that the people who made the plans rarely left their offices and saw what conditions were really like, nor did they investigate implementation, but were satisfied merely to draw up plans. Although objection to this was partly ideological, the lack of adequate information for planners, owing to poor data, added weight to the case. As Lo Jih-yün [1954] remarked:

'We do not know much of actual conditions in enterprises, we only know if a plan was fulfilled or not, but we do not know the reasons for how the plan was fulfilled or unfilled; we also do not know if the plans we make are good or bad.'

Yang Ying-chieh [1956] said that fairly large resources were devoted to compiling a long period plan and annual plans up to 1956, but not enough attention was paid to inspecting the conditions of plan implementation. Wang Kuang-wei [1956] reported on the State Planning Commission:

'In the past our deficiency was spending much time sitting in offices compiling plans, and spending little time going out to understand conditions and to inspect the situation of plan implementation.'

The general charge was repeated one year later [Shou Han-ch'ing, 1957]. He Wen-t'ao [1958] made the same criticism and alleged that the state planning personnel not only did not listen to the opinions of scientists, technicians or engineers, but also paid insufficient attention to those of the central ministries and various provincial bodies.

A fourth problem concerned poor statistics and data. It is generally agreed that knowledge of present conditions and reasonably accurate data are most desirable in planned economies [Zielinski J.G., 1968:127-129], [Lange O., 1962b:28], [Waterston A., 1965:170-172,198]. The data available to planners were generally of low accuracy and frequently out of date, owing to the time lags in getting information from the lowest levels of the system. Monthly reports were often late and quarterly and annual reports were frequently greatly delayed. When the central planners had to compile the 1958 plan the latest full year reports were for 1956. The statistical organisation sent a plethora of forms and tables, often complex and containing duplication, for the mills to fill in, but the result was generally poor. The statistical

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1 The situation at the level of the enterprise is considered in Chapter 5, pp.92-96.
system was rarely able to study and adjust the data in order to turn the mass of figures into useful reports; the numerous reports and tables were little read and of little value [Chou En-lai, 1953], [Hsiieh Mu-chiao, 1956], [Chen Yun, 1956:174], [Wang Ssu-hua, 1958]. In addition to the problems of inaccuracy and lags, the statistical definitions, and form of calculation, used by the statistical system were not appropriate to the needs of the planners, and this reduced the usefulness of the data collected, [S.P.C., 1954], [Li T'i, 1954].

A fifth problem was the major effect of the harvest in one year on the economy in the subsequent year. The clearest statement of the problem was probably given in Planned Economy [C.H.C.C., 1957]:

"...because our country is an agricultural country, the current year's harvest being good or bad has a great influence on the development of the national economy in the forthcoming year, and the degree of goodness or badness of the agricultural harvest can only be seen in September and October, and this affects the time of compilation of the annual plan."

It is true that the fluctuations in harvests caused undulations in plan targets; this was not the fault of planning, as the harvest effect remains whether the economy is planned or not, but it did cause difficulties of target setting. The prime difficulty was that the national plan could not be commenced until late in the year. Planning resources were insufficient to allow the compilation of several alternate plans, earlier in the year, on a contingency basis. The fluctuations in annual outputs and targets could have been offset to some extent if sufficient stocks of materials had existed. Unfortunately it was not possible to maintain sufficient stocks in the textile industry as cotton supply was insufficient to run the industry at full capacity, and a sizeable surplus could not be built up. The absence of a stockpile of cotton in 1953-57 was commented on in 1959 [Shen Hai-ch'ing and Fei K'ai-lung, 1959]. It was estimated in 1958 that cotton stocks of some three to four million tan (150-200,000 metric tons) would be necessary to even out the fluctuations caused by poor harvests [Ch'ang Yüan, 1958].

A sixth problem which affected development, as well as being a problem for the planners, was the wasteful use of capital. This was a scarce resource and it was desirable to allocate it to the best possible use. Much of the investment funds destined for productive use was wasted in non-productive ways. Some wastage was the result of a deliberate attempt to build a 'showpiece' establishment, other losses were due to sheer inefficiency. Chou En-lai [1954:10-11] referred to
the amount of waste as 'Another vital problem facing industry....' In the construction of one power plant, he reported that over 14,400 million yuan were tied up through unplanned buying of materials, 2,570 million yuan were lost by a failure to apply promptly for allocation and delivery of materials, 1,800 million yuan through wasteful use, over 2,350 million yuan as a result of low working efficiency, and 2,300 million yuan were lost as a result of building temporary buildings of too high quality on the construction site. Li Fu-ch'un [1955a:51-53] criticised the building of non-productive projects, excessively high building standards, too many auxiliary buildings, offices, living quarters, canteens, auditoria and club houses, and 'civic beautification'. It was reported in the People's Daily [J.M.J.P., 1955/5/5] that six central industrial ministries in 1953-54 spent 24.9 per cent of their total investment in non-productive ways, and based on returns from twenty-three provinces and municipalities, in 1954 the amount of non-productive investment was 47.6 per cent of total investment.

Li Fu-ch'un returned to the attack in the People's Daily [Li Fu-ch'un, 1955b] and the problems indicated in the article were deemed to be important enough in the textile industry for the article to be reprinted in Chinese Textiles [C.K.F.C., 1955]. After a general criticism along the lines he used earlier, he reported that non-productive investment by six central industrial ministries was 23.2 per cent of their total investment, compared with an average for the Soviet Union in its First Five Year Plan of only 14.5 per cent. This is close to, but not identical with, the 24.9 per cent mentioned in the previous month. He also criticised new enterprises in particular, said that essential dormitories, health departments, canteens and schools were acceptable, but that with regard to other welfare facilities, such as clubs, rest rooms, sports fields, and areas planted with trees, the enterprises must submit requests for approval to develop them, and then only after the enterprise had started production.

The Minister of Textiles, Chiang Kuang-nai [1955b], reported to the National People's Congress that there was much waste in constructing and equipping the mills.

'Some units only just set up wanted to buy motor cars, sofas, radios, and carpets and of the best quality. One mill considered home-made sofas costing 160 yuan as unworthy, and sent men to Tientsin to buy leather ones. Apart from this, some units under construction blindly purchased things without considering whether or not they could be used. For instance, one unit with 20 barbers bought 104 hairclippers and scissors and 128 razors, and people said they were enough for forty years use.'
The Chengchow State Run Number Three Cotton Mill was an example of a grandiose approach to construction. It was described as large, rich in nationality-style architecture, with asphalt roads running through tree-lined grounds, spacious courtyards adorned with luxurious growths and potted plants, a 300-bed hospital within the grounds, and a workers cultural palace, including a theatre, library, auditorium, gymnasium and chess rooms, in the residential area [Cheng Hsin, 1959].

The Tsingtao Textile Administrative Bureau [T.T.A.B., 1955] investigated waste in the mills under its jurisdiction. Between 1952 and 1954, various state run mills built new dormitories, canteens, nurseries, medical departments and bathing pools, for eleven million yuan, which was sixty-five per cent of all their basic construction investment. An attitude of wanting new buildings and at the same time slackening off on control of existing buildings (even new ones just built) was reported. Some people were described critically as renting out or selling their houses and applying for dormitory accommodation. The allocation of dormitories was itself criticised for irregularities. For example, some staff and workers who were in trouble did not receive accommodation, while some without any troubles were allocated a place.

The trade unions contributed to the use of funds for non-productive purposes. Lai Jo-yu [1955b] reported at the Third Plenary Session of the Seventh Executive Committee of the A.C.T.F.U. that the unions spent profusely on high standard welfare projects, such as sanitariums, club houses, cultural palaces and creches, which were 'built magnificently and furnished lavishly', but many of the genuine problems of the masses remained unsolved.

Po I-po [1958] reported that the efforts since 1955 to reduce overly high standards in construction and omit part of the construction projects had resulted in a reduction in the percentage of non-productive expenditure in total construction investment from over thirty to around twenty per cent. However, non-productive investment in the entire period of the First Five Year Plan was still 23.4 per cent. This figure is very close to the 23.3 per cent spent on non-productive investment by the six industrial ministries reported by Li Fu-ch'un in 1955. In 1958 the amount of non-productive investment in new textile mills was still being criticised as excessive [C.K.F.C., 1958b].

A seventh problem in planning work was one of inadequate organisation and lack of co-ordination between departments and units. Some examples of this have been touched on elsewhere, such as the fact that small
private run mills sometimes did not send reports to any organisation before 1956, and the inability to transfer cotton between mills under different controlling bodies.

Many more examples of the lack of co-ordination exist. It was difficult from the beginning to bring all the scattered production units under control and to co-ordinate them. During the long years of war, many organs, such as various levels of local government, schools, army units, Party factions and the people's organisations, set up industrial, agricultural, commercial and construction units. After 1949 it was not easy to bring these units together, as they were scattered, localised, aimed at profits, and preferred to be independent [H.H.Y.P., 1952b].

In 1952 the mills under the Chengchou Bureau received cotton with an illegally excessive water content from the Shantung Cotton, Yarn and Cloth Company. Despite being told by the town's Financial and Economic Committee, not to send more and to pay for drying costs, the Company continued to despatch poor cotton. This was reported to the Ministry of Textiles and to the Tsingtao Financial Committee. The latter came up with an equitable compromise, but the Ministry replied that it was the responsibility of the recipients to use the cotton delivered, and if losses were made the mills could discuss it with the despatchers. As a result of this, a letter went in the People's Daily [Ting Chien-lo, 1953], in which the receiving Bureau openly criticised the Company and Ministry for their handling of the matter.

The major effort to develop heavy industry was reportedly undermined by the actions of some. It was government policy to transfer many of the better cadres to take part in building up heavy industry, but some industrial and mining enterprises would not release such men. Not only would some firms not help in this cadre allocation, but some would not co-operate at all with heavy industrial departments and refused to deal with their legitimate requests [J.M.J.P., 1954/3/3]. The lack of co-operation was therefore important enough to offset partially this fundamental policy of the state.

Lo Jih-yün [1954] referred to the lack of co-operation between other departments and the planning departments; the other departments would not help the planning departments, largely because of proud self-satisfaction, departmentalism, and lack of an overall viewpoint.

Chang Shih-hung [1956] referred to many problems and lack of co-ordination. Some departments of government were at loggerheads; for
example, the labour insurance part may have agreed to the purchase of equipment to reduce temperatures in enterprises but the financial part refused to sanction it without a delay. This particular case required eleven communications and a letter to a newspaper to reach a solution. Within a town, factory A may have had a surplus labour and factory B was short, but men could not be freely transferred, although the 'welfare' of both factories could have been increased. The highest level control organs generally monopolised all power, irrespective of whether or not a matter was important, which led to poor control and understanding. By not agreeing to suggestions for improvement made by people below and by refusing to make suggestions themselves, the higher control organs became a centre of resistance to solving problems. When some firms in Shanghai needed devices to reduce temperature in the factories, the Changming Industrial K'eh volunteered to supply them, as some were surplus to their requirements. They had no power simply to send them, so first requested permission from the Special Companies and were informed that such devices could only be transferred between firms under one Special Company. They then asked the municipal Light Industry Bureau and Heavy Industry Bureau for permission and were informed that the idea was a good one, but since the firms came under different Bureaus, it was impossible to do anything. A request then went to the highest local organs, the Third and Fourth Offices of the People's Committee, which also had no power to allow the voluntary transfer.

The State Planning Commission itself was not in close contact with central ministries and provincial planning departments, despite the fact that the Commission had the task of balancing and co-ordinating their plans into a single national plan. The Commission also gave little help to these bodies in planning work [Wang Kuang-wei, 1956]. The planning departments were also estranged from the statistical departments, and, as late as 1956, neither knew what the other wanted or even what they did [Lo Jih-yün, 1956]. The industrial firms under the non-industrial ministries were in rather a peculiar position: their plans were very poor (some departments had no one specialising in the planning and control of these firms), their own draft plans were the latest of all to be sent up (in 1957 their suggested draft plans for that year only arrived at the State Economic Commission in March) and between 1953 and 1957 co-ordination was poor: the firms kept being transferred from central to local control and vice-versa [Ch'i Chün, 1957].

The period of One Hundred Flowers produced several reports of poor co-ordination. Huang Yü-ch'eng [1957] referred to poor co-operation
between the planning office and the basic construction bureau of the Ministry of Textiles. Kung Ming-an [1957] pointed to the habit of 'mutually shuffling responsibility on to someone else' ['buckpassing'] in textile administration. Li Ch'i-wan [1957] reported that the Peking State Run Number One Mill received the same directives on financial work as an administrative bureau, and it was felt that the Ministry was not giving enough concrete help to the mills. He also said that sometimes different mills received identical instructions but the managers in different mills sometimes interpreted the instructions differently, and, owing to poor communications, different results would emerge. Lack of co-ordination between different departments of the Ministry sometimes caused them to contradict each other in their directions to the mills. Chou Tao-hung [1957] pointed to the problems of lack of co-ordination in development of the different provinces and towns. Many of them asked the higher levels for large quantities of textile equipment but there was no long run plan for the future of the different areas, which made it difficult for the decision-makers when deciding who should receive the equipment. He indicated that if even a provisional plan existed, then areas with surplus equipment could send it to those areas with the anticipated fastest growth in needs. As things stood, areas with surplus equipment kept it while other areas with a shortage had to order new machinery, either domestically or from abroad, thus wasting capital.

An eighth problem in planning was that the control and planning of finances was fairly poor. In principle financial control should have been close, given the two main institutions and their powers. Close control might also be expected because central planning could be better if financial regulations were followed, and serious inflation was in practise avoided, suggesting that finances were in good order. At least one western authority believes financial control was tight: 'The state bank exercises a close degree of financial control over industrial and marketing units,...' [Ecklund G.N., 1966:36].

In practise close financial control was never generally achieved in the textile industry in the period under consideration. This is also true of industry in general. Before 1954 very little assistance with financial work had been given by higher levels to the administration bureaus or the mills. In turn, the bureaus did little in the way of inspection of, or control over, the financial activities of the mills. [M. of T., 1954c]. It was stated that the order of priority followed in the Shanghai textile industry as 'output first, quality second, and costs third.' This was
regarded as not being a correct attitude [Chang Ch'eng-tsung, 1954]. Quality, rarely an important goal of managers, ranked above finances in their eyes.

In 1955 the First Five Year Plan [1955:195] revealed that the People's Bank was not yet in a position to control the enterprise wage fund and asked that this should gradually be begun. The same source stated that state organs frequently violated the financial principles of the state [1955:231]. Close financial control was difficult for technical reasons. Unsuitable systems, or the absence of systems encouraged corruption and theft. Several examples were supplied by the People's Daily [1954/6/4]: an accountant in a firm might keep the money and the official seals and act as purchasing agent of the firm, with no one checking on what he did; factory directors were in the habit of affixing the official seal on books of blank cheques and leaving them lying about. The poor standard of non-financial plans meant that it was extremely difficult to operate a financial plan in any case [N.E.A.B., 1956].

Before 1957, the finance plan and cost plan were not on the same basis; the former were divided into quarters but the latter (together with certain other plans) were not so divided. As a consequence, it was most difficult to compare fulfillment of the cost plan with that of the financial plan. Changes in the output plan during the course of a year added to the confusion [Chu I-chao, 1957].

Financial plans were often either ignored or actively opposed in the mills. 'A small number' of mills only controlled output and never considered finances [Fang Chen-yüan, 1955]. In one mill that established a monthly financial plan in late 1954, the financial department was obstructed by the top level management, which would give no assistance. Other departments also ignored the finance department, causing the latter to be forced to estimate figures that were actually available in other departments in the mill. By 1956 the finance department still had little idea about income and expenditure, finances could not be controlled, and the monthly financial plan was dropped. Some improvement occurred only after the bureau criticised the mill [N.E.A.B., 1956]. This situation was typical of the general situation in the mills under the North-West Textile Administration Bureau. The effort to introduce monthly financial plans in 1955 had been resisted by management, as the use of funds had previously been uncontrolled and the change would mean that funds could no longer be used freely [Chiang Hsi-sheng, 1956].
By 1956 all mills had reportedly established a monthly financial plan but some people doubted its value, did not like its specific form, and generally had little faith in the idea [M. of T., 1956d].

The Party organisation in the mills was also antagonistic to financial controls. In late 1956 and in 1957, after the Party Committee had established itself in command of management some Party members wanted to abolish the Financial Statement Meetings, as they were associated with the defunct one-man management system, were too restrictive, were undemocratic, pressured the cadres and masses, and their content overlapped that of other meetings [Ming, 1957].

In 1957 the effort to impose financial control ended in the Great Leap Forward when the Party eroded the position of the People's Bank and the masses took charge of such items as the control of the working capital in the mills.

Richard Diao [1966:15,40] admitted that in the period 1953-1957 financial planning was never taken seriously either by the planning organs or the finance organs themselves, while in the 1960s the finance plans were inferior to both production and technical plans. Informant number seven believed that the People's Bank could not send personnel to the mill to inspect the books, nor could it prevent anything from being done. His reason for believing this was that it simply never happened in his mill. Informant number eight reported that the People's Bank could send people to the mills but that it very rarely did so - it was far more likely to be the administration bureau, the tax office, or if applicable, the export company that sent such personnel.

In 1957 the problem was well described by Tso Ch'un-t'ai and Li Hai-chu [1957:74-75].

'But with regard to the general situation, the control of finances in socialist enterprises is a new job for us, and is still a weak link in our work. And so there are many problems existing in the financial and credit systems. For instance, at present of the income of state run enterprises (including tax and profits for forwarding), the situation in handing up tax to the state treasury (this is handed up as the enterprises please) is thirty-five per cent, and the situation for profits forwarding to the state treasury (this is forwarded monthly) is sixty-five per cent. The total profits of enterprises are large but the forwarding is slow (one month's profit is kept in the enterprises before forwarding to the state treasury at the month's end), the profit plans of most enterprises are easy to fulfill and enterprise managers do not feel any pressure on financial work.'
Some enterprises did not send up the profits for as long as six months. The Ministry of Finance had no special department responsible for overseeing profit forwarding and this made supervision very difficult. In any case, punishment was not applied for such financial indiscipline [C.H.C.C., 1956c].

The use of trade credit provides an example of the generally slack control of finances. Such credit between enterprises was forbidden as early as 1950 [Wang Lan, 1950], although the regulations were to be introduced gradually. In 1953, trade credit relations still existed and measures for controlling it were brought in, but by 1955 trade credit was still a widespread phenomenon in several industries, including textiles [C.L. Regs., 1955], and the credit figure of some firms was as high as seventeen per cent of their working capital. Further efforts to curb trade credit were made, but it still continued in 1959, when another attempt to stop it was made [J.M.J.P., 1959/8/16]. The use of trade credit was still being struggled against in 1964 [Tuan Yun, 1964]. Simply declaring a legal ban on trade credit was insufficient to prevent its use on quite a large scale.

In view of the low regard of financial planning in industry and the inability of the People's Bank and Ministry of Finance to maintain close control over trade credit, enterprise wage funds and working capital, it might have been expected that inflation would have been a likely outcome. This was, however, avoided in general. Diverting part of the wage fund and working capital to other uses, mainly investment, was not particularly inflationary: the total money supply did not increase and consumer demand might have been lessened. In addition, the gestation period was short in light industry, so that increased capacity would result in a rapid increase in the output of goods, as long as materials for processing could be obtained. A further possible reason for the avoidance of inflation is that the central authorities had such a high degree of awareness of the political dangers of allowing inflation to be reintroduced that the aggregate financial management of the economy was most conservative. This has been true of the ruling elite in Taiwan during the last twenty years. It seems probable that in China *ex ante* aggregate demand was maintained so much below supply potential, that even with slack financial control, and the unwanted existence of trade credit, aggregate demand *ex post* was still not greatly in excess of aggregate supply, so that general inflation was by and large successfully avoided.
A ninth problem for the central planners was that local planning was very weak. Yang Ying-chieh [1955a] pointed to the poor state of planning for local run firms; the work of establishing planning committees for provinces was only just beginning, and there were areas with unhealthy planning organs, unclear division of responsibility between units, and insufficient cadres. In 1955, over twenty per cent of the hsien had set up neither a planning committee nor a planning and statistics office, and planning was not being done. Of those hsien that had some planning organs, some were in a very poor state, with tasks not clear, no duties laid down, and organs not knowing what they were supposed to do [Chou Chung-fu, 1955]. Shanghai was the largest centre for textiles in China and had the largest concentration of private run mills. A speech by Kuo Chien, Director of the Shanghai Municipal Planning Committee [1956], revealed that in Shanghai industry, many of the enterprises which had a production plan totally lacked a material supply or finance plan. The level of planning work in Shanghai was very low and the charge of 'incomplete, superficial and incorrect' was justified. Co-ordination was poor. All central enterprises were outside the scope of the local plan; there was imbalance not only between central and local run firms but also between output, transport and construction activities. In textiles, cotton yarn was supplied by the East China Textile Administrative Bureau, but knitted products, cloth, and dyeing and printing were controlled by the Municipal Textile Administrative Bureau, which situation adversely affected the planning of the cotton textile industry. Of the local state run and new local joint state-private run firms of all kinds in Shanghai, formal plans only existed for 243 units in 1956, which was equivalent to a mere 23 per cent of local industry total output value; the remaining firms had targets based on estimates only. There were over 20,000 local run firms in Shanghai, which means that a maximum of 1.2 per cent of these had formal plans.

Local planning was still very poor in 1957 [Kao Hsiang-chang, 1957]. Towards the end of 1958, local planning in Shensi Province was weak, mistakes and deficiencies were reported, and the people even felt that 'the planning organs do not have a plan' [C.H.C.C., 1958].

There were several reasons for the poor state of local planning in China before the Great Leap Forward. The first reason was that the effort to establish a planned economy was seriously restricted to the central run economy. As Hsüeh Mu-chiao [1957] remarked,
...we paid rather a lot of attention to the state run economy, and paid rather scant attention to the other parts of the economy; we paid rather a lot of attention to enterprises and undertakings run by the centre, and rather scant attention to the local economy and local undertakings.

This problem had been recognised in 1955 [C.H.C.C., 1955b] but little had apparently been done to correct this in the subsequent two years. As a consequence of the general attitude, local planning began to be set up later than central planning, and with less vigour.

A second reason for poor local planning was that local run firms by their nature were more difficult to plan. Local plans covered many types of enterprises: local state run, joint state-private run, and handicraft. These were most numerous, very varied in size, technology, and efficiency, and were different industries. Poor statistics and lack of information was common, which frequently forced the planners to make estimates and guesses, which were used as the basis for compiling plans. The 'high tide' of socialisation in late 1955 and early 1956 resulted in a big increase in work for local planners but barely affected the Ministry of Textile's planners. Central run mills were much easier to plan: they were more homogeneous, fewer in number, larger in size, and more modern in technique. The Ministry of Textiles only concerned itself with textile firms, and data on these central run firms was better.

A third reason for poor local planning was that some local areas did not perceive what the central government was trying to achieve, they misunderstood central directives, and were not clear about the targets and specific policy statements sent down from the centre or given by the local Party Committee. This situation was reported to have existed in Shensi province [C.H.C.C., 1958]. The same article alleged that the Party had been largely excluded from planning in the Province before 1958, and that this was a reason for the lack of ideological work and for the undesirable emphasis on materials and investment rather than on people. In this respect it was a product of its time.

A tenth problem in trying to run a planned economy in an efficient manner was the presence of dilatory procedures and time consuming processes. Documents frequently required the signatures or chops of many people. Other examples of time consuming running methods are given in Chapter 5, pp.104-105.

A final problem faced by the planners at all levels was the occurrence of abrupt changes in policy or the commencement of movements by the ruling
elite. The new policies were often introduced after the start of the year and had not been incorporated in the annual plan. It was necessary to try to fit them into the quarterly plans and to adjust or else ignore the original plan. The sudden call for rapid socialisation by Chairman Mao Tse-tung in 1955 is a good example of this kind of problem.
Various problems which were faced by the state planners and administrators and were common to almost all industries in China were considered in Chapter 3. In addition, the planners had to contend with several problems of allocation. The fundamental economic problem of allocating resources between competing sectors and industries is well known, but in a planned economy the problem of sub-sectoral allocation is most important, and the market cannot be relied upon to handle this. The major problems of allocation within the cotton textile industry were by location, by ownership and control of mill, by size and by technology. It is probable that planners also had to decide on the amount of production for the home market and for export. It appears likely that they would have to strike a balance between the maximum textile exports possible and the minimum amount required for home consumption. It is not clear how this was done, as the problem has not been found discussed in the literature.

I. ALLOCATION BY LOCATION

This section also covers allocation between new and old (inherited) mills, as virtually all old mills were in coastal areas and most new mills were away from the coastal areas. There were two major reasons for the existing pattern of location. The primary reason was that most mills were in the colonial settlements built up since the nineteenth century, and these settlements were in coastal areas. These settlements were the recipients of most of the foreign investment in China and were the site of foreign owned enterprises. Additionally they attracted a good many domestically owned firms because of the political security, relatively efficient administration (including of foreign trade), growth of less restrictive traditional social attitudes among the local Chinese and economic advantages of concentration of industry. The second reason for coastal location was that after the invasion of China the Japanese built up an industrial base in Manchuria. Since this mainly consisted of heavy industry, it was clearly less important as an explanation of textile location.

The degree of regional concentration was high. The modern textile industry was almost exclusively located in coastal areas and was
particularly heavily concentrated in three cities: Shanghai, Tientsin and Tsingtao. In 1949, approximately two-thirds of all spindles and looms were located in these three cities alone. An industrial survey before Liberation [N.E.C., 1948:27-28] revealed that of 14,078 factories in urban China, 3773 were textile mills, and of these, 2,786 were in Shanghai. Details of the regional location of textile equipment are given in Table 14, page 72.

The existing pattern of industrial location was felt undesirable for several reasons. One was a rather vague idea that such an imbalance was irrational and that all areas should be roughly of the same degree of development. A variation of this was argued on humanitarian grounds or, in a related form, that it was politically desirable to assist the peasants in the rural areas of the interior. National defence was strongly argued as a reason for relocating further from the vulnerable coastal cities, which were well within reach of foreign invasion, either by the Kuomintang or, in view of the Korean War, possibly by America. Economic arguments for locating nearer rural markets and supplies of fuel and raw materials were mentioned, although the concept of absorbing rural under-employment was apparently developed later, about 1957, as mention of the latter was not found in the literature of the early period. An economic argument of perhaps more substance was that the old dual economy, in which foreign-owned firms, located on the coast, imported materials for processing in China, had been broken. The newly created national economy, together with an autarchic view of development, meant that coastal location might in any case no longer be optimal. This was never clearly laid out in the literature of the textile industry, but was perhaps appreciated, since the new government was well aware of the previous pattern.

The textile industry was specially mentioned as one that could materially assist in the policy of relocation of industry [F.F.Y.P., 1955:42]. The three methods adopted were to move some equipment physically, to transfer skilled labour to new areas, and to build new mills away from old areas. The physical movement of mills and equipment was the least important method. It was never taken up as an issue in press or journals, it was never a subject for campaigns, and most old mills remained on the coast. References to moving mills are scarce, but the Chung Yuan Textile Company was reportedly one of a number of firms moved to Honan from the old coastal areas [N.C.N.A., 1954].

The transfer of skilled labour from old to new areas and mills was quite substantial in view of the shortage of this resource. From 1949
to 1956, Shanghai sent over 270,000 people to the interior, of whom 28,000 were technical engineers and over 170,000 were technicians [Liu Chih-ch'eng, 1958]. In the textile industry, over 3,400 managerial and technical personnel, together with more than 1,100 high grade technicians, were transferred from Shanghai between 1953 and late 1956 [T.K.F., 1956/11/5]. The same source reported that all the major managerial and technical personnel of the thirteen new mills being built or completed in Peking, Chengchou, Shihchiachuang and Sian in 1956 were transferred from Shanghai. It had earlier been reported [N.C.N.A., 1953b] that in 1953 more than 2,300 workers, technicians and administrative personnel had been sent from Shanghai to new textile mills in Peking and Chengchou. Shanghai was clearly used as a recruiting ground for the new areas. As very few transferred personnel were replaced, this eventually began to denude Shanghai industry, which suffered as a result [Ma Yin-ch'u, 1957a]. Old mills also suffered since they generally sent young workers and were eventually left with an ageing workforce, which was described as consisting of 'old and weak remnant troops'. This resulted in a lower attendance rate, increased welfare expenditures and difficulty in increasing productivity in old mills [Chang Han-ch'ing and Chao Hsiang-shih, 1957].

The third method of relocation, building new mills away from the old areas, was the most important. Priority on the allocation of industrial investment went largely to the new areas. Of the 825 above-norm industrial projects built in the First Five Year Plan period, 530 were located in the interior [Yang Ching-wen, 1957], while only one per cent of industrial investment in new enterprises went to Shanghai and Tientsin [T.C.K.T.T.H., 1956e]. Most new textile mills were built away from the old areas. Five new textile areas were developed during the First Five Year Plan period: Peking, Shihchiachuang, Hantan, Chengchou and Sian [Chang Fang-tso, 1957]. The Chinese apparently used the terms 'coastal' and 'interior' in a loose fashion; the former sometimes referred to old areas, the latter to new ones. Some areas regarded as interior were actually in coastal provinces. The coastal provinces consist of Kwangtung, Fukien, Chekiang, Kiangsu, Shantung, Hopei, and Liaoning. The new centres of Hantan and Shihchiachung regarded as interior, are in coastal Hopei Province. Twenty-four of the thirty-eight new cotton mills in the First Five Year Plan were to be located in non-coastal provinces, but on an old and new industrial basis, thirty-five of the thirty-eight were in new areas.
Development of the existing textile areas was virtually ignored throughout the period of the First Five Year Plan [Liu Chih-ch'eng, 1958]. These areas were exploited for their ability to accumulate capital by means of high profits, but the capital was directed into other areas; in short, they financed much of the development of the interior. Industry in Tientsin supplied enough capital to the state between 1949 and 1955 to build six textile mills [Sha Ying, 1956]; it should be recalled that only thirty-eight new mills were included in the First Five Year Plan. Shanghai achieved even more. Chih Yin [1956] pointed out that since 1949 Shanghai industry had supplied profits and taxes amounting to 20.9 per cent of all investment in basic construction in the First Five Year Plan. Liu Chih-ch'eng [1958] gave a later figure for accumulation in Shanghai during the First Five Year Plan period of over one third of all basic construction investment and over one half of all industrial basic construction investment in China. P'an Hsüeh-min [1959], a member of the Shanghai Municipal Economic Planning Committee, reported that Shanghai accumulated over 18,900 million yuan during the period of the First Five Year Plan, which was equivalent to 38.5 per cent of state investment in capital construction in that period.

As a result of the policy to relocate industry, a discernible change had occurred in the location of textile equipment by 1956.

Table 14: The Distribution of Spindles and Looms by Region

<table>
<thead>
<tr>
<th>Year</th>
<th>All country</th>
<th>Coastal Region</th>
<th>Interior</th>
<th>Shanghai, Tientsin and Tsingtao alone</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Spindles (mill.)</td>
<td>Looms (thou.)</td>
<td>Spindles (%)</td>
<td>Looms (%)</td>
</tr>
<tr>
<td>1936</td>
<td>5.10</td>
<td>58.44</td>
<td>87.7</td>
<td>90.0</td>
</tr>
<tr>
<td>1947</td>
<td>4.92</td>
<td>66.41</td>
<td>85.5</td>
<td>92.1</td>
</tr>
<tr>
<td>1949</td>
<td>5.00</td>
<td>127</td>
<td>87.2</td>
<td>92.1</td>
</tr>
<tr>
<td>1952</td>
<td>5.61</td>
<td>142</td>
<td>81.8</td>
<td>90.1</td>
</tr>
<tr>
<td>1956</td>
<td>6.82</td>
<td>175</td>
<td>73.6</td>
<td>74.2</td>
</tr>
<tr>
<td>1957</td>
<td>8.01</td>
<td>203</td>
<td>70</td>
<td>69</td>
</tr>
</tbody>
</table>

Note: 1. The figures for looms exclude those in independent weaving mills and in dyeing mills.
2. Total spindles and looms in 1957 obtained by adding the reported increases in 1953-57 to the figure for 1952, see [C.K.F.C., 1958b].

A noticeable fall occurred in the percentage of spindles and looms in coastal areas, and especially in the three major cities. The policy of relocation was apparently being successfully implemented by 1956, and it had been anticipated that satisfactory relocation would not be obtained by the end of the First Five Year Plan period [Li Fu-ch'un, 1955a:41]. It is not commonly appreciated that more cotton was grown in coastal areas than in the interior, or that the state was able to purchase a higher proportion of the cotton produced in coastal areas.

In 1955, of the total cotton production, some 58.2 per cent was grown in coastal areas, and of this coastal cotton, the state managed to purchase 88.3 per cent. Of the 41.8 per cent of cotton grown in the interior, the state could only purchase 72.5 per cent [S.S.B., 1958a:189]. In other words, of the state purchases of cotton in 1955, 62.9 per cent came from coastal areas and only 37.1 per cent from the interior. The imbalance between the location of equipment and cotton purchase was real, but by 1957 was not serious.

The policy of diverting so many resources to new areas was open to several points of criticism. The new areas merely duplicated existing and unused capacity in the old areas, labour productivity was higher in old areas, the level of technology was higher in old areas, produce quality was better in old areas, input-output ratios were more favourable in old areas and the incremental capital-output ratio (ICOR) was lower in old areas. In short, it was inefficient to leave the old areas underused and not to develop them further.

The capacity of industry in the old coastal areas was underused, which was pointed out several times. The First Five Year Plan itself [F.F.Y.P., 1955:229] indicated that the utilisation of existing equipment was low and at the same time new enterprises were demanded. Sha Ying [1956] favoured greater use of the under-utilised coastal industry; Liu Shao-ch'ı [1956:51] asked that full use be made of coastal industry, as did Chou En-lai [1956c:68], although the latter cautiously advocated new industrial bases also. The rapid expansion of new textile mills, along with underuse of old mills, some of which actually reduced their output, was criticised by Chang Han-ch'ing and Chao Hsiang-shih [1957].

