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A HISTORICAL SURVEY OF THE ECONOMIC DEVELOPMENT OF

MAINLAND CHINA, 1949-1962

by

Mandhatasinh A. Chauhan

A thesis submitted in partial fulfillment
of the requirements for the degree

of

MASTER OF SCIENCE

in

Economics

UTAH STATE UNIVERSITY
Logan, Utah

1968

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PREFACE

China's militant approach to the economic and political fields has drawn the attention of the Western and the Chinese Scholars, and much has been written about it in the past few years. In the present study, I have endeavored to analyse the salient features of Chinese approach to economic development. I have dwelt upon at length the peculiar method used by the Communist countries - of cutting down the consumption and raising investment. In the absence of official statistics since 1959, the study of the Chinese economic development has been reduced to "educated guesses," where I have relied heavily on the Western Scholars for the information used.

To Dr. Leonard J. Arrington, Professor of Economics, the author expresses his appreciation and gratitude for his invaluable assistance and continuous guidance in preparation of this thesis. The writer is also indebted to Professors V. L. Isrealson, B. C. Jensen, E. B. Murray and R. P. Collier for their precious guidance and encouragement. To Mrs. Alide Hannwm and Dr. Thomas Hannwm, I am thankful for reading the manuscript and making valuable suggestions.

Many thanks to my mother, whose inspiration and encouragement has enabled me to go for higher studies in the United States.

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Mandhatasinh A. Chauhan

CHAPTER I

AGRICULTURE IN THE CHINESE ECONOMY

Introduction

Chinese agriculture differs from the Western agriculture in the development and utilization of agricultural science on the fields. China has always been an agricultural country, but she failed to improve in techniques of cultivation as the time passed by. The land, prior to the Communist take-over, was owned and cultivated by individuals and the produce was sold in a free-market. Unfortunately, the Chinese government, prior to 1949, failed to bring about adequate agricultural reforms and implement economic development measures.

As a result an overwhelming proportion of the population of China is occupied on the land, the supply of which is fixed, and the capital resources employed are small, the per capita output and income of China are low. With the vast majority of the population in agriculture and low per capita output, the national income of the country is also low. Thus, China is classified as an underdeveloped nation. Arising from the same problem of overpopulation, the family land was subdivided and fragmented into economically inefficient units before the Communist take-over.

With its low per capita income, China's capital formation is slow and difficult. Investment in substantial quantities is almost impossible, unless the country imports foreign assistance or cuts down its own consumption below even the present low level and forcibly creates an exportable surplus. For an agricultural nation to transform itself into an industrial one, creation of an agricultural surplus is desirable, not only to finance imports of industrial goods, but also to feed the growing urban non-agricultural population. An agricultural surplus also will satisfy the demand resulting from the rise in per capita income. An agricultural surplus is a prerequisite toward establishing social overhead capital, expanding manufacturing, providing educational facilities and other services, and raising the rural per capita income.

This, relatively a general statement, is applicable to a country that has a comparative advantage in agriculture.

The Chinese Communists, after 1949, sought to raise the per capita income and productivity of their resources by "raising their own bootstraps." If the efficient farmers had been allowed to expand their activities, they could have raised the productivity. But the Communist regime, in accordance with Socialist dogma, chose to organize farms into co-operatives. Therein lay the basic problem of China's industrialization.

Cultivable Lands

Of China's total area of 9.5 million square kilometers, 1.09 million is farm land, 967,000 is forest, 2.67 million is pasture, and 1.13 million reclaimable wasteland. About 6 percent of the cultivated land (600,000 square kilometers) mainly in the north, is alkali soil.¹ Thus, the present cultivable area could be doubled within a short period with little efforts.

China is said to have today 1,600 million mow (9,714 million acres) of arable land, or 0.41175 acres per head, as compared to 0.3294 acres in Britain, 0.57645 acres in Holland, 0.6588 in India, 1.8117 acres in the United States and France, and 2.4705 in Soviet Russia.²

It has been reported that only about 80 million hectares (or, 197.680 million acres) are suitable for tractors. The "machine

¹Harold Munte-Kaas, "China's Fields and Factories," Far Eastern Economic Review, LI (February 3, 1966), 153.

²P. H. M. Jones, "One Million Tractors," Far Eastern Economic Review, XLVI (September 3, 1964), 431.
Converted into acres; one mow = 0.1647 acres, or 0.0666 hectare. About 2.5 mow in China per head, as compared to 2 mow in Britain, 3.5 in Holland, 4 in India, 11 in the United States and France, and 15 in Soviet Russia.

cultivated area would probably not exceed one-eighth or under one-tenth of the total cultivated land. Since land suitable for tractors is located in areas of low yields, the marginal increase in the production, owing to cultivation by tractors would be minimal."¹ Even if there is an increase of 15 to 20 percent in the 10 percent of the land planted to grain, the increase in the output would amount to 1.5 to 2 percent.

Agricultural Institutions

Communists dogmatically believe in uprooting the older institutions and imposing centrally-controlled organizations. Thus, as soon as the Chinese Communists came into power, they began a reorganization of agriculture. This policy also elicited the support of peasants for the regime. In Russia, collectivization was adopted by a "one step at a time" method and mechanization took place simultaneously. Aware of her industrial backwardness, China decided to collectivize hurriedly.²

¹ Yuan-Li Wu, "Industrial Development in China," Current History, XXXV (September, 1963), 175. Converted on the basis of one hectare = 2.471 acres.

² S. B. Thomas, "Communist China's Agrarian Policy, 1954-1956," Pacific Affairs, XXIX (June, 1956), 145.

The ultimate goal was to organize the small individual farms into large collective farms. The temporary mutual aid groups, permanent mutual aid groups, and agricultural producers' co-operatives were finally to lead to the formation of collective farms. Under the mutual aid teams, members pooled some of their draft animals and implements, co-ordinated some of their individual production plans, and accumulated common property.¹

All the land was pooled in an agricultural co-operative. Each member retained the ownership and the share (according to the size of his land), on which he drew dividends.² He was allowed to keep a plot of land for his personal use.

By September, 1954, a total of 500,000 co-operative farms, and by 1957, half of the country's land and more than half of the peasant households, were to be organized into co-operatives.³

¹ Yuan-Li Wu, An Economic Survey of Communist China (New York: Bookman Associates, 1956), p. 143.

² T. J. Hughes and D. E. T. Luard, The Economic Development of Communist China, 1949-1958 (New York: Oxford University Press, 1959), p. 143.

³ Yuan-Li Wu, An Economic Survey of Communist China, p. 144.

The co-operatives were envisaged as a means of enabling large-scale mechanized farming and development of new techniques and innovations. They were also designed to enable planning of agriculture, industry, consumption and investment, exports, and so on. Cooperatives were thought to comply with the Communist philosophy of the ownership of the means of production held by the state and the elimination of private property. The system permitted direct control by the party cadre, as the heads of the co-operatives, over the peasants.

At the end of 1954 Peking realized that agricultural production had not increased much from the 1952 level, while the population had increased consistently by a 2 percent annual average over the 1948-1953 period. Thus, Mao called for an immediate collectivization and production drive in mid-1955.¹

On March 25, 1955, the Agricultural Bank of China was established under the over-all direction of the state-owned Chinese People's Bank.² Its main purpose was to extend short and long term credits to farmers.

¹Edwin F. Jones, "The Impact of the Food Crisis on Peiping's Policies," *Asian Survey*, II (December, 1962), 3-4.

²S. B. Thomas, "Communist China's Agrarian Policy, 1954-1956," p. 158.

The co-operatives were not large enough to exercise effective control over commercial credits and industrial establishments, which had to be controlled by the central government directly. Even shortage of managerial skills was felt acutely, for co-operatives could not obtain enough personnel to establish large-scale industries.¹ The same was true in obtaining industrial finances locally. Thus, the co-operatives, comprising around 200 families, were reorganized into communes of 4,000 to 5,000 families in August, 1958. Private plots were abolished and so were the free markets in which the peasants could sell their produce.

Paradoxically, Communist China faced a disastrous period of natural calamities between 1959 and 1962, which made its leaders revise their policies. They had to reintroduce the free-market, and private plots were restored.² At the same time, the time required to work on the communes was fixed to enable farmers to work on their private

¹Dwight H. Perkins, "Centralization and Decentralization in Mainland China's Agriculture, 1949-1962," The Quarterly Journal of Economics, LXXVIII (May, 1964), p. 229.

²Audrey Donnethorn, "The Organization of Rural Trade in China Since 1958," The China Quarterly, VIII (October-December, 1961), pp. 77-91.

plots.¹ The communes were organized into production brigades, which were further divided into production teams. The brigade decided upon the agricultural production, while the team allocated the labor and specialized on different farm activities.² Thus, after several years of trial and error with the large units of holdings, the Peking regime came back to a unit smaller than that with which it had started.

Agriculture and Price Policy

In 1950 agricultural production was perhaps two-thirds of the pre-war level, and the amount that was marketed had declined to 21 percent of the total output, which was at 53 percent level of the total, in the pre-war period.³ This decline was the result of the thirteen years of war followed by the Civil War, which had disrupted the rural markets.

Production of the industrial raw materials had declined sharply. Output of cotton had fallen to 47 percent of the 1933 production in 1949,

¹Felix Green, Awakened China (New York: Doubleday, 1961), p. 141.

²Joan Robinson, "The Chinese Communes," The Political Quarterly, XXXV (July-September, 1964), pp. 288-89.

³Perkins, op. cit., p. 209.

while that of tea and cocoa fell to 16 percent and 4 percent of the 1933 level.¹

The Peking regime made an effective use of price-incentives in increasing the output. The official price was raised to the pre-war level, which was again raised in 1951, and paid in advance for the promise of planting cotton in a certain number of acres. This resulted in a reduction of grain acreage by 11 percent and diverting more land to cotton and oilseed crops by 1959.²

This raised the production of cotton beyond expectations and the acreage under it above the 1933 level. So in 1953 the cotton advance purchases were abolished. The price of cotton was lowered compared to grains so as to encourage the production of grains. But this had an adverse effect, so advance purchases were reintroduced to the 1952 level in 1954.³

¹T. C. Liu and K. C. Yeh, The Economy of the Chinese Mainland: National Income and Economic Development, 1933-1959, (2 vols; Santa Monica: Rand Research Memorandum, 1963), p. 455.

²Reed J. Irvine, "Phantom Food in Communist China," Asian Survey, 1, (March, 1961), p. 25.

³Perkins, op. cit., p. 213.

The parity ratio was employed in determining the rate at which cotton farmers should pay the agricultural tax computed in terms of grain and exchanging cotton for grain through the government-sponsored marketing agencies. The price of tea was raised from 4.9 to 5.7 times the price of middle grade rice in 1951, and to 7.86 times in 1953.¹ Tea production increased gradually.

The state faced difficulties in making substantial grain purchases during the 1950-1953 period, in spite of the substantial increase in grain output. This was because the income elasticity of food in underdeveloped countries is higher, around 0.6 or higher, versus 0.2 or 0.3 in the developed countries.² Thus, with a slight rise in per capita income, the demand for food grains has a much greater impact. This generally could be suppressed by a high agricultural taxation policy or quota system. Approximately 90 percent of China's taxes were collected in agricultural products. Nevertheless, it was likely to lead to an inflation in agricultural prices.

¹ Ibid., p. 214.

² Bruce F. Johnston and John W. Mellor, "Role of Agriculture in Economic Development," American Economic Review, LI (September, 1961), pp. 571-572.

For this reason, the Communist regime introduced the quota system in 1954-1955. This, of course, affected the farmer's incentives to produce more, so agricultural production fell.

Under the quota system, the state purchased excessively, regardless of what consumption needs were. This sparked off a discontent among the farmers. Thus, in 1956 quotas were reduced. This caused the government to feel the need for introducing centralized organization to implement the wishes of the state in the field of agricultural production. Aware of the effect of the centralization on the Soviet agriculture, the Chinese carefully left a gap to provide sufficient incentives to the farmers.

During this period, although private plots were allotted to individuals, the free market was abolished and the prices of these subsidiary products were fixed arbitrarily low by the state and to co-operative stores. The output on private plots, which amounted to 30 percent of all Chinese farm products, fell sharply in 1956.¹ In 1957 the regime increased the size of the private plots and reduced cadre interference into the farmer's activities on the plot.

¹K. C. Chao, Economic Planning and Organization in Mainland China, (2 vols., Cambridge, Massachusetts: Centre for East Asian Studies, Harvard University, 1959), II, 43-47.

In 1956 and 1957 officials again tried to raise the production of crops through raising purchase prices. The prices of rapeseeds were raised from 50 percent to 70 percent in 1956; that of oil seeds from 10 percent to 30 percent. The price of tea, which was already 7 percent up from the 1955 level, was further raised by 7 percent.

Control over the rate of savings was achieved by merely setting limitations on the proportion of income that could be saved.

This centralization acted as a repulsive force on agricultural yields, which increased at a very slow rate between 1956 and 1957.¹

Industrial growth in 1957 was thus slowed down, owing to the lack of co-ordination and planning in different sectors of the economy. Absence of sufficient incentives, the overemphasis given to industrial priority, and the cash crops in agriculture were causes. Thus, by 1958 the economy was at its low ebb, even worse than what it was in 1955.

In order to expand the unit of agricultural production, the communes were organized in 1958. The cadre influence on subsidiary production, on the rate of savings and consumption, and on the planting and harvesting

¹Ten Great Years (Peking: Foreign Languages Press, 1960), p. 113.

of the major crops was enormous under the mass propaganda of the "Great Leap Forward."¹ Private plots and free markets were abolished altogether. The establishment of communes ended all house ownership and nationalized all shops.²

According to the official series of the gross value of agricultural output, Peking claimed to have an annual rate of increase of 4.5 percent during the First Five Year Plan. This claim is dubious. In 1958 and early 1959 grain production was declared to be 375 million metric tons, as compared with 185 million tons in 1957.³ This doubling of grain output within a year is clearly impossible and serves to reveal the faulty statistical system that China was using.