The situation of underused capacity in the old coastal areas was well known in Shanghai, where it was examined more than once. One survey revealed that heavy industry in Shanghai worked at high capacity, but that industry in general worked below 70 per cent, cotton cloth at 61 per cent and cotton yarn at only 54 per cent [Chih Yin, 1956]. In Shanghai in 1956, the plan for the production of several products,
including knitwear, was for less than fifty per cent of capacity \[\text{C.H.C.C., 1956b}\]. The situation in Tientsin was no better, for this source revealed that a survey of thirty-eight products showed that six industries were at 70-80 per cent capacity, seventeen were between 41 and 60 per cent, while fifteen worked below 40 per cent capacity. None of the industries of the thirty-eight products examined exceeded 80 per cent capacity working. In the One Hundred Flowers movement the problem was again referred to, and, although it had begun to be corrected in heavy industry, it was said that it had not been tackled properly in textiles \[\text{Chou Ch'un-tsuo, 1957}\].

The productivity of labour was higher in the old coastal areas. Informant number eight attended an important meeting on labour productivity in the textile industry in 1958. He recalled the figures and insisted they were reasonably accurate. Tested without warning after a period of two months he reproduced them with only minor variations, which are shown in Table 15 as a range. These variations do not materially affect the ranking order. The mills in old areas had considerably higher productivity, up to three times that of newer areas. Yen Tzu-ch'ing \[1958\] reported that labour productivity in Shanghai mills in 1956 was 16,782 yuan per head, in line with the informant's figures.

<table>
<thead>
<tr>
<th>Location</th>
<th>Labour productivity in yuan per worker per year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shanghai</td>
<td>17-18,000</td>
</tr>
<tr>
<td>Tsingtao</td>
<td>11,000</td>
</tr>
<tr>
<td>Tientsin</td>
<td>10-11,000</td>
</tr>
<tr>
<td>Peking</td>
<td>8-9,000</td>
</tr>
<tr>
<td>Shihchiachuang</td>
<td>8-8,500</td>
</tr>
<tr>
<td>Sian</td>
<td>7,500</td>
</tr>
<tr>
<td>Sinkiang</td>
<td>7,000</td>
</tr>
<tr>
<td>Inner Mongolia</td>
<td>6,000</td>
</tr>
</tbody>
</table>

There were many reasons for the lower productivity in new areas. Mills in the new areas employed new workers, often peasants, who were unskilled, unused to factory life, and slow to learn. One report said that five or six new workers were not as good as one old one \[\text{Chin Sheng, 1955}\], probably an exaggeration but indicative of attitudes. Peasants reportedly loafed on the job, refused apprenticeships and difficult tasks, had low work standards and safety records, and tended to drift
from job to job [Ch'i Ko, 1959]. Recruitment of workers for new mills was sometimes delayed, so that the mill would commence operations with insufficient labour, causing the management to hire anyone regardless of aptitude.

Social problems were common. Most of the new workers were young, and women are a high proportion of the workforce in textiles. Having secured an industrial post, the girls often married quickly, and within a year of a new mill opening there was an upsurge in requests for maternity leave, causing a serious replacement problem [Chang Han-ch'ing and Chao Hsiang-shih, 1957]. Social problems existed in areas where several new mills had been built, for between ten and twenty thousand young women workers could find no marriage partner [Hsü Chang-ch'ing, 1957]. Other problems were caused when experienced workers transferred from existing mills to new ones were unable to take their families with them. In addition, the old mills tended to send their poorer workers and troublemakers as far as possible, retaining the better ones for themselves [Informant number 8].

Wage policy in new mills also caused complaints, since the 1956 wage regulations were not always implemented in these mills, and dissatisfaction arose as the workers considered they were underpaid [A.H.J.P., 1959/5/9]. In particular, the treatment of apprentices caused problems, and new mills had many apprentices. The wage regulations stipulated that apprentices should receive lower wages than ordinary workers, during and even after the apprenticeship period. Some mills followed the regulations, others paid more than the statutory rates, which led to disputes, particularly if the mills were in the same city. This happened in Peking, where the Number Two Mill paid high wages to apprentices, and the Number Three Mill paid low ones [Chang Yi, 1957]. The Peking Number One Mill also had its wage problems: on commencement of operations in 1954 the workers were paid a provisional wage 23-25 per cent lower than the normal textile wage, and by 1956 the mill had still not raised the level [J.M.J.P., 1956/3/5].

As a consequence of these problems labour relations in the new mills left much to be desired. Relations were so poor in the Joint State-Private Run Anhui Number One Dyeing and Printing Mill that the workers grumbled, made disparaging remarks about the leaders, and some began to write notes to the director saying simply 'Beware!' [A.H.J.P., 1959/5/9]. It is not difficult to see the reasons for low labour productivity in new mills.
The level of technology was higher in the old industrial areas. This was indicated in general by the movements to 'learn from Shanghai', and Ma Yin-ch'u [1957a] implied it when recommending that cadres and technicians for new interior factories should go to old coastal factories to learn, saying that Shanghai had the role of developing new goods and new technology. Chih Yin [1956] enumerated the advantages of developing Shanghai's industry, and included advanced technology as one point, while informant number eight insisted that technology in the old bases was superior to that of the new. The old coastal areas had an established industrial tradition, and supplies of experienced labour were available, including the families of workers if necessary, since they often had experience.

The new areas faced certain technical problems. Although their machines were new, they were merely copies of old machines and no advantage was taken of technical progress that had occurred. Several informants stated this; Ch'en Ch'ung-chin [1957] complained that the new machines were crude and of an old style; and Ma Shih-shang [1957] said that they were copies of twenty year old machines. Because of enthusiasm to meet tight plans, the machinery was often installed too quickly causing losses to the state [Lo Jih-yun, 1954]. As a result of over-speedy installation the machines were sometimes out of balance, causing them to work badly, wear rapidly and break down. The stage of trial running was sometimes dispensed with, and in one case, with new machines imported from other Communist countries, the machines only achieved twenty per cent of the quota set for eight hours and even stopped working in that time [Chin Sheng, 1955]. Breakdowns were repaired badly - or not at all [Informant number eight]. When initially supplied some machines were incomplete, lacking essential parts, and no spare parts were supplied with them.

Of the funds available to spend in new mills, not enough was allocated to machinery and technology. Instead of constructing an efficient factory equipped with first-rate machines, much effort went into building showpieces, complete with high-priced shrubs and flower gardens, gold fish ponds and fountains, and an excessive range of welfare facilities.1

The quality output from mills in old areas was superior on average to that from mills in new areas. In view of the problems already discussed

1 See Chapter 3, pp.57-59 for details.
it is not surprising that this was the case. Informant number eight was emphatic about this, and said that approximately 60-65 per cent of all textile exports were produced in Shanghai. It was suggested that Shanghai should increase production in order to satisfy export as well as domestic markets [Chi Yin, 1956]. Only the highest quality produce was exported, which suggests that Shanghai was a major source of high quality output. The ordinary consumers in China were said to have confidence in the quality of goods produced in old factories [Li Feng, 1957]; by implication they had little confidence in goods from newer ones. It was announced in 1958 that Shanghai would henceforth concentrate on the production of high grade textiles which the inland areas were not able to produce [N.C.N.A., 1958a], reinforcing the view that the new mills in the interior were still inferior.

Input-output ratios were more favourable in old coastal areas. Examining the amount of cotton used to make one bale of yarn, the average of all mills in China was 392 chin, of central run mills it was 389 chin, but in Shanghai it was only 387 chin [Ching Wei, 1957]. In the case of yarn output per spindle year, in the first half of 1955, the national average was 0.979 bales, but it reached 1.082 in Tientsin and 1.069 in Tsingtao. The average for Shanghai was not given, but it was reported that 55.5 per cent of Shanghai mills exceeded one bale of yarn per spindle year [Liu Chi-wan and Lu Chi-liang, 1956].

Finally, the incremental capital-output ratio was lower in the old coastal areas than in the new bases. The Chinese did not use the term I.C.O.R. but they did refer to 'the principle of "less investment with quicker and greater results".' [J.M.J.P., 1957/1/6], which is a rather crude approach to capital-output ratios. It was pointed out in an editorial in the People’s Daily [J.M.J.P., 1956/7/8a] that small adjustments in machinery in Shanghai factories could lead to a doubling of output, or even increase it several hundred per cent. The claim was repeated two days later, with the additional information that in the case of instrument factories, in order to reach a certain output, it would require a factory in the interior to be twice as large and would take four times the investment needed on the coast, even ignoring the three year gestation lag [Chih Yin, 1956]. This general situation was true of light industry as a whole [J.M.J.P., 1956/7/8a] and for Shanghai textile mills to produce a given increase in output, the needed investment was only half of that required to build a new mill [N.C.N.A., 1956c]. The same source revealed that one reason for the lower I.C.O.R. in Shanghai was that as late as 1956 firms frequently had empty buildings
standing idle in which machinery could easily and cheaply be installed. In addition, various ancilliary services, such as electricity supply and transport, were readily available in the old industrial areas, and co-ordination was in general easier [Ma Yin-ch' u, 1957a]. The concentration of new factories in certain areas, together with the rapid rate of investment, led to local bottlenecks. There were often insufficient local building materials, such as steel, cement, bricks, tiles and fuel, and these had to be shipped in from other areas, placing a massive burden on the strained local transport system [Yang Ch' ing-wen, 1957].

Pleas to make greater use of existing factories were made quite early [J.M.J.P., 1953/8/18], [J.M.J.P., 1954/3/10]; the First Five Year Plan repeated the message [F.P.Y.P., 1955:23,41] and a directive from the State Council criticised the lack of attention to capacity already existing [Chou En-lai, 1955]. By 1956 it was openly argued that it was wrong to ignore the old coastal areas, but it was 1957 before a start was made on expanding the existing textile mills in Shanghai [N.C.N.A., 1956c]. It would appear that the new policies on developing coastal industry and local run industry were not rigorously applied, as Lin Wei-jen [1958] revealed that there had been no new construction for local run industries of any kind in Shanghai after 1956.

It would seem that the policy of concentrating resources in the First Five Year Plan to build up new industrial areas was not fully justified. This, however, is a static allocation argument, and it could be held that, political and defence considerations aside, it was necessary to use this catalyst to promote local development. Certainly the new mills improved; the Peking Number Two Mill is considered in China to be very good and receives many overseas visitors. Nonetheless, infant industries in new areas suffered from many teething troubles.

II. ALLOCATION BY OWNERSHIP AND CONTROL

The problem of allocation of resources to mills under different forms of ownership and control was twofold: the allocation between state run and private mills, and between central state run and local state run mills. Political issues existed in both, but predominated in the former.

Allocation to state owned and privately owned mills

Between 1949 and 1952 there was some discrimination against privately owned mills, although efforts were made to restore output to previously
Discrimination was stepped up in 1953, and by early 1956 virtually the entire textile industry had been socialised, much of it very rapidly during the 'high tide' of socialisation in late 1955 and early 1956.

The ruling elite had several reasons for wanting to socialise industry. The pattern of development had been established by the Soviet Union, which had socialised private industry. Learning from Russia was the rule of the time. There appears to have been a genuine belief that such institutional change would release much untapped energy, and of itself would become an important engine of growth. A practical reason was that it was most difficult, perhaps impossible, to run a centrally planned economy along the lines envisaged as long as private firms existed, which were not susceptible to direct control by the central planners. Centralised disposal of resources in such a society is often seen as both necessary and a blessing. It is necessary for defence, is a way of liquidating old social, political and economic systems and of solving the many social and economic problems of a relatively backward country. It focuses energy and resources on to a few major problems rather than allowing the dissipation of energies unsuccessfully over a wider range. The shortage of good industrial cadres is believed to require the use of central planning, especially in view of the probable hostility of many of the inherited cadres [Lange 0., 1962b:17-18].

The discrimination against private firms was part of a deliberate effort to achieve socialisation [Chen Yun, 1956:157-163], and took a variety of forms. These included planning for a lower output from private firms and supplying them with insufficient orders, and materials, making them pay more taxes (private firms paid net business income tax, state firms were exempt), and charging higher rates of interest on bank loans to private firms. In addition the trade union in private firms was used to make life difficult for the private owners and managers; a private firm with insufficient orders to run at capacity was not allowed to dismiss workers without permission but had to pay them; funds for investment in private firms had to be raised privately, whereas state firms were naturally allocated funds form the state.

In 1950, state owned mills were planned to use ninety per cent of spindle capacity, compared with seventy-four per cent in private mills [J.M.J.P., 1950/6/23]. Between 1949 and 1952, the share of private run industry in total output fell from forty-seven per cent to thirty-seven per cent for cotton yarn but increased from forty per cent to forty-nine per cent for cotton cloth [S.S.B., 1956a].
Certain problems existed in the process of socialising industry. These consisted of the various reactions of private owners and managers to the discrimination and eventual socialisation, and problems induced by the tempo and change in form at the upsurge of socialisation. Faced with a range of discriminatory practices, the private businessmen looked round for ways to survive. Some bought materials and semi-finished products from the state at low fixed prices and resold them at higher market prices without processing [T.K.P., 1954/10/16]. Some firms deliberately mixed inferior materials with good ones in order to save some of the materials supplied by the state, and as a consequence product quality fell [C.P.J.P., 1952/2/3], [T.K.P., 1953/4/13]. A related practice was to reduce quality deliberately, so that it did not meet the standards set by the state; the produce would be refused by the state commercial system, whereupon it could be legally sold outside the state network at higher prices [J.M.J.P., 1953/11/14]. The private firms tended to form loose associations or cartels in order to pass up inflated input requirements to the state, so as to secure more materials than were necessary [Lu Chün-cheng and Chang Kuei-wen, 1952]. They had little incentive to reduce costs as their profit was set on a cost plus basis [Hsüeh Mu-chiao, etc., 1960:206]. It was not unknown for a private mill to accept advance deposits from state mills and then not meet the order [E.C.A.B., 1953]. Simple stealing of yarn for sale or processing and sale was apparently quite common: an investigation of 156 private run weaving mills in Tsingtao revealed that 109 could not satisfactorily account for missing yarn, and some of the cases were finally taken to court [T.K.P., 1954/2/24].

The rapid burst of socialisation in late 1955 and early 1956 resulted in the formation of many new joint state-private run firms. Certain problems were associated with these new firms. First, they placed a heavy additional burden on planners in local authorities. When privately owned, the mills came under local authorities, but the mills were not much involved in planning, had few or no systems for handling it, and some appeared to have had almost no relationship with the local authority. [C.K.F.C., 1956a] Once socialised, the mills were involved in planning; the local authority had to bring them in and try to establish proper detailed plans for them, and to encourage them to set up running systems suitable for socialist enterprises. Most of the new joint state-private run firms in Shanghai had no department for planning [Kuo Chien,
1956]. Since the large modern mills were socialised first, those taken over in late 1955 and early 1956 were almost all small, old and of low technical levels. These factors added to the difficulties of local planners.

A supplementary factor that affected local planning was a re-adjustment of power centres occurring in 1956 in local authorities. The Party and local Party committees increased their power, as that of the administrators was reduced. Since socialisation coincided with this change, it probably made the role and power of the planners less certain, while the new men with power may well have been less capable than the administrators - certainly they lacked experience of planning matters.

It may be more than coincidental that some firms with new status, particularly newly created handicraft co-operatives, became submerged in the state apparatus; the existence of some of these firms was known to very few organisations, and directives, orders and materials were sometimes never sent to such firms [Te Yü, 1957].

A second problem at the period of socialisation was that the attitude of the old owners was frequently obstructive. Not all ex-owners gave conscientious support to socialisation; some were reportedly proud, and disparaged the efforts of Party and government, did not undertake the required self-reform, and would not be bothered with the work of production management, once their firms were socialised. Some of the owners took advantage of the confusion of rapid change and misappropriated funds, stole what had become state property and used the proceeds to establish illegal underground factories [Tsan Pei-hua, 1957]. One source of the materials and expertise used to establish the upsurge of illegal factories in 1956 is now clear.

Those opposed to socialisation were not averse to voicing their opinions. 'Compared with capitalist enterprises, socialist enterprises are less efficient'; 'the cultural level of industrial and agricultural cadres is low, they do not know how to run the enterprises and the ability of the cadres in the present joint state-private run enterprises is less than those in the Kuomintang period'; and 'the quality of some products has fallen, some goods cannot even be bought' [Tsan

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1 White L.T. [1972:305-306] is apparently in error when reporting that the first joint state-private run enterprises were set up in Shanghai in late 1954. This was the second round: nine textile mills were taken over in 1950-51 [K.S.C., 1955].
Pei-hua, 1957], [Fang Hsing, 1957]. Other critical remarks were made along similar lines.

The third problem was that the exuberant atmosphere of socialisation led to excessively rapid and radical changes, which caused disruption and confusion. Internally, the changes in systems were often excessive, and made without any investigation: in some enterprises every single system was altered and altered badly [Yu Chih-min, 1956]. The same source revealed that in some enterprises the systems were repeatedly changed, so that the firm either did not produce at all or else reduced the variety of output. In an effort to combat this the State Council issued a directive in March 1956 to the new joint state-private enterprises not to make any changes in management, production or running system, types of output, and places of purchase or sale. For their part the trade unions, which had earlier been used to promote socialisation and had been active in management work, were reluctant to relinquish power and change their obstructive attitudes after socialisation.

Externally, mergers between firms were often made without rational basis. It was reported that up to the end of March 1957, some sixty percent of new joint state-private firms taken over in 1956 had been amalgamated [T.K.P., 1957/3/30], although this figure was based on incomplete statistics. This sounds not unrealistic, as, again based on incomplete statistics, in the first half of 1956 one third of joint state-private enterprises in Hunan were amalgamated; in Peking, Kirin, Heilungkiang and Kweichow it was one half; and in Anhui, Liaoning and Honan it reached two-thirds [Ch'ien Hua etc., 1957:170]. Chen Yun criticised excessive amalgamation of firms at the Eighth Party Congress [1956:165-166], as did Ma Yin-ch'u later [1957b].

Many external relationships also broke down after socialisation. An enterprise which had contracted with a private firm for the supply of items might find that after socialisation the firm had ceased to exist, as it had been merged with another, and the contract was worthless. The cotton textile industry in Shanghai was particularly affected in this way. The supply of spare parts and the repair of machinery were also adversely affected by the break in relationships, as well as by the closure of repair shops in some firms after socialisation [Fang Hsing, 1957].

As a result of the speed of socialisation and the immediate problems it induced, many high level cadres in the new joint state-private mills
were called to an excessive number of meetings, apparently in an effort to sort out problems. Some meetings either overlapped in content or were unnecessary [N.C.N.A., 1957].

On the benefit side, the goal of socialisation was achieved and the take-over was relatively smooth. On the cost side, unused private capacity existed until 1956, while at the same time facilities were duplicated by the state, and the problem of how to plan and control the multitude of small new joint state-private enterprises within the framework of comprehensive planning could not be solved. On balance, leaving aside political judgements, the process of socialisation was quite well done but could have been better.

**Allocation to central run and local run mills**

The second problem of allocation of resources to mills under different forms of ownership and control was the position to be allowed to central run and local run industry. This would be reflected in their relative shares in total production and resource allocation. Proper co-ordination between central run and local run industry had also to be achieved. This general problem involved political and administrative decisions, because the market could not be expected to solve it to the satisfaction of the ruling elite.

Local run industry has always been of considerable importance in China. Of the all-industry total output value in 1952, local run industry made up 59.6 per cent, and the target for 1957 in the First Five Year Plan was for only a slight fall to 56.3 per cent. [F.F.Y.P., 1955:97]. Figures on the breakdown between local and central run industry were not released for textiles. The First Five Year Plan [F.F.Y.P., 1955:103] indicated that food and textiles were the two major industries run by local authorities. About half of cotton yarn and cloth in 1954 was produced in private run mills, all of which came under local authorities [Chin Hsiieh-liang, 1954]. In 1957 it was revealed in the *China Youth Daily* [C.K.C.N.P., 1957/4/6] that local run industry supplied fifty-four per cent of cotton cloth and sixty-eight per cent of dyed and printed cloth. As most central run mills were large and modern, whereas many local run mills were small or medium in size, the overwhelming majority of textile mills must have been local run. Since the First Five Year Plan indicated that local run industry would produce 56.3 per cent of all-industry total output value in 1957, and local run textile industry would produce 15 per cent of the total output value of local run industry,
it can be calculated that in 1957, the local run textile industry was expected to produce 8.4 per cent of all industrial total output value in China.

The allocation of resources between central and local run mills in the period of the First Five Year Plan favoured central run mills. This was partly, but not entirely, the result of a deliberate policy. It can be seen in various provincial reports of the use of local run industrial capacity. In Honan the rate of utilisation of local state run capacity in 1953 was described as very low. In the textile sector it reached 82.3 per cent, which was much higher than in oils and fats, flour, and electric power [N.C.N.A., 1953a]. These 'conditions are more or less the same in other provinces and municipalities.' In Anhwei only 54.42 per cent of local textile equipment was in use [J.M.J.P, 1954/3/11]. In Kiangsu in the boom year of 1956 much of the local capacity was unused: of twenty-two major products only three exceeded eighty per cent capacity working, of which one was cotton yarn [Ming Hou-chieh, 1957].

Although the distribution of output between the two sectors was not released, the rates of growth were published for 1952-56 (see Table 16). It can clearly be seen that central run industry grew at a much more rapid rate than local, and between 1952 and 1956 the amount of yarn produced in central mills had almost doubled, whereas that from local mills had fallen absolutely.

Table 16 : Rates of Growth in the Central and Local Run Textile Industry, 1952-56

<table>
<thead>
<tr>
<th></th>
<th>1952</th>
<th>1953</th>
<th>1954</th>
<th>1955</th>
<th>1956</th>
</tr>
</thead>
<tbody>
<tr>
<td>All textiles</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Central run</td>
<td>100</td>
<td>118.7</td>
<td>133.4</td>
<td>119.2</td>
<td>206.8</td>
</tr>
<tr>
<td>Local run</td>
<td>100</td>
<td>123.2</td>
<td>134.8</td>
<td>132.6</td>
<td>137.6</td>
</tr>
<tr>
<td>Cotton Yarn</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Central run</td>
<td>100</td>
<td>117.0</td>
<td>129.0</td>
<td>112.0</td>
<td>195.2</td>
</tr>
<tr>
<td>Local run</td>
<td>100</td>
<td>109.9</td>
<td>125.2</td>
<td>107.3</td>
<td>96.3</td>
</tr>
<tr>
<td>Cotton cloth</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Central run</td>
<td>100</td>
<td>114.3</td>
<td>129.2</td>
<td>110.3</td>
<td>179.3</td>
</tr>
<tr>
<td>Local run</td>
<td>100</td>
<td>126.4</td>
<td>140.3</td>
<td>115.7</td>
<td>136.1</td>
</tr>
</tbody>
</table>

Source: [S.S.B., 1958a:168].
Much of the rather poor showing of local run industry is explained by the general attitude of central departments, which was often to expand the centre, ignore or even obstruct local authorities and to ignore local conditions in general [Liu Shao-ch'i 1956:52,77], [Chou P'ei-lai, 1956c:53]. Even in a Government Administrative Council directive of early 1951, the position of local industry had not been great; local authorities were largely restricted to running small sized firms producing commodities to supply local needs. Capital for any development of this industry had to be accumulated locally [C.A.L. 1951].

Apart from the discrimination against private run firms discussed above, the major problem for local run mills was the allocation of cotton, investment funds and, to a smaller extent, labour. Insufficient raw materials were allocated to local authorities, they were not allowed a large enough production task and they were restricted on investment allocation, and technology, by various central ministries [Tan Chen-lin, 1956], [Hai Pa, 1957]. One subtle form of discrimination was the practice in cotton producing areas of retaining the best quality for the use of mills in the province and sending out either the worse quality or mixing poor cotton with good cotton. The latter practice caused technical difficulties for the final recipient [Ching Wei, 1957]. All new central run mills were located in cotton areas, while many local run mills were outside them.

Some misallocation occurred in the use of cotton stocks. There was no possibility of transferring part of the stocks of cotton between the central run and local run systems. As a consequence, if a local mill 'stopped work to await delivery of necessary raw materials', quite a common occurrence, and at the same time surplus stock existed in a central run warehouse or mill, a simple transfer would have increased output, but this was impossible to arrange [Informant number eight]. As an example, in 1956 Shao Pai [1956] reported that in and after the first quarter a good number of local run mills in Shanghai had stopped work to wait for materials; three days later it was reported that the stocks of cotton were the highest ever in Shanghai for that time in the year [C.F.J.P., 1956/8/25].

Misallocation also occurred between central and local state run enterprises, and to a lesser degree between enterprises under different local authorities, with regard to investment. Although low capacity working was common in local industry, many production facilities were duplicated by new central run mills. The displacement of local run
industry by new central run factories in the same area was unfavourably commented upon in the People's Daily [J.M.J.P., 1957/8/24] and criticised again towards the end of the same year [Hai Pa, 1957], especially since the limited supply of raw materials was insufficient for them both. Ku Ch'i-jui [1958] confirmed that local and central run industry frequently overlapped, not only on output but also on supply and marketing.

The problem was not so much one of poor co-ordination as a complete lack of any co-ordination between local and central planners. The two plans and systems for capital construction, local and central, were quite separate and distinct:

'The specialist departments of the central government are not concerned with the capital construction plans of local government agencies of the same speciality. Conversely, local governments have no concern whatsoever with the capital construction plans of central government agencies for their areas' [J.M.J.P. 1957/8/24].

Local authorities were ignorant of central plans for new factories in their area, just as central authorities were not aware of local intentions.

Misallocation of investment occurred on occasion between different local authorities. One local authority might build a factory which duplicated existing and unused capacity in an adjacent area. Shanghai and Tientsin faced this problem in the case of dyeing and printing works with unused local capacity, which was duplicated in neighbouring provinces by other local authorities [Min I-fan, 1955].

Some discrimination also occurred in the case of labour. Skilled labour was deliberately transferred by the state from old areas to new ones. The mills benefiting were almost exclusively central run, and although there is no information on which mills the labour came from, it is possible that some came from local run mills. A more certain form of discrimination was the deliberate underuse of privately owned mills and local state mills in general. In addition, some workers preferred to join central run enterprises [Hsing Yu-hong, 1957], as they were larger, more modern and had much better facilities, rather than the poorer local ones.

In general, poor planning, lack of co-ordination, and discrimination by the state in favour of central run industry, caused misallocations and waste of resources throughout the period of the First Five Year Plan. Requests to make greater use of local industry were made, particularly in 1956, but unfortunately 1957 was not a good year for industry as raw materials were in short supply, so that little could be done. The large
scale construction of new local run industry in Shanghai, for example, had to wait until 1958 [Lin Wei-jen, 1958], when events were overtaken by the Great Leap Forward.

III. ALLOCATION BY SIZE AND TECHNOLOGY

The size of textile mills and the use of advanced technology varied directly; as a general rule the biggest were the best, while the smallest units of all used traditional handicraft methods. For convenience the question is discussed in two parts: allocation to large or to medium and small sized mills, and allocation to modern or traditional industry.

The definition of a large scale firm in 1955 was: 1) one with mechanical power and more than sixteen staff and workers; 2) one without mechanical power and more than thirty staff and workers; 3) all industrial enterprises under any central industrial ministry, irrespective of power or personnel; 4) all factories that generated more than fifteen kilowatts, irrespective of the number of employees [C.H.C.C., 1955a]. A 'large' firm could be quite small in size.

Until 1957 the emphasis by planners and administrators was on building large scale mills. This policy was criticised between 1955 and 1957 on the grounds that neglect of medium and small scale firms was adverse to development [J.M.J.P., 1955/5/5], [Li Fu-ch'un, 1955a:19,49], [T.S.S.B., 1956]. The First Five Year Plan [1955:40] commented: 'The tendency to devote all attention to the building of big enterprises and ignore the importance of utilizing and building small and medium factories and mines is quite misguided.' Liu Shao-ch'i [1956:51] demanded more medium and small scale firms in the Second Five Year Plan period. Chou En-lai [1956c:70-71] cautiously considered that a 'backbone' of large enterprises was needed, but also many medium and small firms were necessary.

During the Great Leap Forward many medium and small scale firms were established and their virtues praised. This was true of most industries in China, including textiles, and small mills appeared on a wide scale. The advantages claimed were that they were quick and easy to build, they needed little capital, much of which was obtainable locally, the return on investment was rapid, and they could quickly accumulate capital for the state. They could use the surplus supply of local labour and local materials that would otherwise not be used. They could serve as an adjunct to large firms, by supplying spare parts, undertaking
repairs, and using the large firms' reject products or waste. They could serve as a training ground for peasant farmers to learn simple skills and to acquire experience of factory working. They were more flexible in output, since they produced short runs, and offered a wider variety of produce to consumers. Finally, their establishment in rural areas could narrow the income gap between town and country.\(^1\)

The disadvantages of the smaller mills were that they were often too small to use even one large machine in linked processes [Lin Li-chien, 1964:109-110], they were extremely difficult to plan and run centrally (not seen as a disadvantage in the Great Leap Forward when many small firms were built), and they were constructed widely but without great thought as to desirability. An additional problem with small firms producing inputs was that quality varied substantially and machines were often built on a 'one-off' basis, so that spare parts were to prove a problem in the future.

It is not easy to assess the relative merits of different sized mills, since results of comprehensive investigations of the question, if ever undertaken, were not published. It would seem that, properly set up and run, there would be positive benefits from developing medium and small scale industry in an underdeveloped, labour intensive economy such as China.

The issue of allocation between the modern and handicraft textile industries is similar to the problem just discussed, but represents the extremes. The question was important for development and the handicraft industry was of some importance. In 1952 the gross output value of handicraft industries was thirteen per cent of the output value of industry and agriculture, and thirty-one per cent of gross output value of industry alone [Chih Pi-jen and Wang Wei-chung, 1958]. This latter figure underestimates the importance of handicraft industry, as the figure excludes all such industry that was an agricultural side-line; in addition, the degree of double counting in the gross concept is less in handicrafts than in modern industry. By 1963 the share of handicrafts in industrial output value had fallen to ten per cent approximately [J.M.J.P., 1963/10/27]. It was reported that pure handicraft production

\(^1\) The sources are plentiful; see for example [F.F.Y.P., 1955:39-40], [Li Fu-ch'un, 1955a:19,49-50], [Chen Yun, 1956:165-167], [Ma Yin-ch'u, 1957b], [C.K.F.C., 1958e], [Chiang Kuang-nai, 1958], [C.K.F.C., 1958f].
in textiles, i.e. handicraft cloth made from homespun yarn, made up 19.1 per cent of total cotton cloth produced in 1952 [F.F.Y.P., 1955:49-50]. All handicraft cloth production must have been considerably more than this, as the figure excludes handicraft cloth made from factory-spun yarn; some twenty per cent of all factory-spun yarn went to the handicraft industry, where in 1953 roughly 180,000 looms produced over 20 million bolts of cloth [J.M.J.P., 1953/12/23].

Up to 1957 the policy aim was to develop handicraft production in general light industry, but to reduce the handicraft branch of cotton textiles, both relatively and absolutely. The output of approximately 26.67 million bolts of handicraft cloth in 1952 was planned to reduce to approximately 15 million bolts in 1957 [F.F.Y.P., 1955:50]. The policy of restriction was successful and the output of handicraft cloth in physical units fell each year between 1952 and 1956. By the latter year the output of handicraft cloth was a mere 22.6 per cent of the level in 1952, but output value had increased by 16.8 per cent from 1,409 million yuan to 1,646 million yuan [S.S.B, 1958a:166,180]. During the same period, the total output value of all handicraft industries actually increased by some sixty per cent [Chih Pi-jen, 1958]. In 1957 the cotton textile handicraft industry was again cut back because of the cotton shortage; the agricultural co-operatives were not selling sufficient cotton to the state, but developing their own handicraft industry or selling on the free market.

The case presented for the handicraft industry was similar in many respects to that for small industry. There was a good basis, units were quick to build, investment needs were small, and the investment was quickly recouped. There was a good demand for the products by the peasants - between sixty and eight per cent of the industrial goods they purchased were produced by handicraft industry [Huang Yen-p'ei, 1951: 646], [Teng Chieh, 1954]. Handicraft industry used local resources, including cotton and labour, and could be run by communes or hsien, thus assisting in the policy of promoting self-sufficient areas. The absorption of local unemployed labour also saved government relief funds. Handicraft industry could supplement modern industry, helping it with spare parts and repairs and supplying consumer goods to the towns, thereby allowing the state to concentrate on heavy industry. Local financing also reduced the burden of central budgets. Handicraft industry acted as a training ground for peasants and developed their
potential skills, supplied a market for agricultural output, supplied tools for agricultural development, and could reduce the urban-rural income gap.1

Handicraft industry was strongly promoted in the Great Leap Forward as part of the policy of 'walking on two legs'. Within a very short space of time the promotion of textile handicrafts was under attack. They had never been popular with the state planners: a joint directive from the Central Committee and the State Council in 1957 [S.C., 1957a] had pointed out that the handicraft branch was inefficient, since one chin of cotton would produce a maximum of twenty square feet of hand-woven cloth or over thirty square feet of machine-woven cloth. In February 1959 the use of handicraft methods, either alone or along with modern methods, was forbidden in the cotton textile industry [T.K.P., 1959/2/19], emphasis being given to this in the article by the use of heavier type. On an input-output basis, the handicraft branch could not be justified. It was stated that in the case of ten-count yarn, output per man-year was about sixty bales in modern industry and about one bale in handicrafts. Later figures [S.S.S.T., 1962] reduced the difference given in the directive of the Central Committee and the State Council: one chin of ginned cotton would produce 27.13 square feet of cloth in modern industry but only 22 square feet in pure handicraft industry. Output per man-day in modern industry was 302.4 square feet of cloth and in handicrafts 3.8 square feet, while on a financial basis, cloth cost fifteen cents a square foot in modern industry and twenty-four cents in handicrafts.

It was also argued that handicraft produce was of inferior quality, and it would seem that in some cotton areas the women had forgotten how to spin and weave [Hinton W., 1967:292], so there was not really a good basis for development. The life of locally produced handicraft machines was short, not more than five months, according to Lin Li-chien [1964:60] who reports that Liu Shao-chi said this in 1959. It was also alleged that modern industry produced a greater variety of goods than handicraft industry [S.S.S.T., 1962].