The decentralization of authority to the communes level in 1958-1959 led to undue competition among the communes which resulted

¹Peking, *op. cit.*, p. 228.

²R. H. S. Crossman, "Chinese Notebook," Encounter, (March, 1959), p. 19; and "Transition to Communism (II)," China News Analysis, No. 279 (June 5, 1959), 1-7.

³Yuan-Li Wu, The Economy of Communist China: An Introduction, (New York: Frederick A. Praeger Publishing Company, 1965), p. 136.

in the falsification of statistics.¹ This further disrupted planned goals and co-ordination with other sectors of the economy.²

At the same time huge credits and budget allocations were made to the communes by the state for the first time under the "Great Leap" fever.³ This led them to ignore income, profit, and efficiency goals; they concentrated on fulfilling the targets only.

Under the communes, the food which was earlier grown on private plots served as free supply, under the "part-wage part-free supply" system of distribution.⁴

Again in 1959 the official productivity claim abruptly declined to 250 million tons; that is, one-third smaller than the original estimate, which is also undoubtedly an over-statement.⁵ The unavailability of accurate statistics and the decentralized control made it difficult for the regime to react immediately to the crisis presented by the bad weather in 1959 and 1961.

¹Choh Ming-Li, The Statistical System of Communist China (Berkeley, California: University of California Press, 1962), p. 71.

²A. Donnethorn, "Background to the People's Communes: Changes in China's Economic Organization in 1958," Pacific Affairs, XXXII (December, 1959), 353.

³"Comments," China News Analysis, No. 258 (January 2, 1958), 5.

⁴Donnethorn, op. cit., p. 349; and Perkins, op. cit., p. 231.

⁵The Wall Street Journal, August 27, 1959; and Irvine, op. cit., p. 23.

In 1959 the regime reintroduced private plots and free markets.¹ A family of six could have one-tenth or even one-fifth of an acre as its private plot; in any case, the area set aside for them in a commune should not exceed 5 or 7 percent of the total.²

Agricultural Production

It is difficult to obtain accurate data regarding agricultural production according to crops. Whatever data are available are highly conflicting and at times misleading. The figures presented here are estimates.

On observing Table 1, one can see a sharp decline in total grain acreage and production in 1959. The mistake in shifting acreage to cotton and oil seed production was corrected in 1960, but total grain production did not improve fast enough because of mismanagement and bad weather.

On the whole, agricultural production has barely kept pace with the population increase, except for the bad weather years of 1959-1962 when China faced a severe agricultural crisis.

¹Domethorne, "The Organization of Rural Trade in China Since 1958," The China Quarterly, No. 8 (October-December, 1961), 77-91; and "Changes and Muddle," China News Analysis, No. 299 (October 30, 1959), 1.

²Robinson, op. cit., p. 290.

Table 1. Crop production in mainland China--1955-1963

Year	Total grain		Rice		Wheat		Potatoes		Miscellaneous	
	Area (m. hectares)	Production (m. metric tons)	Area	Produ- tion	Area	Produ- tion	Area	Produ- tion	Area	Produ- tion
1955	118.4	174.8	29.2	78.0	26.7	23.0	10.1	18.9	52.4	55.0
1956	124.3	182.5	33.2	82.5	27.3	24.8	11.0	21.9	52.7	53.4
1957	120.9	185.0	32.2	86.8	27.5	23.7	10.5	21.9	50.6	52.7
1958	121.3	250.0 193.5*	32.7	113.7 90.0*	26.6	29.0 24.0*	16.3	45.4 29.3*	45.7	62.0 50.2*
1959	109.1	270.1 167.6*	29.7	80.2*	24.3	24.3*	12.7	21.6*	42.9	41.6*
1960	120.0	159.6	31.5	77.5	27.8	22.2	13.5	21.6	47.2	38.2
1961	119.6	166.6	31.5	80.0	24.6	16.5	14.0	24.6	49.4	45.4
1962	118.8	178.2	29.3	80.6	24.4	20.0	13.1	23.6	52.0	54.1
1963	118.5	179.1	28.2	78.4	24.2	21.8	13.3	24.3	53.0	54.6

*The figures for 1958 and 1959 with the asterisk are the official ones, while the ones without the asterisk are the estimates. All of the figures for 1960-1963 inclusive are estimates.

Source: D. J. Dwyer, "China's Recent Harvests," The Geographical Journal, CXXX (June, 1964), 322. Reproduced from Current Scene, 1964. Some of the figures are estimates.

Professor Yuan-Li Wu feels that Communist Chinese statistics issued before 1958 are underestimates of the grain output and the ones released after 1958 have an upward bias. He thinks that China did not have large stocks in 1950 for there was no rationing system introduced then, while the official figures showed that she had withdrawn around 200 million tons, in cumulative totals, from the stocks between 1950-1956. Thus, he feels, there is 25 percent underestimate of gross output. Again, until 1956 the acreage under cultivation showed a statistical increase, for there is no accurate reporting system. After 1956 when collectivization had begun the acreage reporting gained accuracy. The State Statistical Bureau was not established until 1952. While the cumulative stocks between 1957 and 1961 show some 165 million tons, which sounds inconsistent, Professor Yuan-Li Wu discounts the official figures by 38 percent for 1958 and 28 percent for 1960 in Table 2.¹

Between 1953 and 1957, according to one estimate, the proportion of gross domestic product arising from agriculture fell from 45 percent to 38 percent. In 1960 it fell further to 26 percent, perhaps because of the overestimate of industrial production and the

¹Yuan-Li Wu, op. cit., pp. 143-144.

Table 2. Balance sheet of China's crops

Year	Official production figures ^a	Adjusted figures ^b	Ration (Kg.) ^c	Population in millions ^d	Estimated human consumption ^e	Official net exports	Available for human consumption ^f	Remaining stocks
1950	108.1	180	245	547	133.9	---		
1951	124.7	183	245	558	136.6	---	143.8	+7.2
1952	135.1	184	245	569	139.3	+0.9	145.4	+6.1
1953	154.4	180	245	581	142.4	+0.9	146.5	+4.1
1954	156.9	177	245	595	145.7	+1.1	142.9	-2.8
1955	160.5	184	245	608	148.9	+1.3	140.4	-8.5
1956	174.8	182	245	621	152.1	+1.2	146.1	-6.0
1957	182.5	185	210	637	141.8	+1.1	144.9	+3.1
1958	185.0	175	245	654	160.2	+1.2	146.8	-13.4
1959	250.0	154	202	668	140.4	+1.7	138.6	-1.8
1960	220.0 ^g	130	150	682	108.1	---	123.5	+15.4

Table 2. Continued

Year	Official production figures ^a	Adjusted figures ^b	Ration (kg.) ^c	Population in millions ^d	Estimated human consumption ^e	Official net exports	Available for human consumption ^f	Remaining stocks
1961	185.0 ^g	140	145	693	101.1	-5.6	109.6	+8.5
1962	-----	160	145	702	103.5	-3.2	115.2	+11.7

^a Source: Great Ten Years (Peking, Foreign Languages Press, 1959), p. 105.

^b It is assumed that there was an underestimate of grain production during 1950-1955, and an overestimate of stocks with the government, thus, the author distributes the cumulation total of grain production over individual years in the same proportion as the assumed underrating of equivalent planted during the same period. Source: Yuan-Li Wu, The Economy of Communist China: An Introduction (New York: Frederick A. Praeger, 1965), p. 140, 146.

^c Rations fixed in 1951, were 201 kilogram a year for persons doing light work, and 252 for heavy work. Since between 1954-1956 urban population was 14 percent of the total and rural 86 percent. The average comes to 245 kilograms per person per annum. In 1957 it was 210 kilograms, and so on. It was varied as shown in Official production figures. Also see Yuan-Li Wu, "Farm Crisis in Red China," Current History, XLIII (September, 1962), p. 162. (Ration per adult per year in kilograms.)

^d Population growth is based on official estimate through 1957, 2.2 annual increase for 1958-1959, 1960-1962 is a little lower rate. (Mid-year population in millions).

^e On the basis of per capita ration (estimated human consumption).

^f Total production, minus net exports and the 20 percent of the total officially declared as going to waste, seeds, feed and manufacturing. (Total available for human consumption.)

^g From unadjusted official figures (In grain terms, Official production of cereals of potatoes in preceding year).

crisis in agriculture. During 1960-1962 industrial production fell sharply, the trend was reversed, and the proportion again rose to 43 percent in 1962. Net domestic product was higher, since it does not involve much depreciation - 46 percent in 1953, 39 in 1957, 27 in 1960, and 47 in 1962.¹

During 1952-1957, 77 to 78 percent of the population was engaged in agricultural production. Per capita output figures show a decrease of 1.7 percent in agriculture during the period, while the non-agricultural sector shows a 44 percent increase. Per capita output in terms of gross value added in the non-agricultural sector was 3.7 times that of agriculture in 1952 and 5.5 times in 1957.²

During 1952, 59 percent of China's exports were agricultural products and 23 percent manufactured products of agricultural origin. In 1957 the figures were 40 percent and 31.5 percent, respectively.³

It is doubtful that the Chinese officials themselves have a clear idea of agricultural output, owing to the inaccuracy of the data. In any case, the agricultural crisis of 1959-1962 manifested that the productivity had not increased, although labor inputs had increased.

¹ibid., p. 132.

²ibid.

³ibid.

Nevertheless, communal accumulation and the other share capital and works performed on some of the projects amounted to some 15 percent of income in 1957, and the per capita personal income probably was around 48 to 56 yuan a year, while in 1931-1936 the per capita rural income was 58 yuan at pre-war prices.¹

Communes as such increased the labor force and the labor mobility. Thus it made a labor intensive agricultural operation possible. But the lack of incentives, commune officials' undue interference and mismanagement, and high rate of income savings ratio brought about an agricultural crisis which was complicated by the bad weather. This led to a further increase in the number of communes from 24,000 to 100,000 in 1962, and the number of brigades to 500,000. This change was brought about to enable efficient operation in smaller units.

¹Ibid., p. 151.

A note on the exchange rate of yuan to a dollar would not be out of place here. One U. S. dollar equaled 3.839 yuan in 1933, 2.617 yuan in 1957 (official rate); but the market rate in Hong Kong according to one report, was about 5.5 yuan in 1958, 7.7 yuan in 1959, 7.9 in 1960 and 8.0 in 1961 and 1962.

Fields and the Technology

Much of China's cultivable land is on slopes and is organized into terraces, which do not allow irrigation or drainage without some kind of mechanical aid. Earlier this was done through foot-pedaled or animal-propelled water wheels. In 1962-1963 China claimed to have irrigated about 50 million hectares, of which 4.8 million hectares were by electrical pumps in 1963, compared to 3.4 in 1962.¹ There are no figures published of diesel pumps, perhaps because of the shortage of oil.

Indiscriminate irrigation during the "Great Leap" period into saline and alkaline lands led to destruction of crops, owing to leakage of water from canals into salty soil and spreading into the fields.²

Mechanization of agriculture is very desirable in order to raise the per capita productivity in the fields. But China's land, in general, is not suited to a high degree of mechanization. Until 1958, she had to

¹Colina MacDougall, "Power in Communes," Far Eastern Economic Review, XXXIX (January 31, 1963), 118.

²"Crop and Weather," Far Eastern Economic Review, XXXVI (May 10, 1962), 263.

import all her tractors. From 1915 to 1949 less than 1,000 tractors were imported for use on the experimental farms.¹

During the First Plan, 22,000 were imported. In 1960, the number of China was at 81,000; 90,000 in 1961 and approximately 100,000 (15 h. p. units) by 1962.² Many of these tractors were employed by tractor stations; 390 of them were set up during 1953-1957.³ By the end of 1960 28,000 tractors were employed by 2,490 large state farms, which averaged 2,100 hectares each.⁴

Chemical fertilizers are very important inputs needed to raise the productivity of agriculture. Chemical fertilizer production in 1958 was .811 million tons, while in 1959 it was 1.78 million, 2.78 in 1960 and 2.20 in 1962, which is supposed to have been doubled in 1965. China imported 1.5 million tons in 1958 and 1.2 in 1962.⁵

¹Henry Lethbridge, "China: Collectivization and Mechanization," Far Eastern Economic Review, XXIX (February, 1963), 309-312.

²Ibid., and Peking Review, VI (March 1, 1963) 28.

³Leslie, T. C. Kuo, "Agricultural Mechanization in Communist China," The China Quarterly, No. 17 (January-March, 1964), 134-150.

⁴Yuan-Li Wu, op. cit., p. 154.

⁵Harold Munte-Kaas, "China's Fields and Factories," Far Eastern Economic Review, LI (February 3, 1966), 154.

Recently China has established a nation-wide network of Agro-Technical Stations, the functions of which are to spread improved techniques, examine traditional farming methods, train technicians, and so on.¹

Appraisal

To tap the agricultural surplus, the Marxist-Leninist model has advocated a direct state participation, through the development, organization and operation of farming. Through state farms, collective farms or co-operative farms and communes. The purpose is to exploit the anticipated economics of scale and technology as well as direct supervision and central planning.

The quota system was invented to feed the rising urban population. The required quota was to be sold to the state procurement agencies before any distribution of the output, at arbitrarily fixed low prices.

There was rationing of food and fibre in the urban-industrial sector through the means of state-controlled retail stores, and consumers' co-operatives, with regulated wage and price controls.

¹Henry Lethbridge, "Trends in Chinese Agriculture," Far Eastern Economic Review, XL (May 30, 1963), 499-506.