The input-output arguments look strong, but the figures were chosen to yield the desired result: on a return to capital basis, the handicraft

1 The literature is quite extensive; see for example [Ch'ang Yuan, 1958], [Chin Men, 1958a], [Chih Pi-jen and Wang Wei-chung, 1958]. [Chin Men, 1958b], [Chin Men, 1958c], and [Huang Pin, 1958].
industry would look better. However, there seem to be sufficient economies of scale in the textile industry in most countries to ensure that development is in modern factories rather than in traditional methods. There is a better case to be made for medium and small scale firms than for handicraft ones and the planners cannot really be criticised for refusing to develop the handicraft branch. However, they might be considered to have cut back the textile handicraft industry at an excessively rapid rate during the period of the First Five Year Plan, when cotton textiles were not in abundant supply.
Methods and problems of macro-planning have been considered earlier in Chapters 3 and 4. We now turn to a consideration of micro-planning, or planning from the viewpoint of a basic level producing unit. In a sense this is the most important level, since it is here that the efforts of government and Party to promote economic development succeed or fail. The formal plan is handed down but ways must be found to induce enterprise management to try to follow the plan and to fulfill the various targets it contains. The formal plan is based in part on the reports on production conditions sent up from the enterprise. The ability or desire to follow the plan and the general level of efficiency also depends upon internal conditions. This Chapter thus considers the collection of statistics at this basic level, the organisation and running of the mills, the disproportionate growth of staff numbers, the incentives to follow the plan, various sanctions and the methods of supervision and control by the state.

I. THE COLLECTION OF STATISTICS AT THE MILL LEVEL

Until 1953 different accounts and methods of collecting statistics existed in the various regions and enterprises. In 1953 a beginning was made on setting up standard systems for accounts and data collection. By 1956 the accounts and data collection methods had improved somewhat, but were far from perfect, and appear to have been too poor to implement properly a system of comprehensive planning. The problems that existed were numerous indeed. During 1956 the effort to achieve unified accounts and statistical collection methods was abandoned and some decentralisation occurred, with local levels making decisions on collection methods. This lasted until 1958, when many accounts were dropped and the statistical system essentially broke down.

Just how poor the situation was is revealed by an examination of the numerous problems at the enterprise level in connection with account keeping and statistics collecting. These problems included low quality data forwarded to higher levels, incomplete data forwarded, accounts not started or not in fact used, several sets of accounts in one mill, excess number of reports and tables together with constant changes in them,
and increasing demands placed upon statisticians and accountants who could not cope. In addition the needs for statistics of the enterprise and local area tended to be ignored in favour of higher level demands [T.C.K.T.T.H., 1956d] and there was a notable time lag in data reaching the higher level authorities.

Low Quality Data

In this section the deliberate falsification of data, a not uncommon occurrence, is ignored, and is dealt with in Chapter 6. The problems treated here are genuine inadequacies, not simulation by workers or management.

Low quality statistics emanated from local state run firms, private firms and handicraft firms in particular [C.K.F.C., 1956a], and also from new joint state private enterprises (after socialisation), and newly built central state run enterprises [M. of T., 1956a]. Labour and wage statistics were especially poor [T.C.K.T.T.H., 1956d], and even in 1956 data quality was most inadequate [Wang Wen-sheng and Tsu Yen-an, 1956].

There were many reasons for the low quality nature of data collected at the enterprise level. The people collecting the statistics were low-level clerks, often chosen at random with no effort to determine aptitude; some enterprises (and even bureaus) used temporary collectors as they were needed rather than having permanent statistical staff [M. of T., 1954b]. The attitude of these clerks was not conducive to accurate data collection. They did not like statistical work; they did not take it seriously, felt it had no future, was dull, unimportant, and of little value. There was an extreme shortage of trained statistical personnel [Chen Wei-chi, 1954]; in general those collecting data had had no regular training, lacked experience, and on occasion did not even know what the words meant on the forms they filled in [T.T.J.P., 1955/6/21]. Genuine mistakes were naturally common. The turnover of accounting and statistical staff was, not surprisingly, high and could easily reach over one hundred per cent in one year [M. of T., 1954b].

1 Tables from many local state run enterprises were habitually made in ways at variance with the regulations, reducing the accuracy and usefulness [M. of T., 1956e].

2 See the series of articles in T.C.K.T.T.H., [1955b], [1955c], [1955d], [1955e], [1955f], [1955g], [1955h], and [Ku Chi-yün, 1955].

3 The statistical records of one workshop normally contained over forty per cent errors.
Another reason for the low quality of the data was that the lower levels tended to solve problems in their own way without reference to higher echelons, thus causing different solutions to be adopted in different areas, with the result that the data produced were strictly not comparable but still had to be aggregated [Chen Wei-chi, 1954].

Different areas of China also used different measures, as did different government agencies; measures with the same name often had different contents in practice [Hung Liang, 1955]. This regional difference in statistical coverage was widened in 1956, when a meeting called by the Textile Ministry decided to allow each area to choose its own methods of data collecting, even on major items. For instance, a region could make its own decision on whether to measure output in physical quantities or in monetary terms [M. of T., 1956c]. The introduction of any new system in keeping accounts or in running methods tended to result in earlier systems being discreetly ignored in the mills. For example, the introduction of the Financial Statement Meeting caused some factories immediately to abandon the Cost Analysis Meeting [T.S.S.B., 1956]. Finally, the top level factory management would not help a department of the factory to establish authorised accounts if management did not have sympathy with that innovation. The Finance Office of one mill was simply unable to obtain needed statistics from the other offices in the mill, because the management did not approve of the introduction of the Monthly Financial Administration Plan; as a result the Finance Office had to make its own estimates, since it could not obtain the actual figures [N.E.A.B., 1956].

In view of the above situations it is not surprising that statistical data collected at the production units was poor. In general, the statistics on local state run, local joint state-private run, co-operative run, and handicraft enterprises were the least accurate. Cotton spinning, wool textiles, jute, and silk winding statistics were the best, while statistics on cotton weaving, dyeing and printing, silk weaving, knitting, and carpet making were the worst [C.K.F.C., 1956a].

Incomplete data forwarded to higher echelons of state

The above explanations of low quality data also explain the phenomenon of incomplete sets of data being forwarded to higher levels of the bureaucracy. When a mill had eventually collected whatever statistics it could, it then sent them off. Labour and wage statistics were particularly poor; many of the required statistics were not in fact
collected at the mills, and what were collected were frequently incomplete, [T.C.K.T.T.H., 1956d]. Examples of sections of the reports that often had incomplete data are: the number of workers, the total wage bill, and the average level of wages; reportedly even less complete sections were labour productivity statistics, the use of available working hours, and information on the wage system used.

**Systems of account keeping not introduced or introduced but not used**

An effort was made to introduce economic accounting in enterprises quite early. This began in Manchuria, and a start to extend this to state owned enterprises throughout China commenced in 1950. Not until 1952 were textile mills responsible as units for their own profit and loss, and by late 1955 economic accounting had not been introduced in many industrial enterprises. Where it had begun, it had sometimes fallen into disuse [Tseng Chih, 1955]. It was revealed that in Tientsin the cadres in the mills were not even trying to carry out the systems in a conscientious manner, and were ignoring orders concerning such systems [Ho I, 1956]. In mills that had introduced a system and where it was in fact still being used, it was often the case that only a part of the mill had implemented it, although the mill could presumably report that implementation had occurred [Ho I, 1955].

**Several sets of accounts in one mill**

Several different sets of figures existed in any mill. There were two main sets: the 'big ledger' using fixed prices, kept by the statistical department, and used when dealing with the ministries in connection with plans; and the 'fine ledger' using current prices, kept by accountants, and used when dealing with banks and financial bodies. A third set could exist, the 'business computations'. The basis of these three sets was different, and reportedly it was often impossible to make them tally [M. of T., 1955a].

**Excessive number of reports and tables and constant changes**

Because the government of China attempted to establish a system of comprehensive planning, there was a great demand for statistical information at the centre which ultimately fell upon the mill to provide. As the attempt was strengthened and the number of organs increased, more and more fell into the area that the state attempted to plan and control. This led to a great increase in the number of reports and tables that
the mill had to fill in and forward. The statisticians were unable to cope with this increased workload [Wang Wen-sheng and Tsu Yen-an, 1956].

The problem of too many forms in the mills was criticised in 1954 by the Ministry of Textiles, which felt there was an excessive number, they were too complex, had non-unified figures in them, and generally resulted in a great waste of manpower. [M. of T., 1954b]. In 1956 the large number of reports and tables was criticised and the point was made that they had little value in practice [T.C.K.T.T.H., 1956c]. A further appeal to reduce the number of forms and tables in the mill was made in 1957 [Chang Fu-ch'üan, 1957].

Not only was the number of forms and tables in the mills excessive, but the forms themselves were constantly changed and revised; the tables in the annual plan were revised each year, and it seems reasonable to surmise that this created problems for the understaffed, undertrained and under-motivated ranks of statisticians.

Time lag in higher levels receiving data

Reports and tables were commonly sent up late. 'Lateness' in the Chinese context meant after the time set by the State Statistical Bureau - and the Bureau usually set a rather lax limit [M. of T., 1954b]. Monthly reports were normally sent forty days after the end of the month, quarterly ones sixty days after, and half yearly reports ninety days after the end of the period. Some enterprises were much slower than this in forwarding their reports [T.C.K.T.T.H., 1956d]. Local state run enterprises were very slow in sending up data [M. of T., 1956a] and the new joint state-private enterprises were particularly at fault [C.K.F.C., 1956a]. Some local state run enterprises and private mills sent in no reports at all, and those that did were often nine months late, which rendered the materials scarcely useful to the short term planners [M. of T., 1956a]. The bureaus above the mills had to put together the individual reports from the mills and pass up a synthesised version. Late reports from the mills delayed the bureaus' work and caused the bureaus to use estimates for the missing reports [Lo Jih-yün, 1954]. Labour, wage and cost reports were notoriously late being sent, even from central state run mills [M. of T., 1956a].
II. THE ORGANISATION AND RUNNING OF THE MILLS

There were steady changes in the internal organisation of the mills during the 1950s, but four broad types of departments always exist. These are basic production departments, such as yarn sheds and cloth sheds; supplementary production departments, such as repair, maintenance and electrical departments; welfare departments, including canteens, nurseries and medical units, etc; and functional departments (which help the top level management to lead production) such as departments of planning, accounting, wages and personnel [C.K.F.C.K.H., 1957e].

There are obviously many ways of structuring the internal organisation, covering different departments and different levels of control. Complete unity of organisation with all mills being identically structured was not pursued in view of the different sizes and natures of the mills. Some flexibility of organisation was allowed. Mills also varied in their speed of response to directives: reports in the literature indicated (given that x stands for the change ordered by higher levels), that in one year some mills 'did x', some 'prepared to do x', and some 'did not do x'. Because of the flexibility allowed and the varying response lag to orders, the existing structures in the mills tended to vary quite considerably.

Immediately after Liberation the existing internal structures were allowed to continue, as the primary aim was to restore production. Commencing in 1950, a three-tiered structure was gradually implemented, with the director at the top, workshop foremen in the middle and small teams at the bottom. The main reasons for this change were that the state wished to alter the old systems that were seen as involving antagonistic relationships between managers and workers; under the existing systems technical and administrative leadership were often quite separate; and in general there was frequently much obscurity on responsibility, which induced mutual recriminations whenever anything went wrong. Internal changes included removing maintenance work from the transport department and establishing a maintenance department, and building up various functional departments, notably for planning and technical inspection.

Between 1950 and 1953 it became clear that this three-tiered system (small workshop system) was unsatisfactory, and a four-tiered system began to be introduced. Problems connected with the three-tiered system included

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1 Mills vary in size from a few thousand spindles to one hundred thousand or more. Some mills only spin, others only weave, most do both; some mills have dyeing and printing sections, others do not.
the lack of management experience of the workshop foremen; the
proliferation of workshops of small size, especially in large mills; the
tendency of the director to lead directly from the top, resulting in an
absence of horizontal co-operation and contact and also placing a large
burden on the director; and the separation of technical and administrative
work remained. The four-tiered system involved the mill director at the
top, followed in descending order by work area chiefs, work shop chiefs
and small production team chiefs.

From 1953 onward the structure became reasonably settled for the
mid-1950s, although functional departments tended to grow rapidly in
number, resulting in efforts to streamline in 1955 and 1957. Some small
mills reverted to the small workshop system and dropped the work areas.
In 1958 many staff were transferred down and the established internal
organisational methods tended to dismantled.

The running of the mills:

Immediately after Liberation, army officers were stationed at many
mills. The presence of a military representative was important to bring
order and stability out of chaos and uncertainty, but his role in running
the enterprises seems to have been almost entirely passive. He was not
familiar with production and management and it was necessary to make
alternative management arrangements [Su Ku, 1957].

An early step was to achieve a democratic reform of mill management.
This process was generally carried out under the leadership of the local
Party committee, and the main elements consisted of establishing a
Factory Administration Committee (FAC) and a Staff and Worker Represen-
tative Meeting (SRWM), [J.M.J.P., 1950/2/6]. The system of running the
mills was called 'collective leadership of the Party combined with
individual responsibility', and lasted from 1950 to about 1954.

The FAC was made up of the director, vice-directors, the general
engineer, other responsible people in production, (such as the Party
secretary) and representatives of the staff and workers, including the
trade union chairman ex officio. The ideal size was considered to be
about five to seven members. A standing committee existed, composed of
the director, the trade union chairman, and one other man (inevitably the
Party secretary) for making day to day decisions. The function of the
FAC was to run the mill, that is, to discuss and decide all major problems
of production and management, including the production plan, business
management, the systems for running the mill, wages, welfare, and the inspection and summing up of results [C.F.E.L., 1950].

The SWRM was to be set up in all but the smallest mills; it came under the jurisdiction of the trade union and held its meetings in spare time. It listened to and discussed reports from the FAC and could inspect the way the FAC was running the mill. Its power was, however, limited to making criticisms and suggestions direct to the FAC.

Several problems existed with regard to this system of running the mills in the early 1950s. The factory management tended to go slow on the introduction of democratic reforms, and the different regions of China adopted different sets of methods of reform. The different mills in one town often had different approaches to the problem [J.M.J.P., 1950/2/6]. Once the FAC and SWRM were set up they often became a mere formality with no real power or function.

An important problem was that the Party committee in the mill had a tendency to encroach and take over the function of management [Li Hsueh-feng, 1956] causing uncertainty about who really was in charge of the small workshops and resulting in the managers adopting a passive role [Chen Keng-jen, 1954]. As a result the Party began to neglect political work and was unable to supervise or control the management, since they had taken over this function [Huang Cheng, 1955]. Additionally, there was a lack of well defined responsibility system in production. This was not very suitable for the implementation of centralised economic planning and hindered the setting up of necessary internal systems such as domestic planning [Chen Keng-jen, 1954].

As a result of these problems a change was made in 1953, when 'unified leadership under a single head' (or 'one-man management') began to be established in industry [Li Hsueh-feng, 1956]. This began in the textile industry in Shanghai in the second quarter of 1954, and by September of that year the state run textile mills were in the process of changing to the new system. The power of the enterprise Party committee was severely curtailed and that of the director increased substantially.

From the viewpoint of the government a new set of problems emerged in the period 1954 to 1956. The factory director developed 'full responsibility' and began to ignore resolutions concerning production management, passed by the enterprise Party committee [Li Hsueh-feng, 1956]. This caused the Party to decline in authority and to adopt a subordinate position in the mills. In turn this 'corroded the Party spirit of the cadres', encouraging bureaucracy, commandism, self-
complacency, and arrogant behaviour among the managers. Schurmann sees this one-man management system as being strongly pushed in 1953, under oblique attack in 1954, declining during 1955, and revoked in 1956. He also believes that many enterprises never adopted it, particularly in light industry, and that 'the Chinese never became enthusiastic about one-man management' [Schurmann F., 1966:254].

The evidence from an examination of the textile industry supports neither the timing, a minor point since Schurmann deals largely with heavy industry, nor the alleged lack of popularity. In the textile industry the push to establish one-man management began in late 1954, the system expanded in 1955, and despite being revoked in 1956, many enterprises were reluctant to discard it and kept it after it should have been abandoned [Hsia Cheng-yen, 1956]. It would not appear to have been unpopular with the mill management. Only in the restricted sense that certain members of the ruling elite, such as Chairman Mao Tse-tung, and Party units at lower levels were not overly enthusiastic, is it possible to agree with the point about enthusiasm.

The reason that a good number of textile mills did not implement one-man management was not, as Schurmann suggests, because of the degree of remoteness from Soviet influence [1966:253], but was because at that time most mills were privately owned or joint state-privately owned. One-man management was apparently never supposed to apply to these categories. In heavy industry, with which Schurmann is more familiar, one-man management was more prevalent, since the degree of state ownership was much higher.

In 1956 another change occurred. The one-man management system was terminated in favour of the policy that the director (or manager) takes responsibility of the enterprise under the leadership of the Party committee [Li Hsueh-feng, 1956]. This was officially announced at the Eighth Party Congress, but the order had gone out earlier to local Party committees and to the enterprises; it had also been announced in the People's Daily, [1956/7/8b].

This new system was designed to increase Party power in the mills, while avoiding the problems that had existed in 1950-54. Under the new rules, all major questions, including management problems, were to be discussed exhaustively by the Party committee in the mill and the decision

passed on to the managers to be implemented. The managers had the power to do routine administrative work, technical work, and to solve urgent pressing problems requiring immediate solution. After an initial lag in adoption, the system resulted in a shift in the power centre in the mills from the managers to the Party committee, so that by the 1957 anti-rightist movement the Party was firmly in control. During 1958, and lasting until 1961, the Party took over the management function, but owing to decentralisation of power within the mills and to the confusion that existed, the idea of mill level management virtually ceased to exist during 1958-60.

In addition to the problems due to emerge in the Great Leap Forward, certain immediate problems came into being with the introduction of the new system. The desired results were initially misunderstood at the mill level: some felt that the Party secretary should make all important decisions, rather than the Party collectively; some managers decided that they should submit all matters, however trivial, to the Party committee to decide, refused to accept any responsibility for decision taking; and a small number of party cadres wanted everything to be submitted through them for decision, and encouraged the managers to decline to take responsibility [Hsia Cheng-yen, 1956]. It also was extremely difficult in practice to decide what was a technical problem as opposed to a policy issue. In general it proved difficult to withdraw authority from management while leaving them with responsibility.

III. THE INCREASE IN MANAGEMENT STAFF IN THE MILLS

There is little doubt that staff numbers increased rapidly in textile mills during the period 1949-57, and became a source of concern to the ruling elite. It will be recalled that labour statistics were among the poorest produced, so that data is hard to find. Three separate tables are reproduced below.
Table 17: The Change in Distribution of Personnel in State Run Textile Mills, 1949-57

<table>
<thead>
<tr>
<th>Year</th>
<th>Production Workers as a % of All Personnel</th>
<th>Non-production Personnel as a % of All Workers</th>
<th>Production Management Personnel for every 100 Production Workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1949</td>
<td>86.4</td>
<td>3.0</td>
<td>4.5</td>
</tr>
<tr>
<td>1956</td>
<td>74.3</td>
<td>9.3</td>
<td>15.0</td>
</tr>
<tr>
<td>1957*</td>
<td>71.3</td>
<td>12.2</td>
<td>15.5</td>
</tr>
</tbody>
</table>

*Third quarter of 1957, for mills directly run from the Ministry, including textile machine making and new enterprises.

Source: [Chang Po, 1957].

The Table indicates that production workers fell vis-à-vis non-production personnel, and the increase in non-productive personnel and management cadres was quite large. The same source indicates that the number of production workers increased each year to 1953, then fell to 1955, increasing slightly in 1956 to an absolute figure less than that recorded in 1952. This is at variance with a set of figures for the entire textile industry released by the State Statistical Bureau [1958a: 174].

Table 18: Staff and Workers in the Textile Industry, 1952-1956 (in thou.)

<table>
<thead>
<tr>
<th>Year</th>
<th>Production Workers</th>
<th>Non-Production Workers</th>
<th>Engineers &amp; Technicians</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1952</td>
<td>777.5</td>
<td>192.2</td>
<td>16.1</td>
<td>969.8</td>
</tr>
<tr>
<td>1953</td>
<td>846.9</td>
<td>228.1</td>
<td>21.3</td>
<td>1075.0</td>
</tr>
<tr>
<td>1954</td>
<td>863.0</td>
<td>220.6</td>
<td>25.7</td>
<td>1083.6</td>
</tr>
<tr>
<td>1955</td>
<td>866.9</td>
<td>238.8</td>
<td>30.3</td>
<td>1105.6</td>
</tr>
<tr>
<td>1956</td>
<td>942.0</td>
<td>277.7</td>
<td>37.6</td>
<td>1219.7</td>
</tr>
<tr>
<td>1957</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>1184.5</td>
</tr>
</tbody>
</table>

Note: Column 2 was obtained by subtraction. The figure for 1957, column 4, is estimated from a statement that the increase in staff and workers 1950-57 was 49 per cent.

Source: [S.S.B., 1958a:174].

From the above table it is possible to calculate the percentages by group in each year 1952-56. The percentage of production workers fell over the period from eighty to seventy-seven.
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Table 19: The Change in Distribution of Workers and Staff in the Textile Industry, 1952-1956

<table>
<thead>
<tr>
<th></th>
<th>1 Production Workers</th>
<th>2 Non-Production Workers</th>
<th>3 Engineers &amp; Technicians</th>
<th>4 Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>1952</td>
<td>80.2</td>
<td>19.8</td>
<td>1.7</td>
<td>100</td>
</tr>
<tr>
<td>1953</td>
<td>78.8</td>
<td>21.2</td>
<td>2.0</td>
<td>100</td>
</tr>
<tr>
<td>1954</td>
<td>79.6</td>
<td>20.4</td>
<td>2.4</td>
<td>100</td>
</tr>
<tr>
<td>1955</td>
<td>78.4</td>
<td>21.6</td>
<td>2.7</td>
<td>100</td>
</tr>
<tr>
<td>1956</td>
<td>77.2</td>
<td>22.8</td>
<td>3.1</td>
<td>100</td>
</tr>
</tbody>
</table>

At a disaggregate level, the number of all textile employees in Shanghai mills increased more rapidly than workers: with 1949=100, the index for employees stood at 153.88 in 1957, as compared with 135.45 for workers [Yen Tzu-ch'ing, 1958].

In the second quarter of 1956, the number of staff, including engineers and technicians, was in general 11-18 per cent of the number of production workers in Shanghai mills, but in six of the eighteen mills in Tsingtao the percentage exceeded 17; in the worst mill in Tientsin it reached 23 per cent [Hai Hui, 1957]. The absolute number of cadres in various mills increased rapidly between Liberation and 1957. The Tientsin State Run Number One Cotton Mill had 84 cadres at Liberation and 734 by the end of 1956; the Tientsin Numbers Three and Five Mills had 178 cadres at Liberation and 864 at the end of 1956; the Shanghai Number Five Mill had 138 cadres in October 1950 and 443 at the end of 1956. The increase in cadres varied from three or four times at the least to five or six times at the most.1

The problem of excessive staff size was much greater in the Chinese textile industry than in the Soviet textile industry. The average number of administrators per hundred productive workers was a little over 6 in the U.S.S.R., compared with 14.5 per cent and 9.6 per cent in the Peking Numbers One and Two Mills [Chang Po, 1957]. This was reduced to 10.6 and 6.1 per cent respectively after some streamlining, but the average number in many mills would seem to have been around 15 per cent; Chang Po felt that ten per cent was a permissible goal to aim for and that one third of the existing administrators could be dropped.

1Complicating the issue is the fact that at Liberation, secretaries were not included as cadres, but later were included: this causes some of the apparent increase to be purely statistical. See Hai Hui [1957].
There are many reasons to explain the increase in the numbers of staff relative to workers up to 1958. These reasons were: an increase in tasks as a result of the attempt to implement centralised comprehensive planning, Party and trade union bureaucracy, desires of mill managers and higher levels, the 'availability doctrine', welfare facilities, bonus regulations, efficiency indicators in the planning system, and the long tradition of bureaucracy in Chinese history.

The attempt to implement a system of centralised comprehensive planning was a prime reason for the rapid increase in staff numbers. The demands for statistical information by the state led to a great increase in the statistical staff, so that by 1957 the statistical recording personnel in many mills made up over forty per cent of total staff numbers [C.K.F.C.K.J., 1957b]. Each extension of the state's interest in running mills in accordance with centralised planning led to an increase in staff numbers. The safety measures and health work of 1953 led to an increase in staff size, as did better maintenance after 1953, labour emulation campaigns, the introduction of economic accounting, and the establishment of technical inspection [Hai Hui, 1957]. The small workshop system also had this effect owing to the large numbers of foremen required.

Imitating the Soviet system seems to have led to a greater need for staff in China than in Russia. There are several possible reasons for this: the Chinese may have been less efficient than the Russians, owing to such factors as lack of experience; or the systems themselves may not have been copied carefully, were simply not suitable for Chinese conditions, or may have been misunderstood. Certain procedures became very complex and cumbersome, necessitating large numbers of staff to achieve a relatively simple result. As an example, if a maintenance worker in the Tientsin State Number Three Cotton Mill required one spare part to mend a machine, he was required to go through twenty-two separate procedures, including making application to the shift leader, the workshop level, the work area level, the materials department, and the accounts department [Hai Hui, 1957]. In some yarn mills the implementation of the domestic plan was overly enthusiastic, with targets made down to output in one hour, which required many more statistical personnel and had no particular advantages [Chou Ch'un-tsuo, 1957].

One enterprise director gave a full and frank description of the problem he faced in his enterprise [Jen Chung-hao, 1956]. The comments fit what information has been obtained on the situation in textile mills,
although it is not clear what type of factory he ran. He criticised
the excessive number of meetings and documents, which in his view
resulted in poor management, despite large staff numbers and intensive
work by the reasonably well educated staff. He described his eight hour
day as made up of one hour spent on documents and reports from higher
and lower levels, a minimum of four hours on internal meetings, one
hour talking to the production manager about problems and only two
hours left over for what he considered to be real work. Additionally,
in one week he listened to a summary report on the progress of move-
ments within the mill, wrote a simplified account of this (half a day)
and talked to the Russian expert (half a day). Every month he had to
attend meetings in the town about reports (two days usually),
accompany visitors around the factory (one day minimum),¹ and evaluate
monthly competitions (half a day). Furthermore, each year he had to
visit the province level or Peking for a meeting (two weeks) and also
had to study 'removed from production' (two weeks, twice a year).

He described top management as disliking most the innumerable
meetings they were forced to attend, while general staff disliked most
the deluge of documents and the irrational systems. There were 66
kinds of reports in his factory, with 792 forms that had to be sent
to higher levels (some more than once), and he estimated that these
would cover 20,000 square metres, weight 10 tons, and cost 45,000 yuan
in paper, pens, ink and printing alone.

The Party and trade union organisation in the mill also contrib-
uted its share to the problem of large numbers of staff. The trade
unions tended to be heavily staffed [Lai Jo-yu, 1955b]. The work
methods of both organisations favoured the establishment of committees
for considering and solving all problems. As an extreme example, one
mill had the use of a motorcar and the trade union formed a sixteen man
committee to manage it. This committee included the trade union chair-
man, the Communist Youth League secretary, and departmental heads;
meeting in working hours, the committee interfered with the normal work
of the members [J.M.J.P., 1953/7/23]. This approach to problems caused
extra staff to be employed to cope with the work. The minute taking,
copying, filing and other secretarial tasks added to the staff numbers.

The cadres themselves were often promoted from the ranks of
workers and therefore were normally not well educated. As the leaders

¹ He felt this was not a complete waste as 'This did provide an
opportunity to visit the workshops'.

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did not pay attention to training them, these cadres could not always manage parts of their jobs. This resulted in the hiring of more staff and assistants to help them [Hai Hui, 1957].

Nepotism was allegedly a cause of some of the overstaffing. Families and dependents of Party cadres were reportedly often found a staff job, with disregard for their abilities. The wives of cadres were particularly mentioned in this respect [Hsü Chang-ch'ing, 1957].

By their actions, certain people at higher levels encouraged overstaffing of mills, as did the management of some mills. Many higher level organs wanted to establish subsidiary organs in mills, along vertical rule lines. Meetings at higher levels of the textile system often had as a consequence the establishment of special departments at mill level, which inevitably required staff rather than workers. For instance, an education meeting led to the setting up of education offices in mills; an industrial health meeting wanted a health department in the mills; a labour protection meeting asked for the establishment of a safety-technical department. Where such specialist departments were set up, frequently no one seemed to know what they should do, causing the staff to create a lot of work in order to look busy: this resulted in more staff being taken on to do the extra work - Parkinson's Law in a pure form [Hai Hui, 1957].

At the mill level, certain managers had an empire-building approach to their work:

'...not a few directors' enterprises are like small kingdoms, wanting to control the birth, old age, sickness and death of the staff, workers and their dependents; the culture and education departments and welfare departments likewise [desire] completeness. They want as many primary and middle schools and even universities, hospitals, clinics, nurseries, canteens, ... as is possible'. [Hai Hui, 1957].

In addition, the managers of many small mills wanted to have as many departments and sections as the large mills, causing an unnecessary increase in staff numbers.

The availability doctrine was important as an explanation of staff build up. In view of the difficulties of obtaining skilled men when needed, the mill managers apparently had a tendency to take on men and train them on the job, so that future tasks could better be met. This was especially true of staff members, since they were liable to be

\(^1\) See also Chapter 6, pp.154-155.
'borrowed' by higher echelons, not only by the Ministry but also by the bureaus, the town Party organs and the area Party organs [Hai Hui, 1957]. The practice of requiring cadres to go out and work manually may well have encouraged the taking on of extra staff to cope with absences, as may the habit of trying to streamline the establishment of the mills. Evidence of these points is lacking and they naturally could not have applied until the management realised the possibility of such requirements, so that these two points remain tentative.

The stress on developing welfare facilities which came from higher levels and from within the mills, also added to staff numbers. Education, health, housing and canteens are all prime examples.\(^1\)

The bonus regulations themselves encouraged an increase in staff. The regulations of 1953 established a maximum for the premium fund as a percentage of the wage bill. Initially some mills used the wages of production workers alone, others used total wages and salaries. Quite soon a number of mills changed to the latter method in order to increase the permitted premium fund size. The inter-mill competitions of 1955-57 had a similar effect by setting a limit on bonuses as a percentage of the wage bill [A.C.F.T.U., 1956b].

On their own the bonus regulations provide a reason for increasing staff and worker numbers, but in conjunction with the efficiency indicators adopted by the Ministry of Textiles and the bureaus, they favoured an increase in staff rather than workers. In plan evaluation, when examining labour productivity, the Ministry and bureaus only looked at the productivity of production workers and ignored staff and non-production workers. Mill management responded by keeping down the number of production workers but were less concerned about staff and non-production workers [Chang Po, 1957].

Strict control of personnel numbers was lacking [Chou En-Lai, 1956a] which allowed managers much freedom in pursuing their own interests. As a general rule in the textile industry in 1955, the mills did not have a set number of personnel to be employed [Chiang Kuang-nai, 1955b]. This permissive factor was an important element in the increase in staff numbers.

When, in addition to these points, the long tradition and experience of a large bureaucracy in China are considered, and the industrial

\(^1\) This point is brought out by Hai Hui [1957] and Chang Po [1957].
management practise of taking collegiate rather than individual
decisions is added, then the rapid rise in staff numbers is easily
explained.

Certain members of the government were uneasily aware of the
dangers of bureaucracy, either for efficiency or for ideological
reasons. Spasmodic efforts to oppose it were made in the early 1950s:
for instance the Ministry of Heavy Industry began an anti-bureaucracy
campaign in 1952 [J.M.J.P., 1953/4/7]. A call went out in 1954 to
streamline organs and staff [J.M.J.P., 1954/2/24], but it was not until
1955 that the attempt began in the textile industry. A report by Li
Fu-ch' un advocating economy and opposing excessive staff numbers, was
reprinted in Chinese Textiles in that year [Li Fu-ch' un, 1955b], and a
directive went out to reduce the number of departments and to cut back
on staff numbers in textile mills [C.K.F.C.K.J., 1957e]. This effort
to reduce staff numbers failed. It does not seem to have been taken
seriously in the industry: not all mills made an attempt even on paper
to reduce staff numbers, and where the problem was discussed and a plan
to reduce staff numbers was made, it was not always followed. For
example, the Shanghai State Run Number One Cotton Mill made a draft
plan to reduce staff numbers by 105, but it was not implemented; by
early 1957 the staff was no smaller and even seemed to have increased,
owing to the arrival of new graduates and technicians [Hai Hui, 1957].
The problem was tackled again after the Rectification movement of mid-
1957, and internal changes in departments probably had some impact
towards the end of 1957. The real solution had to await the arrival of
the Great Leap Forward, when hsia fang methods were rigorously
implemented and staff numbers substantially decreased.

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1 See pp.101-103.
IV. INCENTIVES

There are two general methods of attempting to ensure realisation of the state economic plan: administrative orders together with administrative allocation of resources, or economic means, i.e., a system of incentives to induce producers to follow their plan [Lange O., 1962b:23]. These are not mutually exclusive methods. This section considers material and honorary incentives for workers and managers; sanctions are considered in the following section.

Much variety existed in the use of material incentives in the textile industry during the period 1950-1957. There were several reasons for this. The bonus systems in the mills were dissimilar when inherited, and some reforms in the early 1950s were done locally on a rather ad hoc basis. Unified regulations on a national basis covering material awards were slow to emerge for textiles, and never appeared for managerial bonuses. The First Five Year Plan [1955:194] appealed for the introduction of a bonus system in general and the abandonment of existing systems where they were irrational. When regulations for workers' bonuses were made, they allowed the areas to adopt different bonus rates to meet local needs [M. of T., 1955b].

Different ownership was also a cause of variations. The central state run mills were the main target of the effort to plan centrally and therefore to set up an acceptable bonus system. Private and cooperative run mills seem to have been left aside in this respect, and local state run mills were allowed, but not apparently forced, to adopt the bonus regulations for central mills if it was considered that their conditions were roughly the same [S.C., 1956a].

Even had these explanations not existed, there was one important causal factor of variation in the practise of material awards. The policy that emerged by 1956-57 was to allow the mill management to set the conditions for workers to receive a bonus in line with the needs of a particular mill. If poor quality was a problem in a mill, then a quality bonus was supposed to be instituted in that mill. As mills varied on problems, this resulted in the adoption of different bonus systems.

Despite the variety of bonus systems, some generalisations are possible about the use of financial incentives in the textile industry.
Immediately after Liberation there was some awareness of the need for a system for rewards and punishments in the textile industry [H.H.Y.P., 1950], and enterprise bonus funds were established in 1952 [Tao Sheng-yu, 1956]. Bonuses were common enough by 1954 for it to be worthwhile explaining how they should be dealt with in monthly reports [S.S.B., 1954b]. Nonetheless it was not until 1955-1957 that official attention focussed on the bonus system, a debate on bonuses took place in the journals, and managerial bonuses were considered and tried out in some industries. However, it had not proved possible to proceed to a unified system of managerial bonuses by 1957 [Chen Wen-ya, 1957a]. In general, heavy industry was more unified than textiles and received more attention. Partly as a result, bonus systems were implemented earlier and unified regulations often existed in heavy industry.

Financial incentives were less used in China than in the U.S.S.R. The size of bonus was lower in China and the use of a single norm for bonus payment was avoided. In the textile industry, top management bonuses were limited to 30 per cent of monthly salary, compared with 150 per cent in the U.S.S.R. [Chen Wen-ya, 1957a]. Piece-rate incentive systems were also not used really extensively. By 1957, forty-two per cent of workers in all industry were receiving some kind of piece rate, as compared with about fifty per cent in the textile industry [C.K.F.C., 1963a]. In qualitative terms, piece-rate systems do not appear to have been popular. Regulations issued at the end of 1954 recommended the establishment and improvement of bonuses with time-rates for the textile industry in 1955 [M. of T., 1955b]. In late 1956 it was revealed that most textile mills had not tried out or even investigated the possibility of using piece-rates and a quality bonus [M. of T., 1956c].

Another generalisation is that managerial bonus systems were extremely difficult to implement property. Zielinski J.G. [1969:48] points out that managerial bonuses, based on profit, need three requirements in order to have operational value. These are decisions on the rules of pricing, on the methods of accounting, and on the rules for calculation of the bonus itself. In the textile industry the system of price fixing is obscure but seems to have been settled for the mills at higher levels; the accounting methods were not fixed in practice; and bonus calculation methods could not have been settled in view of the lack of a general unified system for bonuses.
It is commonly alleged that there is either no information on managerial bonuses or that non-productive staff did not receive a bonus. 'There is no information on whether Chinese managers have ever received personal bonuses either out of retained profits or out of a special fund' [Rieman K.B., 1967:209]. 'Bonuses were directly related to performance, and thus were not extended to non-production staff employees' [Hoffman C., 1967:26]. Neither of these statements is justified. The managerial staff could receive bonuses as a result of inter-mill labour emulation competitions [C.K.F.C.K.J., 1955b]. In 1957 managerial bonuses were being established in the textile industry [Chen Wen-ya, 1957a]. Outside the textile industry there are clear examples of staff and managerial bonuses being paid; for example, in the first quarter of 1956, the director of a mine received a bonus of 120 Yuan [Hsieh Yen-ch'eng, 1957]. In some enterprises the internal transport workers, who were not directly related to production, could earn a bonus on production results [Han Pi, 1956]. Perhaps even more striking is the information that certain ministries paid bonuses to their staff, above the level of the factory and production. Of the twenty-one ministries under the State Council, four paid such bonuses regularly and three more paid occasional bonuses. The Ministries of Railways and Agriculture paid bonuses in 1954 and 1955. It was recommended that all the ministries should establish a system for bonuses for their staff [J.M.J.P., 1956/5/22]. Bonuses for engineers, technicians and leading personnel in enterprises were recommended in a People's Daily editorial about the same time [J.M.J.P., 1956/5/3].

It appears that the bonus systems in Chinese industry weakened rather than strengthened between 1953 and 1955, when the Russian system was supposedly being implemented. Some enterprises abolished their existing bonus systems without establishing any new ones. Some rational systems were also abandoned. Some other enterprises retained a bonus system but made a practise of setting standards too high to be attained. As a result, the number of bonus recipients fell between 1953 and 1955, as did the amount earned in the form of bonuses [J.M.J.P., 1956/5/3].

**Workers' Bonuses**

There could be up to four major categories of bonuses in one mill: 1. inventions and rational suggestions bonus; 2. external plan target bonus; 3. internal plan target bonus; and 4. inter-mill labour emulation competition bonus.
The inventions and rational suggestions bonus was standardised for all industries in 1954 [G.A.C., 1954]. For inventions, the bonus ranged from 2 to 30 per cent of the value saved in one year and was paid for three to five years. Technical improvements could be rewarded with 0.5 per cent to 20 per cent of the sum saved in one year, and rational suggestions with 0.25 per cent to 10 per cent. Bonuses in the last two categories were paid only once. The regulations issued for the textile industry had the same rates, but the application of the regulations was initially ignored in the industry [M. of T., 1954d]. This was overcome, and in December 1957, out of nine hundred proposals under consideration, sixty-five were rewarded as technically successful suggestions. Two were paid one thousand yuan, five were paid five hundred yuan, nineteen were paid three hundred yuan, and thirty-nine were paid one hundred yuan [C.K.F.C., 1958a]. It would thus seem that the tendency in practice was to round off the sums paid to a convenient figure and perhaps simply to set such a sum rather than to make precise calculations of the sum saved. It seems unlikely that the sums saved would exactly round off to the figures mentioned above.

The bonuses for fulfilling external targets were not standardised in China and the areas were at liberty to choose their own bonus rate [M. of T., 1955b]. The bonus rates for fulfilling internal enterprise targets do not seem to have been standardised; it would have been very difficult to do so, and general policy was for the mills to differ in accordance with each mill's particular needs.

Labour emulation competitions existed rather spasmodically in the early 1950s. In 1954 the A.C.F.T.U., [1954] called for an intensive effort to promote them, recommending that material rewards be given in addition to honorary ones. These competitions between mills were introduced in the textile industry in 1955 [C.K.F.C.K.J., 1955b] but began in an intensive form in 1956. Bonuses went to successful mills and also to individuals. The size of bonus to a mill was set by the Textile Ministry (or Bureau or Industrial T'ing) after 'mutual discussion'. For an individual, the bonus was equivalent to 15-35 per cent of the actual monthly earnings, averaged over three months. It could also be given to those whose output could not be directly measured. As an example, in 1955 the Tsingtao State Run Number Seven Cotton Mill awarded individual bonuses equal to twenty-five per cent of the wage [C.K.F.C.K.J., 1955a]. The mill management was supposed to put 10-20 per cent of the enterprise fund into a special fund each quarter to use for these bonuses. A limit of three per cent of the total wage bill was
imposed on the amount paid out as bonuses in the inter-mill competitions [M. of F., 1956]. The ministry also decided that honorary awards should be paid, but not bonuses, for competitions between firms in the same branch of the industry.

There were many problems in the working of these four different sets of bonuses. First, in some mills there were, at certain times, an excessive number of bonuses for which a worker was eligible to compete. Zielinski J.G., [1968; 81] feels that six to twelve different bonuses in one economic unit comprise a complex system (i.e. difficult to manage). Mills in the Chinese textile industry could have far more than this. For example, the Shanghai State Run Number Fifteen Cotton Mill had more than seventy different bonuses which were reduced by nineteen in March 1957. In that mill the bonus systems had to be totally abolished in April of that year and a fresh start made [E.C.A.B., 1957a].

A second problem was one of egalitarianism. This was officially frowned upon and criticised. Thoughts of 'everyone suffers, everyone should get a bonus' were to be strictly opposed [Han Pi, 1956]. The reasons for the development of egalitarianism appear to be rooted in the attitudes of managers, workers and, probably, the trade unions and Party in the mill. Bonuses came to be regarded as a regular component of wages [Ju Lien, 1956b]. The use of collective rather than individual bonuses contributed to the problem. The decision on how to divide the team bonus was made on the basis of discussion, which had the effect of equalising bonuses. For this reason, Han Pi [1956] urged that discussion was not an appropriate method of allocating the bonus within a team.

Aggregate data on the number of workers covered by bonuses is not available, but some individual examples exist. The Shanghai State Run Number One Cotton Mill paid bonuses to cover one quarter of the workers [C.F.J.P., 1956/4/17], and the Shanghai Number Fifteen Mill to one third [E.C.A.B., 1957a]. The yarn shop of the Shanghai Number Nineteen Mill paid bonuses to 25.5 per cent of the workers in the first quarter of 1956, successive quarters recording 30.2 per cent and 28.1 per cent. The mill planned to increase this to forty to fifty per cent [Ying, 1957]. This compared with about twenty per cent coverage in the yarn shops in the Numbers Five, Twelve and Sixteen Mills. Ying suggested that

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1 Egalitarianism was not confined to bonuses. Over-issue of red flags as honorary awards similarly occurred [A.C.F.T.U., 1954].
a little less than twenty per cent was about right. The issue of what percentage of the workers should receive a bonus was undecided in 1957, as was the basic question of whether a percentage should be fixed at all [C.K.F.C., 1957a]. In 1962 this question was still being discussed [Wang Te-Chung and Huang Ch'in-hsieh, 1962b].

A third problem was the size and limits of bonuses. The information available is scattered and contradictory. Regulations on textile bonuses at the end of 1954 [M. of T., 1955b] allowed the different areas of China to choose their own rates of bonus, but imposed an overall maximum on bonuses of twenty-five per cent of a worker's standard wage. The regulations also established a limit for the bureaus, so that aggregate bonuses in the mills under a bureau could not exceed ten per cent of the aggregate standard wage bill of the time-rate-plus-bonus workers in the mills. The tendency towards egalitarianism probably means that most bonuses were small in the period to 1958, but there were exceptions to this. It was possible for workers in some Shanghai mills to earn a monthly bonus exceeding the basic wage [Chen Wen-Ya, 1957c]. It was probably more common for bonuses to be around ten per cent, as described by Han Pi [1956], although the labour emulation bonuses were in the fifteen to thirty-five per cent range.

Tu Hsiang-kuang [1955] referred to an annual limit of ten per cent of the annual payroll on bonuses in industry in general. He pointed out that this meant that firms with little labour of high productivity had their bonuses restricted more than did firms with much labour of low productivity. The result was that enterprise managers were discouraged from increasing the productivity of labour and reducing the number of workers. This meant that the wage cost share of total costs could not be reduced.

Poor accounting practices and the lack of standardisation of accounting methods was a fourth problem. It meant that it was very difficult to run an efficient and fair bonus system for all mills. In 1956 the Ministry of Textiles [1956c] suggested that the problem of establishing and 'making healthy' the poor bonus systems was one of economic accounting.

A fifth problem was that the different bonus and other systems in a mill were often not in line with each other. In the labour emulation competitions the team received an honorary award only, the individual a material award. This encouraged the workers to ignore the team goals and to concentrate on their individual targets. The labour competition
targets differed from the economic accounting targets, with the result that the latter were ignored [Li T'ien-yu, 1957]. The North-west Textile Administration Bureau experimented in one mill to try to get these two sets of norms together, but no mention of this being extended has been seen.

A sixth problem was that up to 1955 most of the bonuses were paid to the production team rather than to individuals, which reduced the incentive effect of the bonuses. Han Pi [1956] urged that individual bonuses were superior to collective ones as an incentive device.

The payment of bonuses was also a source of trouble. Bonuses that had actually been earned were not always paid [Chen Wen-ya, 1957], or payment was greatly delayed, thus dividing effort from reward [Ju Lien, 1956a].

Additionally, the payment of bonuses was not automatic. Payment of a worker's bonus could be stopped by the mill director at his discretion if he considered there were fairly large deficiencies in the man's work. These could take the form of the occurrence of a serious accident, a notable increase in waste products, the existence of 'disharmony' or violation of technical regulations, non-fulfillment of the profit target, or late completion of a major contract [Wu Fa, 1956b].

Top management was eligible to receive labour emulation competition awards, but it was far from automatic. The manager's department had to be given an 'honorary name', and the masses had to agree to the payment of a bonus to the manager, as did the higher levels of administration and the trade union [C.K.F.C.K.J., 1955b].

In one mill only thirty per cent of the bonus fund was actually spent on bonuses, the rest being devoted to various welfare uses [Chen Wen-ya, 1957b]. Chen Wen-ya also pointed out that in some mills the director was not in charge of the disbursement of the entire bonus fund at the mill. Part of it would be decentralised to lower level managers to hand out as bonuses. This occurred even before the Great Leap Forward. The bonus fund might not be used properly - some seventy-five per cent of the bonus fund in the Peking State Run Number One Mill has not spent at all [Su K'e, 1956].

An eighth problem also involved the bonus fund. Only part of this fund was kept at the mills under the control of the mill management. Some thirty per cent was deposited and centralised at the bureau above the mills, under the control of the bureau rather than the mill. The
regulation to this effect was criticised, on the grounds that it prohibited the development of an active spirit in the enterprises (that is, acted as a disincentive), by Chang Ch'eng-tsung [1956].

The centralised thirty per cent was designed to be used for collective measures for the benefit of the mills which individually they could not afford to undertake or had no interest in doing, because the measure would involve significant externalities. However, it was not unknown for a bureau to divert the money to its own use [Chang Chung-i, 1956]. As an example, the Honan Textile Administration Bureau was judged to have mis-spent sixty-five per cent of the disbursement of the money held for the mills in the period 1955-56. The bureau had used the money on such items as the purchase of trees to beautify the premises of the bureau, the repair of their hot water boiler, equipping their sports team with boots and outfits, and the purchase of 'sleeping cars' for a few top level cadres.

The shortage of luxury consumer goods, the existence of rationing and the strong feelings against, and possible personal dangers in, obvious conspicuous consumption may also have acted as some disincentive to the pursuit of bonuses. However, the evidence suggests that bonuses were pursued during the period in which they could be earned. While these points may have reduced the desire for bonuses, they were obviously not strong enough to prevent such a pursuit.

A final problem in the bonus system was the generally underlying, and sometimes overriding, existence of political considerations that were considered before a bonus could be paid. The existence of ideological requirements in addition to economic ones may well reduce the incentive effect of a bonus system. This was recognised as a danger, and Wu Fa [1956a] suggested that political requirements should not be excessive and that 'active study', 'unity and mutual help' and 'labour attitude' were sufficient

Managerial Bonuses

Definitive statements on managerial bonuses in the textile industry proved hard to find. Some managers may have received bonuses before 1957, as they did in some other industries, but if so it must have been done on a local basis, since by 1957 no unified regulations existed for such bonuses in the textile industry [Chen Wen-ya, 1957a].

The source of most bonuses was the enterprise bonus fund, the money in which came from fulfilling the planned profit targets and earning
above plan profits. The first regulations on profit distribution appeared in April 1951, and stated that all planned profits went to the State, but thirty per cent of above plan profits could be retained at the enterprise as a bonus fund [Ecklund G.H., 1966:80]. In January 1952 the regulations were amended to allow the establishment of a bonus fund in all enterprises, including those that did not earn above plan profits. Industries were classified into three groups. Firms in industries such as ore mining, coal, petroleum, and metals, retained 5 per cent of planned profits and 20 per cent of above plan profits. Industries such as electricity, machine building, textiles, and some other light industries, were allowed 3.5 per cent of planned profits and 15 per cent of above plan profits. The third group consisted of all other light industries and the public utilities, and firms were allowed to retain 2.5 per cent of planned profits and 12 per cent of above plan profits [E.and F. 1952].

By 1957 a slight change appears to have been made, since the reported retention of profit in the textile industry was 2.5 per cent of planned and 15 per cent of above plan profits [C.K.F.C.K.J., 1957d]. It is possible that this statement was already a little out of date, as a decision had been made in 1956 to divide the above plan profits differently, with sixty per cent to the state and forty per cent to the bureau, in the case of central run mills [S.C., 1956b]. The bureau was allowed to pass this forty per cent on to the mill or to retain it, at the bureau's discretion. If retained, the money had to be used to assist the mills, for example if they were short of working capital or funds for investment. The decision on the precise division of above plan profit for local state run mills was to be decided at the provincial level and reported up. It is of course highly probable that this resulted in different divisions being adopted. It also appears likely that the bureaus would exercise their right of retention, which would result in a reduction in size of the bonus fund at the mill. In November 1957, a directive on the reform of the industrial management

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1 Ecklund's statement [1966:81] is at variance with these regulations. He quotes only two groups of industries; the first roughly corresponding to group one above, and his second group seems to cover all the others. He also quotes different rates in part. For his second group he mentions 12 per cent of planned profits and 25 per cent of above plan profits. His figures appear to be incorrect, not only because they contradict the regulations but also because it is judged unlikely that the government policy would be to give a higher rate to light industry than to most heavy industry in view of the general priority to heavy industry at that time.
system stated that henceforth all bonuses were to be paid out of retained profits.

Payments out of the bonus fund were not restricted to bonuses. In addition to bonus payments, the fund was also used for collective welfare expenditures, the purchase of safety and health equipment, the relief of individual hardship (the sum spent not to exceed five percent of the total devoted to bonus payments in that period), and other expenditures to improve production and to add to equipment.

A debate occurred in 1956 and 1957 about bonus systems. In the authoritative People's Daily [J.M.J.P., 1956/5/3], bonuses for leading personnel and technicians were recommended, if the plans were filled in an all-round and balanced way, for total output value, main product varieties, labour productivity, reduction in costs, and quality. This insistence on a variety of norms was typical of the approach recommended.

Wu Fa [1956b] reported that many industrial enterprises were employing a bonus system for staff and technicians, with only a slightly different list of norms. Typical rates are given in Table 20.

<table>
<thead>
<tr>
<th>Bonuses as a % of Standard Wage for Filling Set Norms.</th>
<th>% Increase in Bonus for Each 1% Excess Value of Commodity Output</th>
<th>Bonus Limits as a % of Monthly Wage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Director, Vice-director, general engineer</td>
<td>16</td>
<td>2</td>
</tr>
<tr>
<td>Major workshop chiefs &amp; assistants, office chiefs, etc.</td>
<td>13</td>
<td>1.5</td>
</tr>
<tr>
<td>Supplementary workshop chiefs, etc.</td>
<td>10</td>
<td>1.0</td>
</tr>
<tr>
<td>Technicians &amp; major office staff, etc.</td>
<td>8</td>
<td>0.7</td>
</tr>
</tbody>
</table>

Source: Wu Fa [1956b].

These bonuses were decided by the director, but his bonus, along with those of the general engineer, technical inspection chief, plan office chief, and finance and accounting office chief, had to be reported up for approval. The bonuses of technicians and staff were paid out of the planned wage total and were regarded as forming part of wages [sic]. They could be entered as a cost of production.
One of the generalisations made above was that financial incentives were less used in China than in the Soviet Union. There were several reasons for this. First, China was, and is, an underdeveloped country with a low standard of living. Typically there is a high marginal propensity to consume for goods like food and clothing. The general introduction of sizeable bonuses would lead to an increase in average wages. This increase in income would lead to a danger of inflation (greatly feared as a result of experience), could reduce export earnings and could upset the strategy of development by causing a diversion of investment from capital goods to consumer goods industries.

A second reason was that it was technically not easy to introduce and run properly a comprehensive bonus system, owing to the lack of good accounting practices and standardisation, at mill levels. Difficulties of administration precluded all but fairly rudimentary running systems.

Conspicuous consumption was frowned upon in the U.S.S.R, but the official attitude in China seems to have been stronger. Obvious possession and use of quality goods could lead a man to become a target at struggle meetings during campaigns. Less desire to spend wealth, and fewer goods to purchase, probably meant less pressure for financial incentives.

A fourth reason for the smaller use of financial incentives appears in the relative factor endowments. The U.S.S.R. faced a labour shortage and relatively high wages, and bonuses were used to attract labour from agriculture to industry. China had a large supply of unskilled labour, and too many came from the villages to the towns as it was. High wages and bonuses were not necessary to secure a supply of labour.

A fifth reason was one of ideological difference between the two countries. In general, the Maoist philosophy and policy is to prefer methods of human organisation to material incentives, which are regarded by some with almost moral disapproval. It is feared that the use of material incentives can lead to economism and, finally, to revisionism, which would be a betrayal of the revolution. By 1958, Maoist policies were in force and material incentives were basically abandoned. Even before this, there had been an uneasy situation of both views, loosely Maoist and Russian, co-existing. This probably hampered the introduction of material incentives, especially for managers.

It is not possible to be dogmatic about the relative weights to be assigned to these factors, but it is probable that the ideological
explanation, together with the technical difficulties involved in getting an efficient and equitable bonus system incorporated in a system of comprehensive planning, were of major importance.

Honorary Awards and Social Esteem

Rewards based on social group approval were widely used in all industries, the textile industry being no exception. Such rewards were apparently more used in China than in any other country. They were stressed particularly strongly for workers but were not at all emphasised for managers. This is not to say that they were totally lacking, for success by a mill in achieving goals presumably brought credit to a manager.\(^1\) This in turn may well have improved his prospects for promotion. It remains the case, however, that no evidence, such as articles about honorary awards for managers or publicised accounts of a manager's achievements, has been found in the literature on the textile industry.

Non-material incentives for workers were numerous and could apply to individuals or groups. It seems reasonable to regard the use of group recognition and approval of an individual as the counterpart of social disapproval at the struggle meetings during campaigns.

Non-material rewards took a large variety of forms. In probably the simplest form, the name of a successful worker, together with his achievements, could be chalked on a blackboard at the mill. His photograph could be put on the wall or at the main entrance to the mill. Honorific titles, such as 'model worker', 'labour hero' and, later 'five good worker', could be given. Flags and pennants, always red and of varying sizes denoting the degree of honour, could be awarded. These were placed in a prominent position at the individuals workplace for all to see. Many of them circulated, that is were competed for periodically. Scrolls of honour and certificates were awarded to workers of merit and individuals could be praised by name at meetings within the mill. The workers were encouraged at meetings to pledge to achieve certain goals, as were groups, and the pledge was written in large letters.

\(^1\) Informant number eight volunteered the information that overfilling a plan could lead to promotion, advancement to a higher wage grade, verbal and written praise, small presents, an increase in the enterprise fund (which meant better welfare facilities), and approval of requested investment funds.
and placed in a prominent position. Fulfillment of such a promise resulted in celebrations in the mill. This device, involving as it does a loss of face for failure, may have been particularly strong as an incentive. A really notable worker who invented a new technique could have the new workstyle named after him; outstanding workers could also be written up in the press as an example to others. Such workers would also be pointed out to visitors to the mill, both Chinese and foreign, and the worker would be allowed to meet the visiting guests. Perhaps more tangible rewards were improved chances of promotions and Party membership, and certain benefits in the form of education and health treatment. Election to organisations of government, such as local People's Congresses, or even the National People's Congress, was possible, as was being sent as a delegate to meetings in the local town, provincial capital, or even Peking, where they might be received by high government officials such as Mao Tse-tung and Chou En-lai. On rare occasions an exceptional worker could even be sent abroad for a visit, normally to the U.S.S.R.

It is impossible to measure the effect on individuals or on total achievements of such awards. It is felt that the beneficial effects were probably great, as some of these methods reinforced the traditional group feeling among Chinese workers; the Chinese have said that various methods such as the red flag competitions are very effective; and certainly an overwhelming use was made of them. It should be recalled, however, that they involve a large element of ideology in the form of a belief in human organisation to achieve results, so that even had they been only moderately successful one would guess that they would not have been discarded. Non-material incentives are a relatively low cost way of achieving results, and probably work better if they reinforce, rather than compete with, material rewards.

V. SANCTIONS

Sanctions can be used to encourage compliance with state regulations and induce workers and managers to follow the state plan. No cogent and unified regulation imposing such sanctions has been found. This is perhaps not surprising, since China does not possess a clear legal system nor a codified set of laws.

Four major reasons for this exist. First, the Chinese traditionally are little concerned with legal systems, which were something to be avoided wherever possible; many disputes which in other countries might
be settled in court were frequently decided by those involved or recourse was made to extra-legal institutions for solution. This attitude persisted into the Communist period, and top level factory management regarded the law as existing solely for the punishment of counter-revolutionaries: managers regarded their workers as their own people to be dealt with by themselves [J.M.J.P., 1955/1/17]. Many quasi-judicial organs, such as People's Courts and Comrades' Trial Committees, were established and used to try cases and impose sentences early in the 1950s; such organisations were given broad powers to impose sanctions [Schurmann F., 1966:188]. The Party gradually and effectively replaced the legal system.

A second reason was the inability to set up a good legal system in China in the 1950s, because of the short period of existence of the new regime and the lack of good personnel in sufficient numbers.

A third reason was much more important. This was the attitude towards law involved in the Maoist ideology. Inherent in this is the view that revolution is essential and change will be continuous. Stability and law are not important; the former is not desired, the latter is almost irrelevant. The stress on the masses in this ideology, along with the belief that the masses collectively have the ability to be right, also obstructed the establishment of formal laws and legal systems.

A fourth reason is that many items possess, or nearly possess, the force of law. All people's government orders, decisions, and commands were regarded as law by the courts [C.P.G., 1951], and in the absence of these, government policy itself was taken as law. Editorials in the People's Daily are 'near law', while articles in it, as well as most published recommendations, carry an influence greater than similar publications in the west. This situation provides flexibility to the state, so that a formal set of laws are not required and might indeed be considered superfluous.

The sanctions available

Sanctions are considered here as forming two groups: general sanctions and specific sanctions. General sanctions exist and form part of the general environment within which workers and managers operate. All such sanctions consist essentially of a preference for not offending the Party and state. In more detail, there is a fear that one might become a target of struggle meetings during a movement, when incidents of
infringements of rules may be used to one’s detriment. A personal file is kept by the state on all residents, and many people apparently believe that it is a voluminous record of all important events. Informant number eleven reported that in fact it was very thin indeed, but the prevalent view was deliberately not discouraged as it made control easier. There was also the possibility of discovery and report of infringements by the trade union, Communist Youth League, Party, or activists, which could result in punishment.

The specific sanctions available to deter breaking of regulations and encourage the pursuit of plan norms were of two kinds, legal and administrative. The legal sanctions were applied by the courts, which considered all laws. The corruption laws in particular could apply to industrial malpractices such as theft, bribery, embezzlement, and 'satisfying oneself at the expense of the public', the latter capable of wide interpretation [H.H.Y.P., 1952c]. Punishments under this law varied from admonishment through a range of fines and terms of imprisonment to death.

There were many possible administrative punishments for malpractices, including dismissal, admonishment, criticism, demotion in job or in wage grade, expulsion from the Party, the noting of one or more 'demerits' or 'large demerits' in the record, and writing and rewriting confessions. There was also the power to send a serious case to a court for trial, and directors had the power to stop a bonus payment under certain circumstances.

The use of available sanctions

Deliberate use of sanctions in order to ensure fulfillment of plans was apparently rather rare, despite the fact that the plan was considered to be law. Sanctions do not seem to have acted as the counterpart of financial incentives to encourage production and plan compliance; a high output earned a bonus, but low quality did not lead to punishment [Hsu Chang-ch'ing, 1957]. One administrative sanction that was sometimes used was to reduce a worker's wage as a fine if his targets were not met. This was encouraged in one article, in cases such as significant fluctuations in quality of output, in order to improve standards [Ju Lien, 1956a]. The practice was criticised in the textile industry as being 1

1 Three large demerits resulted in the dismissal of tax workers [M. of F., 1950], and the expulsion of members from the Party in the textile industry [Informant number 8].

2 See page 115.
punitive [Liu Yung-tsung, 1955], and in industry in general as being harsh as well as illegal [K.J.J.P., 1956/5/18]. It was ordered that this sanction should not be used.

The courts in particular played a most minor role in the application of sanctions in the textile industry. Few showcase trials, accompanied by publicity, were held in industry in general after the conclusion of the Wufan movement. If the courts were expected to play a role, then such trials might be expected to be well publicised. The occasional reported trial was usually for corruption or embezzlement. Factory managers preferred not to send workers to the courts even when they should have done so. Managers often dealt with it themselves by criticism and education, sometimes would use administrative punishments proper, but only exceptionally would they let it go to court [J.M.J.P., 1955/1/17].

If sanctions in general were to be used as an important device to ensure desired results, then it might be expected that they would be discussed fully. There were no discussions of sanctions as a form of control in either of the two textile journals up to 1959, nor were there any movements with the use of sanctions as an aim. Severe punishment of managers was in any case not desirable, since China was very short of experienced men with administrative ability. The wide use of punishments could have resulted in a diminution of the existing stock and served to deter potential recruits. Additionally it would contradict the view that human beings can be changed and re-educated, and might negate the policy of achieving people who were both red and expert.

Many of the reports of flagrant breaking of rules do not recommend, or even mention, punishment of offenders. The case of the Honan Textile Bureau illegally diverting part of its holdings of enterprise funds to its own use is an example [Chang Chung-i, 1956]. Where punishment was recorded it often does not seem severe. A case of the managers of a mill who buried huge quantities of cotton and yarn in the grounds, apparently as an illegal device for concealing the amount of waste, resulted in two dismissals, two demotions and two reductions in grade, [M. of T., 1955c]. A tax scandal in Southern Kiangsu involved bribery of tax officials in order to avoid payments of tax. In two years the number of corrupt tax cadres increased from four to eighty-five, equal to thirty-seven per cent of all the tax cadres in the town. Yet most of the punishments mentioned were the recording of demerits of various size and number [H.H.Y.P., 1952a].
Punishments were reportedly given tardily in the textile industry and were often so remote from the event that the effectiveness of sanctions as a deterrent was greatly reduced. In addition the punishments were not at all severe [T.S.S.B., 1955b].

Sanctions were not popular with some sections of the Party, which would hinder their use. When a manager punished workers by giving demerits or reducing the workers grade and wage grade, some felt that it was commandism and punitivism on the part of the manager. This work style was considered poor in general and it ignored the role of the masses [J.M.J.P., 1956/7/1]. This reflects reasonably clearly the basically different approaches to organisation and management of the Maoist ideology, with stress on human organisation and the masses, and the 'Russian' method of using experts and establishing sets of rules.

Despite the lack of reliance on sanctions as a device for ensuring compliance with regulations and plans, the existence of sanctions may well have had some effect in this area. It is impossible to know how many malpractices did not occur because of the existence of sanctions nor how many times regulations were observed and plans fulfilled because of the fear of possible punishment.

VI. SUPERVISION AND CONTROL

Supervision and control of enterprises was necessary for several reasons. One of these was to see what the enterprises were doing in terms of production and methods of running. A second reason was to discover what problems existed at the level of production in order to help in their solution. These first two reasons can be regarded as information gathering. A third reason was to prevent, reduce or stop undesirable behaviour, such as theft or the use of illegal methods or sharp practises, on the part of managers and workers. This was a definite control function. The economic element of supervision and control was to try to ensure that the state economic plans were followed, as well as to improve the accuracy of planning.

Methods of supervision can be classified in several ways: such as administrative or political, internal or external to the textile industry, and internal or external to the mill. The last system of classification is adopted for convenience of exposition. Supervision and control of financial affairs is treated separately.
Internal Supervision of Mills

Several different ways of achieving internal supervision were attempted before the period of the Great Leap Forward. A Security Committee was to be established in organisations such as factories, schools, government organs, streets, and villages [N.C.N.A., 1952]. Nothing was found on the activities of these committees in the textile industry, and it may be doubted if their role was ever more than purely political.

The Communist Youth League, Party and trade union in the mills had some supervisory functions. Neither the League nor the union ever achieved a general full time supervisory role, but both were used for short periods during movements to reveal problems. There were many problems in developing the trade unions as a supervisory organisation. In the early 1950s the role of the unions was not seen as supervisory: the trade union constitution does not mention it as a function and it was barely implied by Lai Jo-yu [1953] in an odd sentence. By 1955 the unions were to become an agent of supervision [Lai Jo-yu, 1955b], but under the leadership of the Party, not independently. The administration in state run enterprises was generally unwilling to deal with the question of trade union supervision in the factory, and believed it was only necessary in private run firms, although this was not the government’s intention [J.M.J.P., 1955/8/31]. In private run firms, the capitalists were reportedly skilled at placing their men in leading positions in the union or at winning over existing union officials. In one training class in Canton for existing union cadres, of the 202 cadres, which included 52 trade union chairmen, 179 had previously assisted capitalists to deceive the state by actively abetting or concealing offences [K.J.J.P., 1955/3/11]. The local unions in each mill were fairly independent, and, even early in 1956, the textile industry trade union had not managed to achieve regular and systematic leadership over the plant unions [A.C.F.T.U., 1956a]. It is therefore unlikely that mill unions were generally playing a unified role in supervision work.

The Party organisation in the mills was not very effective in supervision work for quite a different reason. The Party was well organised and functioned reasonably well. A problem in many mills was that the Party had a strong position in running the mill until 1954, and a commanding one from about 1956 onwards. To request the Party to supervise management of the mills was, under these circumstances, to ask it to supervise itself. Party Supervision Committees existed in
factories in 1956 [C.F.J.P., 1956/9/1], but it seems unlikely that they
could have functioned well as a device for economic control. Ho I [1955]
pointed out critically that cadres saw or heard of dishonest actions
in textile mills but felt that everyone was dishonest and therefore did
not bother to report it. Some cadres did it in order 'to fulfill the
plan', others simply did not know enough about business matters to
recognise the situation for what it was.

The planning office of a mill had an investigation and reporting
task in plan compilation and in the methods and outcome of plan
fulfillment. However, generally speaking, the planning offices did
not undertake investigations of plan implementation as the offices
were short staffed and inexperienced. Occasional criticisms of this
deficiency were made. Further, the planning office was not only part
of the web of mutual involvement in a mill, but also came under the
factory director, which could severely limit its independence in
supervisory work. Chen P'u [1956] complained that planning offices
asked no questions when inferior goods were put in the storeroom and
counted towards plan fulfillment, and in general 'adopted an attitude
of secret agreement.'

Another body working within factories had an investigatory role:
this was the Economic Activity Inspection Committee, charged with
looking into and supervising many matters, including plan fulfillment
and the running of the enterprise [J.M.J.P., 1955/11/6]. It would not
appear to have had much impact, since it was infrequently mentioned,
and membership was apparently restricted to the enterprise administration.
The director, vice directors and departmental heads were on this
committee, and the director was chairman ex officio.