It seems from the above discussion that the Chinese have merely been able to keep pace with population growth, except for the disastrous years of 1959-1962. One way to increase agricultural production in China would be to invest in the reclamation of lands which can be profitably cultivated. Another would be to expand the production of fertilizers. The area under irrigation should be expanded. Mechanization has a limited application on the Chinese farms, for the land is not quite suited for it. At the same time, labor is much cheaper as compared with machinery and fuel expenses. Peking will have to adhere more and more to labor intensive techniques. Peasant incentives, adequate supply of inputs, increasing technical guidance, and coordination of different sectors are pre-conditions of agricultural development in China. Simultaneously, the "population explosion," which is a drag on her economy, must be brought under control.

As indicated in Table 2, China's per capita food consumption has been consistently declining. While her stocks of food grains have been rising in the hard years of 1960-1962. This could be because China fears that she might get involved in a large-scale war. Since China's goals are, economic self-sufficiency and a strong national defense, she is inclined to hard-press the consumers.

CHAPTER II

INDUSTRIAL UPSURGE

Socialization of Private Business

China gave a high priority to the industrial development, which left agriculture to be developed at a later stage. In order to bring about a high rate of industrial growth Communist doctrine advocates the ownership of the state over all the means of production, as the first step towards the Utopian ideal of reaching the state of society in which "one contributes according to his ability and receives according to his needs." Russian Communists sought to bring about a radical break from capitalism as soon as they came to power, but without success. The Chinese attitude toward it, on the other hand, was quite restrained, at least in the beginning.

In 1949, around half of the Chinese industrial output and more than three-fourths of the wholesale and retail trade were handled by private-enterprise.¹

¹George N. Ecklund, "Protracted Expropriation of Private Business in Communist China," Pacific Affairs, XXXVI (Fall, 1963), 238.

To tighten her control over private enterprises, the Peking regime launched in 1950-1952 the "Wu-fan" or "five-anti" (bribery, tax evasions, theft of state property, cheating, and private speculation) and the "three-anti" (corruption, waste, and bureaucratism in the Party and Government) movements.¹ Under these programs, 76 percent of the 160,000 merchants were found guilty, in the seven leading cities in which investigations took place.² The private sector was asked to carry on business only with the Government at fixed prices. This gesture of liberalism probably owed its allegiance to the predominant dependence of the economy on the private sector. But it did not last very long, for it was a product of convenience.

In 1956, all private enterprises were brought under direct state control. The owners of the firms were to be paid 5 percent interest on their capital invested from 1956 to 1965. The Government then

¹Ronald Hsia, "Private Enterprise in Communist China," Pacific Affairs, XXVI (December, 1953), 330.

²Theodore Hsi-en Chen, "The Liquidation of Private Business in Communist China," Far Eastern Survey, XXIV (June, 1955), 83-84.

undertook the consolidation campaign. Thousands of smaller firms all over China were swallowed up by large organizations.¹

With the disaster of the "great Leap" capitalism, which possesses the self-generating elements of incentive, re-emerged in china, with the reintroduction of private plots and free markets.

Industrial Performance

The whole of the period under consideration can be divided into three phases: the rehabilitation period (1950-1952), the First-Five Year Plan (1953-1957) and the Great Leap Forward and its aftermath.

The rehabilitation period undertook to restore the economy to normal after World War II, the Civil War, and the post-war inflation. This implementation of the socialization of private trade, industry, and land ended in 1956.

During the First Plan, industrial growth was phenomenal, Although official Chinese figures had exaggerated the development by keeping 1952, a depressed year for trade and industry, as their base year. The "three anti" and "five anti" movements had considerable role to play in slowing down economic activities in 1952. Thus, some

¹Ecklund, op. cit., p. 245.

western economists have taken 1933 as the base year, while others have taken 1957 as the base year to determine the rate of growth in China. Again, the tendency with the centralized economies is that they fix the prices of "new products" unwarrantedly high, at experimental cost levels, and so the data on industrial growth shows an upward bias. Furthermore, the Chinese Communists do not seem to be considering the qualitative improvements in their products. One of the most conspicuous objections to the reliability of the Chinese industrial statistics is that they use the gross value of the output as the accounting unit, rather than the value-added approach. This approach takes into account the raw materials and the intermediate products. Thus it tends to exaggerate industrial growth figures. Changes in gross value may be an outcome of changes in the composition or combination of the inputs. All these factors combined make it difficult to arrive at an accurate rate of industrial development in China. This method is preferred by the Chinese Communists, either to impress their subjects and the lay-outside-observers; or it is adopted because of the lack of statistical sophistication on their part.

Quantitative Record

Whatever statistical method is used, the unprecedented high rate of industrial growth is evident. On examining Table 3 on gross output of modern industry, it becomes quite clear that within the First Plan, China doubled her output, although we do not have any means of inspecting the quality of good produced.

The Chinese gave a very high priority to industrial development in their First Plan. The proportion of investment in industry to total investment in the FFYP (1953-1957) was 45 percent, while in 1958, the first year of the Great Leap, it was 64.8 percent.¹

According to the official Gross Industrial Output statistics, the industrial output as a whole had increased from 34.3 billion (1952 yuan) to 78.4 in 1957 and around 214.2 billion by 1960. Even within this, the "modern industry" output had increased from 22.1 billion in 1952 to 55.6 in 1957, while handicraft industry (both factory and cottage) had increased from 12.3 billion in 1952 to 22.8 in 1957. According to these figures, the "modern industry" sector grew 152.4 percent over the period (see Table 3), and handicrafts by 85.4 percent. But western

¹Kang Chao, "Indices of Industrial Output in Communist China," The Review of Economics and Statistics, XLV (August, 1963), 286.

Table 3. Alternative estimates of gross output of modern industry^a

Year	Official statistics adjusted for "new product effect"		"Composite Series" of estimates based on functions of electricity and finished steel inputs ^c		Liu-Yeh estimates ^d	Chao Kang ^e estimates	Chao Kang Annual rate of factory prod. inc. (percent) ^f
	Value	Index	Value	Index	Index	Index	
1952	22.0	100	22.4	100	100	100	
1953	28.4	129.1	27.8	124.1	122.9	124.7	24.7
1954	33.0	150.0	32.7	146.0	142.2	141.6	13.5
1955	35.6	161.8	36.4	162.5	159.0	146.9	3.7
1956	45.0	204.6	44.7	199.6	210.8	182.2	24.0
1957	49.7	225.9	50.0	223.2	238.6	195.9	7.5
1958					289.2	272.6	39.2
1959					373.5	371.4	36.2

^aIn billion yuans at 1952 prices. 1952 = 100).

Sources: ^bFred C. Hung and Yuan-Li Wu, "Conceptual Difficulties in Measuring China's Industrial Output," The China Quarterly, No. 17 (January-March, 1964), 61.

^c"Composite Series," from Yuan-Li Wu, The Economy of Communist China: An Introduction (New York: Frederick A. Praeger, 1965), p. 112.

^dTa Chung Liu and Kung Chia Yeh, "Preliminary Estimate of the National Income of the Chinese Mainland, 1952-1959," The American Economic Review Papers and Proceedings, LI (May, 1961), p. 490.

^eChao Kang, "Indices of Industrial Output in Communist China," The Review of Economics and Statistics, XLV (August, 1963), p. 290.

^fIbid.

scholars have tempered the rate to the moderate level seen in Table 3. In any case, the "modern industrial" sector has progressed at a much higher rate than any other sector of the economy.

The annual rate of growth shows a highly uneven trend. The annual rate of growth is generally lower in the First Plan period than in the period of economic rehabilitation (1949-1952) and the first two years of the Second Five Year Plan (1958-1959). The highest rate of increase was witnessed in 1958 (39.2 percent) in the factory production in the whole period under consideration. The rate of growth touched its ebb in 1955 with an annual rate of increase in factory production of 3.7 percent and in 1957 or 7.5 percent (see Table 3, column 5).

In the "composite series" of estimates given in Table 3 Professor Wu has used electric power and finished steel inputs.

Over the First Plan period, the average annual rate of growth of the modern industry has been quite variable, according to the estimates of different western Sinologists. Official estimates claim it to be 20.3 percent, adjusted official estimates show 17.7 percent, while Professor Wu's "composite series" reveals it to be 17.4 and Chao Kang's figures state about 14.4.¹

¹Yuan-Li Wu, The Economy of Communist China, p. 113.

During the period 1952 to 1957, the electrical industry increased by 21.6 percent, coal by 14.6 percent, petroleum by 27.3 percent, ferrous metals by 28.7 percent, non-ferrous metals by 29.9 percent, metal processing by 22.1 percent, chemicals by 25.7 percent, building materials by 19.3 percent, textiles by 6.5 percent, paper by 17.1 percent, while the food industry and light industrial goods expanded by only 9.3 percent and 11.8 percent.¹ These figures indicate that consumer goods expanded much slower than industrial goods. At the same time, the development pattern of industries was quite different from that of other developing countries. In China, unlike other developing nations, textiles is not a leading industry. Heavy industries are much more emphasized there.

Taking the Great Leap period into account, industrial output took a substantially big stride in 1958 and 1959 (see Table 3 and 4). But again, these tables also reveal that production had increased at a decreasing rate in the years after 1958. Official data also concedes the fact.

According to Professor Wu, there was a decline of 74 percent, in absolute terms, in 1961, and a further drop of 3 percent in 1962. Professors Hung and Wu have come to a conclusion that the economic

¹Chao, Kang, *op. cit.*, p. 291.

Table 4. Estimates of increases in industrial value product 1952-1960 (in percent)

Source of estimate	Nature of value product	Total increase over			Increase in		
		1952-57	1957-59	1957-60	1958	1959	1960
		gross					
Official	net ('57) ^a	('52) ^a 128.4	131.5	177.3	66.3	39.2	29.0
Liu-Yeh	net ('52) ^a	94.2	51.9	-----	19.6	27.0	-----
Wu <u>et al.</u>	net ('52) ^a	89.2	58.1	82.9	19.5	32.3	15.7
Chao Kang	net ('52) ^a	85.9	71.3	-----	30.3	31.5	-----

^aPrice

Source: Choh-Ming Li, "China's Industrial Development, 1958-1963," China Quarterly, No. 17 (January-March, 1964), p. 14.

Table 5. Estimates of increases in the value of output of modern industry and handicraft—1952-1959 (in percent)

Source of estimate	Value product (1952 price)	Increases over 1952-57		Increases over 1957-60	
		Modern	Handicrafts	Modern	Handicrafts
Liu-Yeh	net	140.2	14.0	60.4	20.4
Wu <u>et al.</u>	net	134.1	12.5	71.9	9.3
Chao Kang	net	95.9	-----	89.6	-----
Official	gross	152.4	85.4	144.8 ^a	99.7 ^a

^aChoh-Ming Li's interpolation from 1957 official data.

Source: Choh-Ming Li, "China's Industrial Development 1958-1963," China Quarterly, No. 17 (January-March, 1963), p. 14.

depression of 1961 and 1962 had died out by the end of 1962, and again the economy had picked up its speed thereafter.¹

Handicrafts

To the Chinese Communists, in conformity with Marxist dogma, handicraft signifies a traditional and technically out-dated method of production which combines labor with a few simple tools and implements without the aid of machines.² Handicrafts do not create surplus value either, and so they were not attractive to the Communist planners.

As depicted in Table 5, the increases in handicrafts were much smaller than in "modern industries." During the First Plan, the increase in "modern industries" was substantial, while that of handicrafts was not as spectacular. While over the period of 1957-1960, handicrafts made a fairly good progress, according to Liu-Yeh estimates, Wu, showed it declining. Official estimates show a considerable upward trend. The first two years of the Great Leap showed a rise, but Wu, shows that the handicraft value product dropped 8.5 percent

¹Choh-Ming Li, "China's Industrial Development, 1958-1963." The China Quarterly, No. 17 (January-March, 1964), 15.

²Peter Schran, "Handicrafts in Communist China," The China Quarterly, No. 17 (January-March, 1964), 152.

in 1960 and another 11 percent in 1961, because of the agricultural crisis. The decline ended in 1962.¹

Industrial Structure

On examining Chao Kang's figures given earlier in this chapter, on percentage increase industry-wise, it is quite evident that increases in different industries vary spectacularly, but that the metallurgical and the engineering industries have expanded faster than the textiles and the consumption industries.

The composition of output, input of factors, and the scale of production give us sufficient information regarding structure. According to Liu, based on 1952 prices, the modern industrial sector's share in the domestic product rose from 9 percent in 1933 to 14 percent in 1952 and 24 percent in 1957. That of agriculture declined from 50 percent in 1933 to 47 percent in 1952 and 41 percent in 1957.² Thus, the industrial sector comprised nearly one-fourth of the net domestic product by 1957,

¹Choh-Ming Li, "China's Industrial Development, 1958-1963," p. 16.

²Ia-Chung Liu, "Structural Changes in the Economy of the Chinese Mainland," 1933 to 1952-57, American Economic Review Papers and Proceedings, XLIX (May, 1959), 86.

while the figures available for the 1957-1960 period are in gross-value terms of all industry outputs (Table 6). Wu estimates show that by 1957 industry contributed 20.3 percent to the gross national product, and reached 29.5 in 1959, but declined to 14.5 percent in 1962.¹ The same source states that agriculture had contributed 39.2 percent in 1957, 32.2 percent in 1959, and had risen to 47.1 percent in 1962. This indicates that in the First Plan China had emphasized the industrial drive, but that the failure of the Great Leap in 1960 brought back the change toward agricultural development.

The chief bottlenecks that appeared in the industrial development in 1958-1959 were the low quality of industrial goods produced, agricultural calamities, and lack of adequate transportation.

A number of new varieties of products have appeared in China, such as aircrafts, radio-electronic apparatus, television sets, high-tensile structural steel, chemical fibre, and 72,500 k. w. hydro-electric power-generating equipment. These new products, along with uneven industrial development in China, have changed the composition of her outputs considerably.

²Choh-Ming Li, "China's Industrial Development," p. 18.