Control correspondents formed part of the apparatus of supervision.
A provisional set of rules was issued in July, 1951, and in 1953 these
regulations became formal. Control correspondents were recruited from
the workers; their duties included the investigation of illegal
derelictions of duty, behaviour damaging to the interests of the state,
major problems in work, and to gather opinions and to report. Being on
the spot it might be expected that these correspondents could be
effective in their work. This was not the case however. The correspond-
ents were rarely mentioned in the literature on textiles and some
'important departments' of the textile industry had established none at
all by 1955 [T.S.S.B., 1955a]. Where they had been set up they were
apparently not working well, since the same article called for a
reorganisation, the replacement of poor correspondents, and the 'readjustment' (i.e. replacement) of those holding down two jobs and who were too busy to undertake control work. It was also recommended that those doing well should be rewarded, a practise that had been laid down in the regulations some years earlier, but which, this suggests, had not in fact been done. In view of this, it may be doubted that in actual practice 'The incentives offered to the control correspondents were attractive' [Schurmann, F., 1966:317].

Letters of complaint and accusation against anyone working in an organ of state could be sent by any citizen to the organs of state [Constitution, 1954:92]. Such letters also went to newspapers and journals. It has been reported that all letters to newspapers are read and answered [Schurmann, F., 1966:317]. By about May 1955, the Supervision Office of the Ministry of Textiles had managed to deal with eighty-five per cent of the 4,356 letters it had received in the previous year, which seems reasonable. However, not all letters seemed to be concerned with supervision work, since 'a large proportion' of them were concerned with individual welfare, and punishment was irrelevant [T.S.S.B., 1955b]. One problem in making effective the letters of accusation to the offices of supervision was that the supervisory cadres receiving them did not take them seriously, and some simply could not be bothered with them.

Internal controls in general have advantages and disadvantages. On the positive side the investigators are familiar with the industry and with the particular mill, which makes the task of locating problems, breaches of regulations etc. easier. On the negative side, the investigators are involved with the people in the mill and may have reason to conceal irregularities, such as fear of the response of management or loss of bonus or face, if terminating them would result in non-fulfillment of plans. Of the several internal controls attempted, none appear to have been particularly effective and they were not enough to prevent the occurrence of undesirable behaviour of the kind considered in Chapter 6. By 1956 the Party was beginning to play the most significant role in managing the mills and this probably weakened supervision in practice. In 1957 the masses were being urged to take part in supervision work [C.F.J.P., 1957/3/22], foreshadowing the internal decentralisation of power in the Great Leap Forward. From 1958 to 1961 supervision work ceased to exist in practical terms, as it was regarded as a conservative fetter on the masses, on initiative, and on the potential increase in output.
External Supervision of Mills

External agencies with some power over mills can usefully be divided into two groups: those within the textile industry and those outside it.

Within the industry there were two main supervision methods. The first involved individuals or teams being sent to the mills from the Ministry of Textile Industry, or one of its bureaus, to investigate and report back. There is little evidence on the importance of this method. One report [Chu Fang-shih, 1956] mentioned that several different teams would arrive at the same time to investigate the plants. Four or five such teams might come from the Planning Committee, Industrial T'ing, the Supervision T'ing, the Communist Youth League Committee or the trade union, and successively interview the same people, each team wanting the same information. They were not popular with the lower level cadres as this 'caused a lot of trouble'. One problem with such teams was that they usually only looked for successes, turned a blind eye on problems, and had as their main aim the desire to increase output. Judging by this report, they were therefore not functioning as a supervisory device.

The other agency internal to the industry was the Offices of Supervision, established at local levels by the Ministry of Textiles. Regulations issued in December 1952 ordered that Offices of Supervision be set up at provincial (or municipal) level and above, in economic and financial departments, and in enterprises [G.A.C., 1952]. The Supervision Office of the Ministry of Textiles was apparently set up about 1954. Supervision work was given some impetus by the Third National Supervision Work Conference in April 1954, and departments were established at lower levels down to and including the mills. This supervisory system was internal to the textile industry, coming under the Minister of Textiles. Barnet A.D., [1967:62] reports that the Bureau of Supervision in Ministry M was itself linked to the Ministry of Supervision, but he provides no details. Supervision work by these offices was beginning to operate by 1955, and in May of that year it could be announced that a start had been made to reverse the previous existing situation of not bothering about supervisory work [T.S.S.B., 1955b]. Even some central run joint state-private mills had managed to set up a supervision office [T.S.S.B., 1955a].

Despite the success in establishing these offices, these two reports by the Supervision Office of the Ministry of Textiles revealed that many
problems remained to be overcome. Inspection was superficial, the supervision cadres were proud, wanted special privileges, and were in very short supply. Moreover, they were of low ability and lacked experience of the work of supervision, production and finance. Thirty-five per cent had received no training in the work of supervision. Some supervision cadres were unsure of the limits of their work and fell into step with what the ordinary business departments were doing, thereby ceasing to have any role in supervision. Some supervision cadres were haughty to cadres in other departments and did not respect them. They also adopted an attitude of 'live and let live' to the leaders of the mill. Other supervisory cadres thought about the individual gains and losses from pursuing their work and did not follow their principles. Instances exist of supervision units revealing deficiencies and, after receiving reproaches from the leadership of the mill, being afraid to continue, and quietly dropping the case.

An inspection by the Offices of Supervision of the Ministry of Textiles in the first eight months of 1956 revealed that false reporting was a widespread problem and corruption was rife. Incomplete statistics covering the East China Textile Administration Bureau alone showed that instances of corruption occurred in 40 units, involving 118 people. It was declared that the other bureaus and the mills in Peking also suffered from corruption activities. Although there were less corruption after the Sanfan movement, it was easy for corrupt elements to operate, owing to lack of attention and vigilance on the part of the authorities, together with lax systems and investigations [Ts'ao Ch'un-keng, 1956].

It can be concluded that at this time efficient and independent supervision had not been achieved by this agency. There was one more reason why this was unlikely, given the way the Offices were supposed to operate. The ordinary departments in the mills were supposed to help in the supervision work, and supervision units that attempted to be independent and conduct proper supervision were actually criticised. It is not immediately apparent that a department helping to investigate itself will automatically improve the work of supervision.

Rather more agencies with some power over textile mills existed outside the industry. The public security organisation and the police could have exercised supervision, but it appears that they did not do so. The courts reportedly began to develop an investigatory and adjudicatory role within industrial enterprises and mines in 1954, actually
going into the factories to do this [J.M.J.P., 1954/9/4]. No reference to this occurring in a textile mill was found.

The Procuracy had established organs at various levels in Shanghai by September of 1955. The work of informants was strengthened at the same time by the development of correspondents in enterprises, organs and co-operatives. These correspondents reported violations of the law to the office [Wang Fan, 1956].

Various functional departments might send a team to investigate problems, or might work in conjunction with a team from another unit. For example, the Labour Bureau of Tientsin and the Textile Supervision Office in Tientsin jointly investigated the problem of excessive overtime in a state run textile firm in 1956 [C.K.F.C., 1956b].

The Ministry of State Control was formally established in 1954 and soon set up its own regional offices, which were active by 1956. In that year the Shanghai State Control Organs carried out thirty-three inspections, covering 203 units, received more than 2,200 letters and accusations and more than 1600 enquiries [C.F.J.P., 1957/3/28]. It is not clear if the existence of the industrial control office prevented the general one from dealing with the industry or whether both could operate in the same industry.

The local Party organisation provided a final possibility of control. Until 1956 the town Party organisation was supposed to exercise some control [Li Fu-ch'un, 1955a:128]. In 1956 a decentralisation occurred and the district (ch'i) level Party organisation increased in power, becoming responsible for watching over and helping all firms in its area. The organisation could inspect enterprise and workshop achievements in fulfilling the plans, could see if plans were set too low, and look for the use of illegal methods of filling the plans [C.F.J.P., 1956/11/15].

Schurman, F., [1966:346-353] describes the period from about mid-1955 onward as moving towards political and internal controls, culminating in the Eighth Party Congress in 1956, after which '....basic controls would be exercised by the Party internally within the unit'. There is much in this, but there was a strengthening of political control both within the mills and outside at the district level. It appears that the factory Party organisation was reluctant to have the local district Party organisation check on the factory. The internal Party seems to have resented the increase in power of the district Party, and complained that the district Party kept calling long meetings after working hours and that this was intolerable. For its part, the district Party blamed
the necessity for meetings on the poor nature of the reports sent up from the factory and the fact that district Party members visiting the factories were treated as outsiders and were criticised. Since the mill Party managed to take over the management functions in factories in 1958, it would appear that the internal Party organisation was the more successful in the long run. Schurmann believed that Shanghai was simply untypical of the rest of China, and that economic controls, as opposed to political, were continued in Shanghai of necessity.

External controls in general, like internal, have their advantages and disadvantages. On the positive side, external people are not involved in the set of relationships existing in a mill, and they are better able to reveal faults, since the top managers are much less able to prevent disclosure. The major disadvantage of external controls is that outsiders do not know the mill and it is very difficult to discover problems. Outsiders must rely to a great extent on the accounts and statistics provided, and these were of low quality. Opinions can be sought from the masses, but there may be a problem of lack of co-operation with outsiders, even from the Party. It is clear that the ch'ü Party organisation did not know enough about textile production, administration, and finances to be effective at discovering many problems [C.F.J.P., 1956/11/15], and where problems were discovered, or the visitors were told about them, the ch'ü Party organisation was unable to solve them. The shortage of staff and the increase in work caused by the socialisation of private enterprises were also factors involved.¹

In summary, external economic controls appear weak until 1956, when some improvement occurred, but external controls were abandoned in the first half of 1958, even before the Great Leap Forward really gained impetus.

¹ Some of the new joint state-private enterprises sought help from the ch'ü Party, but apparently without success, as is indicated by the remark "It is no use throwing us some bones and asking us to gnaw them, give us some concrete help!" [C.F.J.P., 1956/11/15].
CHAPTER 6

THE GOALS OF THE STATE AND THE RESPONSE OF THE MANAGERS

The general environment in which managers operate was covered in Chapter 5. This Chapter deals with the goals of the state and the response of the managers to the planning system as it impinged upon them. Specifically this Chapter discusses the communication of preferences by the state, what these preferences were, the phenomenon of storming, and the use in China of semi-legal or illegal methods of management, revealed by others for the Soviet Union and other centrally planned economies.

1. THE GOALS OF THE STATE

The incentives and sanctions discussed in Chapter 5 encouraged effort in general. The question remains as to how the state tried to communicate its wishes to top management; of the many targets in the different plans, it was essential to indicate to managers which targets were to be considered more important. A mill could not normally fulfill all the targets simultaneously, and a choice might have to be made between them. The targets were not even independent, so that efforts to achieve one, such as physical output, could adversely effect the achievement of another, such as quality.

Several possible methods of communicating preferences

The methods of indicating the preferences of the state can be divided into two broad groups: financial incentives, and non-financial incentives. There were three kinds of financial incentives; bonuses to managers, bonuses to workers, and altering the size of the bonus (or other) fund. Managerial bonuses could be linked to the achievement of whatever norms were preferred by the state planners. This method was little used in China as compared with the Soviet Union, and could not be very effective where managerial bonuses were paid, owing to the small bonus size and the use of multi-norms. Worker bonuses were set by the

1 The main source is Berliner J.S. [1957]; see also Granick D. [1954], Kornai J., [1959], and Bergson A. [1968].
mill director and he could link them to the targets favoured by the state. This required, first, that he was certain what targets the state preferred, and second, that the director wished to achieve the same targets. Neither of these conditions was automatically guaranteed. A further problem was that by his actions, a production worker could affect output, quality and so forth, but could not directly affect such targets as factory profitability or the mix of goods chosen for production. Non-production workers could do even less.

The third possibility was to link changes in the size of the enterprise or bonus fund to achievement of the state-preferred targets. Even without managerial bonuses, an increase in the size of such funds resulted in more freedom of manoeuvre for management, and allowed more money to be devoted to worker bonuses, the provision of welfare facilities and so on. The difficulty with this method of inducement to follow the preferences was again the adoption of multi-norm success indicators.

Non-financial inducements consisted of the plans, directives, and the use of organisations in the mills. The plans themselves were too broad to indicate preferences, which indeed was the problem. Changes in the quarterly plans could indicate to managers what items the state currently regarded as important. The bureaus called meetings of mill directors to announce and explain the new quarter's plan, at which preferences could be made clear.

Directives from higher levels were much used and seem to have been the main method of communicating preferences. The directives were reinforced by speeches of high officials, often published, and articles in newspapers and in the industrial journals. These indicated to an alert manager what specific items were regarded as important at that time.

Of the organisations in the mills, the Party was most important, receiving directives from higher echelons containing general targets and much detail on how to achieve what was desired [Informant number 8]. The trade union and Communist Youth League were also used, first being instructed on policy, then in turn passing it on to their members and the workers. If a particular goal was important enough, the mass organisations were used to start a movement to achieve the goal. For example, the labour emulation drives in Shanghai in 1955 adopted 'improve quality and economise' as a goal [T'ang Kuei-fen, 1955]. However, in such movements some mills set goals, and even linked bonuses to them, that the state did not want. In the labour emulations, some mills only
set increases in output as a goal, adversely affecting quality. This occurred despite a strong, well-publicised economising movement in the latter half of 1955. Of the several possible methods of trying to indicate the preferences of the state planners at any point in time, it can be concluded that financial incentives were not very important, and use of directives and the Party organisation seem to have been the main method. It does not seem that the planners were conspicuously successful at indicating their preferences, and in particular a precise and sophisticated system did not emerge. General preference indication, such as economising, was achieved, but apparently not much more.

**What were the preferences**

State preferences and managers' preferences co-existed. They were not always identical, and the evidence suggests that they frequently differed, once the period of rehabilitation (1945-52) was over. Even where the two sets were the same, over-reaction by mills could have results that the state did not intend. For example, the state planners induced an economy drive in 1955, but over-reaction caused a noticeable deterioration in the quality of output.

The preferences of the state varied quite considerably from time to time. From 1949 to 1952 the over-riding goal was to restore output to the highest levels existing in the past. In 1955 economy of materials was stressed, and in 1956 the quality of produce was emphasised.

For the mill management, output was always the important target and at most times over-rode all other goals in the period 1949 to 1961. As early as 1950, the Shanghai State Run Number Nine Cotton Mill pursued the goal of output, while neglecting maintenance and quality [C.F.J.P., 1950/7/24]. In 1953, the Ministry of Textiles concluded that various bureaux and mills only paid attention to output norms and not to cost, labour, quality or supply norms [T.K.P., 1953/6/10]. In the first quarter of 1954, textile mills pursued output, neglecting quality and the economy of materials [Chiang Kuang-nai, 1954]. In 1955, the mills in Tientsin lacked a balanced view of fulfilling the plan, concentrated on output but not on quality or the supply of materials, and had no real idea of how to compile or implement a labour plan [Ho I, 1955]. In 1956, some areas and mills one-sidedly strove for output and output value [M of T, 1956b], while local state run and joint state-private run mills in Wuhan blindly pursued output, causing quality to fall and the breakage rate to rise. Maintenance was ignored in Shanghai up to 1956,
as the mills concentrated on the short run goal of output [Shao Pai, 1956].

Chou En-lai [1956b] indicated the universality of the problem by including in his Political Report to the Second National Committee of the Chinese People's Political Consultative Conference the comment that enterprises often tried to meet the physical output and total value output norms, but ignored quality, variety and costs. Safety was also traded off for output gains [C.K.F.C., 1957c]. Other examples could be produced, but it is clear that only output targets were of prime importance to managers throughout the period.

The two main norms for output were physical output and total output value. These were closely related but could diverge under certain circumstances. In particular, a manager could increase total output value without changing total output measured in physical units, by altering the mix of goods chosen in favour of more goods of high value. By 1956 total value of output was very important. In the first quarter 1956, all major industrial enterprises in Shanghai over-filled the total output value targets, but fewer managed to fill the physical output targets [C.P.J.P., 1956/4/19]. Informant number eight testified that between 1956 and 1960 the plan for total output value was the most important in the eyes of mill management, while the plan for physical output was in second place. Hsüeh Mu-chiao [1957] reported that the total value of output norm had become the most important standard of checking on the activities of enterprises.

It is thus the case that the preferences of planners varied over time, but that those of managers were very consistent, with output predominating over all other possible goals. The opinion of Schurman F. [1964:71] that 'Having fewer investment resources to rely on than their colleagues in heavy industry, they [managers of light industry] had to struggle constantly to keep output up while at the same time keep costs down to the barest minimum in order to meet the financial targets of the plan' is not supported in the case of the textile industry. Financial targets were not of prime importance and cost plans could frequently be ignored or true costs concealed.¹

A point worth making is that so far the tacit assumption has been made that the planners' preferences were consistent at a point in time.

In practice this was not always the case. Different parts of the Ministry of Textiles placed conflicting demands on mill management. For instance, the Finance Office wanted a quarterly labour plan at the mills, but the Planning Office wanted a monthly plan and monthly analysis, and said that the quarterly plan reports should be left until later [Li Ch'i-wan, 1957]. This may be regarded as merely inconvenient for mill managers and might not fundamentally affect their actions. However, Li Ch'i-wan thought it was a serious problem. Of more significance is the fact that in 1957 a directive from one office in the Ministry asked the mills not to increase stock levels in that year and a directive from a different office required the mills to increase their stock levels. Obviously clear cut and consistent preferences were not always communicated to the mills.

II. THE PHENOMENON OF STORMING

Storming is a temporal rhythm in production, characterised by inertia after the commencement of a plan period and great exertion towards the end of a period. Storming is common in all centrally planned economies and existed in China once planning was introduced. A similar rhythm, but with different timing, was evident for all statistical workers in the mills. Such workers were intensively employed early in a plan period assessing the achievements of the previous period and compiling reports, and were slackly employed towards the end of a plan period [Chang Tzu-an, 1955].

The relevant time periods in China were months, quarters and years. The phenomenon was well described by Ch'i Wu [1953:41-42]:

'There are some enterprises and units where the workers "work harder at the end of the month to earn their wages, while at the beginning of the month they take it easy, wandering about absent-mindedly", as if they were carrying out the old rules. The work of leading production is frequently slack at first and tight later, in the first half of the month work is stopped to wait for materials, in the latter half of the month, life is spent on overtime.'

Many reports of storming were found. '.... the vast majority of factories and mines only fulfilled their production targets by shock operations' [J.M.J.P., 1953/7/13]. A lot of textile mills used an
increase in labour intensity, working overtime, speeding up machines or early opening and late closing to make up the plan figures [T.K.P., 1953/4/18]. In some factories and mines '.... each year at the year end there is this law, namely: on the one hand the conditions of fulfilling the production plan take a turn for the better, and along with this there are serious conditions of using blitz methods and ignoring safety. Looking at Liaoning Province there is still no improvement in the "old law"' [J.M.J.P., 1955/11/27]. Informants number seven, eight, and ten revealed that working overtime was a common way of fulfilling the plans in the textile industry, always towards the end of a plan period. Mill directors insisted on it; as one remarked to his workers 'The production task is given from above, if you can think of ways of fulfilling the task, then you need not work overtime' [C.K.F.C., 1957c]. As a result of excessive overtime working and the use of blitz methods in 1956, there was a sharp increase in the number of accidents in the textile machine making industry.

Two reports gave some indication of the degree of storming. In industry in general in the North-east, over fifty per cent of the factories and mines could not fill their plans in the first month of a quarter. If the total value output produced in the first month was taken as 100, the corresponding figure for the last month of a quarter averaged 117, and could be as high as 125 in some quarters [Huang Ch'i, 1953]. In the textile industry in general, there was about seventy to eighty per cent achievement of the plan in the first third of a month, about eighty to ninety percent in the second third, and intensive working and overtime began in the final third, in order to make up the deficiency [C.K.F.C., 1954].

The occurrence of storming was facilitated by slack labour rules. Anyone could issue an order to extend the working day, without securing the approval of the factory management or the consent of the trade union. There was no limit to the extension of hours to be worked, and some workers recorded seventy-two consecutive working hours, owing to additional shifts and prolongation of the working day [Lai Jo-yu, 1955a].
III. MANAGEMENT BEHAVIOUR

Joseph Berliner [1957] in his study of management behaviour in Soviet enterprises described the following as typical. Managers would usually be faced with a tight plan, that is, one with unreasonably high targets and difficult to meet, in conjunction with difficulties and uncertainties on the supply side, for example irregular delivery, or short or non-delivery of essential materials. In such cases, managers, strongly motivated by financial rewards in the form of high bonuses, engaged in a certain type of behaviour. This he called simulation, the seeking of safety factors and the use of influence, or blat. Simulation consisted of any way of appearing to meet the plan without actually doing so. Safety factors were various kinds of reserves upon which the enterprise could draw. Stocks held (often illegally) for future use or for exchange with other units for needed items, and obtaining low plan targets, were important types of safety factors. Blat was a term used to describe all methods of manipulation and influence used by anyone, but especially by tolkachi, (purchasing agents, 'fixers', 'arrangers' or 'supply expeditors'), such as gifts, the provision of entertainment, and indeed anything that could result in the establishment of a good relationship in the places where influence would help. Such influence might be used to acquire scarce and needed raw materials, obtain a low plan, or persuade a bank cadre to overlook the use of enterprise funds in an unplanned manner.

Management behaviour in China

Relatively little is known about the behaviour of managers in China compared with our knowledge of the Soviet Union. 'However, detailed analyses of the planning mechanism, as well of enterprise management, remain to be done. One would like to see for Communist China studies similar to those done by Berliner and Granick for the Soviet Union' [Galenson W., 1967:12]. The work of Perkins D.H. [1966], Schurman F. [1966] and Richman B.M. [1969] have added to our knowledge but this still cannot be described as extensive.

In order to widen understanding, the hypothesis was tested that the behaviour described by Berliner for the U.S.S.R. also occurred in the Chinese textile industry. It was anticipated that a possible
outcome would be less use in China of both simulation and the seeking of safety factors, because the system of planning was new, was not well established, and suffered constant changes. A greater use of blat seemed possible, since methods of interpersonal linkage were traditional in China. '.... They [the conservative business groups in pre-Communist China] built up their organisations on the basis of the only principles they knew, namely the network of personal linkage' [Schurman F., 1966: 230]. China was also less developed than the Soviet Union during the period studied by Berliner, and interpersonal relationships are commonly stronger in a less-developed environment. The motivation of managers was tentatively expected to be financial, the over-riding driving force described by Berliner.

The hypothesis was tested by means of refugee interviews in Hong Kong and Macao, and by sifting books, newspapers and journals for relevant materials. Reports on simulation and safety margins began early in the 1950's, before anything even approaching a viable and permanent planning system had been established. A number of examples of each type of behaviour are presented for several reasons. One is a matter of methodology: it is not difficult to find an occasional example of many things in a complex world, but the need here is to establish a pattern of behaviour. A second reason is that almost all of the examples are drawn from Chinese sources and not accessible to most Occidentals. Further, many of the printed sources and all of the refugees, are not readily available in the west, even to the reader and speaker of Chinese. Finally, the actual examples are of interest, adding as they do to our knowledge of management behaviour in China. The three types of behaviour, simulation, safety factor seeking, and blat, are considered separately, the findings discussed, then various factors that allowed, or encouraged, hoarding to flourish are considered.

Simulation

Managerial behaviour akin to simulation was known in pre-Communist China, in the general form of the concealment of reality. It is reputed that two sets of books were sometimes kept, one accurate, the other for the tax officials, understating output and profit. Certain limits exist on the possible amount of simulation. The last report sent by the mill acts as a bench-mark, and in normal times the new report
must be feasible when compared with the previous one. Large overful-
fillment (or underfulfillment) could lead to investigation. Informant
number one reported that plus or minus ten percent from the planned out-
put was enough to start an investigation. Another limit is that claims
for large output in the current period will lead to future higher plans,
which would be more difficult to meet.

The types of simulation practised were many and varied. Straight-
forward falsification of figures was the most obvious form. Falsification
of reports occurred in local run industry, and leading cadres were often
arrogant, resisted criticism and concealed errors. When exposed, they
tried to place the blame on higher leadership and even asked for trans-
fer to new work. Some went to the extent of taking revenge on those
criticising them [J.M.J.P., 1953/3/3a]. False reporting and concealing
ers errors was reported in Tientsin in the same year, and the newspapers
came under criticism for not actively criticising and exposing such
behaviour [J.M.J.P., 1953/4/12].

A detailed report on an example of simulation appeared early in
1953. At the third sub-factory of the Tientsin Dyeing and Weaving
Plant, the plan for blue cloth output in August and September 1952 was
not met, and what was produced was of poor quality. In October, the pre-
viously existing problem of poor water supply was solved and daily cloth
output increased from 600 bolts to 800-900 bolts. With a little effort,
the plan for the month of 27,000 bolts could have been met. The branch
Party secretary had been criticised in the past when the plan had not
been met and he was eager to gain the honour of meeting the plan in Oct-
ober. However, instead of mobilising the masses and meeting the plan
legitimately, he resorted to trickery, and simply ordered the statisti-
cian to falsify the accounts. The output on October 27th 1952 was
900 bales but was put down as 4,540, while stocks were 873 bolts but
were entered as 3,598. This latter is obviously an attempt at simulation,
not a safety factor, since a safety factor requires the under-reporting
of stocks. As a result of this, the plan was filled four days early.
The plant leaders accepted the claim from the sub-factory, after sending
four cadres to inspect. The trophy in a monthly competition was then
given to that sub-factory. The true state of affairs was discovered
and revealed by the Local Run Industry Bureau of Tientsin [J.M.J.P.,
1953/3/3b].

A survey of eight mills in Tsingtao and some of the mills in
East and North China in the first half of 1954, revealed that false filling in of reports was widespread. 'It emerged that in the case of output a little is reported as a lot...in the case of low quality and waste products, a lot is reported as a little to make the bad very good' [T.S.S.B., 1955b]. The original primitive records were even being crossed out and altered, in order to keep them consistent with the final claims.

In 1955, of the workers selected for awards in Shansi, thirty-three 'good deeders' were chosen for examination. On investigation, fifteen of these workers had received the award as a result of false boasts, or the matter was greatly confused and the truth difficult to locate [Sun Shao-tseng, 1955]. It was reported that about this time there was an increase in the amount of falsifications occurring [Ho I, 1955], presumably owing to the increase in plan targets and the poor harvest of 1954, which resulted in a reduced output in the textile industry in 1955.

Falsifications were common in 1956, judging by the number of reports. Dyeing and weaving mills were falsifying the accounts in order to conceal a general attitude of ignoring product quality [T.T.J.P., 1956/4/9]. The People's Daily listed a set of current problems [J.M.J.P., 1956/2/26] which included false reports, the concealment of mistakes, and fictitious reporting of success. The Shanghai State Run Number Nine Mill provided a clear example of obvious simulation. Many workers were falsifying their recorded output in order to demonstrate plan fulfillment. The leadership knew that false claims were being made, but believed that it was not serious, as only a few individual workers were involved. Upon investigation the situation was revealed as more serious than that. Of the sixty-nine work areas in one workshop, sixty-six had made false reports. The motive of the workers was ascribed to a desire to avoid criticism for not meeting the plans, after the management had increased the plan targets [K.J.J.P., 1956/11/29]. One girl who had been nominated as an Advanced Worker was criticised for making false reports. She replied 'Everyone makes false reports, it cannot be stopped'. The report pointed out that this was not an isolated event in one mill, but was widespread throughout the textile mills in Shanghai.

Even clearer examples of simulation by falsification occurred in the Shenyang Local State Run Canvas Cloth Products Mill. The several
attempts failed, but only because of the vigilance and obstinacy of one statistician who refused to countenance such illegitimate practices. In the annual report of 1955, semi-finished products were counted as finished products in order to exaggerate production. In the winter of 1955-56, the town statistical bureau asked that figures for output value be supplied, broken down by products. The figures sent up were quite different from the original figures at the mill. The statistician reported the irregularity to a vice-director in the mill, but he took no action.

The chief statistician in the mill gave in to the leaders' requests and fraudulently added 320,000 yuan to the actual value of output, which changed the previous figure for plan fulfillment from 90.6 per cent to 106.4 per cent. He presumably felt that a falsification of such magnitude was feasible, an indication of the scope for such behaviour. The plan for January 1956 was filled by a mere 63.2 per cent and this had to be concealed. To achieve this aim, the chief statistician artfully included goods to the value of 170,000 yuan which had been produced by workers not paid by that mill. The activist-statistician managed to get these annulled by reporting direct to a town-level office.

In February 1956, the mill leaders, who 'had still not learned their lesson', adopted different tactics and secretly hired extra workers, who did not appear on the books and were concealed from the activist-statistician. She managed to find out about them, however, by going around the workshops. The February plan was actually filled by 46.7 per cent and to improve the record the chief statistician gave the activist, perhaps ill-advisedly, a list of goods valued at 50,000 yuan to include towards plan fulfillment. A (different) vice-director then commented that this was not enough and that a minimum of 100,000 yuan should be falsely added to output. The activist managed to prevent these attempts from succeeding.

Towards the end of the first quarter of 1956 it was clear that the plan would not be met. The management had still not stopped trying and the activist was sent to the director's office for 'peaceful advice', an apparent effort to win her round by kindness or veiled threats. The leaders then intended to count about 400,000 yuan of semi-finished products as final output in order to meet the plan. This final attempt was foiled and the case exposed in the journal Statistical Work [T.C.K.T., 1957] almost one year later.

The Peking State Run Number Three Mill also suffered from false
reporting, as well as the concealment of inferior cloth and waste produce. While attempting to rectify this situation, it was discovered that over thirty cases of irregularity had occurred and thirty-nine different methods of false reporting were current in the preparatory workshops alone [C.K.F.C.K.J., 1958a].

Informant number ten disclosed that false reports were one way of meeting an otherwise unfulfillable plan, as did informant number eight. The latter mentioned that the bureaus above the mills would also inflate the figures occasionally, in order to show the plan for their area had been met.

It is clear that these were deliberate falsifications and not accidental, although in 1954 it had been alleged that of the false reporting, very little was deliberate, some was caused by unscientific methods, poor running practices, and lack of machines and tools, but most of it was produced by poor statistical personnel [Lo Jih-Yun, 1954].

More subtle methods of simulation existed than mere falsification of figures. In particular, choosing a certain mix of output was popular, in order to achieve such targets as the managers felt most important. Chia To-fu [1953] pointed out that some industrial factories which were unable to meet the plan for certain main products, made it up by overfulfilling plans of secondary products. Two months later the People's Daily [J.M.J.P., 1953/7/13] indicated that 'In order to fill the target of total production value, some units, instead of producing according to state plans, turn out secondary products to make up for key products....' In 1955 the People's Daily [1953/3/30] asserted that some enterprises did not produce the kinds of articles specified by the state, but turned out products of high value and little labour content, often unwanted by society.

Some dyeing and printing mills were in the habit of changing the types of product without authority. One of them ignored the East China Textile Bureau's new design for cloth, as the mill was afraid that its adoption could mean the plan would not be filled and it might result in inferior cloth production [T.K.P., 1955/12/21]. Chen Yun [1956:174] referred to the problem at the Eighth Party Congress when he said '.... factories manufacturing articles of daily use often concentrate only on the fulfillment of targets relating to value of production and profits, while giving insufficient attention to whether their products meet the needs of consumers'. In 1958 it was alleged that in the textile industry,
mills produced output with low labour content and much material content for preference [S.S.B., 1958b].

Informant number eight reported that mills often changed the mix of output in order to fulfill the total output value target, either by producing high priced goods or by producing new goods and receiving a high price for them. Informant number ten said that mills could produce new goods, which were not in the plan, and he felt this was simply to conceal the fact that the planned mix of output would not have been produced anyway.

Various methods of simulation were used in regard to quality and waste products. Passing inferior goods off as good quality produce was quite common. The Tientsin State Run Number Two Mill was passing off inferior produce as up to standard by means of technical tricks in processing [J.M.J.P., 1953/3/3b]. A wool textile mill mixed in second grade products with first grade goods and passed them off as first grade [T.T.J.P., 1953/4/15]. A People's Daily editorial pointed out that some enterprises substituted poor quality output for good produce. The Shanghai state run textile mills were especially notorious for having used various means of deception to sell inferior quality cloth over a long period of time [J.M.J.P., 1955/3/30]. A year later the People's Daily [1956/2/26] said that firms were still counting inferior produce as good quality, counting waste as finished products, falsifying, and deceiving their customers. Eleven months later the Shanghai State Run Number Fifteen Cotton Mill was revealed to have mixed low grade cloth with high grade, and counted it all as high grade. It was pointed out that some could inadvertently be exported, with adverse effects in international markets [C.F.J.P., 1957/1/12].

In some mills the production departments passed inferior goods as being up to standard and put them in the storeroom\(^1\). Where this happened, the planning departments of the enterprises did not ask questions about it and indeed had the general attitude of being in secret agreement with the practice [Chen P'u, 1956].

\(^1\) Only output placed in the storeroom could be counted as finished products, be included in production figures, and count towards plan fulfillment.
Not all attempts at simulating quality were successful. The director and 'a fellow official' of the Chung-I Cloth Mill in 1956 wanted to count a small quantity of poor cloth as standard and sent it out. This was opposed and stopped by the inspection personnel and product controllers [C.C.J.P., 1956/4/12].

If the goods were of such low quality that there was no chance of passing them off, then they were waste products. Such waste products were sometimes hidden and disposed of quietly. Waste yarn in the Tientsin State Run Number Two Mill was kept out of the records by floating it around the mill. Towards the end of the month waste yarn was sent into the weaving sheds, where it was an input not an output and was therefore not counted. After the end of the month, the yarn would reappear in the spinning workshops [J.M.J.P., 1953/3/3b]. Ho I [1955] pointed out that in some mills, inferior cloth was deliberately not put into the storeroom at the end of the month, in order to fill the plan for quality.

When waste materials had accumulated in quantity in the Chia-mu-ssu mill they were buried or taken out and thrown away on orders of the cost department. Included in the waste were cotton, tools, water pipes, and cloth. Although the mill was trying to conceal the existence of waste, (it had received a directive on how to handle waste and ignored it), the materials were of value: when the loaded carts went out they were followed by local residents and the families of workers and, when dumped, scuffles and tussles for the materials ensued [J.M.J.P., 1955/8/3].