Table 8. Official data on industrial structure, 1957-1960 (in 1957 prices)

Item	1957	1958	1959	1960
Gross value of all-industry output (in billion yuan)	70.4	117.1	163.0	210.0
	In percentage			
Composition by production method				
1. Modern	70.6	74.5	74.6	-----
2. Handicrafts	29.4	25.5	25.4	-----
By nature of product				
1. Heavy industry	48.4	57.3	58.7	60.5
2. Light industry	51.6	42.7	41.3	39.5
By operating organization				
1. Industrial departments	100.0	94.7	92.7	91.0
2. People's communes	0	5.3	7.3	9.0
a. Rural	0	5.0	6.1	7.1
b. Urban	0	0.3	1.2	1.9
By level of control				
1. Central	46.0	27.0	26.0	-----
2. Local	54.0	73.0	74.0	-----

Source: Choh-Ming Li, "China's Industrial Development, 1958-1963," China Quarterly, No. 17 (January-March, 1964), p. 14.

Changes in input structure are obvious from the relative increase in capital and labor. During the first quinquennium, the increase in the fixed capital in industry amounted to 21,400 million yuan (at 1952 prices), while in 1958 it is estimated to be 11,763.¹ Again, it is estimated from the above figures that by the end of 1958 the amount of fixed capital in the entire industrial sector was around 47,483 million yuan (at 1952 prices).² Thus, the amount of fixed capital assets per worker for the industrial sector was raised from 4,064 yuan in 1952 to 8,472 yuan in 1958.³

The higher degree of mechanization aggravated the shortage of skilled labor. Although the number of industrial graduates had tripled during 1953-1957, they were only 2.2 percent of the total industrial employment in 1957. This is another handicap in China's industrial efforts.

In the First Plan, the emphasis was on the Central Government-operated enterprises, but Table 6 shows that from 1957 onwards the trend had reversed.

¹ Ronald Hsia, "Growth and Structural Changes of Chinese Industry," Contemporary China, III (1960), 60.

² Ibid.

³ Ibid.

Again from Table 6, we can conclude that the emphasis on the development of the heavy industries has been affected since 1958, but the gross value-product has increased from it by 1960. It may be owing to the longer gestation period required for the heavy industries to run at capacity.

There seems to be a gradual trend of decentralization in the operating or ganization in the industrial field. This may have been a consequence of the policy of "walking on two legs" implemented in 1958.

Iron and Steel Industry

A large-scale industrial development program in a country cannot be carried out without establishment of an iron and steel industry. By developing the iron and steel industry, other allied industries will also be stimulated. Major raw materials needed for the steel industry are iron ore, coal, and scrap.

Since the steel industry has the greatest total linkage, Peking's planners gave it the utmost priority in allocation of materials, labor, and transportation facilities. There was a rising demand for steel for farm implements, transport systems, new urban and rural commune-sponsored industries, and other construction projects.

Iron ore reserves of China are estimated to be 1,484 to 1,821 million tons by V. C. Juan.¹ Muzaffer Er Selcuk of the University of Purdue estimates it at approximately 4,338 million tons, containing 1,537 million tons of metallic iron.² Of this estimate, around 3,189 million tons containing 1000 million tons of iron is in Manchuria. Only 20 percent of this total is shown to be "economic ores" (ore that can be turned into pig iron at \$60 or less per ton).³

China has sufficient reserves of limestone, dolomite, manganese, tin, copper, zinc, tungsten, and other raw materials to meet the demands on them to develop the steel industry rapidly. China does not have sufficient quantities in earlier days. Thus, China imports scrap from other countries - especially Japan.

The First Five Year Plan target of 4-12 million tons of steel and 4.7 million tons of pig iron were surpassed by 1956.⁴ The production of crude iron, by indigenous methods, also rose from 30,000 tons in

¹Vei Chow Juan, "Mineral Resources of China," Economic Geology, XLI (June-July, 1946) 405.

²Muzaffer Er Selcuk, "The Iron and Steel Industry in China," Economic Geography, XXXII (October, 1956), 347.

³ibid.

⁴Theodore Shabad, "China's Year of the 'Great Leap Forward'," Far Eastern Survey, XXVIII (June, 1959) 92.

1952 to 593,000 tons in 1957. Local pig iron production also exceeded the planned target of 1,730,000 tons for 1958.

By the end of 1957, the Soviet-built plants contributed approximately 57 percent of China's steel production and 50 percent of coal output,¹ although Russians had constructed only 3 of the 15 iron and steel enterprises planned for the period and only 27 out of 194 of the coal plants planned.² This indicates that the Russian plants were larger and more efficient than those built by the Chinese, and that the First Five Year Plan could not have been successful without them.

At the same time, the production of pig iron increased from 1.9 million tons in 1952 to 5.9 million tons in 1957, and that of steel rose from 1.4 to 5.4 during the same period.³

In 1958, when the "Great Leap" was formulated, the People's Daily reported that regime's plan to develop 200 small converters and 13,000 iron smelting furnaces by the end of 1958.

This small industry drive was planned to add 10 million metric tons of steel-producing capacity and 20 million tons of pig-iron-producing

¹ Sidney Klein, "Recent Economic Experience in India and Communist China: Another Interpretation," American Economic Review Papers and Proceedings, LV (May, 1965), 36.

² Ibid.

³ Theodore Shabad, loc. cit.

capacity. It was claimed in September, 1959, to have achieved only 4 million tons increase in steel and 10 million in iron by the summer of 1958.¹ In 1957, the production of steel ingots had reached only 5.4 and pig-iron 5.9 million tons; by 1958, they had reached a new height of 11 and 13.7 million tons, respectively.²

This policy of over-emphasis on steel production led to inter-industry imbalance. By the end of 1958, the output capacity of steel industry was twice the steel demanded for the machine-building industry.³

In 1959, 20.5 million tons of pig-iron were reported to have been produced, out of which around 11 million tons were produced by the small "modern" blast furnaces (which numbered around 1,300 in 1960 built during 1958-1959).⁴ Out of the total steel production of 13.35 million tons, about 4.72 million, or 28 percent, came from small Bessemer converters.⁵

¹Yuan-Li Wu, "Industrialization under Chinese Communism," Current History, XXIX (December, 1960), 344.

²Ibid.

³Ronald Hsia, "Economic Changes in Communist China," The Political Quarterly, XXV (July-September, 1964), 307.

⁴Ibid., p. 346.

⁵Ibid.

This means that instead of 9.53 million tons of pig-iron produced in 1958, from the "large" iron and steel mills, it had dropped to 9.5 million, while steel production had increased from 1958 production of 8 million tons to 8.63 million tons in 1959.

The quality of iron and steel produced from the "small" plants and the "backyard furnaces" was drastically poor. Thus came the end of the "Great Leap Forward."

In 1960, Chinese official reports claimed the total production of steel to be at its new height of 18.5 million tons.¹ Of course, this included both the "large" and the "small" indigenous furnace production. I was later confessed that about 28 to 30 percent of the 1960 level of production was not usable.²

Although China has not published her steel production figures since 1960, visitors to that country have observed that her major iron and steel firms are still operating at only about 50 to 60 percent of their former capacity.³

¹Alexandra Close, "China Streamlines her Steel," Far Eastern Economic Review, XXXXVII (March 4, 1965) 365.

²Colina MacDougall, "China: Steady Progress," Far Eastern Economic Review, LI (December 2, 1965), 423.

³Alexandra Close, loc. cit.

Peking claimed that she was forced to cut down her steel production in 1961, because of the exhaustion of raw materials—lime-stone, coal and iron ore. Nevertheless, it was a tremendous waste of manpower as well as the raw materials in the Great Leap Forward years. Secondly, she stated that the steel producing machinery had deteriorated and needed replacements and repairs. Naturally, this was the direct consequence of the withdrawal of the Soviet aid and experts in 1960. The majority of her small plants, which had sprung up like mushrooms in the 1958-1960 period, gradually turned into ashes and rocks. China's low quality steel and iron production failed to meet the requirements of certain specialized industries. This was reflected in the rising imports of iron and steel plates and sheets, tubes, pipes, and so on, from Britain. The value of such imports increasingly mounted from 701,889 in 1962, to 2,322,556 in 1963, and 2,676,712 in 1965.¹

¹Ibid., p. 366.

Coal Industry

Leaving aside the vast manpower, coal is the most important source of energy in China, because so far all the other alternative sources have not been exploited enough. Although the hydro-electric power potential is very large, it demands a high level of initial investment.

To meet the increasing demand for power in an industrializing country, the Chinese planners are faced with the problems of development of alternative sources, expansion of coal production, and developing new coal mines so as to eliminate the cost of transportation and thus reduce the coal consumption by railways. In 1960, 40 percent of the total freight on railways was coal, amounting to about 288 million tons, out of the total output of 400 million tons.

China's reserves of coal had been estimated by the National Geographical Survey in 1945 to be 265,311 million tons, but the Chinese claimed it to be 1,500,000 million tons in 1959.

Prior to the outbreak of the Sino-Japanese War in 1936, coal production in China and Manchuria had reached the estimated level of 36 million tons. Owing to the wartime production drive, it had reached 60 million tons by 1943. The Civil War, which followed reduced the output

to 15 million tons by 1946.¹ By 1949, the figures had recovered to 32 million tons. By 1952, the demand for coal was so great that the curtailment of direct consumption of coal and rationing to households was the only means of redressing the balance.²

Much of the rehabilitation process during the 1949-1952 period was carried out with Russian assistance. By 1950, half of the mines had been calimed to have been mechanized in Manchuria.³ The Russians agreed to equip 27 coal mines and coal washing plants and extend expert advice in the field during the First Five Year Plan. The Plan envisaged to increase the capacity to 112.9 million tons from the 1952 level of 66.5 million. The Plan target was further raised by 53.85 million tons.

In 1950, the output obtained through mechanized means accounted for only 4 percent of the total. By 1954, the same figure had risen to 33.6 percent.⁴ It has been claimed that by the end of 1958, 90 percent of the lifting work and 97 percent of the extracting work was done by machines

¹D. J. Dwyer, "The Coal Industry in Mainland China Since 1949," The Geographical Journal, CXXIX (September, 1963), 331.

²Yuan-Li Wu, An Economic Survey of Communist China, p. 289.

³"Coal," China New Analysis, No. 167 (February 8, 1957), 4.

⁴Theodore Shabad, China's Changing Map (New York: Frederick A. Praeger, 1956), p. 56.

in the larger mines.¹ Introduction of hydraulic mining was an important innovation employed in the larger mines.

Coal production forged up from 64.7 million tons in 1952 to almost the double the level (130 million tons) in 1957.²

The 1958's "walking-on-two-legs" policy of the "Great Leap" encouraged local production by indigenous means. The number of local mines increased from 20,000 to 110,000 in 1958 alone; and some 20 million people were working on it. The number of large mines (capacity above 30,000 tons per annum) were also increased.

The coke production rose from 8 million tons in 1957 to 23 million in 1958, but about 70 percent of the 1958 output came from indigenous mines, and so of low quality, mixed coal and rocks.³

This uneconomic situation was recognized in 1959 and about 80 percent of the number of coal pits and 70 percent of the workers were

¹Dwyer, op. cit., 332.

²Choh-Ming Li, "Economic Development," The China Quarterly, No. 1 (January-March, 1960) 40; and Everett D. Hawkins, "China's Fuel and Power," Current History, XXV (December, 1958), 337.

³Andrew Nathan, "China's Lagging Coal Mines," Far Eastern Economic Review, XXXXII (November 14, 1963), 354.

reduced in that year.¹ Nevertheless, the production of small mines had increased from 102.6 million tons in 1958 to 142.6 in 1959, and to 261.2 in 1960, which amounted to 38,41, and 65 percent of the total for each year, respectively. The more promising mines were mechanized.²

The better quality of coal from the "large" mines rose from 167.4 million to 205.2 in 1959, but declined sharply to 138.8 million tons in 1960, owing to lack of co-ordination in planning and transportation facilities. Coal had piled up at the mines.

Industrial consumption of coal in 1952 was 32 million tons, which rose to 69 by 1957; and similarly, demand of coal for heating and cooking rose from 24 to 52 million tons in the same period.³

Transport

Apart from the government weaknesses, the lack of an adequate transport system is the chief cause of China's backward state of industrialization before 1949.⁴ In China, the transport network is fairly well

¹ Ibid.

² "Fuel Industry: Production," China News Analysis, No. 371, (June 2, 1961) 2.

³ Dwyer, loc. cit.

⁴ Murphey, "China's Transport Problem and Communist Planning," Economic Geography, XXXIII (January 1956), 17.

developed in the eastern coastal region, where industries and commerce flourished, but the hinterland has lacked transportation facilities.

Railways did not develop fast enough—probably because the volume of goods transported remained almost stationary. Thus, the railroads, instead of earning greater profits, often entered into cut-throat competition with the existing means of transportation.¹ This was especially true in the 1930's.

On the local level, animal- and human-drawn carts, carrying poles, and such traditional means of transportation still form the backbone of China's distribution system, without which it would collapse.²

In 1949, the Peking regime undertook to restore the lines damaged during the war. Nearly half of the more than 17,000 miles of operable railroads in 1952 were in Manchuria. The First Five Year Plan announced the target of adding 125,000 miles of new railway. Excluding Formosa, China had 17,570 miles of railroads at the end of 1952. This amounts to one mile of railroad for every 216 square miles

¹Sun, "The Pattern of Railway Development in China," The Far Eastern Quarterly XIV (February, 1955), 191.