Substandard cloth in the Shanghai Number Nine Mill was torn up by workers and hidden, thrown down the lavatories, or disposed of elsewhere [C.F.J.P., 1956/11/18]. Five or six kinds of waste disposal methods were reported by workers in the weaving shed. Such methods seem common; the disposal of unwanted waste materials by flushing down the lavatories was also mentioned in one of a series of general articles on planning in the textile industry [C.K.F.C.K.J., 1957b]. This article also criticised falsifications by the masses, attitudes of preferring work with bonuses attached, and a general reduction in moral standards, particularly among new teenage workers, who stole things and did not maintain the customary male-female relationships.

Rather than reporting waste materials, some workers resorted to destroying them by fire. Two men in the Shanghai Number Two State Run Cotton Mill burned waste cotton valued at 15,000 yuan in order to
obtain the title of 'advanced workshop' for the group [T.S.S.B., 1955b].

Attempted concealment of inferior quality cloth occurred in the Tientsin State Run Number One Mill. The plan for quality in February 1955 had not been filled and it was clear that in March the result would be similar. A workshop foreman and a workstage head tried to conceal the quantity of poor cloth in order to fulfill the plan, by not placing it in the storeroom. The plan was therefore fulfilled, despite reports from a different workstage head and comments by some workers. The affair was somewhat ineptly handled, as nine bales of cloth were left in the shed for the first shift in April to find [Tung Wan-hsiang, 1955]. In the Peking State Run Number Three Mill, inferior cloth was put aside and taken home by a work area head and some workers, thereby concealing the true output of low grade cloth. The motive was fraudently to obtain the title of 'Advanced Work Area' [C.K.F.C.K.J., 1958a].

The quality of output fell during the Great Leap Forward for reasons akin to, but not identical with, the simulation process described by Berliner J.S. [1957] for the Soviet Union. In the latter it was managers, attempting to obtain bonuses, who reduced the quality of output. During the Great Leap Forward in China it was Party cadres, motivated by ideology and striving to achieve prodigious increases in output, who reduced the quality.

Various technical tricks were resorted to in order to simulate the fulfillment of plans. The Shanghai State Run Number Thirteen Mill used unsuitable technical methods of drying cotton, which apparently would have long-term effects on quality [C.F.J.P., 1955/10/20]. Where lengths of cloth were found to be too short, they might be stretched to meet the order. In one example, eighty and a half yards were stretched to eighty-two yards, but naturally the width was reduced. The mill was quite satisfied, at least until the cloth was later returned as unacceptable [Li Yung-yao, 1955]. Some mills made a regular practice of stretching cloth lengths to fill the plan [T.S.S.B., 1955b].

Regulators on machines were intentionally mis-set, and in effect were rendered inoperative, so that they would pass yarn which should have been taken out owing to its low quality [Chang Fang-tso, 1955]. Ho I [1955] referred to the practice of inserting lax control figures in production systems and the use of incorrect solutions to technical problems.
The workers could use simple methods of simulation, such as placing empty wooden bobbins, spindles and other items into the bag of yarn in order to increase the weight. This was done to gain honour or to receive better wages if on piecework. The practice was examined in one mill where some control cadres knew it went on but did nothing to prevent it. A snap inspection revealed that of twenty yarn bags examined, each held an average of 10.5 empty bobbins [T.C.K.T.T.J., 1954]. The weighing process exaggerated output even without these extraneous materials. Scales were not accurate and overweighed the output. Additionally, in order to ascertain the weight of yarn produced, the bag plus yarn was weighed and the weight of a bag subtracted to get the net content. However, the bags became heavier with use owing to the water content and mud, but the weight of a clean, dry bag was always subtracted. Poor sampling of water content of the produce also reportedly inflated the output figure each month. This weighing process resulted in the over-reporting of 6,500-7,500 kilograms of output per month. It was not uncommon for the inflated output figures to give an 'efficiency rate' of over one hundred per cent, an impossible result. In February 1954, in the mill examined, the 'efficiency rate' for twenty-one count yarn exceeded one hundred per cent for seventeen days [T.C.K.T.T.H., 1954]. Technical questions such as the impurity of cotton, or water content, were habitually decided in favour of the mills [Ho I, 1955].

Simulation also appeared in cost calculations. Excessive production or other costs in one category could be disguised by entering part of the costs under a wrong head [informant number 5]. Planned cost reductions were also achieved by putting costs down under another item [informant number 8]. This solution was common in 1956, when many mills reported that costs were kept below planned levels. In reality, actual costs were high but were entered in part as 'supplementary expenditure', not as production costs. 'For a long period' the use of cotton, materials and electricity was above planned levels but was concealed in this way [C.K.F.C.K.J., 1957c].

One unusual and legal type of behaviour of a simulation nature concerned the treatment of workers in a factory who were sent there as part of the labour reform programme or who were working under surveillance. The output of such people was naturally recorded but they were all
excluded from such calculations as average worker numbers, labour productivity and the total wage bill [S.S.B., 1954c].

If a mill felt it could not fill a plan without more materials then a sister-mill might help. The sister-mill would give the materials and enter them on its books as being a processing order, but the first mill would not show the materials on the books as being for processing [informant number 8]. This form of simulation could apparently result in double counting, if both mills recorded the output and the first mill could conceal the disposal of the product. The informant reported this as a likely outcome.

On occasion, the investment plan could not be filled even though the money was available, as the mill could not purchase what it needed. In this situation, a factory might invest in ways not needed, or not urgent, in order to show that the investment plan was fulfilled [T.C.K. T.T.H., 1956a].

Another method of simulation was to reduce the cleaning of machines or their maintenance in order to meet the output targets of the plans. This caused losses later but these were overlooked [T.K.P., 1954/9/13]. A form of quasi-simulation was to increase the intensity of labour in order to fulfill the plan. This method, unlike the others, does result in a real increase in output, but was regarded as incorrect [Tu Hsiang-kuang, 1955]. Taking on temporary workers was common; if the output looked like falling short of the target, local residents and the families of staff and workers were hired [informant number 8]. Understating the true working hours was a frequent deliberate device used to meet the plan without showing the extra labour intensity [informant number 5]. If the workers were not paid, then it was immediately concealed. If the workers were paid, a more likely event, then the extra wages had to be hidden in the costs of the mill: this would not be difficult to do in view of the low regard for financial work and poor financial control.

Simulation also took the form of changing the plan. If a factory was not meeting the plan during the course of a year, it might ask the authorities to reduce the plan in order to do better. If the authorities refused the request, the factory could then ask for the plan to be 'readjusted', which meant that part of the planned output would be assigned to another factory to produce [Lu Hao, 1955]. Reductions in
the plan were even asked for after the year end in order to demonstrate that the plan was filled. The Ministry of Textiles received requests up to February 1954 to reduce the plans for 1953 [Chiang Kuang-nai, 1954]. Tu Hsiang-kuang [1955] also mentioned that enterprise directors requested a revised plan, in order to demonstrate success in meeting it.

The final form of simulation discovered in the textile industry was the 'borrowing' of output from the forthcoming period and entering it as current period production. As an example, the Tientsin State Run Number Two Mill in April 1952 was not able to wrap and place in the storeroom enough output to fill the plan, although sufficient had actually been produced. On 1 May (a major national holiday) the workers came in and worked overtime, put the goods in store, and counted them as April's production, although they should have been entered as output in May. During May, the same mill could not fill the yarn plan and so put down all of the output of twenty count yarn of 1 June as produced in May [J.M.J.P., 1953/3/3b]. The general case of counting semifinished products as finished products is also essentially borrowing on future output.

Safety Factors

Safety factors fall into two broad groups. The first type consisted of obtaining low targets in the plans to make them easier to fill, or securing satisfactory techno-economic norms for safety, such as high allowances for costs. The other main form of safety factor was hoarding, chiefly of materials and equipment, in order to draw upon the stocks in the future.

The effort to obtain satisfactory plan targets was pointed out by a bureau chief at a meeting of textile mill directors in 1954, when he commented that the leading personnel in some mills always thought of drawing up their plan with low targets [C.K.F.C., 1954]. Planners who did this had the motive of saving face and increasing the size of the director's fund, as a result of the easily obtained success [Lo Jih-yün, 1954]. The administration bureaus also desired low targets for the plans of the mills under them, and passed up suggestions to the Ministry of Textiles which were lower than the figures coming down from the Ministry [E.C.A.B., 1954]. This report pointed out that nonetheless the mill level was a greater offender in this respect. The Shanghai
Number Two Cotton Mill proposed targets for 1954 that were below the level of 1953, the Number Ten Mill set very high cost norms, and the Number Seventeen Mill was reported to have said 'We prefer norms fixed rather low as they are easier to meet'. The same report indicated that up to that time there had been a practice of mills setting plan targets lower than achievements that they had already made.

Mill managements had already been criticised in 1953 for setting low plans [K.J.J.P., 1953/3/28], and were criticised again in 1955 [T'ang Kuei-fen, 1955], with the comment that leading workers were saying 'this is a sleeping norm, it can be filled without any effort'. The State Statistical Bureau also criticised the practice of setting low production norms in that year [S.S.B., 1955]. A widespread existence of low plan setting is indicated by the fact that Chou En-lai [1956b] mentioned it critically in an important Political Report.

Techno-economic norms were often set to favour easy plan fulfillment. Planned loom speeds might be set at low rates as a safety margin. The Chin-chou Textile Mill set its planned loom speed at 190 revolutions but was in fact already running the looms at 211 revolutions [K.J.J.P., 1953/3/28]. Raw material consumption norms were set above actual consumption of previous years, and cost figures were set high [Ch'u Tao-hsien, 1955]. Financial targets were also deliberately set at unrealistic levels in draft plans of industrial enterprises in order 'to set an ambush and leave an escape route', so that it was easier for management to haggle with higher level organs or control departments [Diao. R. 1966:40-41].

The second major safety margin was to engage in the practice of hoarding. Efforts to build up excess inventories of materials, equipment, tools and almost anything, were common. The general attitude to large stocks was indicated by the use of such phrases as 'when one is prepared there are no problems', 'it is better it have too much than too little', 'liberally order and conservatively use', and 'stocks of beloved materials or tools are very comforting when seen daily'.

There are many references to these attitudes: see for example [K'ung Sang, 1954], [Li Chu-p'ing, 1955], [C.K.K.Y., 1954] and [C.K.F.C.K.J., 1958b].
Examples of hoarding appeared as early as 1951 [Liu Tsai-sheng, 1951]. The Tientsin State Run Number One Mill had various loom parts stored away, sufficient for three years' normal use, and the parts did not appear on the books at all. The Number Two Mill had in store 240 motors, an electric generator, which was about to be stripped for parts, and a large quantity of wood, some of which was rotting away. The Tientsin Dyeing and Printing Mill had 400 motors in stock, as well as large quantities of chemicals, which had already begun to deteriorate. The Tientsin Machine Making Factory had enough wire in stock to last one hundred years, and large quantities of machine parts. Generally speaking, all the mills under the regional bureau were holding stocks valued at two to three times the permitted limit.

The Tientsin Number One State Run Mill had managed to under-report small pieces of cloth and lengths of good cloth which had been produced. These were kept back as a safety margin to draw upon in future months when the plan could not be met. The first quarter plan in 1952 was met by drawing on these stocks [T.C.J.P., 1952/7/14].

The Tientsin Number Two Mill held a safety margin in cloth in 1952, which came in useful in July of that year. In July the yarn and cloth output plan could not be met, so the managers cut into the accumulation of cloth in order to meet the cloth plan. This allowed forces to be concentrated on producing and packing yarn by day and night. The mill managers were not ashamed of doing this and publicly honoured and rewarded the workers who had worked overtime [J.M.J.P., 1953/3/3b].

The Hsin-feng mill had a grave problem of hoarding in 1953, in conjunction with poor storage practices. Over one hundred looms could not be safely used because of missing parts. Most of the parts were actually in stock and were simply piled up outside the storerooms or were on the roadway. Many of these had been there for over a year and were rusting away, or deteriorating in other ways. Included in the value of hoarded goods (five hundred million yuan) were ten tons of water pipes [C'ang Fu-hsing etc., 1953].

A Textile Ministry report in 1955 on control work [T.S.S.B., 1955b] discussed, among other things, the problem of mills ignoring costs, buying feverishly, and increasing the size of their stocks. It described the process of planning material purchases in the following way. The workshops proposed a plan for the use of materials, the supply offices did not examine this, the finance office did not control or inspect it, and purchases of materials could be out of line with the plans. No one
ever enquired about the stocks held already, so that purchases were excessive, and the planned consumption of materials was above actual consumption. As an example, the Tsingtao State Run Number Three Mill had 4,000 kilograms of a zinc compound in store, which was sufficient for three quarterly periods usage, yet a further 4,900 kilograms were blindly purchased.

The Tientsin Local State Run Dyeing and Printing Mill was considered to be a typical medium sized establishment, 'the sort that can be found in any city', and had hoarded so many materials that its total capital was enough for two mills of the same size [Li Yun-hung, 1955]. The Kiangsi Textile Mill had large stocks of machine parts which were revealed in the Kiangsi Daily. On this occasion, part of the stocks were sold to others, six salesmen going round North and East China to sell what they could [C.H.J.P., 1955/6/28].

An article in the People's Daily [K'ung Sang, 1955] referred to several examples of hoarding in different areas and mills, and admitted that hoarding was a serious problem in the textile industry. One mill in the North-west had fourteen different raw materials in stock, sufficient for between one and twelve years normal use. One mill in East China had enough wire materials for forty-four years use. Of the 1,086 materials in store at the Shanghai State Run Number Two Mill, holdings of 572 were excessively large. Some mills had managed to build up stock levels in excess of ten times the norms.

Fuel was another commodity that was hoarded whenever possible. By 1955 the new Peking State Run Number Three Mill had stored up thirty-nine tons of coal [Wang Chan-min, 1955]. The article enquired 'How did it become a coal mine?' This was asked because part of the surplus coal had been used for filling in ditches in the mill grounds, a useful way of temporarily disposing of valuable fuel that was bulky to store.

Hoarding was described as serious in the 103 state, joint state-private and private run mills, as well as in dyeing and printing mills, under the East China Textile Administration Bureau in 1955 [T'ang Kuei-fen, 1955]. Materials in store were commonly at least twice the permitted amount.

Deliberate hoarding would occur concealed by false reports. The Tsingtao State Run Numbers Six and Seven Mills falsely reported the size of their grain stock levels, and the number of personnel, in order to build up a grain reserve [T.S.S.B., 1955b]. In four months they managed
to accumulate over 181,000 chin of grain in this way.

A large scale investigation of this problem by the State Economic Commission, the Procuracy, and the State Statistical Bureau, involving some 9,000 cadres who inspected more than 600 enterprises, revealed that units kept false accounts, the systematic under-reporting of stocks was widespread, and the amounts involved were large. The stocks were dispersed about the unit in order conceal them [C.F.C.P., 1957/3/4]. The dispersal of stocks at different levels of a mill seems to have been common. The Peking State Run Number Three Mill had built up so many materials at the workshop level by 1958 that a movement was held to return them to the storeroom at the mill level. The weaving workshops alone eventually returned 1,223 tools and 4,618 spare parts [C.K.F.C.K.J., 1958b].

Informant number five stated that in his mill stocks were deliberately under-reported 'so that they would be available for future use', one way of building up stocks being to over-report the amount of wastage. Informant number eight reported that large stocks were not really considered to be illegal in any case, as long as the director or Party secretary knew about them. After a little thought he added that it was really 'semi-legal, semi-illegal' to keep such stocks, but the Party in the mill was not against hoarding because it also wanted to fulfill the plans.

Hoarded goods fell into two broad groups: things that could be used by the mill to meet future plans, and things that in themselves were of no use to the mill. The latter were intended for future barter with other units, for items that the mill might require. Falling into the latter group were three thousand petrol cans stored by a Hang-chou mill in 1961 which could not be used by the mill [Informant number 5].

Labour was also hoarded where possible, in case of future needs as the mill developed, or to use more labour-intensive methods to improve quality, or simply to have workers available for any task that might at some stage be regarded as necessary [C.K.F.C., 1962a]. Local run firms in Shanghai had an added inducement to hoard labour. If the total production task set at the local level was insufficient to run all the firms at full capacity, as it frequently was, the total production figure was divided up between firms in proportion to the number of staff
and workers. Hoarding labour thus resulted in a larger quota and bigger allocation of materials [Shih Ying, 1956].

**Tolkachi and blat**

Blat proved the most difficult to trace of the Berliner 'symptoms'. It is not to be expected that the capitalist or bourgeois managers would complain of it nor draw attention to it. It would perhaps seem desirable in order to fulfill the plans and they might accept it as being normal business practice. If complaints were to be voiced it should be the Communist managers or Party that were heard, as the practice seriously offends the Communist ethic, especially Maoism with its emphasis on proper human organisation. Yet after a detailed search of the literature, not a single reference was found to blat in the textile industry, and there were no movements to suppress such behaviour once the early Wufan movement was finished.

The absence of published references to blat suggests certain possibilities. One is that blat did not occur, or if it occurred it was only infrequently in the textile industry. A second possibility is that blat occurred but that the authorities were not aware of it. This seems unlikely, as the authorities quickly knew of irregularities such as simulation and safety factor seeking, and with the poor opinion of Shanghai business practices in pre-liberation China, it seems probable that they would be looked for closely. A third possibility is that blat occurred, the authorities knew of it, but gave it no publicity. Perhaps they were unconcerned because they realised that blat greased the wheels of industry: but on the whole it seems very doubtful that the Maoists would have been unconcerned. The evidence presented in Chapter 7 indicates that lubrication of the system was insufficient, and in 1958 the entire Soviet approach to planning economic development was abandoned. It is possible that some part of the inability to pursue centralised planning successfully was caused by a lack of sufficient tolkachi and blat. Perhaps the authorities were concerned but worked to stop blat without publicity. This seems unlikely, as without publicity it could hardly be stopped, at least in the 1950's, and the press was used as a purveyor of government and Party policies at that time. Of these possibilities the first, that blat occurred rarely, seems to be the most acceptable.
A little information on blat exists in secondary sources. Donnithorne A. [1967:290-291] pointed out that the shortages of materials, especially during the Great Leap Forward, meant that 'Factory staff had to spend much time and effort on trying to procure raw materials and, in doing so, had to go outside the official channels of commerce or of the planning system'. Purchasing agents were employed by enterprises and other bodies, and performed a necessary function, as did the tolkachi in the Soviet Union. These agents were granted grudging recognition; in 1957 certain provinces and cities were allowed to establish purchasing offices at industrial centres, and it was hoped that the purchasing agents could be so controlled. Purchasing agents were to register with the appropriate local departments where they operated, and were not allowed to buy goods subject to planned or unified purchase, nor commodities being processed under contract with state commercial bodies. Such independent brokers as existed were also not allowed to deal in these goods.

Ecklund G.N. [1966:34-35] said that tax agents and tax bureaus acted in the role which in the U.S.S.R. is filled by tolkachi, although he did not use that word.

Richman B.M. [1969:389] indicated that purchasing expeditors, or tolkachi, were commonly employed by supply departments of industrial enterprises, their use being very pervasive during the Great Leap Forward. He believed that their use was less widespread in China than in the Soviet Union.

The information obtained about blat and tolkachi in the textile industry during the period under review is inconclusive. It is all refugee information because, as indicated earlier, no published references have been found.

Informant number one was a top level manager in a joint state-private run mill in Shanghai. The mill was modern, well equipped, and was supplied with sufficient materials to keep operating. He saw no real need to send buyers out to scour the country and he felt his mill received a very high priority for materials because it was large and very efficient. He had not heard of the behaviour of the kind implied by blat in his or other mills.
Informant number six was also a mill manager, in charge of the internal running of the whole mill. He reported that barter occurred; in his mill usually wood, tin and spare parts were bartered for whatever was needed from other mills. He had surplus cotton stored up but preferred to keep it as a safety device for the future and would not barter it. He insisted that barter was only spasmodic before 1958, when it expanded rapidly, as until the Great Leap Forward the shortages had not been really serious. He also said that barter deals were supposed to be registered with the administrative bureau and that most of them were so registered. Purchasing agents were sent out to buy what was required but he did not hear anything about how they operated. It was judged on the whole that he did not feel that they were crucially important to the operation of his mill, but were merely necessary.

Informant number four was the ex-owner of a small handicraft mill which employed twenty-two workers. Occasional stocks of small amounts of raw materials would be built up, and woven into cloth. This was taken out by a worker and sold in the market for what it would fetch - usually about twenty to thirty per cent above the official price. The money was then distributed equally among the workers, including the Party cadre who ran the mill. They had no dealings with other firms, only with the bureau.

Informant number seven was a vice-forman in the Shanghai Number Six Mill, which had two buyers. He said that they rarely went out to purchase but ordered mainly by telephone and confirmed by letter. This suggests that the emergence of blat was perhaps unlikely, if his description was correct, as personal meetings would be reduced.

Informant number eight was a Party man in Tientsin industrial circles. He reported that a typical mill would have five or six men for purchasing and selling, some of whom travelled; others were stationed in the cotton producing areas to purchase materials. Barter and black markets existed in the textile industry, and 'exchanging goods for mutual help' was not really regarded as illegal if the leaders agreed to it. The mill Party organisation was frequently able to decide on barter requests. He also knew that materials could often be obtained if a buyer offered a price slightly higher than the official price, which was considered illegal by the bureau if done in their area, but the bureau would ignore it if payment went to another bureau's area. He pointed to
all the necessary ingredients for blat - stocks suitable for trade, travelling and stationary purchasing agents, barter trade, and tight plans which rarely could all be filled at the same time - but he had not actually heard of blat.

Informant number five was a purchasing agent for a small mill of about six hundred employees, which purchased cotton waste, ends of cloth, waste sliver pieces and so on, from other larger mills and knitting factories. These materials were processed by his mill into items such as working gloves, vests, and underwear for children. He made long trips, lasting about a month, when he visited Wuhan, Shanghai, Hangchou and various hsien in Kwangtung, and short trips of about three to five days. At the mills visited he dealt with one of their salesmen, or their director, Party secretary or storeman. Barter was common in the textile industry: in his opinion almost all the mills and factories did it. He indicated that 'because the plans are too tight, we must get materials in any way we can' and the top Party representative in the mill 'knows it goes on but he needs the raw materials and turns a blind eye'.

When engaged in purchasing he was as friendly as possible and after the conclusion of business those involved almost always went for drinks or a meal. He practised blat on a small scale, giving small but very acceptable presents, such as eggs, cigarettes and wine to managers he dealt with. 'Any "help" you give him is appreciated and he is easier to do business with; he will then supply more and it is easier to get in the first place'. Close questioning revealed a systematic pattern on behaviour. The agent visited the mills to purchase the needed materials and while there gave, or sold very cheaply if he thought the recipient might feel the goods were stolen, such things as chicken, ducks and geese, as well as the articles mentioned above. The materials went to his mill and were processed into gloves, etc., which in turn he sold to the supply and marketing co-operatives in rural areas. While in the rural areas he obtained the village produce which he needed to supply to the city men with whom he did business.

This was the only clear example of blat found in the textile industry and in manner the informant seemed to be a natural tolkachi. In the few short weeks since leaving China, despite having no relatives or friends locally, he had set up a business, was equipped with rolled umbrella and business cards, and appeared to be prospering. There are however, three problems with his evidence. One was that his dealings occurred in the early 1960's onward; he reported that he had heard that there had been
almost no behaviour of this kind in the 1950's and he believed that it began only after the Great Leap Forward. Second, he only needed to purchase a few waste textile materials and did not search for other things for his unit. Third, his behaviour was the kind being looked for, but it was on a small scale and rather personal, never seeming to reach the intensity of the reported behaviour of purchasing agents in the Soviet Union.

Certain conclusions can be drawn from the evidence on simulation, safety margins and blat. The original tentative hypothesis was that there might be less use of simulation and seeking of safety factors, but more use of blat, all motivated by financial reward. The results of the test refuted the hypothesis and were almost exactly opposite. Simulation and safety factor seeking occurred widely and commonly in the textile industry. The Chinese managers were no less ingenious than their Soviet counterparts at discovering possible methods. Blat and tolkachi were difficult to pin down and the probability is that they did not extensively exist before the Great Leap Forward. Even afterwards they probably did not reach the levels attained in the Soviet Union. It is possible that the textile industry was a special case and that blat and tolkachi were widely used outside textiles but not within. State monopoly trading of cotton, yarn and cotton cloth may have severely restricted the purchasing agents: they were forbidden to buy these commodities. It therefore required an act of blatant illegality to operate as a true tolkachi in the textile industry. Buying and transporting prohibited materials had clearly been laid down as corruption, punishable by sentences up to and including death, as early as 1952 [Peng Chen, 1952], which may have acted as a deterrent. Informant number five, the purchasing agent, stated that he could never obtain raw cotton or even good cotton yarn, as it was impossible for him to get.

It is also possible that the lower priority accorded to the textile industry during the 1950's made for a little less pressure on managers in this industry to perform and on tolkachi to emerge. This may be doubted however, since the textile industry was the largest inherited industry, the products were in great demand by peasants, were income elastic in demand, and earned substantial amounts of foreign exchange. It is equally possible that as a general rule the output-orientated simulation and safety factor seeking will emerge in a centrally planned economy, but that the input-orientated tolkachi and blat may, but need not necessarily, occur.
The motivation discovered was generally not financial, and managers in textiles did not receive general and sizeable bonuses. Simulation and safety factor seeking occurred because of tight plans and uncertainties in supply. However, the general motivations such as honour, prestige, self-respect, a desire to do the job well, enhanced promotion possibilities, and the traditionally strong feelings about 'face' were themselves sufficient to induce this behaviour. The overwhelming stress on financial incentives laid by Berliner was untrue of the Chinese textile industry. Oscar Lange [1962a] also put the blame for the habit of fixing low plans and attempting to overfill plans by only a small amount on managerial premiums. These practices occurred in China in the absence of managerial bonuses.

Since these findings are at variance with those of Berliner, the question arises of whether the two countries are simply different, or whether Berliner gave financial motivation an emphasis that it did not deserve. There are four reasons for thinking that the emphasis supplied by Berliner was misplaced. First, an informant cannot be expected to analyse his own motivation accurately; at best he can truthfully say what he believed it to be, but it is very easy to rationalise and reach a wrong conclusion. Second, Berliner's informants had recently experienced the '... rather desperate physical and moral conditions of life in displaced persons' camps....' [Berliner, 1957:5]. It is possible that this led them to consider income as a most important desideratum, as their present desperate conditions could have been alleviated or ended with a reasonable income. Duesenberry's hypothesis [1949], that people tend to resist reductions in their standard of living and would rather go into debt, may have as a corollary that enforced reductions lead to an over-emphasis on income, as they wish to return to the highest standard of living previously attained. Third, Berliner's informants all came from an era of great and well-publicised stress of the use of the price mechanism, bonuses, and payment by results. Labour was allocated and transferred by use of wage policies, not by means of fiat. The Stakhanovite movement began in the mid 1930's and the linking of reward and effort was widely emphasised and publicised. Coming from that alone, it would

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be very reasonable for the informants to believe that financial inducements were potent motivators. Fourth and finally, most of Berliner's informants came from heavy industry, and this might have been significant, because wages and material rewards in heavy industry were better than average. Perhaps the view of Gregory Ryapolov [1966] should be accepted. 'A plant manager... is dedicated to production and loves it. He loves it for its own sake, not for the material rewards'. He worked in Russian industry since 1936, and after World War Two he served as chief engineer or director in various firms, all in heavy industry.

As blat was not found to have a widespread existence in the textile industry in China, but was common in the Soviet Union, then the difference is likely to be found in differences between the two countries. A major difference was the degree of political security. The Soviet Union was well established by 1938-41, the period covered by Berliner, and there was no real danger of a counter-revolution. The Chinese government, on the other hand, had only just been established, and there might have been a possibility of counter-revolution or invasion. It was dangerous to be mistaken for a saboteur, or for a Kuomintang agent or sympathiser, and use of blat could perhaps lead to such a charge, with long imprisonment or death to follow. The ex-capitalists and bourgeois managers had the most experience of using interpersonal linkage in business dealings, but were the group in the worst position to make use of the method, because they were not fully trusted and were always open to suspicion. The Communist managers or the Party could condone simulation and safety factor seeking, but might well regard blat as 'sugar coated bullets', corruption, and a betrayal of the cause.

In an era of political insecurity there is one important difference between simulation and safety factor seeking on the one hand and blat on the other. The former is restricted to a group of 'insiders', who can usually be relied upon to keep quiet; the latter involves 'outsiders' and if any one of them proves unreliable the result could be disastrous. It might even be the case that insecurity discourages blat but encourages simulation and the seeking of safety margins, because the desire to succeed is constrained to only two of the three channels.

A second important difference between China and the Soviet Union in and after the 1930's is that the latter had trained and installed a new breed of manager, both red and expert, while the former still essentially had a choice of either red or expert managers. A red and expert Soviet
manager may have been willing to undertake risks and indulge in blat, which a bourgeois expert in China might shun.

A third major difference between the two countries was that the Soviet Union made extensive use of managerial bonuses, and China did not. It is possible that the extra risks involved in the use of blat and tolkachi would have been accepted if sizeable managerial bonuses could have been earned. If this is so, then the lack of widespread managerial bonuses in the textile industry would have little effect on either simulation or the seeking of safety factors but would depress the use of blat.

The incidence of simulations and safety factor seeking appears to have been great in the textile industry. In view of this, together with the lack of efficient sanctions, the opinion of P.J.D. Wiles [1962:137] may need some modification. 'Thus in China, persuasion and terror have reached such heights that there is probably less crime, even including economic crime, than in the advanced countries of Western Europe. In U.S.S.R. in the first FYP, when the system was new and the control mechanisms undiscovered, there was far more'. Richman B.M. [1967] dismissed the whole range of simulations, safety factor seeking and blat as '....apparently much less extensive and intensive in China....' It is doubtful if this is justified in the case of simulation and safety factor seeking in the textile industry.

The reasons for hoarding

Hoarding was easy because of certain permissive factors which allowed the practice, and some stimulatory factors which encouraged it. This is dealt with here, rather than in the section on safety factor seeking, in order to avoid interrupting the earlier flow of evidence and argument.

Many factories inherited stocks of materials from the Kuomintang period. The hyperinflation after 1937 had encouraged the hoarding of goods generally. In the Communist period, over-ordering and setting high norms for consumption of inputs added to these stocks. Much hoarding occurred in newly built mills owing to slack control during the construction and early running periods. Excess quantities of materials were ordered, some of which were not in fact usable in the mill, and later these became hoarded inventories [C.K.F.C.K.J., 1958b]. The purchase plan in new mills was sometimes drawn up before the design plan, so that goods were ordered with no real concept of needs [Ch'ien Chih-kuang, 1955]. For example, the State Run Number Five Mill in Shensi purchased
a large quantity of machinery and equipment before the design plan for construction was finalised, and the equipment was uselessly hoarded [J.M.J.P., 1953/8/20].

The planning methods themselves encouraged hoarding. Factories applied for materials first, then drew up the production plan [M. of F., 1955]. When the plan for use of materials was drawn up, the materials specified were immediately ordered, no one checked the plan and no one looked to see if the needed materials were already in store. A change in the plans could lead to hoarding because reductions in the plan for output were not accompanied by reductions in the supply of materials [Ch’ien Chih-kuang, 1955]. The common practice of handing down incomplete plans was also reported to lead to hoarding [J.M.J.P., 1954/2/19].

Hoarding could occur because mill managers might duplicate their order for equipment that was difficult to obtain, asking for supply to be made from within China, and also separately requesting the equipment to be imported. If this request was granted, then an extra set of equipment would eventually arrive [Ch’ien Chih-kuang, 1955]. Obtaining state approval for the allocation of materials for a special use, without using them, also resulted in the build up of stocks [M. of F., 1955]. Inefficiency on the part of state commercial organisations could also lead to stocks being held at the mills. An export company ordered a quantity of cotton cloth, but left almost a quarter of a million metres at the mill which produced it. After more than three years, the mill management asked the company to remove it, and found that the material had been struck off the books of the company, which regarded the matter as closed [N.F.J.P., 1966/1/5].

Factories producing goods subject to unified allocation, such as the cotton textile industry, sometimes found they were left with a surplus, as the state commercial organs could not rapidly balance and make adjustments for extra output [M. of F., 1955]. Some mills worked exclusively for supplying the army with cloth and received very large quantities of materials as a result, which were built up into large stocks. Not only did such mills have these stocks, but if they ceased to be an army supplier, the stocks were not handed back to the state or army

\[1\] See also a report by the Ministry of Finance [1955] and an article in Chinese Industry [C.K.K.Y., 1955].
Poor storeroom procedures and control were a strong permissive factor in hoarding. A constant change of storekeepers in some factories led to 'losses in work' and disorder [Ho Tseng-jen, 1956]. Within mills, no efficient system existed for returning to the storeroom excess materials or tools drawn earlier, and it was easier to keep them at lower levels. There also seems to have been no systematic way for mills to return to the state their excess materials. The storekeeping was so poor in many factories that there was a general problem that parts shown on the books did not exist in practice and parts that did exist did not appear on the books [Chiang Ming, 1954].

The lack of good external inspection of storerooms, and the ease with which visiting inspectors could be deceived, did nothing to discourage hoarding. One state run mill in the South-west illegally retained surplus raw materials after processing on contract for a department store, and used them to weave over one thousand feet of cloth. The store sent inspectors to look for any materials left over, but they were easily misled by the 'deceitful tricks' of the managers, who showed empty storerooms to the inspectors and ordered the cadres to keep quiet about the true situation [Liu Chih, 1955].

Once the desire existed to build up stocks as a safety margin, it was clearly not difficult to do. Conversely, it was not easy to prevent unauthorised increases in the size of stocks, and recourse had to be made to an occasional cleaning-out of storerooms. This was done at the insistence of the state in an effort to put some of the materials into use.
CHAPTER 7

THE TEXTILE INDUSTRY AND THE GREAT LEAP FORWARD

The Great Leap Forward involved great changes in China, some temporary, others rather more permanent. With the Great Leap Forward, China entered into a new period. It was a complex time and the economic, social and political elements cannot be entirely separated. This Chapter examines the reasons for its occurrence, the efforts prior to the Great Leap Forward to deal with the existing problems, the effects of the Great Leap Forward on the textile industry, and the attempt to restore order.