²Harold Munte-Kaas, "Roads and Rails in China," Far Eastern Economic Review, LI (February 17, 1966) 275-276.

of territory and 39 miles of transportation for every 1,000,000 people.¹

On an average, approximately 1,000 kilometers of railroad was constructed annually between 1949 and 1958. The rate slowed down after that, and only 800 kilometers were constructed between 1960 and 1962. Annually, about 1,300 k. m. were added between 1962 and 1965. Sinkiang was joined to the network in 1963. Perhaps the total mileage of the railroads in China is around 36,000 kilometers in 1966 (excluding the forest railways) compared to 31,000 in 1958.²

China's largest locomotive plant is at Dairen. She produced steam locomotives of about 3,000 h. p. until 1963, but since 1965 she has started producing 600 to 2,000 h. p. diesel locomotives. In 1958, it was reported that China produced 350 of her own locomotives. Passenger cars in operation may be around 10,000, and freight cars about 150,000. In 1960, China bought 50 steam locomotives from the U. S. S. R., and in 1960, 5 electric locomotives from France, who also electrified a 90 k. m. line in Szechuan Province.³

¹E-Tu Sun, op. cit., p. 179.

²Harold Munthe-Kaas, op. cit., p. 276.

³Ibid.

Between 1949 and 1964, more than half the goods transported was done so by railroads, especially heavy industry and capital construction goods, such as coal, minerals, construction materials, timber, cotton, and foodstuffs.

As regards highways, the last figures issued on mileage were in 1958, being 400,000 k. m. as compared to 227,000 km. declared as fit for trucks in 1957.¹ Today they are estimated at 550,000 km. of which 200,000 km. are paved.

Foreign visitors estimate about 250 to 300 thousand trucks, about 10 thousand buses, and 40 to 50 thousands passenger cars running on the Chinese roads. Chinese official production of cars in 1957 was 7,500. In 1964 the figure was 20,000, and in 1965 25,000.² In 1965 China imported from Russia 13,666 motor trucks, 1,159 passenger cars, 5 busses, and automobile parts, for a total amounting to 38,824 thousand rubles. This total dropped to 5,048 rubles, consisting of 710 trucks, 30 cars, and spare parts in 1961. In 1962, some 1,619 trucks and 141 cars were imported worth 8,204 thousand rubles.³

¹Ibid., p. 325.

²Ibid., p. 326.

³Colina MacDougall, "China: Motor Pick-Up," Far Eastern Economic Review, XXXXVIII (April 2, 1964), 40.

Petroleum Industry

China, as such, is very fortunate as far as endowment of petroleum is concerned. In the pre-war era, China's petroleum production had reached its peak of 320,000 metric tons in 1943. In 1949, it had fallen down to 122,000 tons, and thereafter recovered to 436,000 tons in 1952.¹

The First Five Year Plan (1953-1957) had put up its largest at 2 million tons. Despite the heavy capital investments, the performance was not up to the mark. Actual annual output more than doubled between 1952 and 1955, to 966,000 tons, but reached the level of only 1.41 million tons by 1957, giving an increase rate of 325 percent for the whole period.² It was, nevertheless, calculated by keeping a low base figure.

During this period, the inexperience of the Chinese labor force in this field, shortage of petroleum technologists, and poor quality of equipment used resulted in the slow progress in this industry. Poor performance in the production during the First Five Year Plan led the

¹Brian Heenan, "China's Petroleum Industry (II)," Far Eastern Economic Review, L (October 14, 1965), 93.

²Ibid.

policy-makers of Peking to raise the target for the Second Plan to 5 and 6 million tons by 1962.¹

In 1959, the official Chinese claim had risen from 2.26 million to 3.7 million, and by 1960 it further expanded to 5.5 million tons, according to a Russian journal.²

There have been no official figures released after 1960, and the available estimates are varying. In light of new discoveries claimed, development of older oil fields, better equipment supplied and greater trained labor force, better transport system, it is estimated that the output reached 6.5 million tons in 1961, 6.8 to 7 million in 1962, and 7.5 million in 1963.³

Chinese official data refer to the total oil output and make no distinction between synthetic and liquid oils. Foreign visitors estimate that about a third of China's home production of all oils come from coal

¹Colina MacDougall, "China: The Oil Scene," Far Eastern Economic Review, XXXIX (January 10, 1963), 51.

²Ibid.

³Heenan, op. cit., p. 94.

and shale. On this basis, Wei estimated that about 2 million tons of shale oil was produced in 1961.¹

Quite a number of new refineries have been established since 1957. The ones at Lanchow and Shanghai are among the large ones. The oil refining capacity is not yet known.

This drive for production increase in oil shows China's desperation to become self-sufficient in her petroleum supply. In 1958, the volume of imported oil exceeded domestic production. Two-thirds of China's estimated output of 7 million tons was imported in 1963.²

Oil has been one of the most important items of the Sino-Soviet trade. In 1950 it accounted for 12 percent of the total annual import trade by value and was placed third in importance after the "complete plants" and the "other equipment." By 1960 it topped the list and accounted for one-third of the value of all imports from the U. S. S. R.

Since the Sino-Soviet dispute in 1960, Sino-Rumanian trade has more than tripled, and Rumania is likely to replace Russia as the source

¹Anton W. T. Wei, "Minerals in China 1961." The Mining Journal (London) April 6, 1962, p. 3; From Heenan, loc. cit.; also Theodore Shebad, "China's Year of the Great Leap Forward," Far Eastern Survey, XXVIII (June, 1959), 94.

²Heenan, loc. cit.

of oil. China is getting some crude oil from Albania, and is searching for some oil from Algeria also.

The amount of oil available for consumption has risen from 3.2 million tons in 1957, to 8.8 million in 1960, and 9.7 million in 1963. Domestic production may have supplied 44 percent in 1957, 62 percent in 1960, and more than 70 percent of consumption demands in 1963. This shows that China is striving hard to depend less on foreign sources for her oil.¹

Assuming a population of 700 million, and the oil available for consumption being 9.7 million tons in 1963, the annual per capita consumption of oil is 4-5 American gallons, much below 17-20 gallons average for the whole of the Far East, Japan (130 gallons), the Soviet Union (200 gallons) and the United States (900 gallons).²

Most of China's oil fields are situated in the deep west, while the overwhelming demand comes from the industrial east. Since China's transport system is not yet well developed, distribution of oil is a problem the economy continues to face.

As China becomes further industrialized, she will have to increase her supply of petroleum.

¹Ibid., p. 95.

²Ibid.

CHAPTER III

THE COURSE OF INDUSTRIAL GROWTH

The First Five Year Plan

How could China, a country with such meager per capita income, procure such a high rate of industrial development? Will she be able to sustain such a high rate of growth for a long period of time? These are the questions posed by many individuals in developing countries. Further answers to these questions are attempted in the chapter on capital formation.

In the pre-Communist era, China's industries were consumer oriented; the heavy industries, transport system, and the power supply industries were less developed. China, like most other developing nations, had to depend on free international trade for her economic needs. According to T. C. Lin and K. C. Yeh, the consumer's goods industries produced 81.9 percent while producer's goods industries' output was 18.9 percent of the total output of the modern industrial sector. Factories (modern sector) produced 0.64 billion (1933 yuan) worth of output in 1933, and handicraft produced 2.04 billion worth in the same

year.¹ In 1936, 74 percent of the total industrial capital was foreign-owned. The confiscation of the Japanese-owned firms after the Sino-Japanese War hiked state-owned capital to 67.3 percent, as compared to 32.7 percent private capital.² The capital market and business administration were not well developed during this period. Thus, China possessed the commonly found characteristics of an underdeveloped country.

No sooner had the Communists taken over in 1949 than they brought about revolutionary changes in the economy. They uprooted the ancient institution of private property. The land and the industrial enterprises were socialized by 1956. In their First Five Year Plan, they gave a very high priority to the industrial sector and committed themselves to obtaining the support of the people. This emphasis on industrialization was not prudent on the part of the planners. By 1956, prices in general had risen five times since 1936; and the prices of scarce producer's goods were higher than the rest.³ Thus, the prices

¹ Ta-Chung Liu and Kung-Chia Yeh, The Economy of the Chinese Mainland: National Income and Economic Development, 1933-1959 (Princeton, New Jersey: Princeton University Press, 1965) p. 66.

² Yuan-Li Wu, The Economy of Communist China, 117.

³ Choh-Ming Li, Economic Development of Communist China: An Appraisal of the First Five Years of Industrialization (Berkeley, California: University of California Press, 1959), p. 42.

Table 7. China's petroleum imports, 1950-1963

(M/Tons 1000)		1950	1957	1958	1958	1960	1961	1962	1963
From the									
U. S. S. R.	Crude oil	38.9	380.4	672.0	635.9	567.6	-----	-----	-----
	Oil products	144.3	1422.2	1835.3	2412.3	2395.2	2428.2	1856.4	1408.0
	Total	183.2	1802.6	2507.3	3048.2	2962.8	2928.2	1856.4	1408.0
From									
Rumania	Total	-----	-----	-----	-----	350.0	700.0	1000.0 ^a	1300.0
	Grand total	-----	-----	-----	-----	3312.8	3628.2	2856.4	2708.0

^a Estimated

Source: Brian Heeman, "China's Petroleum Industry II," Far Eastern Economic Review, L(October 14, 1965), p. 94.

of industrial goods were much higher in China than in other industrial countries. This implies that the emphasis given to rapid industrial development in China had undermined the importance of reaping comparative advantage through international trade which would have been possible, had it been a free-economy. Consequently, the cost of rapid industrialization was high. A major share of this cost in terms of below-subsistence consumption was forced upon the people of China by her leaders.

The share of producer's goods rose to 43 percent in 1952 from 18.9 in 1933, and further to 57 in 1957. In 1959, 69 percent of total industrial production consisted of producer's goods. On the other hand, the share of handicrafts had fallen during the First Five Year Plan.

On the one hand, a production drive emphasis was given on the heavy industrial sector. On the other hand, there was a lack of coordination in inter-industry planning. During the last two years of the First Plan, there was a shortage of electric power, crude oil, iron and steel, coal and such basic industrial inputs. The supply had not increased enough to meet the rising demand of machine tool and metal working industry.

Among the light industries, only the paper industry had exceeded its quota. The remaining ones in this category fared poorly, such as

cotton cloth, sugar, wheat flour. These are the goods of daily use for the people.

As stated earlier, the initial rise in physical output during the First Plan was owing to the expansion of the industrial labor force. Later, the increase in productivity was a factor that played an important part, as technical experience was obtained. This may not be so for the Great Leap years.

The Great Leap was characterized by the indigenous techniques of production, labor-intensive methods, and small-scale local operations. According to official sources, three-fourths of the economy's coke, one-half of its iron ore and pig iron, one-third of its crude steel, and one-sixth of its cement was produced by these methods in 1959.¹ But about 30 to 40 percent of output by this method was found of too low a quality to be of any use. The Great Leap psychology had led the planners and the local authorities to revise the targets upward during the 1958-1959 period, which dislocated the planning machinery. During this period, labor was used highly uneconomically. For instances, it took 50 to 60 days to turn out one metric ton of poor quality iron from a tiny local

¹Ronald Hsia, "Economic Change in Communist China," The Political Quarterly, XXXV (July-September, 1964), 301.

furnace.¹ According to Kang Chao, in 1958, more than 100 million people was mobilized to construct dams, irrigation projects, and so on, without advance surveys and proper designs.² Millions of people were engaged in digging iron-ore and coal from the indigenous mines and constructing "back-yard furnaces" which were destroyed with the end of the Great Leap.

There was an enormous waste of labor power as well as the industrial raw materials. Some industries had over-produced, while others could not work their plants at capacity. The inadequate transport system aggravated the situation. As a result, the industries in Communist China engaged themselves in a vertical diversification after 1958. Under decentralized administration, they established "satellite plants" around the main plants in order to supply the main plants with materials needed. Thus, railway bureaus began to run cement plants, steel mills, and so on. Cement mills began to build paper mills and so on to supply their own needs.³ In about one year, thousands of industry

¹From Peking Review, March 3, 1959, p. 5, quoted by Ronald Hsia, *Ibid.*

²Chao Kang, "Economic Aftermath of the Great Leap in Communist China," *Asian Survey*, IV (May, 1964) 854.

³*Ibid.*, pp. 856-857.

complexes grew up like mushrooms, trying to produce multitudes of material inputs that the nucleus plants were in short supply of. The agricultural crisis and the disequilibrium created by the policy of "walking on two legs" brought an end to the Great Leap.

Great Leap Backward

With the withdrawal of Soviet technical and material aid in 1961, the policy of the industrial priority was shifted to agricultural priority. With this returned a greater reliance on such capitalistic elements of agricultural improvements as keeping production cost under control, improvement in quality of goods produced, greater emphasis on technical training, expansion of the fertilizer industry, farm machinery production, and so on.

In 1962, the output of steel rose 7 million tons, and chemical fertilizers 2.05 million tons. Other preliminary estimates have claimed the aggregate output of modern industry at 72 billion yuan in 1962. This is equal to 76 percent of the 1960 output of 94.5 billion yuan.¹ Although figures have not been released since 1960, it is expected that industrial production may have fallen to a low of 39.1 billion yuan in 1961.² This

¹Yuan-Li Wu, The Economy of Communist China, p. 123.

²Ibid., p. 124.

indicates that the reorientation of policy did help the economy in picking up again, after the confusion of the "Great Leap" and the depression that followed it.

The Chinese Communists realized after the Great Leap that economic development was not something that they could achieve as fast as they expected. The Great Leap was undertaken with the aim of surpassing the British level of output within the following fifteen years; but their experiment left them frustrated. After 1961, the Chinese planners were sobered. From that point, their targets were moderate indeed!

CHAPTER IV

CAPITAL FORMATION

The rapid rate of industrial growth in China during the First Plan owes its allegiance to the high rate of capital formation in the country. This was made possible in China through the coercive methods by the Communists.

Capital accumulation presupposes an increase in the volume of real savings, so that the increase in production is directed into investment programs. It also presupposes finance and credit facilities to enable the investment programs to be carried out. Again, it assumes that profitable investments are made, so that further accumulation is made possible.

While capital-output ratios vary in different countries, a group of United Nations experts used a ratio ranging from 2:1 to 5:1.¹ The Indian five-year plan suggested an average capital-output ratio of 3:1, Professor Kurihara assumes a 5:1 ratio, and Rosenstein-Rodan

¹United Nations, Measures for the Economic Development of Underdeveloped Areas (New York, 1951), p. 47.

estimates that the ratio is at least 3:1 or 4:1.¹ It is the ratio that shows the relationship between the units of input of capital and the resulting output of goods.

Assume that a given capital-output ratio is 3:1, and the rate of increase in population growth is 2 percent. If a country wants to raise its per capita income by 2 percent, she should be saving and investing 3 x 4 percent, or 12 percent of its national income every year.

There are a number of ways by which capital accumulation can be increased. One way is to restrict domestic consumption, through a high rate of taxation. A second is through compulsory saving schemes—selling people government securities and so on. A third device is restriction of the leakage through imports as the per capita income rises and the marginal propensity to import and the diversification of demand rise. Development through inflation is a fourth method, as practiced in Brazil. This could be a dangerous way of developing a nation if the inflation gets out of hand. A fifth technique is the removal of disguised unemployed labor from the agricultural and other sectors to the industrial sector, where the productivity is higher; or their

¹Gerald M. Meier and Robert E. Baldwin, Economic Development: Theory, History, Policy (New York: John Wiley & Sons, Inc., 1957), p. 389.

transferral to the building of social overhead capital projects. Such a movement would have to be accompanied by a rise in productivity in the agricultural sector, so as to feed this increasing non-agricultural labor force. It also pre-supposes the presence of incentives for the agricultural laborers to work harder—putting in more hours of work. Foreign economic aid can also help the country in breaking through the vicious circle of poverty. It can release domestic resources for investment purposes. Lastly, international trade is an important means of capital formation, nevertheless, it is not absolutely essential to have a favorable term of trade for economic development of a country. With an improvement in the terms of trade a country can earn greater imports. It can give priority to capital imports over consumption goods. It can emphasize export industries in order to create an export surplus. A developing nation often imposes exchange controls, tariffs, and other controls to prevent valuable foreign exchange from being used in purchasing consumption goods or relatively less productive capital goods. A low capital-output ratio is also important in increasing savings, for it shows how much capital is needed per unit of increase in output. A low ratio indicates the productivity of capital.

Capital Investment

China's rapid industrialization program was carried out during the first plan, followed by a sort of boom during the Great Leap, and then a slump after 1959. An attempt is made here to determine the rate of investment and the utilization of funds by sectors. External economic aid will be dealt with in a later chapter.

Fixed investment is defined to include all additions and major repairs to buildings and productive facilities. It excludes changes in inventories and procurement of military equipment.

Under the Chinese Communist system the government makes the base investment decisions for the whole economy. About 12,000 million yuan was invested by private businessmen and peasants. About 60 percent of this went into investments in fixed assets.¹ This amount became insignificant by the end of 1956, when the socialization of private business was completed.

Total domestic gross savings mounted steadily (with one setback in 1955) and have averaged 22 percent of GNP in the past few years.²

¹Far Eastern Economic Review, XIX (January 2, 1958), 13.

²Wilfred Malenbaum, "Indian and China: Contrasts in Development Performance," The American Economic Review, XLIX (June, 1959), 304. Prof. Malenbaum takes into account the first plan and the year 1958 in arriving at the figure.

At the same time, China's population has been rising at a rate of 2 to 2 1/2 percent.¹ This is indeed a remarkable rate of saving, given the very low level of income, it was possible only under a centralized totalitarian system of government, which could depress consumption expenditure to the subsistence level.

Between 1950 and 1959 the rate of investment, as a proportion of total output, increased rapidly. Between 1950 and 1952, the rate of forced investment more than doubled. Over the first five year plan, it nearly tripled, from 6.4 billion yuan in 1952 to 18.2 in 1957. It was at its highest in 1956, during the first year of the Great Leap, it jumped from 18.2 yuan to 33.0 million yuan—an unprecedented rise of nearly 15 billion yuan within a year.

During the first plan, investment was emphasized. By 1957, the rate of investment had reached nearly 16 percent. This was still lower than that of the Soviet Union, which was 18-19 percent in 1928, before her first plan.²

¹Dick Wilson, "Counting the Heads," Far Eastern Economic Review, LI (January 6, 1966) 22.

²Abram Bergson, The Real National Income of Soviet Russia Since 1928 (Cambridge: Harvard University Press, 1961) p. 88.

Chinese Communist planners' impatience is reflected in their rate of investment as a percent of their gross national product in 1958. Japan could not reach this stage until after the second World War. Nearly one-fourth of their gross income was invested in the 1958-1959 period, and eventually reached a level of investment which was too great for the Chinese economy to absorb. As a consequence, the Great Leap movement fell to pieces by 1960.

Gross Fixed Investments in the "Modern" Industrial Sector

The "modern" sector is rather capital-intensive, consuming electric or mechanical power, as opposed to the labor-intensive traditional sector. This discussion includes public utilities, modern transport and communications, and individual handicrafts, but also includes military construction, and investment in science, culture, education, and health.¹ Estimates of investment in modern equipment in handicrafts is also included.

The underlying cause of the rapid industrial development is glaringly evident in the high rate of investment in heavy industry.

¹W. W. Hollister, "Capital Formation in Communist China", China Quarterly, No. 17 (January-March, 1964), 42. Also China's Gross National Product and Social Accounts, 1950-1957 (Glencoe, Illinois: The Free Press, 1958).

The emphasis on the heavy industry is obvious right from the very beginning of the first plan. Investment in heavy industry doubled between 1950 and 1952. It reached 45 percent of the total fixed investment in the first year of the Great Leap and then declined a little in 1959.

Of the total fixed investment the "modern" sector absorbed about half of the resources in 1950. The proportion rose to nearly 66 percent, or two-thirds of all investments, by 1959. Over the first five year plan (1953-1957) the average investment in heavy industry was more than 57 percent of total fixed investment. In the two years of the Great Leap it touched 65 percent.

Within the category of heavy industry, investment was designed to expand the established heavy industrial enterprises and to build new establishments to produce goods that were not produced earlier in China. This was true especially in the field of the heavy industry and machine tools. In the light and consumption industry goods, the emphasis was mainly on the segments already established. No efforts were made toward establishing new product enterprises in this sphere.

These "new industries" in the heavy industry sector were entirely dependent on Soviet technical assistance and Soviet delivery of complete plants and equipment. Over the first plan period, about half

of the heavy industrial investment was in Soviet-assisted projects.¹

About one-fourth to one-third of the investment in heavy industries went to the Small-Scale Projects during the period of 1958-1959.²

Gross Fixed Investment in the Traditional Sector

Chinese planners made little effort toward agricultural development in the hope that with little investment in this area the output could be easily raised. There was also fear that a high rate of mechanization on farms would displace the vast labor force. Thus, they concentrated on irrigation projects. Agricultural operations were left to be developed by traditional methods.

The decline of total investment in the traditional sector has been due to the decline in non-agricultural investment in tradem housing, communal services, and government construction.² There was

¹First Five Year Plan For Development of the National Economy of the People's Republic of China in 1953-1957, (Peking: Foreign Language Press, 1959), p. 98.

²Hollister, op. cit., p. 43.

³Ibid., p. 44.

A substantial decline in the agricultural sector from 1950 to 1953. Since a commencement on the first five year plan, down to 1959, there was more or less a constant rate of investment (one-fourth) as a proportion of the gross national product.

In absolute terms, the rate of agricultural investment more than doubled between 1952 and 1956, reaching approximately 4.7 billion yuan in 1956. By 1959 it had reached 10 billion yuan.¹

Investment and Depression

In 1960 the annual plan announced the state investment was planned to be 20 percent higher than the very high levels of 1959. Other sectors were expected to get the same allocation of investment.² These figures were probably revised with the realization of agricultural failure of 1959. At the same time Soviet aid had dried up by the summer of 1960.

There was a considerable overinvestment in agriculture and the Small-Scale heavy industries during the Great Leap period. Their rate of investment declined from 26.6 in 1959 to 10-13 percent in 1961

¹ ibid., p. 45.

² ibid., p. 49.

Table 8. Gross fixed investment by sectors, 1950-1959

	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959
Total gross fixed investment										
Billion yuan	2.4	4.0	6.4	10.5	12.5	13.0	19.1	18.2	33.0	38.5
Percent of GNP	5.5	6.4	9.1	12.4	13.9	13.8	17.9	15.9	23.9	25.7
Modern investment										
Billion yuan	1.18	2.15	3.61	5.70	6.94	7.48	11.34	11.12	21.24	25.31
Percent of total fixed investment	48.8	54.45	56.5	54.5	55.4	57.5	59.3	61.1	64.3	65.7
Heavy industry ^a	11.6	12.6	23.4	24.5	27.6	31.9	33.9	36.9	45.1	44.3
Other sectors ^a	37.2	41.8	33.1	30.0	27.8	25.6	25.4	24.2	19.2	21.4
Traditional investment										
Billion yuan	1.24	1.80	2.78	4.76	5.59	5.52	7.77	7.07	11.79	13.21
Percent of total fixed investment ^b	51.2	45.6	43.5	45.5	44.6	42.5	40.7	38.9	35.7	34.3
Agriculture ^b	45.2	38.7	34.6	26.2	26.6	28.3	24.4	25.2	26.4	26.6
Other sectors ^c	6.0	6.9	8.9	19.3	18.0	14.2	16.3	13.7	9.3	7.7

^a Light industry, public utilities; military construction; investment in science, culture, education; and health; modern transportation and communications.

^b Agricultural investments, include investments in rural housing and services.

^c Government construction, trade, and non-agricultural investment in housing and communal services.

Source: William W. Hollister, "Capital Formation in Communist China," *The China Quarterly*, No. 17 (January-March, 1964), pp. 40, 42, 45, 51.

(agriculture) and 11 percent to 9 percent in 1961 in heavy Small Scale industries. As a consequence of the Sino-Soviet dispute, Soviet aid and technicians were withdrawn. Because of the agricultural crisis of 1959-1960 and the necessity of increasing imports of food, investment in heavy industry declined. This led to a cut in the production of heavy industries producing inputs for the heavy industrial sector. Again, as a result of a fall in heavy industrial goods the investment in transport and communications also declined. Thus, the Great Leap ended in a depression by 1961. There was a 46-54 percent decline in total fixed investment, as compared with that of 1959.¹ This was due in part to the over-investment during the Great Leap period and the lack of absorptive capacity in the economy.

Capital-Output Ratio

The ratio of gross investment to the increase in gross product has been 2.2 over the 1950-1957 period, 2.5 over the first plan period, 1.4 in the pre-first-plan period, and 1.7 in the post-first plan period.² This reveals that Chinese productive efficiency was greater

¹Ibid., p. 51.

²Malenbaum, op. cit., p. 298.

during the pre-plan period. One of the reasons for the decrease in efficiency was that heavy industries have a longer gestation period before they actually run efficiently at their capacity. The Russian-built plants began to run at their capacity later. The ratios for the post-Great Leap period are not available, but certainly the efficiency must have declined in that period also.

Nevertheless, Chinese capital-output ratios depict a much greater degree of efficiency than what is generally found in most developing economies. In that sense there has resulted a kind of savings for the economy.

Methods Used

From the beginning the Chinese Communists tried to gain complete control over the economy. Since Communist philosophy requires bringing a drastic cut in consumption and rise in investment, the whole economy must be tightly controlled.

The "Three Anti" and "Five Anti" movements of 1951-1952 gave leaders complete powers to allocate raw materials and finances. Private voluntary savings almost vanished. Funds were obtained by the regime through the following means (given in order of their probably quantitative importance in 1952): commercial and industrial

taxes (mostly in kind) compulsory purchases of government bonds, confiscation, and new note issues.¹

The regime also was in a firm control of all large-scale trading activities and was thus in a position to fix prices arbitrarily. Prices of manufactured goods were raised, while in the agricultural sector the government occupied a monopsonistic position and so undervalued prices. Prices of modern manufacturing products in 1952 were roughly four times as high as in 1933, handicraft prices 2.3 times, and agricultural prices only 1.8 times.² Thus, the terms of trade went against the peasants.

To create additional savings and capture the gains arising from the rising productivity and distributive efficiency, wages were kept below the productivity of labor.³

Since the government used agricultural products as raw materials in state enterprises, it profited by buying the raw materials at a low price and selling finished goods at much higher prices.

¹Ta-Ching Liu, "Structural Changes in the Economy of the Chinese Mainland, 1933 to 1952-57," American Economic Review Papers and Proceedings, XLIX (May, 1959) 88.

²Ibid.

³Ronald Hsia, "Economic Changes in Communist China", Political Quarterly, XXXV (July-September, 1964), 300.

The collectivization of agriculture and the socialization of industry were essential to facilitate the forced savings program. The people's communes were formed to make effective use of the existing surplus labor and to make labor available in greater quantities.¹ Thus the burden of capital formation was pretty heavy on the peasants, through direct taxation of government purchases of "surplus" agricultural products at low fixed prices and by the high prices of the manufactured goods that he had to pay for.

These were the prime methods used by the Chinese in bringing about such a high rate of investment over the first plan period.

Birth of the Great Leap Forward

The Chinese Communists neglected agricultural modernization during the first plan, but at the same time they failed to implement any positive population control methods. Thus, at the end of the first plan they were in danger of being caught in the "low-level equilibrium trap."²

¹Ibid.

²Richard R. Nelson, "A Theory of the Low-Level Equilibrium Trap," American Economic Review, XLVI (December, 1956), 894.

At the same time they sensed that dependence on Soviet economic aid was risky. The rate of capital formation was low and there was a widespread disguised employment.¹ The shortage of iron and steel was retarding industrial development.