I. THE REASONS FOR THE GREAT LEAP FORWARD

The reasons for the Great Leap Forward can be classified as political, military and economic. The former are beyond the scope of this study, but include the effects of a guerilla heritage, a desire to offer an alternative to Soviet leadership of the Communist world, a wish to proceed to a higher stage of Communist progress, and a desire for relatively self-sufficient areas in case of war.

There were several strong economic explanations for the Great Leap Forward. The first was that by 1956 major bottlenecks had emerged as reserves and capacities had often been exhausted. The shortage of capital began to preclude a continuation of the Soviet method of industrialisation, with its stress on heavy industrial development, and so the need emerged for a careful re-evaluation of strategies. Output had to be increased, and by 1956 some attempt was made to economise on the use of capital by means of reducing non-productive expenditures, cutting down on staff numbers, making greater use of coastal industry, and suggesting that medium and small enterprises were superior to large ones.

The second economic reason for the emergence of the Great Leap Forward was the lagging agricultural sector, which was not keeping pace with the demands placed on it. The supply of agricultural produce was insufficient for the needs of industry, and the standard of living in rural areas was not increasing at a rate that could be regarded as satisfactory. Institutional change was the main method chosen as the solution to the problem.
A further reason was the existence of an abundant supply of labour together with underemployed rural labour, which could be better used for development by use of mass mobilisation and by greater use of medium and small scale firms, which were more labour intensive than the large ones previously preferred.

A fourth reason was that under centralised planning it had not proved possible for the centre to deal effectively with local run industry, nor had the central government departments really been interested in this. As a consequence, local industry was contributing less than its potential to development, and some local sources of labour and materials were underused. Decentralisation was required in order to exploit this potential fully.

A fifth reason for the Great Leap Forward was that the courageous attempt at comprehensive planning had led to overcentralisation and rigidities, and had placed great burdens on both central and local planners, as well as on the ministries and the mills. In addition the use of target planning, where each mill and sector attempts not merely to reach the target, but to exceed it, meant that overfulfillment in one mill, area or industry could cause underfulfillment elsewhere, owing to the limited supply of materials.

Perkins D.H. [1963] has suggested that the Great Leap Forward was '... not dictated so much by underlying economic conditions as it was by the impatience of the leadership with the pace of development....' There is truth in this, but this statement does not of course imply that the economic causes were slight. They were in fact strong. The focus of attention in this Chapter is on the fifth explanation, that the effort at comprehensive planning induced severe rigidities and could not be sustained. This is not to deny the importance of the other explanations. The endeavour to plan comprehensively imposed large burdens on the administrators and planners. These burdens are examined; then the reasons why the burdens could not be met are considered.

The increasing burdens on the administration

The increase over time in the number and complexity of plans, forms and tables placed an increasing burden on administrators at all levels down to and including the mills. As early as 1952 the Special Administrative Area Government received over 47,000 documents, letters, telegrams, directives and notices from the Shantung Provincial People's
Government within a period of ten months [J.M.J.P., 1953/2/20]. The total output value part of the national annual economic plan had more than two hundred figures in it [He Wen-t'ao, 1958]. A similar increase in the number and complexity of systems in and over the mills added to the problem.

By 1956 three top level planning organs existed: the State Economic Commission, the State Planning Commission and the State Construction Commission. Each of these sent directives to one planning body at lower levels, such as the province or city, which was unable to cope adequately; '.... these three streams run into one ditch, the flooding waters over-spill, and how can one narrow ditch drain them off?' [Mao Chun-I, 1957]. When the provinces responded by increasing the number of departments this led to 'the body gets fatter while the strength gets weaker'. This also occurred at the hsien level as well as in local Party committees. Since Mao Chun-I reported that the norms, forms, methods and procedures differed, depending on the source of the directive, the problem was clearly not small. Financial directives were too numerous and tried to apply strict limits. The directives were not clearly understood by mill managers or even by finance workers, while much time was wasted in meetings, answering telephone calls and dealing with excessive numbers of documents [Yang Chih-hsueh, 1958].

The demands by the state for information led to arduous tasks. The state widened its coverage of the economy and needed more detailed information. Different organs of state would ask for overlapping materials and had different definitions of some items. The ministry had a perennial problem of having little hard information on local run firms. As demands for information were passed down, successively lower levels might add to the requests. As an example, with regard to output, labour, costs and finances, the state issued twenty-two pages of reports and tables, the Ministry increased this to thirty-four, but fifty-six pages of requests reached the enterprises [Chen Ta-Lun, 1958]. It was not unknown for enterprises to be asked for information that was almost impossible to supply, such as figures for the future cost of building materials [Mao Chun-I, 1957].

The socialisation of industry and commerce added to the work of planners. Before 1956 many small enterprises were not in the direct state plan, but were in local plans, with fewer demands on the enterprise or the planners. Socialisation meant more work for the central planners [C.H.C.C.,
even if the norms and tables had been left unaltered. In fact some were changed at socialisation [S.S.B., 1956b]. By the end of 1957 some 60,000 staterun and joint state-private run enterprises were included in the state plan [Chen Ta-lun, 1958].

Overcentralisation was a factor in the overburdened system. Many central organs felt that strong centralisation was essential for planning, and some had an empire-building complex, trying to increase power and spheres of operations which stifled the mills [Hai Pa, 1957], [Kao Yu-Jen, 1958]. Yang Ying-chieh, [1958b] indicated that the idea that state planning had to be as centralised as possible was strong before 1957, and also included the view that local authorities should not have any flexible authority. Mao Chûn-I [1957] also felt that higher level planning bodies arranged too many plans and tasks as well as controlled norms too rigidly. Chen Ta-lun [1958] agreed that enterprise personnel had too little power over the running of their enterprise and were stifled as a consequence. This rigid hierarchy of control existed at all levels: the ministry was too tightly controlled by higher levels of the state administration [He Wen-t'ao, 1958], and towns were too tightly controlled by the provinces [Huang Yûn-hsiang, 1957].

In a penetrating discussion of planning problems, Liao Chi-li [1958] pointed to such matters as poor arrangements for local run enterprises, little awareness of the complex interactions in the economy, lack of attention to plan implementation, and overcentralisation. In his discussion of these problems he revealed some unusual facts, such as some schools, farms, hospitals and even bean-curd shops were put into the plan for industrial production.

Factories in Shanghai in 1956 were, in principle, very tightly controlled. In state run firms the director had the power to spend up to a limit of 200-500 yuan only; in state-private run firms the power of the director was even more circumscribed, and in some such firms he possessed none at all. As was pointed out, it was ridiculous that a factory director should have to ask permission of higher authorities if he wished to purchase one bar of soap [Chang Shih-hung, 1956].

The problems and burdens were particularly great for local planners.\(^1\)

\(^1\) See Chapter 3, pp.66-67 for details
When a local government department could not deal with a matter, the department frequently passed it on to the local planning committee. This matter could be directly concerned with planning or not [Mao Chun-I, 1957]. Mao Chun-I also described part of the problem as too many plans coming down in the first place, as well as some committees attempting to expand their sphere of influence by taking on extra work.

He also pointed out that the provincial committees were unable to handle the sets of norms sent down by the ministry, and so simply passed them down as received to the town and hsien levels. It seems improbable that these lower levels would be better equipped than the province level to deal with the figures. It is obvious that the town level did not function well. The town planning committee had the tasks of compiling and inspecting plans, inspecting plan fulfillment, suggesting ways of meeting plans, and investigating important economic problems [Yang Fang-tung, 1957]. However, the committees were so ineffective at inspecting plan fulfillment and suggesting ways of meeting plans that Kao Hsiang-chang [1957] suggested that these tasks should cease to be regarded as an important part of their work. A major weakness pointed out by Kao Hsiang-chang was that a committee had no power to solve problems in plan implementation that it might discover; for instance the Tientsin Planning Committee could not adjust a target for 800 tons which had been given to a factory of 5,000 ton capacity. In the case of other types of problems, the division of responsibility between the local town planning committee and the local people's council was never clear, so that both might ignore a problem for a long period yet both might try independently to tackle the same problem.

Ironically, an additional burden was placed on planners and administrators by the succession of changes instituted between 1956 and 1958, which were designed to alleviate the problems. The changes were too rapid or too great to be handled by the administration.

It was pointed out by Chen Hao-jan [1957] that changes in systems for running industry, and in financial or planning methods, caused extra work for the planners. Planners were extremely busy, worked overtime regularly, were tired and exhausted, but the work could still not be done.
The reasons that the increased burden could not be handled

There were many contributory factors to the inability to solve the problems of increasing rigidities. Good planners and statisticians were in short supply, and men of ability at lower levels were often transferred to the ministries, denuding the lower levels of talent. At the top these men were often underused, while non-Party men were often underused at all levels. The size of China and variations in age, size and technology of mills was a perennial problem. The attitude towards planning was not strong and plans were frequently poorly drawn up.

The most significant factor was that the Soviet system of planning was not suitable for Chinese conditions. China rigidly applied the experiences of other planned economies, mainly of the Soviet Union, in its planning system, regardless of Chinese conditions and without thought [He Wen-T'ao, 1958]. The same criticism was made of financial planning by Kao Yu-jen [1958]. While these statements, emanating as they do from the period of the early Great Leap Forward, may be questioned, basically they are sound. The Soviet Union practised comprehensive planning, and China was too underdeveloped to undertake successfully such an ambitious attempt. This was the real reason for the many problems and lack of success in planning up to the Great Leap Forward. The rejection of Soviet-style planning by the Maoists was founded on good economic sense, irrespective of political considerations. It is tempting to reach the conclusion that China was simply overcentralised, and this had been said in China, but this was merely a symptom of the real problem, that China was not ready for comprehensive planning.

It is not enough to simply argue that there are fewer goods and less complex economic relationships in underdeveloped countries, which facilitates central planning and renders it appropriate. In such countries there are normally few resources to administer such a system, little experience of what is involved, and probably a cultural barrier to overcome. The disadvantages can easily overshadow the advantages.

Wilber C.K. [1969] presented an apparently persuasive case for the relevance of the Soviet model to the problems of underdeveloped countries.

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1 See Chapter 3, pp. 53-68 for details
He excluded small, resource-poor countries, but felt that Soviet-style planning could prove very useful for larger ones with natural resources, such as India or Indonesia. He admitted that a major overhaul of the basic Soviet model might be necessary in order to adapt it to local conditions [1969:13-13]. However, despite valiant efforts in China to adjust and improve the Soviet model, it proved unworkable and had to be abandoned.

Many Soviet economists have now admitted that rigid and stereotyped Soviet planning is not suitable for underdeveloped countries and are now prepared to allow a role for foreign trade, and do not insist on starting with a heavy industry drive, while some even advocate the use of private foreign capital in such economies [Jeffries I, 1968].

In view of the fact that more developed centrally planned economies, such as the Soviet Union itself, are finding it difficult to pursue the rigid comprehensive planning of the past, it is possible that this form of economic organisation is perhaps more suitable for 'middle' economies, but not at all suitable for really underdeveloped or developed ones.

II. THE EFFORTS TO SOLVE PROBLEMS, 1956-57

By 1956 the attempt to introduce comprehensive planning had resulted in problems that urgently needed solution. Between 1956 and 1958 many suggestions and trial changes were made, aimed at increasing flexibility within the system of planning. This period of re-evaluation culminated in the Great Leap Forward of 1958. A leap forward was called for at the National People's Congress in February 1958, with stress being laid on steel production. In March of that year the Central Committee and Chairman Mao Tse-tung called a meeting of ministries and provincial and municipal leaders, which resulted in the adoption of the policy of speeding up the industrialisation programme by means of simultaneous development of central and local run industry, large, medium and small scale firms, as well as of agriculture and industry.

The year 1956 was one of discussion of problems. In April, Chairman Mao produced an important article on the ten sets of relationships [Chen Jerome, 1969:65-85], which among other things stressed the need for local authorities to be allowed a greater role. A series of meetings to discuss excessive centralisation was held between May and August, which resulted in decisions to increase the power of local authorities in planning, and to allow local authorities as far as possible to run all enterprises, with the exception of key firms, vital to the national
economy [Chou En-lai, 1956c:88]. It was also decided that there should be freer markets, that the State Council would give local authority targets directly to the authority, by-passing central departments, and that medium and small scale enterprises were desirable. The seeds of the policies of the Great Leap Forward had thus been sown.

The Eighth Party Congress turned its attention to these and other matters. While Li Fu-chun was open about the problems in planning and administration, Chen Yun made the most radical proposals for improvements. These included a more flexible price policy and greater use of the price mechanism, for instance to encourage better quality, and a proposal that plan targets should be for reference only. Factories producing articles of daily use should make their own plan and not be tied to state plans, while profit should be decided at the end of the year on an ex post basis, rather than be planned and subtracted from the enterprise bank account. Chen Yun's suggestions laid great stress on flexibility, market demands and market response, but apparently still within the framework of loose state planning. It was later reported that the view that it was desirable to make great use of the price mechanism was prevalent in 1956 [Yang Ying-chieh, 1958b].

Other changes in 1956 were the separation of long term and annual planning, the State Economic Commission being established to deal with the latter, and the encouragement of non-unification and local differentiation in policies. This marked the beginning of the end of comprehensive planning, as local statistical bureaus were allowed to make their own decisions on issues, without recourse to the State Statistical Bureau. They were supposed to act in accordance with general statistical principles, but in their absence could reach an independent solution [S.S.B., 1956c]. In planning, a few of the targets set by the state could not be altered. In the case of the plan for industry the unalterable norms were total output value, the national balancing of products, and the seasonal division of output of major products. All other parts of the plan for industry could be altered by the provinces, autonomous areas and direct run cities, to suit local conditions [C.H.C.C., 1956a]. This was clearly defined as 'the start of the reform of the system of planning work in our country'. Industry was of course subject to plans other than the industry plan, for instance the labour and wage plan.
These other plans were also relaxed, with more power going to local authorities over portions of them.

In 1957 the efforts to solve problems continued and strengthened, culminating in large-scale decentralisation of power to local authorities in November. The Hundred Flowers Movement, which began in 1956 but emerged strongly only in 1957, can be regarded in part as an attempt to reveal the problems and to obtain help in their solution. Many critics of the planning system were heard at this time. Yang Ying-chieh [1958a] reported various criticisms including 'in the last few years' planning work, the mistakes are the major thing, the successes are very minor'; 'planning work has caused our country's progress to be like broken threads; of the five years there were four years of mistakes, two years conservatism and two years reckless advance!'; 'very many of the plan figures are dreamed up!'; and 'plan work is totally confused, planning organs are a crematorium for men'.

Planning in the textile industry was simplified in 1957, with a simplification of tables and in the process of compilation; the Ministry only set main aggregate targets and sent them to the bureaus or companies, leaving aside all supplementary tables, calculations and norms. The enterprise received control figures from the bureau and these were used as the plan, the enterprise not being compelled to draw up its own plan at all. In effect, the annual plan at the Ministry in 1957 was a simpler outline than in the past, which was expected to give the Ministry more time to work on quarterly plans [Shou Han-ching, 1957].

In an attempt to increase flexibility within the central run textile industry, the Ministry was urged by Chiang Kuang-nai at a meeting of bureau chiefs [C.K.F.C., 1957b] to enlarge the power of enterprises and make their management more democratic. He also announced that the Ministry should follow the recommendations of bureaus when making decisions on enterprise running or on plans. Building the greater detailed knowledge available at lower levels into decision taking at higher levels was clearly an effort to reduce some of the problems of overcentralisation.

During 1957 the power of the local authorities grew rapidly, predating the well-known official decentralisation in November. Local authorities invested without seeking prior government approval and their investment in basic construction was frequently in excess of the limits allowed by the government. Some authorities engaged in barter activities
and also, whenever possible, diverted resources to their own area, and
detained goods in transit through their area, in order to achieve the
desired level of investment [Yang Ying-Chieh, 1958]. It is clear that
the November measures formally applied the decisions taken in 1956,
and followed upon, and carried further, a situation that had already
begun to develop.

The decentralisation measures, which included the handing over of
all textile mills to province or other lower level control, resulted in
a widening of the geographical distribution of income gap between local
authorities. Since profit retention by local authorities increased,
and most mills were in the old coastal provinces, these areas gained
substantially more revenue than interior areas with little industry.

In 1958 the twelve norms of a command nature controlled by the
State Council were reduced to four: the output of major products, total
staff and worker numbers, the total wage bill, and profit. The remaining
eight norms lost their command nature and could be revised at lower lev-
els [S.C., 1957b]. The ministries, provinces, autonomous areas and
direct-run cities could add to the four norms with a command nature,
depending on what they felt was necessary for particular enterprises.

Plan compilation was simplified again, with the state only setting
an annual plan, leaving the quarterly and monthly plans to be set by
ministries, bureaus or other lower level bodies. These latter could
include the enterprises themselves if the controlling bodies saw fit.
The process of 'two up and two down' in plan formation was changed to
'two down and one up', cutting out the stage of the enterprises suggest-
ing a plan [Chen Ta-lun, 1958]. It was even suggested that 'one up and
one down' was more suitable [Ch'ü T'ung-hsing, 1958]. It was also stated
that under normal conditions the plan sent down would no longer be sub-
ject to abrupt changes from above.

III. THE CHANGE IN STRATEGY

During the re-evaluation period 1956-57, two broad schools of
thought emerged: the Soviet centralist and the Maoist decentralist. The
former was generally in favour of a centrally planned economy modelled
on the Soviet pattern. This school preferred priority to heavy industry,
capital intensive methods, larger units of production and modern tech-
nology, although these elements probably tended to weaken, in the sense
that they were no longer exclusively preferred, at that time. The school also favoured material incentives, the seeking of enterprise profits, and full use of expertise and skilled personnel. The second school was associated with a quite different set of policies of a more radical nature. This school favoured decentralised planning with locally self-sufficient areas, more use of the masses in production by means of mobilisation, local rather than central finance of investment, and use of ideological incentives. The concept of balance in development was lacking, superseded by one of change and imbalance. Although the concept of 'two lines' or two schools is often accepted by observers outside China and is emphasised within China, this neatness in categorisation cannot be so clearly observed in practice. Many people had conflicting interests and did not subscribe to one line in its entirety, or subscribed in varying degrees to parts of both lines. Nonetheless, it seems useful to discuss complex issues in a precise manner, as long as a degree of simplification is recognised.

Broadly speaking, 1956 was a year of discussion, 1957 one of attempts to increase flexibility roughly within the existing system of central planning, and 1958 was the year when the second school predominated, ushering in the Great Leap Forward. Exceptions to this, as to all generalisations, can be found; in particular the power of local authorities increased rather earlier than is commonly believed, but on the whole the generalisation appears to be justified.

The changes in strategy in the Great Leap Forward signalled the end of an era - albeit short - as China diverged from the path beaten by the Soviet Union and attempted to find its own solution to the development problem. Comprehensive planning had proved to be unworkable in this large and complex underdeveloped country. In a sense the development in China after 1949 had occurred despite, rather than because of, comprehensive planning. There had been notable successes. National goals had been set and well-publicised, the people had been organised and mobilised, excitement had been generated and passivity attacked, rates of investment had been increased and were maintained at high levels, and the inherited problems were rapidly dealt with. It is likely that all of this could have been achieved if the attempt to introduce the system of comprehensive planning had never taken place. It is significant that after the Great Leap Forward failed, no effort was made to return to a centralised system
of comprehensive planning, but recourse was made to a more market orientated economy with freer markets. China has never again tried to revert to the system of pre-1958, both for political reasons and because of recognition that this system had not proved entirely suitable.

IV. THE EFFECTS OF THE GREAT LEAP FORWARD ON THE TEXTILE INDUSTRY

The effects of the Great Leap Forward on the textile industry can conveniently be discussed in two groups: external and internal to the industry. The external effects were indirect, the changes in other sectors in turn affecting the textile industry. Of the many indirect changes that affected the industry, those in control and planning, financial control and in the statistical system were the most important.

Commencing about the end of 1957, enterprises were steadily decentralised and came under the control of provinces, autonomous areas and direct-run cities. From the end of 1957 to 15 June 1958, nine ministries had handed over more than 880 enterprises to local authorities [H.K.T. K.P., 1958/6/26], and some eighty per cent of all central run enterprises had thus been decentralized [Lin Wei-jen, 1958]. Although a rather cautious statement had earlier been made that at first only a few textile mills were to be handed over to local authorities to run [S.C., 1957b], by mid-1958 control of all mills had in fact been passed to local levels [T.K.P., 1958/6/25].

A striking change occurred in the planning system. Previous to 1958, two separate systems existed; one covered all central run mills which came under the Ministry, the other covered all local run mills. The result had been a total lack of communication between mills under different systems. The new method, to commence in 1959, was dubbed the 'twin track system', in which the Ministry still compiled its own plan for any enterprise still retained, but the same enterprise was also included in the plan of the local area in which it was located [Wang Kuei-wu, 1958]. Since all textile mills and almost all light industrial enterprises had in fact been decentralised, they only went into the local plans. Other industries followed the new system.

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1 See Chapter 3, pp.41-42 and 59-62 for details.
External supervision by special agencies fell into disuse during the Great Leap Forward and ceased to operate. This was apparently a deliberate policy measure in order to liberate lower level initiative, and the Ministry of Supervision was formally abolished in 1959.

It seems improbable that the range of problems induced by the attempt to introduce comprehensive planning could be solved by simple decentralisation of a few powers. A great decentralisation of power would in effect result in non-comprehensive planning. The increase in functions at local levels added to the work of local planners, and in the absence of a great increase in the numbers of skilled planners, a deterioration in planning was perhaps inevitable. The poor situation in local planning previous to 1958 was discussed earlier. Yang Fang-tung [1957] described it quite well:

'Recently some comrades say that the local planning committee compiles the draft plan too many times, the working personnel regularly work overtime and many departments come to the planning committee for a solution to concrete problems, they feel the work is excessive for the number of personnel, the work is chaotic and passive, there is not time to penetrate the basic levels to understand conditions, nor to investigate problems. It should be pointed out that these problems exist to a greater or lesser extent in the work of planning organs of all areas and, in addition, if they are not solved, they will continue to affect the raising of plan quality and the development of the functions of plan organs'.

With the extra work nominally placed on local planners it is not surprising that the local Party committees could increase their power, both within and above the level of the mill.

Financial control, never strong, slackened during the Great Leap Forward. Unlike most of the economic system, the banking system was not decentralised at this time, but rendered less effective as a control device by the rise in power of Party committees and the prevailing attitude of stress on increasing output, together with the abandonment of all fetters that might hinder this. Some, like Chou I-Mao [1958], protested that some supervision by banks was necessary, but this went against the tide of opinion at the time. The tendency in 1958 was for the banks to consider how best they could supply sufficient funds to meet the demands of enterprises and to play down the control and planned allocation of such funds. This was attacked in the early effort
in 1959 to reimpose control [C.F.L.R., 1959], but it appears that this effort succumbed to the radical line in August of that year. In 1961 the supply of planned working capital which, with the exception of self-financed capital, had been given entirely to the banking system in February 1959, was altered. Henceforth eighty per cent would be from budget appropriations and only twenty per cent would be supplied through the People's Bank [M of F, 1961]. This change was initiated because of slack control of finances, and was part of the attempt to restore order to the system.

The breakdown in the statistical system has been well described by Li Choh-ming [1962]. As early as 1956 ordinary business departments in some enterprises began to collect statistics, which previously had been the function of specialist departments [Wang Wen-sheng and Tsu Yen-an, 1956]. Undoubtedly this partly accounted for the deterioration in statistical quality that occurred in 1958 and later. This deterioration seriously impaired the standard of information available to the centre, which could not observe actual events quickly or easily. As late as 1962, the quality of information available to the authorities was poor; mills were using different definitions of norms, and unity of statistical definitions had not been imposed [Yang Kuang-shih, etc., 1962].

The direct effects of the Great Leap Forward on the textile industry were numerous. These are considered below as the effect on labour, internal organisation, plans and attitudes, financial work, non-textile output, enforced mergers, product quality, maintenance, and output. The effects on staff and labour

The four major effects on staff and labour were that cadres were transferred to lower levels, workers moved into the work of management, expertise was downgraded, and the number of workers increased substantially. As part of the process of hsia fang, the Ministry of Textiles transferred 631 cadres at the beginning of 1958. Of these cadres, 290 went to the villages, 180 to lower levels of administration, and 161 to mills [C.K.F.C., 1958c]. The mills followed the lead of the Ministry and began to reduce the number of administrative cadres. The Dairen Textile Mill originally had thirty-four cadres and reduced these to sixteen [Wang Shao-P'ing, 1958]. The Chengchou State Run Number Three Mill felt that they could reduce the administrative cadres by 125, from 6.24
per cent of personnel to 3.9 per cent [T'ien Yü-ming, 1958]. The Shanghai State Run Number Seven Mill reduced the number of cadres by over 200, thereby reducing the percentage of cadres to production workers from twelve to four approximately [Han Hsü-ch'in, 1958]. Further examples exist for other mills. Planning workers in general were singled out for attention and were told 'get off the horse and see the flowers', and to go out into the workshops [Chu T'ung-hsing, 1958].

Workers began to assume part of the functional role of management early in 1958. In the Northwest Number Three Mill this commenced in March, when economic accounting was passed down to the small teams to run [C.K.F.C., 1959c]. The policy of workers participating in management was promoted in the Shanghai State Run Number Seven Mill after April 1958, when the Party secretary had attended a city Party Meeting and heard about experiences in Heilungkiang with the 'two take part, one change' system (liang-ts'an I-kai) [Han Hsü-ch'in, 1958]. This system was one of workers participating in management, cadres participating in production, while unreasonable regulations and systems had to change.

The power of the workers increased. In the Chengchou State Run Number Three Mill the small team took over many of the functions of management; for example, the team had the power to transfer personnel on a temporary basis, to adjust the norms for use of material within certain limits, and to grant a holiday of up to one day, while the team leader gained the power to propose bonuses [T'ien Yü-ming, 1958]. In the Tientsin Number Two Dyeing and Printing Mill, power over finances, plans, and the allocation of personnel was given completely to the small teams, the members of which were responsible for production arrangements, taking care of statistics on tools and materials, technical inspection, safety, and public health [Liu Erh-t'un, 1958].

The results of bringing management to the workers were that the concept of factory level management greatly relaxed and, for a time, appears to have ceased; division of responsibility was unclear, causing disharmony and some confusion; and the burden on the workers increased. The Hangchou State Run Number Three Mill provides a clear example. In this mill much work was passed down to the workers, including the control of the plan for output. After each shift the workers had to spend one or two hours calculating output; meetings were missed, and sleep was lost.
Workers in charge of wage calculation and payment were removed from production work before pay-day. Eventually powers had to be handed back up to specialist personnel, and the workers were reported to be thankful [T'ien Yü-ming, 1959].

The number of workers employed increased rapidly during the Great Leap Forward, and hoarding of labour became prevalent later. An increase in the labour force was necessary, owing to the building of new large, medium and small scale factories, and to the increase in output from established mills. Existing mills in some areas sent workers to the new ones to help them start production; this system was known as 'the hen lays eggs'. In other areas peasants were taken on to staff the new mills [Wang P'o, 1958]. In 1958 the total staff and workers in the textile industry numbered 1.8 million [Fang Chih, 1959], and by 1960 they numbered over 2 million [Chiang Kuang-nai, 1960]. Although no production figures were issued after 1959, it is believed that textile output fell sharply in 1960 and again in 1961. Despite the reduced need for labour, the mills were generally unwilling to lay off workers, and labour hoarding developed [Ling Tse-chih, 1963]. This happened in many industries, and in 1962 Chou En-lai called for a reduction in the size of the urban population. The textile industry was asked to respond and to end the problem of labour hoarding and the associated low level of productivity of labour [C.K.F.C., 1962a]. Some industrial enterprises did not have a plan for the use of labour in the early 1960's, owing to the breakdown in planning concept during the Great Leap Forward, so that the hoarding of labour presented little difficulty [Chao Wan-yu, 1962], [M. of L., 1964].

The hsia fang of cadres reduced the numbers of administrative staff in the early Great Leap Forward, but before long staff numbers began to increase again. In the mills under the Peking Textile Bureau, the ratio of not-directly-productive staff to productive personnel increased from thirteen per cent in 1958 to approximately eighteen per cent in 1962, and in some of the mills it reached over twenty per cent. These figures were based on reported statistics, but the true situation was worse than this, since after 1960 some mills designated some of their staff as 'workers' in order to keep the percentages more favourable [Ling Tse-chih, 1963]. In Peking, despite the proximity to central power, the number of textile cadres doubled between 1958 and the end of 1962 [Liu Wen-P'u and Wang
Kuang-hui, 1963].

The downgrading of experts and the lack of attention paid to expertise during the Great Leap Forward is well known. Factory managers, statisticians, engineers and accountants all suffered a diminution of power, and were frequently transferred to other work. The general managers began to regain power about 1961, but the other specialists had to wait longer. As late as 1962 some mills had no chief accountant [C.K.F.C., 1962b], and tentative regulations governing the powers and duties of accounting workers were not issued until November 1962 [S.C., 1962].

The effects on internal organisation

Internal reorganisation of mills was of two broad kinds: the streamlining of departments and the dismantling of systems of running. The former consisted of establishing a simpler organisational structure as a result of dropping or merging departments, which reduced the numbers of staff. The results were not satisfactory. Oversimplifications in structure occurred, leading to an excessive reduction in the numbers of managerial workers, which appeared to place a big burden on those left and was not favourable to efficient running [Tien Yü-ming, 1959], [C.K.F.C., 1959g]. Departments which had been 'irrationally adjusted' were later split up again, as for example in the Wuhan State Run Number One Mill [Wang Tso-I, 1961].

Some of the systems of running, slowly built up since the early 1950's, were dismantled as they were believed to be fettering an increase in production levels [C.F.J.P., 1958/4/28], [Han Hsu-ch'in, 1958]. While some systems were needlessly restrictive and needed adjustment, in general the reform was overdone. In some cases nothing was set up to replace the discarded systems, leaving an administrative vacuum [T.K.P., 1959/7/29], or where systems were retained in principle, they were often ignored in practice by the workers and no one was responsible for seeing that the systems were followed. As was reported in one mill:

'... the chaos in production management was not entirely due to unreasonable or unhealthy systems, but was mainly due to having systems but no one responsible, and when men pleased themselves and did not follow the systems, no one supervised; when men violated the system there was no one to check up.'

[C.K.F.C., 1959f].
The Shanghai Dyeing and Printing Company reported on the factories under it:

'Since the Great Leap Forward last year, not a few regulations and systems were smashed, which had a great function in liberating thought and improving management, this is important and basic. However, among the systems that were smashed some good systems were eliminated, that is to say some areas excessively smashed systems... a bigger deficiency was to break the old without replacing it by anything new...'

[C.K.F.C., 1959e]. That this was a common occurrence is clear from a statement by an official of the Ministry of Textiles:

'In 1958.... the staff, workers and masses.... smashed the unreasonable regulation systems.... But in the reform of last year, owing to the lack of experience and short time, the regulation systems in most enterprises were excessively smashed and little was set up; some enterprises smashed but set up nothing, and this was unfavourable to raising production and improving the running.'

[M. of T., 1959b].

The effects on plans and attitudes to planning

Power over plans was often given to the small teams. The plans, reports and tables themselves were greatly simplified in 1958, in an attempt to reduce workloads and create initiative. The number of forms in the national economic plan of 1958 was the least in any year since 1952, the number being reduced by forty-nine, or by one third when compared with 1957. This works out to be approximately 150 forms in 1957 and 100 in 1958 [S.E.C., 1957]. The State Statistical Bureau also reduced the number of reports an enterprise had to forward in 1958 [T.C.K.T. 1958]. In Shanghai textile mills the existing fifty-five financial reports were reduced to ten, and their annual plan became a simple framework [Kao Yu-Jen, 1958].

Economic accounting was considerably weakened during the Great Leap Forward. Many textile mills did not persist with it [C.K.F.C., 1959h], and this slackening led to cost increases [Chu I-chao, 1963]. In this period of slackness, norm observation and control suffered and the concept of norms and targets weakened: in Peking the bureau only began to fix norms again about the end of 1961, and that only on a trial basis in three mills [Yang Kuang-shin etc, 1962].

The concept of planning was also considerably weakened in the Great Leap Forward, as decentralisation occurred, control relaxed, and political enthusiasm was substituted for expertise. During this period it is not too extreme to say that planning in any meaningful sense did not
exist. In the early 1960's the state began to reimpose order, and articles appeared using phrases such as 'putting enterprises on the road of state planning', which had been commonly used in the early 1950's during the effort to establish a planned economy, but rarely after that. It is significant that books on enterprise planning and management began to be published in the early 1960's. It was admitted that the idea of planning was weak in Honan and that plan following was not at all strict in the mills [C.K.F.C., 1961b]. Faults uncovered during the clean-out of storerooms in the early 1960's were ascribed in part to lack of financial understanding, weak attitudes to economic accounting, and a weak planning standpoint [Yang Hsiieh-li, 1962]. By 1962 not all industrial enterprises even had targets in production work, and those without such targets were asked to fix them if they were able [Wen Chin, 1962].

Possession of a planning system is not the same as achieving planning effectiveness. A country may have a plan with no real attempt at planning or may even have planning without a paper plan [Waterston A., 1965: 167]. Until 1957 China had a planning apparatus of sorts, but overall was not very effective at planning. In 1958 both the planning mechanism and central planning itself began to break down, although paper plans continued to be made at the centre. Strong regional planning was unable to develop during the Great Leap Forward, as it was not possible to achieve closed control over the mills at that time.

Financial work in the mills slackened noticeably in the Great Leap Forward, partly because of external financial slackness and partly because of the hsia fang of power within the mills and rise of the Party. Some cadres and workers in one mill felt that it was sufficient to compute output alone, and it was too much trouble to bother to add up sums of money [C.K.F.C., 1959c]. Financial work often went to the small team to do, which sometimes caused difficulties, as in one mill that had over 130 such teams, and the whole mill was on team level accounting [Ch'uan-Ch'ang-t'ien, 1959]. It was admitted in 1963 that financial work had slackened or been neglected in some textile mills during the period of the Great Leap Forward [C.K.F.C., 1963b]. Cost accounting regulations, issued by the Ministry of Textiles until 1957, ceased in 1958, and only commenced again about 1964 [M. of T., 1964]. Circulating capital was used for basic construction purposes without control; this was even true
of controlling departments, which borrowed circulating capital belong-
ing to enterprises under them [M. of F., 1959]. Some enterprises also borrowed from the People's Bank and used the credit for investment pur-
poses. Elements that should not have been included were put into produc-
tion costs, and some firms, using their own output for expansion purposes, priced the inputs at cost and not at the (higher) state purchase prices, so that more physical investment could be achieved for the same financial expenditure. Judging by a comprehensive list of forbidden actions issued in the textile industry in 1962, the expenditure plan had been ignored, money had been transferred freely to any use, and taxes and profits had not been handed up as they should have been [C.K.F.C., 1962b].

Methods of worker remuneration changed in 1958. Previously, many workers were paid on some form of piece work or piece work plus time rate system. Before 1958, about fifty per cent of textile workers were on a piece work system [C.K.F.C., 1963a]. The large increase in output, part of which was imaginary but much still real, would have led to bonus earnings too large to be acceptable to the ruling elite. Piece work earnings did increase, reportedly to thirty, forty or even one hundred per cent in excess of basic wages [N.C.N.A., 1958b]. As a result, the system changed to some form of comprehensive bonus, which began in 1958, or to time rates. The comprehensive bonus system was not unified, and details varied considerably in different areas and enterprises. As a general rule, the coverage of workers was wider, mass discussion and evaluation were a feature, political considerations should have been and were taken into account, and large bonuses were avoided. It was not long before problems with the new bonus method arose. In many enterprises the masses reportedly used their power in discussion to reduce the politi-
cal requirements, such as taking part in social movements and active study of political theory, and put the stress on output, economy and safety [Wang Te-chung and Huang Ch'in-hsieh, 1962a]. Wang Te-chung and Huang Ch'in-hsieh sympathised with these workers, and felt that the bonuses should not be used as a substitute for proper ideological work. Other problems that emerged were that the coverage was too wide, egal-
itarianism was common, bonuses were paid irrespective of output levels, and in some units the bonus was regarded as a welfare measure for looking
after the livelihood of staff and workers [Li Wei-I, 1964]. These latter criticisms are reminiscent of those levelled at the bonus system existing prior to the Great Leap Forward.

**Textile mill production of non-textile output**

The production of non-textile output by textile mills looked important in 1958. Textile mills, like the rest of China were encouraged to produce iron and steel, and some did so. The Wuhan Number Six Textile Mill produced 1,322 tons of steel up to 22nd October 1958 and hoped to reach 3,000 tons by the end of the year. Electricity generation was also asked for early in 1959, as demand was expected to exceed supply by approximately twenty per cent in that year [M. of T., 1958]. The repair workshops in some mills began to make agricultural implements in 1958 [Wu Lü, 1958]. The results were not as good as anticipated: workers became fatigued and the iron and steel produced was of very low quality. Early in 1959 requests for and publicity about the production of iron, steel and electricity ceased. This campaign to produce non-textile output in textile mills was short lived and had a relatively minor effect on the industry.

**Enforced mergers**

During the Great Leap Forward some mergers were made that were really part of the rather fanatical behaviour common at the time. The Peking Numbers One, Two and Three Mills were all merged into one gigantic unit, although they were physically separate [J.M.J.P., 1958/3/29]. They were later split up again, presumably on the grounds of inefficiency. At least one textile mill became a commune, taking in townpeople, commercial workers, and peasants. The mill changed from being an industrial enterprise with 6,500 workers, to being a commune with a population of 12,623, and about ten factories in different trades, commercial undertakings, including a bank, and agricultural units [Li Wen-wu, 1958]. As in the case of non-textile output, the lasting effects of such events on the textile industry seem to have been minimal.

**The effects on product quality**

The quality of output fell during the Great Leap Forward for several reasons. The supply of raw materials became difficult [Hsü Hsins-hsüeh, 1959], and factories had to cope with both short supplies and low grade inputs. Quality also reduced as mills focused their attention on output alone [C.K.F.C., 1959g], striving to meet the inflated output
targets of the Great Leap Forward. The excessive increase of machine speed in order to meet output goals also contributed to the lowering of quality standards [Liu Ch'ing-chou, 1964]. New products, rushed into production without undergoing any trial manufacture, were often of low quality [Hsu Hsin-Hsüeh, 1959], and many of the large army of new workers were not versed in industrial technology.

A major reason for the lowering of quality was that control and inspection within the mills deteriorated sharply. Control and inspection of the raw materials purchased slackened [C.K.F.C., 1959b], while inspection of yarn, cloth and finished products either weakened or ceased in some mills [C.K.F.C., 1959d]. This article also alleged that some mills retained the inspection systems but drastically reduced the numbers of personnel, while other mills abolished specialist personnel for this work and gave it to anyone to do, including to new workers with no experience of cloth standards. The machines used in cloth inspection were run too fast in some mills and could not be operated properly; standards were deliberately reduced in other mills and poor cloth was passed as up to standard, in order to meet the output quotas.

The effect on maintenance and machinery

Maintenance work was reduced and the depreciation of machinery accelerated during the Great Leap Forward. The increase in machine speed in an effort to meet high production targets would have resulted in increased depreciation of machinery if only normal maintenance had been done. In practice, customary maintenance work was not done and it was simply neglected from the start of the Great Leap Forward [C.K.F.C., 1959g]. Many technicians and maintenance workers in existing mills were transferred to work directly in production in their mill or to work in new mills. As a consequence, a shortage of maintenance workers developed [C.K.F.C., 1961a]. The increased speed caused breakdowns to be more frequent owing to breakages in parts, yet machinery and spare parts were in very short supply and were often not available [C.K.F.C., 1961a]. In 1961, attention was again drawn to the problem and the mills began to tackle it, as output levels fell and the pressure to produce was reduced.
The effect on output

The effect on output is not difficult to see in general terms, but the precise output figures are, and are likely to remain, unknown. Chairman Mao Tse-tung gave a speech when inspecting villages in 1958, in which he said 'Since food can be eaten without money, in future clothing will also be obtained without money' [Chang Ch'eng-tsung, 1958]. It was anticipated that the extension of free supply to the products of the textile industry would lead to an increase in demand by the masses; given the low consumption level in China and the entry of more women into the monetised sector, which meant that families increasingly bought shoes and clothing rather than made them [J.M.J.P., 1959/3/14], the demand side posed no problem to increasing output. It was on the supply side that the effects of the Great Leap Forward were to appear.

On the supply side, the major influence was the cotton harvest, followed by the construction of new mills, mostly medium and small scale, the increased use of local run and coastal industry, and possibly a slight improvement in resource allocation as rigidities were reduced. The latter is not capable of measurement and, if it occurred, is unlikely to have offset the problems induced by political extremism. Unfortunately the size of the cotton harvest is in some doubt, owing to the statistical breakdown and exaggerated claims. The harvest of 1958 was undoubtedly very good, although the claimed output of 2.1 million metric tons may be a little high. Lin Li-chien [1964:66] gives estimates for cotton output of 1.4 million metric tons for 1959, 1.3 million metric tons for 1960 and 1.22 million metric tons for 1961. This direction of change fits the reported serious natural calamities in 1959 and 1960, which in the latter year were described as the worst for a century.

Under the influence of the call 'let the textile industry bloom everywhere', many provinces and towns built new mills; in 1958, some nineteen provinces and towns were expected to build medium and small scale mills [T.K.P., 1958/5/8]. A survey of sixty communes revealed that of commune-run industry at April 1959, textiles made up eleven per cent [Ku Tso-hsin, 1959], presumably by value of output although this was not made clear. After a flood of reports of new mills in many provinces, it was announced that the number of medium and small scale mills that went into operation in 1959 made up over ninety-four per cent of all the mills in China [N.C.N.A., 1959]. These must have added to the cap-
acity to produce yarn and cloth, although considerably less than the numbers indicate, since the other six per cent were much larger and more modern mills. In the Shanghai textile industry in 1956, the 4 per cent of the mills which employed over 500 workers were responsible for 59 per cent of textile employment and 65 per cent of output [Yen Tzu-ch'ing, 1958]. In addition to the small mills, thirty-five above-norm mills started operating in 1959; in that year the total number of cotton spindles increased by one million [Chiang Kuang-nai, 1960].

Lin Li-chien has estimated the yarn and cloth output for 1959-61, and these estimates are given in Table 21, together with estimates for cloth output made by Field R.M. [1967:294].

Table 21: Estimated Yarn and Cloth Output, 1958-61

<table>
<thead>
<tr>
<th>Year</th>
<th>Yarn (Mill. bales)</th>
<th>Cloth (Mill. Metres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1958*</td>
<td>6.10</td>
<td>5,700</td>
</tr>
<tr>
<td>1959</td>
<td>5.26</td>
<td>5,712</td>
</tr>
<tr>
<td>1960</td>
<td>4.77</td>
<td>5,190</td>
</tr>
<tr>
<td>1961</td>
<td>4.39</td>
<td>4,770</td>
</tr>
</tbody>
</table>

(1), (2) Lin Li-Chien [1964:116]
(3) Field R.M. [1967:294]
* official statistics [S.S.B., 1960:99]

Yarn output in 1959 was officially claimed to be 8.25 million bales and cloth output to be 7,500 million metres. Since the 1958 harvest figures were probably inflated, these claims may be too high, but since the harvest was very good it seems improbable that yarn and cloth output would drop in 1959. In view of the diversion of cotton land to grain production after the poor harvest of 1959, it is reasonable that both estimates for 1960 and 1961 show a decline in output, but there is at present no acceptable way of choosing between them. An effort to estimate cloth output for 1958 to 1961 by means of linear regression analysis, using cloth output and exports 1951-57 as a base, resulted in estimates for the period of the Great Leap Forward which exceeded the exaggerated claims. The sharp discontinuity at this period precluded the use of the technique.
What can be concluded is that the Great Leap Forward, in conjunction with bad weather, adversely affected textile production by reducing the supply of cotton available to the industry. This was considerably more important than the direct effects of the kind described above. In the long run, the newly built large mills, and the best of the medium and small mills, remained to be used in the development of the industry. The worst of the small establishments were apparently closed down, as being grossly inefficient in their use of cotton and yarn.

V. THE EFFORT TO RESTORE ORDER

The possibility of disruptions and the potential for chaos was foreseen by some before the Great Leap Forward got under way, but was discounted. Chen Ta-lun [1958] mentioned that some people worried about the extension in enterprise power in planning for this reason, but he argued that this view was wrong. T'ien Yü-ming [1958] revealed that cadres in the Chengchou State Run Number Three Mill felt that giving management tasks to workers would cause confusion, and adversely affect production, owing to the low cultural level of workers and their lack of experience. The workers too had their doubts, with beliefs described as 'three fears', 'two withouts', 'one lack of understanding', and 'one grumble'. They feared the trouble, the fact that they did not expect to run things well, and they might be regarded as culprits; the 'withouts' were lack of time and culture; the lack of understanding was of affairs in general; and the 'grumble' fear was that big character posters might blame them if things went wrong.

The first attempt to curb the excesses of the period began early in 1959. From early spring until August, a drive was held to set up systems to impose order and efficient running in the mills. The attempt began with a directive from the Ministry of Textiles [M. of T., 1959a], issued on 17 February, which asked inter alia that management systems be set up and made healthy. In the same journal, an article called for good control of financial capital, and although mainly radical in tone, stressing as it did reliance on the Party, the masses, and the passing down of power, it also asked for strict control of norms. An editorial in China Textiles [C.K.F.C., 1959a] insisted that new systems must be established to replace those abolished earlier in the Great Leap Forward. In July, the magazine returned to this theme with a series of articles on establishing running systems, quality and cost control,
revealing that a meeting to discuss improved cost control had been jointly convened in May 1959 by the State Planning Commission, the State Economic Commission, and the Ministry of Finance [M. of T., 1959b]. The high tide of the attempt to restore order occurred in July, when many articles appeared emphasising control in textile enterprises. The end came quickly. At the famous Eighth meeting of the Eighth Party Central Committee, 2-16 August 1959, at Lushan, the more conservative elements were defeated, and this was reflected in the articles appearing on the textile industry. The articles calling for order and control in textile mills ceased abruptly,\(^1\) and were replaced by articles reminiscent of those appearing in the more extreme days of 1958, with emphasis on high tides, the masses, and leaps. An anti-rightist campaign began in August as a result of the power adjustment in the Party, and this formally affixed the seal of disapproval on all critics of the radical line. The Great Leap Forward was to continue unrestrained, and solution to the problems was deferred, until the next major policy change, announced formally in early 1961.

Kang Chao [1968:566] has referred to signs in 1959 that the Party leaders began to recentralise the system. It is true that some Party leaders made an attempt to bring back order and end excesses. However, by no means all Party leaders wanted this; those that did were defeated at Lushan; and the effort to restore order does not necessarily imply a desire to recentralise. With the continued decentralised system of the 1960's, the interpretation of Kao Chang must be treated with a degree of caution.

In conclusion, the instinct of the left to change from following

\(^1\) Although not as abruptly as some might have wished. The Ministry of Textiles convened a large scale meeting of 439 people from 20-31 July 1959, at which methods of strengthening enterprise running and improving quality were discussed. Speeches at the rather conservative meeting were not published until 13 August, during the anti-rightist campaign, which began on 6 August, with an editorial in the People's Daily.
the Soviet model of comprehensive planning was sound, as the model had proved to be most unsuitable for Chinese conditions. Some elements of the Great Leap Forward appear sensible; in particular the mass mobilisation of labour with a sense of purpose, the use of more medium and small scale enterprises with higher labour-capital ratios, the decentralisation of some power over decision making to lower levels of government, and the sought-for increase in flexibility. Despite this, the attempt to find a different path to development failed at that time. The poor weather and lack of Soviet assistance were part of the matrix, but the lack of experience, and above all the role played by cadres and local Party committees, trying too much too fast and possessing a blind faith in their efforts, were responsible for this failure. It is impossible to answer accurately questions of the 'what would have happened if' type, but it is possible that if the Great Leap Forward had been more cautiously and sensibly managed, then failure on the grand scale could have been avoided. The experience of the late 1960's, when many of the policies resembled those of 1958-60, but economic extremism was avoided, suggests that the policies themselves were not at fault: it was the administration of them that was extremely poor.
The method of footnoting follows the Harvard system. For newspapers, the full date is given in reversed order, so that [1956/7/1] refers to 1 July 1956. The journals Hsin-hua Yüeh-pao and Hsin-hua Pan-yüeh-k'an are referred to by running number. All publications are classed by author where an author was stated.

Sources with an asterisk are not in the Chinese language and unless otherwise stated are in English. Articles found translated into English are listed without an asterisk and a note to the translated source is given. Translated sources were checked against the original where possible and if there was some doubt on the accuracy of translation my translation was preferred.

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<td>1957/1/12</td>
<td>'Several workshop cadres in the State Run Number Fifteen Cotton Mill deliberately make false entries in order to misappropriate the bonus'.</td>
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<td>'The latent capacity in the form of hoarded materials in industrial and basic construction units is very great'.</td>
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<td>'Supervision by the masses must be strengthened in enterprises'.</td>
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<td>1957/3/28</td>
<td>'Raise the quality of state procuracy work'.</td>
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<td>1958/4/28</td>
<td>'The various items of work in textile mills make an all-round leap forward'.</td>
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<td>'Treasure the trained personnel, give them proper assignments'.</td>
</tr>
<tr>
<td>1957/1/6</td>
<td>'Give the economic results full consideration'. Editorial.</td>
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<tr>
<td>1957/8/24</td>
<td>'An important aspect of unified planning for and overall attention to the industries'.</td>
</tr>
<tr>
<td>1958/3/29</td>
<td>'The establishment of the Peking Comprehensive Cotton Mill'.</td>
</tr>
<tr>
<td>1958/4/11</td>
<td>'Develop light industry more, faster, better and more economically'. Editorial.</td>
</tr>
<tr>
<td>1959/3/14</td>
<td>'The output of light industrial daily use goods should be actively increased'. Editorial.</td>
</tr>
<tr>
<td>1959/8/16</td>
<td>'Economise on working capital'. Editorial.</td>
</tr>
<tr>
<td>1963/10/27</td>
<td>'Consolidate and improve handicraft cooperatives, actively develop handicraft production'.</td>
</tr>
</tbody>
</table>

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1957b


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1956  

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1961  

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APPENDIX A

THE ESTIMATES OF CAPITAL ACCUMULATION, 1950-61

The problem was to determine the amount of capital accumulated in the textile industry each year. It is known that light industry as a whole was an important source of capital accumulation for the state during the period of the First Five Year Plan. Few figures were released for capital accumulation by the textile industry, except for the total profits forwarded to the state by central run mills, 1953-57, reported by Chiang Kuang-nai [1957a] to be 2,900 million yuan, an index for capital accumulation by the textile industry, with 1952=100, 1953=120.34 and 1954=140.61, also reported by Chiang Kuang-nai [1955c], and total accumulation by the textile industry 1953-57, which was 10,000 million yuan [Yeh Fang-t'ien, 1961].

With such a paucity of figures the only feasible method of estimation involved the use of a surrogate, i.e. something which is known and which is believed to be related to what is sought. The method is not very sophisticated, but no real alternative presented itself. The lack of sophistication was not felt to be a barrier. Chinese statistics are not noted for their accuracy, and applying sophisticated mathematical methods to unsophisticated data may prove more elegant than accurate; what is worse, this process can lend an air of spurious accuracy to what can be at best only an approximation.

The estimate of capital accumulation 1953-57

Capital accumulation was estimated for this period first and was subsequently extended to the periods 1950-52 and 1958-61. In all cases the amount of profits was first estimated for each year, the non-profit items were then estimated, and finally the two were combined to yield total accumulation.

It was assumed that profits forwarded by the mills to the state were linearly related to output levels. At first sight this may seem an heroic assumption, but it is reasonable under the Chinese system of organising the economy. Profit is defined as total revenue minus total costs. The revenue came from the sales of output which were made on the basis of fixed prices; these were rarely altered, so that sales revenue is closely linked to physical sales. No difficulty was normally experienced in selling what could be produced, either to consumers or
state, as demand usually exceeded supply. On the side of costs, the assumption was needed that mills operated in a region of constant costs of production. This assumption was also reasonable because unused capacity existed throughout the period, even in 1956, and this could be taken up without extra investment; supplies of ordinary workers were ample and extra labour could be hired without pushing up the wage and cost level; and cotton was supplied by the state at regulated prices.

The surrogate used in place of profit was the output of cotton cloth. The output of cotton yarn was assessed and rejected as a possible surrogate, since it proved markedly less accurate than cloth when predicting the index of accumulation 1952-54. With base 1952=100, the reported accumulation for 1953 and 1954 was 120.3 and 140.6; using the surrogate of cotton cloth, the estimated profit was 122.4 and 136.6 for these two years; using the surrogate of yarn, the estimated figures were 113.3 and 127.1.

The results of using cotton cloth as a surrogate were encouraging but inconclusive as two years represent a most limited set of observations, and in addition there was a possibility that profit was not in practice closely related to accumulation. This was only a minor possibility, since profit made up over half of accumulation in the textile industry, and the non-profit part of accumulation (industrial and commercial taxes, depreciation reserves for amortization of fixed assets, return of surplus working capital, receipts from any sale of fixed assets, and income from other business activities) could in the main be expected to vary with output and profits.

In order to estimate the profits for the period 1953-57, it was necessary first to estimate the profit forwarded to the state in 1953. This was done using the surrogate of cotton cloth output by means of:

\[
(1). \quad S = 5X + \frac{21X}{50}
\]

where \( S \) = the sum of profits of central run mills over the five years 1953-57 = 2,900 million yuan

\( X \) = the profit forwarded by central run mills in 1953.

This relationship was derived from:

<table>
<thead>
<tr>
<th></th>
<th>1953</th>
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<th>1955</th>
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<th>1957</th>
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</thead>
<tbody>
<tr>
<td>Profit in central mills</td>
<td>( X )</td>
<td>( X+17 )</td>
<td>( X-8 )</td>
<td>( X+25 )</td>
<td>( X+9 )</td>
</tr>
<tr>
<td>( \frac{100}{100} )</td>
<td>( \frac{100}{100} )</td>
<td>( \frac{100}{100} )</td>
<td>( \frac{100}{100} )</td>
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</table>

Note: The percentages reflect the change in output of cotton cloth.

Source: [S.S.B., 1960:99].
Putting (2) into words, this says that the sum of profits 1953-57 is equal to the profits in 1953 summed over five years plus the percentage changes from that level in the other four years.

But \( S = 2,900 \text{ million yuan} \)

\[ . \cdot 2,900 = 5X + \frac{21X}{50} \]

and \( X = 535. \)

Having estimated \( X \), the profits forwarded in the remaining years were obtained by the percentage changes of the surrogate:

Table A.1. The Estimated Profit Forwarded by Central Run Textile Mills, 1953-57 (mill.yuan).

<table>
<thead>
<tr>
<th></th>
<th>1953</th>
<th>1954</th>
<th>1955</th>
<th>1956</th>
<th>1957</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profit</td>
<td>535</td>
<td>626</td>
<td>492</td>
<td>669</td>
<td>578</td>
<td>2,900</td>
</tr>
</tbody>
</table>

The non-profit accumulation of central run mills was next estimated. This was done by calculating the average ratio of industrial and commercial tax to profit (0.05627) and depreciation reserves etc. to profit (0.2055) for state run firms in all industries in China, 1953-57. These ratios were then applied to the estimated total profit in central run textile mills, 1953-57.

Total accumulation by non-central mills was obtained by subtraction of the estimated accumulation by central run mills (5,128 million yuan) from the reported total accumulation for the textile industry. This gave a figure for 4,872 million yuan. This figure for accumulation was broken down into profit, taxes, and depreciation reserves etc. by means of the ratios of these to accumulation in all state run industries. The ratios used were 0.56553, 0.31831 and 0.11625 respectively. At this stage Table A.2 was prepared.
Table A.2. Estimated Capital Accumulation in the Textile Industry, 1953-57 (mill. yuan)

<table>
<thead>
<tr>
<th>Central run textile mills:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Profit forwarded</td>
<td>2,900</td>
</tr>
<tr>
<td>Industrial and commercial taxes</td>
<td>1,632</td>
</tr>
<tr>
<td>Depreciation reserves etc.</td>
<td>596</td>
</tr>
<tr>
<td>Accumulation by central mills</td>
<td>5,128</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Non-central run textile mills:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Profit forwarded</td>
<td>2,755</td>
</tr>
<tr>
<td>Industrial and commercial taxes</td>
<td>1,550</td>
</tr>
<tr>
<td>Depreciation reserves etc.</td>
<td>566</td>
</tr>
<tr>
<td>Accumulation by non-central mills</td>
<td>4,872</td>
</tr>
</tbody>
</table>

| Total accumulation by all textile mills | 10,000 |

Note: 1. profits retained by textile mills are excluded; these are believed to have been small, but would raise the profit figures if included.

2. minor inconsistencies result from rounding.

Source: ratios derived from Ecklund G.N. [1966:20].

The profit component on non-central run mills was then disaggregated into years, using the formula (1) derived above. This resulted in an estimated profit for 1953 of 508 million yuan. The surrogate of cotton cloth was used to estimate the percentage change in profit as before.

Table A.3. The Estimated Profit Forwarded by Non-central Run Mills, 1953-57 (mill. yuan)

<table>
<thead>
<tr>
<th></th>
<th>1953</th>
<th>1954</th>
<th>1955</th>
<th>1956</th>
<th>1957</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>508</td>
<td>595</td>
<td>468</td>
<td>635</td>
<td>549</td>
<td>2,755</td>
</tr>
</tbody>
</table>

The tax and depreciation reserves in the non-central run mills were estimated by applying the ratio of each to profit, which was derived from the aggregates of state run firms in all industries, to the estimates of profits each year in non-central run textile mills.

No independent check on the estimates exists, but by use of this method it was possible to break down the reported 10,000 million yuan accumulation into both years and sub-groups.
Table A.4: The Estimated Disaggregation of Capital Accumulation in the Textile Industry, 1953-57 (mill. yuan)

<table>
<thead>
<tr>
<th>Year</th>
<th>Profit from state enterprises</th>
<th>Industrial and commercial taxes</th>
<th>Depreciation reserves etc. of state enterprises</th>
<th>Total 1953-57</th>
</tr>
</thead>
<tbody>
<tr>
<td>1953</td>
<td>6,369</td>
<td>4,029</td>
<td>1,301</td>
<td>47,007</td>
</tr>
<tr>
<td>1954</td>
<td>8,457</td>
<td>4,753</td>
<td>1,503</td>
<td>26,450</td>
</tr>
<tr>
<td>1955</td>
<td>9,404</td>
<td>5,370</td>
<td>1,786</td>
<td>9,663</td>
</tr>
<tr>
<td>1956</td>
<td>11,414</td>
<td>6,298</td>
<td>2,016</td>
<td>10,007</td>
</tr>
<tr>
<td>1957</td>
<td>11,363</td>
<td>6,000</td>
<td>3,057</td>
<td>10,007</td>
</tr>
</tbody>
</table>

**Sources:**
- Ecklund G.N. [1966:20].
- Chiang Kuang-nai [1957a].
- Yeh Fang-T'ien [1961].
The extensions to 1950-52

Profit levels were first estimated by use of the surrogate of change in the output of cotton cloth, using 1953 as a base year. The level of profit in 1953 for both central and non-central mills was estimated earlier.

| Table A.5. The Estimated Profit Forwarded by the Textile Industry |
| --- | --- | --- | --- |
| 1950-52 | (mill. yuan) |
| 1950 | 1951 | 1952 | 1953 |
| Index of surrogate profit | 53.7 | 65.2 | 81.7 | 100 |
| Estimated profit from central mills | 287 | 349 | 437 | 535 |
| Estimated profit from non-central mills | 273 | 331 | 415 | 508 |

Using these estimates, industrial and commercial taxes and depreciation reserves etc. were estimated by means of ratios of each to profit, as was done earlier. Unfortunately the profits forwarded and depreciation reserves of state enterprises for 1950 and 1951 were not separated in the original source. The disaggregation of these two items was needed. This was estimated by using the average ratio of each to the sum of both in 1952-54. Of the sum of both in 1952-54, some 83.05 per cent was profit. It was assumed that this ratio would apply in 1950-51 and the dissaggregation was made. At this stage the ratios of depreciation reserves to profit and industrial and commercial taxes to profit could be calculated for all state run enterprises. These ratios could then be applied to the profit estimates in the textile industry in order to estimate in turn the non-profit part of accumulation.

<table>
<thead>
<tr>
<th></th>
<th>1950</th>
<th>1951</th>
<th>1952</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General Industry and Commerce</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Profits of all state enterprises</td>
<td>723</td>
<td>2,535</td>
<td>4,653</td>
</tr>
<tr>
<td>Depreciation reserves etc. of all state enterprises</td>
<td>147</td>
<td>517</td>
<td>1,077</td>
</tr>
<tr>
<td>Industrial and commercial taxes of all state enterprises</td>
<td>435</td>
<td>1,433</td>
<td>2,315</td>
</tr>
<tr>
<td><strong>Derived Ratios</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depreciation reserves: profits</td>
<td>0.20332</td>
<td>0.20410</td>
<td>0.23146</td>
</tr>
<tr>
<td>Industrial and commercial taxes: profits</td>
<td>0.60166</td>
<td>0.56573</td>
<td>0.49753</td>
</tr>
<tr>
<td><strong>Estimates for the Textile Industry</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Central run mills</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Profits</td>
<td>287</td>
<td>349</td>
<td>437</td>
</tr>
<tr>
<td>Industrial and commercial taxes</td>
<td>173</td>
<td>197</td>
<td>217</td>
</tr>
<tr>
<td>Depreciation reserves etc.</td>
<td>58</td>
<td>71</td>
<td>101</td>
</tr>
<tr>
<td>Accumulation by central mills</td>
<td>518</td>
<td>617</td>
<td>755</td>
</tr>
<tr>
<td>Non-central run mills</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Profits</td>
<td>273</td>
<td>331</td>
<td>415</td>
</tr>
<tr>
<td>Industrial and commercial taxes</td>
<td>164</td>
<td>187</td>
<td>206</td>
</tr>
<tr>
<td>Depreciation reserves etc.</td>
<td>55</td>
<td>68</td>
<td>96</td>
</tr>
<tr>
<td>Accumulation by non-central mills</td>
<td>492</td>
<td>586</td>
<td>717</td>
</tr>
<tr>
<td>Accumulation by all textile industry</td>
<td>1,010</td>
<td>1,203</td>
<td>1,472</td>
</tr>
</tbody>
</table>

Source: Ecklund G.N. [1966:20]; Table A.5.

The extensions to 1958-61

This period was the most difficult for purposes of estimation. The final figures issued for 1958 are probably less accurate than for earlier years. Profits were first estimated using the surrogate of change in the output of cotton cloth, with base 1957. This resulted in Table A.7.
### Table A.7. The Estimated Profit Forwarded by the Textile Industry, 1958-61 (mill. yuan)

<table>
<thead>
<tr>
<th>Year</th>
<th>1957</th>
<th>1958</th>
<th>1959</th>
<th>1960</th>
<th>1961</th>
</tr>
</thead>
<tbody>
<tr>
<td>Index of surrogate profit</td>
<td>100</td>
<td>112.87</td>
<td>148.51</td>
<td>118.81</td>
<td>59.41</td>
</tr>
<tr>
<td>Estimated profit from central run mills</td>
<td>578</td>
<td>652</td>
<td>856</td>
<td>637</td>
<td>343</td>
</tr>
<tr>
<td>Estimated profit from non-central run mills</td>
<td>549</td>
<td>620</td>
<td>815</td>
<td>652</td>
<td>326</td>
</tr>
</tbody>
</table>


Industrial and commercial taxes and depreciation reserves etc. were then estimated on the basis of these estimates of profit. It was not possible to use ratio-of-the-year methods to estimate these items for the entire period, owing to lack of data. The tax figures ceased in 1957 and depreciation reserves figures ceased in 1959. Consequently the tax estimates 1958-61 were based on the average ratio of tax to profits in the textile industry of the previous four years; the depreciation reserves estimates were based on ratio-of-the-year methods for 1958-59, and on the average ratio of the previous four years (1956-59) for the estimates of 1960-61. It was necessary to assume that the historical ratio projected forward would still apply; owing to the great changes during the Great Leap Forward this assumption is suspect.
### Table A.8. Estimated Capital Accumulation in the Textile Industry, 1958-61 (mill. yuan)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Profit of all state enterprises</strong></td>
<td>18,719</td>
<td>28,590</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Depreciation reserves of all state enterprises</strong></td>
<td>3,301</td>
<td>4,770</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

#### Derived Ratios

<table>
<thead>
<tr>
<th></th>
<th>1958</th>
<th>1959</th>
<th>-</th>
<th>-</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Depreciation reserves:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>profits</td>
<td>0.17634</td>
<td>0.16684</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Estimates for the Textile Industry

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Central run mills</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Profit</td>
<td>652</td>
<td>856</td>
<td>687</td>
<td>343</td>
</tr>
<tr>
<td>Depreciation reserves (^1)</td>
<td>115</td>
<td>143</td>
<td>175</td>
<td>68</td>
</tr>
<tr>
<td>Industrial and commercial taxes (^2)</td>
<td>361</td>
<td>473</td>
<td>380</td>
<td>190</td>
</tr>
<tr>
<td>Accumulation by central run mills</td>
<td>1,128</td>
<td>1,472</td>
<td>1,202</td>
<td>601</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Non-central run mills</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Profit</td>
<td>620</td>
<td>815</td>
<td>652</td>
<td>326</td>
</tr>
<tr>
<td>Depreciation reserves (^3)</td>
<td>109</td>
<td>136</td>
<td>128</td>
<td>64</td>
</tr>
<tr>
<td>Industrial and commercial taxes (^4)</td>
<td>343</td>
<td>450</td>
<td>360</td>
<td>180</td>
</tr>
<tr>
<td>Accumulation by non-central run mills</td>
<td>1,072</td>
<td>1,401</td>
<td>1,140</td>
<td>570</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Accumulation by all textile mills</strong></td>
<td>2,200</td>
<td>2,873</td>
<td>2,342</td>
<td>1,171</td>
</tr>
</tbody>
</table>

**Note:**
1. 1958-59 estimated by multiplying row 4 by row 3; 1960-61 estimated by multiplying row 4 by 0.1970, the average ratio of depreciation reserves to profits in central run mills 1956-59.

2. Estimated by multiplying row 4 by 0.5531, the average ratio of industrial and commercial taxes to profits in central run mills, 1954-57.

3. 1958-59 estimated by multiplying row 8 by row 3; 1960-61 estimated by multiplying row 8 by 0.1971, the average ratio of depreciation reserves to profit in non-central run mills, 1956-59.

4. Estimated by multiplying row 8 by 0.5528, the average ratio of industrial and commercial taxes to profits in non-central run mills, 1954-57.

**Source:** Ecklund G.N. [1966:20]; Table A.7.
In 1958 many important changes occurred in China. Among them was the decentralisation of all textile mills. It seemed better to keep the same format in the tables of 1958-61, so that 'central run' in the table for the years 1958-61 refers to the original central run mills, which were handed over to local governments to control.

Important changes were also made in the tax system. In general the taxes on industry and commerce were simplified: several taxes were combined into one, and taxes were based on prices received by producers and distributors, rather than on state wholesale prices as in the past. A much less important revision of the tax system had occurred in 1953. Since the tax estimates for 1950-52 were based on actual tax receipts in those years, it is not felt that the changes in 1953 make much difference to the estimates. An effect could only arise if the textile industry changed vis-à-vis the rest of industry. The changes in 1958 were much greater, and the estimates of tax were based on projections of the 1954-57 period. As such, the influence of the changes could be great, but there appears to be no way of knowing this.

In general it is felt that the estimates for 1953-57 may be reasonable, those for 1950-52 are less so but perhaps remain acceptable, but that those for 1958-61 are of a doubtful degree of accuracy.