The problem faced by the Chinese planners was, following the interpretation of Professor R. S. Eckaus' "Theory of Factor Proportions in Underdeveloped Areas," that of an inadequate capital-intensive and fixed-co-efficient sector. The economy could not absorb any more labor unless more capital was poured in. According to this theory, employment opportunities were inhibited because there was a scarcity of capital. The "relatively plentiful labor is then pushed into the variable-co-efficient sector and absorbed there as long as marginal value productivity of labor is higher than the wages it receives."² Thus, in what probably led to the birth of the Great Leap Forward there was further extension of the technological dualism.

¹Hollister, *op. cit.*, p. 48.

²R. S. Eckaus, "Factor Proportions in Underdeveloped Areas," *American Economic Review*, XLV (September, 1955), 559-560.

Nurkse Model

Professor Ragnar Nurkse's theory of capital formation is that¹

in the over populated countries, the marginal product of labor in agriculture is zero; a considerable amount of rural surplus labor can therefore be removed without reducing total agricultural output and can be put to use in construction of productive capital goods, such as roads and irrigation works. Since agricultural output is not reduced by the removal of surplus labor, there will be more food for those remaining on the land, and a food surplus can then be used to feed those engaged in productive construction work. "Disguised unemployment" therefore provides "concealed savings" which can be used to build productive capital goods in a "costless" way, and this without any fundamental improvements in agricultural techniques.²

According to Professor Hla Myint, "disguised unemployment" did not yield zero productivity, but the labor force was "under-employed." Thus, removing this under-employed labor meant longer hours of work for the ones that remained on the farms.³ This is exactly what happened in China during 1958-1959 period. Private plots were abolished in the agricultural cooperatives and so were the free markets. The time that

¹Ragnar Nurkse, Problems of Capital Formation in Under-developed Countries (New York: Oxford University Press, 1953), pp. 32-49.

²Hla, Myint, The Economics of the Developing Countries (New York: Frederick A. Praeger, Publishers, 1965) p. 86.

³Ibid., pp. 87-90.

the peasants devoted to these plots was drastically encroached upon under the pressure from the Great Leap Forward, and the time for sleeping and family subsidiary occupations was reduced.¹ This continued more vigorously after the establishment of the communes.

Following Professor Nurkse's model of capital formation, the Chinese tried to capture all the increase in marginal product at almost zero marginal cost. They created employment for the "under-employed" labor by expanding small-scale industries in iron and steel, fertilizer production, power generation, traditional textile and food processing industries, coal digging, and so on. By employing them on labor-intensive projects, such as irrigation, and intensive methods of agricultural production. These industries used simple equipment, manufactured locally, and utilized local raw material. The production of goods were to satisfy rural needs for manufactured and agricultural requirements.

During the Great Leap, repair shops and spare-part manufacturing were closed down, and this labor was shifted to build dams, irrigation works, and so on. The lack of the repair facilities hampered

¹Dwight H. Perkins, "Centralization and Decentralization in Mainland China's Agriculture, 1949-1962", The Quarterly Journal of Economics, LXXVIII (May, 1964), 229.

industrial production. There was a shortage of labor in heavy and small-scale industries for raw material, for the labor was extensively shifted to the indigenous projects.

As a result of the abrupt decline in investment in 1960-1961, there occurred a widespread exodus of workers who had been drawn into non-agricultural occupations, back to agriculture. The Great Leap resulted into a huge social and economic dislocation.

It was not until 1963 that the economy had returned to a normal state of affairs. Chinese planners came to realize that it was not a series of Great Leaps that they needed to overtake Britain's level of output in a short period of time, but consistent and well-coordinated plans.

CHAPTER V

CENTRALLY PLANNED GROWTH

Ideology and Planning

In applying his theory of historical dialectical materialism, Karl Marx analyzes the process of economic growth as a social process of material transformation.¹ Propounding his theory of thesis, anti-thesis, and synthesis, he forecasts the inevitable struggle between the bourgeoisie and the proletariat ultimately resulting in a new state led by a few "enlightened" workers, in which all means of production are socialized.

According to Marxist-Leninist theory, as interpreted by Professor Peter Schran,

Socialization of production removes all class barriers, and so, increases productive potential of the society. This implies not only the socialization of the means of production, but that of peoples' minds also. It is the duty of the Party to lead the people on the "road towards socialism", which would make all members of the society sufficiently "red and specialist." Thus, the lack

¹Eric Roll, A History of Economic Thought (New York: Prentice-Hall, Inc., 1942), pp. 280-282.

of or over-fulfillment of plan has a direct relation to the degree of relative indoctrination efforts.¹

Chinese Communists have tried to raise productivity through using modernized machinery, use of intensive labor, indoctrination of people, and bringing about structured and institutional changes in the economic system. During the First Plan, they could bring about an incredible amount of "productive fixed capital." However, it seems, that the Planners were not quite aware of the state of mind of the people.² Whenever there was an overfulfillment of a plan, there followed an immediate social reform: for instance, in 1952-1953 (followed by socialization of industries and collectivization of agriculture), 1955-1956 (communes in the agricultural sector), and 1958 (decentralization and the Great Leap). These years, of course, were accompanied by good harvests. The degree of indoctrination also followed the pace with which the economic development took place.

Chinese Plans

The plans in China not only determine the allocation of resources but also the distribution of products, thus leading the economy towards

¹Peter Schran, "Economic Planning in Communist China", Asian Survey, II (December, 1962), 30-36.

²Ibid., p. 41.

socialism. The plans determine on the present consumption, present investment, and future possible increments in both. They also determine the qualities and quantities of the ("commodity mix") goods to be produced.

Upon the decision on consumption and investment ratio depends the income of the people and the financial plans of the country. The Soviet as well as the Chinese economic planning emphasize two "laws:" (1) development of the socialist economy that would generate a constant growth; (2) planned and balanced growth. That is the rate of consumption should be allowed to rise with the rise of the national income after the process of industrialization has reached a certain stage. This stage is not a well defined one.

Po-I-Po, Chairman of the State Economic Commission of China, stated that, during 1953-1956, the accumulation-income ratio moved from 15.7 percent in 1952, 18.3 in 1953, 21.6 percent in 1954, 20.5 in 1955, and 22.8 percent in 1956. From these figures, he set normal budget receipts to national income ratio at about 30 percent, while that ratio of capital construction to total budget expenditure was set at 40 percent.¹ The income-investment ratio rose during the first plan. As the socialization of the economy advanced, it further rose during the Great Leap period.

¹Yuan Li Wu, The Economy of Communist China, p. 51.

According to Marx, profit is a surplus value and connotes the degree of exploitation; thus it should be ruled out as a criterion for resource allocation. Recently, this stand has been modified. Again, the prices of producers' goods are arbitrarily kept high and those of consumers' goods are kept too low. The Chinese planners do not want to lower the prices of producer's goods because that would prevent them from obtaining larger profits to enable large-scale investment. On the other hand, they are afraid of raising the prices of the consumers' goods for it is likely to reintroduce the capitalistic trading element into their society.

Thus, planning authorities are left with only two controls on resource allocation: direct control over labor and raw material allocation, and monetary control. Under the latter, all purchases and sales have to be matched against authorized payments and receipts, with the help of the factors which control production.¹

The beginning of nation-wide planning took place in 1951, when the State Council's Financial and Economic Commission announced control figures for production and capital investment in industry and transport and drew up a plan for state-owned industrial concerns. The State Planning Committee were set up according to the government announcement by the

¹Yuan-Li Wu, The Economy of Communist China, p. 66.

end of 1952, so that the First Five Year Plan for development of the national economy could begin in 1953. However, the final draft was not completed until February, 1955, and was not made public until July of that year.¹ This declaration was well-timed, for the Korean War had come to an end and the Soviets had made their first commitment to aid Chinese economic development in early 1953.

The State Planning Committee was renamed the State Planning Commission in 1954, and in 1956, long term and short-term planning were separated. The State Planning Commission prepared the five year plans, and the State Economic Commission looked after year-to-year planning.² Both of them were placed under the State Council.

The precise method of planning in China is unknown, but it is believed that it is a planning by material balances, probably based on technical coefficients.³

¹Choh-Ming Li, Economic Development of Communist China: An Appraisal of the First Five Years of Industrialization (Berkeley: University of California Press, 1959), p. 5.

²Audrey Donnithorne, "China's Economic Planning and Industry", China Quarterly (London), No. 17 (January-March, 1964), 112.

³Ibid.

During the First Plan, there was a shortage of raw materials, and so a General Bureau of Supply of Raw Materials was set up. For the technical development and coordination of plans, the State Technological Commission was established in 1956.¹

The Chinese Communists' endeavored to bring about a "Socialist industrialization" through such plans in the future. To them, industrialization meant "The marshalling of all efforts and resources for the development of heavy industry, as to lay down a foundation for an industrialized state and a modernized national defense."² Improvement of consumer's welfare was left to take place as a natural consequence of this industrialization.

The planners expected to convert the economy into a socialistic one, by the end of three five year plans. In the meantime about 50 percent of the goods needed would be produced at home by the end of the first plan and 70 percent by the end of the second plan.

Industry, according to the Chinese planners, was composed of "modern" factories, handicraft factories, and individual handicrafts not engaged in agriculture. The "modern" component was the one that received the highest priority and its output was to increase from 27 percent

¹ Ibid.

² Li Fu-Ch'un, "The First Five Year Plan", quoted by Choh-Ming Li, op. cit., p. 7.

Table 9. Planned targets and actual outputs

	Unit	FFYP target 1957	Official output 1957	SFYF target	Official output	
				Sept. 1956	1958	1959
<u>Heavy Industry</u>						
Coal	MT	113.00	130.00	190-210	270.00	347.80
Crude oil	MT	2.01	1.46	5-6	2.26	3.68
Electric power	bil. kw-hr.	15.90	19.34	40-43	27.53	41.50
Steel	MT	4.12	5.35	10.5-12.0	8.00	8.63
Ch. fertilizers	TT	0.58	0.63	3.0-3.2	0.81	1.30
Metallur equip.	TT	8.00	-----	30-4-	-----	205.00
Power generating equipment	M-kw	0.16	0.20	1.4-1.5	0.80	2.15
Cement	MT	6.00	6.86	12.5-14.5	9.30	12.27
<u>Light Industry</u>						
Cotton yarn	m. bales	5.00	4.65	8-9	6.10	8.20
Cotton cloth	bil. meters	5.58	5.05	7.25-8.00	5.70	7.50
Sugar ^a	MT	1.10	0.86	2.4-2.5	0.90	1.13
Machine-made paper	MT	.66	0.91	1.5-1.6	1.22	1.70
<u>Crops</u>						
Food grains	MT	181.60	185.00	250.00	250.00	270.00
Soybeans	MT	11.22	10.05	12.50	10.50	11.50

^aIncluded both factory produced and indigenous sugar.

TT = thousand tons; MT = million tons; bil. = billion

Source: Choh-Ming Li, "China's Industrial Development, 1958-1963" China Quarterly, No. 17(January-March, 1964), p. 7.

of the total gross value product of industry and agriculture in 1952 to 36 percent in 1957. Factory production, meaning output of both handicraft and "modern" factories, is expected to double in value (at constant prices) at the end of each plan. The output of heavy industry would rise from 40 percent of the total value of factory production in 1952 to 45 percent in 1957, with a corresponding decline of light industry.¹

Mechanization of agriculture was to be undertaken over the next twenty-five years. The gross value of agricultural products was expected to rise about 23 percent in the first five years and 35 percent in the subsequent five years.

As seen from the Table 1, the high rate of investment that took place during the First Plan (discussed in chapter on Capital Formation); brought about fulfillment and, in the case of the heavy industries, almost overfulfillment of the planned targets. The only exception among the heavy industries was the production of the crude oil. In the light industrial sector, machinemade paper was the only industry that overfulfilled the target. All the rest fell short of their targets. According to the official figures, the targets were met in the case of food grains, while soybean targets were not realized in the First Plan.

¹Choh-Ming Li, Economic Development of Communist China,
p. x

After 1954 the central government tried to control the whole of the nation's economy, but found it impossible to cope with the task. Local authorities often failed to comply with the instructions of the center and cracks appeared in the central planning. This ultimately led to the decision to decentralize in 1957-1958, but it was counter-balanced by the control of the Party, which insured carrying out the wishes of the center.¹ Thus, the power to regulate and balance production and allocate labor and raw materials was transferred to the local authorities.

The central government departments were to collect all draft plans that were sent by local authorities and allocate materials accordingly to the local authorities. It was the State Economic Commission that was to unify, balance, and make a blueprint of the plans on a national scale.² A number of conferences of interested parties were called on the process of formulation of the plans. This new system of decentralized planning did not come into operation until 1959.

Five "Ad Hoc" Plans

Over the period of 1958-1962 there was no such thing as a second Five Year Plan; there were instead, five annual ad hoc plans. It started off

¹Audrey Donnithorne, p. 113-114.

²Ibid., p. 115.

with a bumper crop and incredible gains in the industrial production in 1958, and ended into a food shortage, industrial dislocation, and social and economic confusion. The Second Five Year Plan was drafted in 1956, when the Chinese economy was making tremendous progress in the industrial sector, with the aid of the Soviet technicians; and the blessings of the good weather brought sufficient crops. This plan proposed to raise China to 70 percent self-sufficiency in heavy industry and precision machines by 1962, and to transform her into an advanced industrialized nation by 1967.¹

The amount of basic investment during the Second Five years was to double, compared with that of the First Plan. The share of industrial sector was expected to rise from 58.2 percent to 60 percent.

The figures given in Table 1, are the proposed targets declared officially in 1956 for the Second Plan Period. They were again revised in December 1957. Whatever few revised figures are available indicate that except for coal, steel, and chemical fertilizers, the figures were scaled down.²

¹Choh-Ming Li, "China's Industrial Development, 1958-1963," p. 5.

²Ibid., p. 7.

This lowering down of the figures for petroleum was explained as a realization of the limitations of natural resources. Again, it was by the end of 1957, that the planners realized the importance of agricultural development; and so, they proposed raising the targets for chemical fertilizer and farm implements. The investment in agriculture, as such, was not raised. Heavy industry, again, was given emphasis.

The ad hoc plan for 1959, was approved by the State Council in April 1959, but was revised in August 1959, since the output figures of 1958 on which this plan was based were grossly exaggerated.

During the Great Leap fever, politicians were in command everywhere and the carefully drawn-out targets of 1956 were ignored. Statistics were reported by the cadres in the field according to their "enthusiasm in socialist revolution" rather than on the basis of fact.¹

By the end of 1959, the quotas set for 1962 (planned September 1956) had been already fulfilled in 13 of 24 items. This called for a "Supplementary Plan for the Last Three Years of The Second Five Year Plan," which is supposed to have been submitted to the People's Congress in March 1960, but has not been published.

While during the Great Leap too much emphasis was put on attaining the targets. Although the targets were fulfilled during these years,

¹ibid., p. 8.

The Peoples' Daily complained that the full variety of goods planned was not realized.¹ Quality, variety, and cost were ignored.

A number of specialized bodies were set up in 1958, to inspect the quality of goods, and to regulate quarterly the progress of the plans in agriculture, industry, capital construction, and distribution of raw materials. These organs were empowered to reduce prices, suspend delivery, and even stop production. But when "politics took command," during the Great Leap, economic aspects of the planning were set aside and the aim of over-fulfilling the targets took precedence.

In 1960, when the harvest turned out to be much worse, the movement back to agriculture took momentum. In 1961 the agricultural output declined further. China was forced to import (wheat, flour, and barley) a total of 5.6 million tons in 1961, 4.7 million tons in 1962, and about 5.5 million tons in 1963.² This was, indeed, a big drain on China's economy. She had to postpone the imports of her much needed industrial goods. This led to a definite shift in the priorities, from heavy industry to agriculture, in 1962.

The Chinese plans were too ambitious from the beginning. There were an overemphasis on industrial production. Lack of accuracy in available

¹Audrey Domithorne, p. 120.

²Choh-Ming Li, *op. cit.*, p. 10.

statistical data made it impossible to formulate the plans precisely. During the first plan, the administrative organs failed to supervise the working of this system owing to its vastness, but as a result of decentralization of 1957-1958, the little control the planners had was lost. As a consequence, planning became impossible after the Great Leap. There have been no plans published since 1960.

Lack of co-ordination between the planning and the statistical departments is evident from the planned increase in employment of non-agricultural wage-earners by 840,000 persons, while the actual increase was 2.3 million. This may be compared with estimates of 25 million employed non-agricultural workers and 143 million employed agricultural workers. The resultant increase of wage bill by 2.7 billion yuan exceeded the planned 1.78 billion increase.¹

There has been overemphasis on fulfilling the targets at the cost of quality of goods. Industrial priority overlooked the principle of comparative cost. Often wages were not paid in terms of yuans and so, the opportunity cost was not apparent.

There seems to be a number of illegal practices—unauthorized purchase-orders and invoices, purchase and sale of raw materials on the

¹Yuan-Li Wu, Economy of Communist China, p. 69.

black market, and production in "underground factories."¹ A campaign was started against these "deviations" in 1963.

These trends in the Chinese economy indicate that, although the planners have been able to raise investment rates to a new height and the national income has successfully been increased, the resource allocation has not been made efficiently. It has resulted in a greater economic waste than would have been the case under an economy open to international trade and price mechanism.

At a conference on Employment and Economic Development, held at Geneva,

The socialist economists frankly admitted serious planning errors, for instance, in allocation of investments between sectors, in institutional arrangements of collectivisation, in the choices of techniques in large-scale industries and so on. They did confess that planning should not altogether neglect the laws of supply and demand, also that the concept of stages of development with consequences as to appropriate choices of techniques etc. should be applied. While the sole dependence of market system for planning was not satisfactory to the western economists either. This is where University of California's Professor Leibenstein and Dr. Svenjar of Prague agreed. But, of course, the handling of mixed system is also not easy.²

¹Ibid., p. 71.

²Mohammad Sadi, "Work Versus Growth," Far Eastern Economic Review, XXXVII (February 6, 1964), 317.

CHAPTER VI

CHINA IN THE INTERNATIONAL ECONOMY

It is an accepted fact that through international trade both trading partners find economic benefit. Through international trade, a nation can raise the standard of living within a relatively short time.¹ China is trying to make the use of foreign trade for her economic needs, but the Communist methods of following economic growth by means of artificially closed economy does not allow her to reap all the benefits of the international trade.

Communist Theory of Foreign Trade

Marx, Engels, and Lenin discussed political aspects of trade, but did not contribute to the economic aspects of international trade. In the Soviet bloc, the emphasis is laid on the planning and operational problems of foreign trade, as to what goods to import or export and what prices to charge.

The Communist theory of international economic relations is quite different from that of the Open and Free Countries of the world.

¹Seymour E. Harris, International and Interregional Economics (New York: McGraw-Hill Book Company, Inc., 1957), p. 288.

Foreign trade is a monopoly of the state, which acts as a buffer between domestic domestic and foreign markets. Foreign prices have little effect on domestic prices.¹ Owing to peculiar price-setting procedures, domestic prices do not reflect domestic costs of production (average or marginal). Due to the nature of banking system, exchange rates have little influence on domestic production.²

A further complication was created by Marxist pricing theory and the separation of "use value" (a measure of utility) and "production (labor) value" (cost of production). "Use value" was considered the determining factor of foreign trade. The "Use-values"-production and consumption goods - had to be imported to satisfy the demands or the needs of planned development. "Production value" must be considered in foreign trade, for profitable trade.

This resulted in a further development of (a) two types of profitabilities, (i) normal profitability of tradem arising out of savings in cost of production through trade, and (ii) "total use" of trade, which considers not only production costs but also of demand factors ("use value"). (b) Profitability of exports is approached from the cost side ("production value" side), while that of imports from the "use-value" side. This asymmetry has further created some difficult problems.³

¹Frederic L. Pryor, "Foreign Trade Theory in the Communist Bloc", The Soviet Studies, XIV (July, 1962), 42.

²Ibid.

³Ibid., p. 44.

Domestic prices are distorted by the inclusion of turnover taxes, excise taxes, and so on, which are added at every production step. Thus, it cannot be compared with world prices. This makes the application of the principle of opportunity cost impossible.

The Bloc foreign trade economists take it for granted that foreign demand elasticities are infinite for all their exports and supply elasticities are infinite for their imports.¹ The use of the inputs-output technique has seldom been discussed in relation to profitability coefficients.

A very heavy emphasis laid on the labor theory of value is a further impediment created in pricing intra-block goods, for the factors of production are immobile.² Thus, intra-bloc price-systems have been unsatisfactory.

All these conceptual difficulties and differing methods of calculation in Communist countries further impeded economic growth through international trade.

¹Ibid., p. 48.

²Ibid., p. 55.

Chinese Trade Policies

Chinese trade practices reflect precisely the same bloc theory of international trade. In 1952 the former Ministry of Trade was split into two: the Ministry of International Commerce and the Ministry of Foreign Trade. The government could validate or cancel any individual export or import transaction and determine the price at which any purchase or sale was made.

Foreign trade has always been an integral and an important component of China's plans. The exports of the country are determined by the need to import. International price comparisons, wherever possible, are often overlooked in the interest of political motives. Again, exchange rates are not determined by the interplay of demand and supply on the free market. Internal prices do not reflect the cost of production, and so the comparative cost principle becomes redundant. Since self-sufficiency and a high rate of economic development are the goals, the imports must, in the usual course of time, be comprised of capital goods and industrial raw materials. In 1950, the Communist bloc provided a fifth of China's imports and imported less than a third of China's exports. By 1952 the bloc took about three-fourth of all China's exports and provided her with two-thirds of her imports.¹

¹Pauline Lewin, The Foreign Trade of Communist China: Its Impact on the Free World (New York: Frederick A. Praeger, 1964), p. 31.

A Coordinating Committee (CONCOM) had been set up in Paris in 1949, on a voluntary basis, to control the strategic exports to the East European Soviet Bloc. The pendulum of Chinese foreign trade suddenly moved towards the Soviet Bloc, as soon as the United Nations recommended in 1956 an embargo against Red China. The CONCOM was then entrusted with the duties of regulating Chinese trade.¹

In 1951, China decided to expand her trade with the bloc and the non-aligned countries, and continue trading with the CONCOM nations as far as the embargo permitted.² Her trade with the bloc increased tremendously until the Sino-Soviet split of 1960 that resulted in an open denunciation of each other. The pendulum, once more, took a swing toward the western countries.

Soviet Aid

As mentioned before, Russia was the biggest ally of China, and the First Five Year Plan of China was more than successful because of the assistance rendered by Russia.

¹CONCOM Countries are; The United States, Belgium, Canada, Denmark, Greece, Italy, Japan, Luxembourg, the Netherlands, Norway, Portugal, Turkey, the United Kingdom, France and West Germany.

²Op. cit., p. 32.

Sino-Soviet economic relations can be divided into two phases: The Era of Co-operation, that lasted for ten years, from 1949 to 1959, and the Era of Conflict, that began sometime in the end of 1959 and the beginning of 1960, and still persists. The impact of these two politically-oriented phases have a very far-reaching impact on their economic relations.

Communist China is the only underdeveloped country in the world that has received an insignificant amount of financial assistance from external sources. Although the aid was very limited in terms of quantity, it was very timely and very effective. Soviet Russia was the only "fraternal" country that had lent a helping hand to China prior to 1960.

Only two loans were granted to China. The first being the Sino-Soviet Agreement of February 14, 1950, providing for a loan of \$300 million—\$60 million per year from January 1950 to the end of 1954, at an interest rate of 1 percent per annum.¹ The amount was to be spent on imports of industrial goods from the U. S. S. R. China agreed to repay the sum by 1964.² Under the first loan agreement, China was to implement, with Soviet assistance, 141 industrial projects during 1950-1959.

¹Ibid.

²E. F. Szezepanik, "Foreign Trade of Mainland China," *Contemporary China*, III (1960), p. 70.

Some 50 to 70 percent of the main equipment was to be supplied by the Soviet Union.¹

The second loan was announced on October 12, 1954, and provided for a long-term credit of 520 million rubles, or \$130 million.² China was to undertake 15 additional enterprises, with supplies of equipment amounting to \$100 million.³

According to Professor Choh-Ming Li, the financing of the so-called Soviet-aid projects by Russia has been only 30.5 percent of the total cost.⁴ The total cost of the Soviet-aid projects came to 5,140 million yuan. Of this total, 4,060 million went into building 50 of the 141 projects agreed upon, and 880 million went into the 15 enterprises agreed on in 1954. The remaining 200 million were spent on the two projects out of 55 arranged in 1956.⁵ According to Choh-Ming Li, out of the total aid of 3,120 million yuan only 1,570 million were utilized in financing the Soviet-aid projects, which amounted to 30 percent of the project cost of 5,140 million. On the

¹Ibid., p. 84.

²Feng-Hwa Mah, p. 35.

³Far Eastern Economic Review, XVII (May 12, 1955) 603.

⁴Choh-Ming Li, Economic Development of Communist China: An Appraisal of the First Five Years of Industrialization (Berkeley: University of California Press, 1959), p. 174.

⁵Ibid.

Table 10. Estimate of annual Soviet-loans to Communist China by uses, 1953-1957^a

	<u>Economic loans</u>		<u>Military loans</u>		<u>Total loans</u>		Econ. loan as percent of state capital investment
	Yuan	U. S. \$	Yuan	U. S. \$	Yuan	U. S. \$	
1953	140.7	60	297.8	127	438	187	2.2.
1954	140.7	60	743.4	317	884	377	1.9
1955	304.8	130	1,353	577	1,657	707	3.7
1956	117.4	50	0	0	117	50	0.8
1957	23.3	10	0	0	23	10	0.2
Total	726.9	310	2,394.2	1,021	3,120	1,331	1.5

^a Official exchange rate: U. S. \$ = 2.345 Yuan. Unit: 1 Million.

Source: Feng-Hwa Mah, "The Financing of Public Investment in Communist China," The Journal of Asian Studies, XXI(November, 1961), p. 36.

other hand, Feng-Hwa Mah contends that only 726.9 million yuan were extended in the economic aid, while 2,394.2 million yuan were given in military aid over the same period of the First Plan.¹

The Soviet economic aid had contributed only 1.5 percent of the state capital investment from 1953 to 1957. The total Soviet economic aid of 727 million yuan amounted to only 0.53 percent of the total budget revenue of this period.² According to Professor Choh-Ming Li, the aid contributed (1.57 billion yuan) 3 percent of the total state investment (49.3 billion yuan), over the First Plan.³

Besides these economic loans, Russian technical assistance and her trade have been of enormous aid to Chinese economic development. It is reported that,

More than 10,000 Soviet specialists were sent to the People's Republic of China for varying terms between 1950 and 1960. Some 10,000 Chinese engineers, technicians and skilled workers, and about 1000 scientists were taught and trained in the U. S. S. R. between 1951 and 1962. More than 11,000 students and post-graduate students graduated from Soviet higher educational establishments in this period.⁴

¹Feng-Hwa Mah, p. 36.

²Ibid.

³Choh-Ming Li, "Economic Development," The China Quarterly, No. 1 (January-March, 1960), 38.

⁴Daniel Wolfston, "Economics of the Split," Far Eastern Economic Review, XXXIII (May 28, 1964) 422.

Other Communist countries have sent more than 1,500 experts to China.¹

During the period 1954-1959, the U. S. S. R. had provided such technical information, as, 1,169 sets of technical data on industrial construction; 3,704 sets of blueprints of machinery and equipment; and 1,018 items of other information on industrial and mining aspects, all without payments.² It was this technical information that enabled China to fulfill her First Five Year Plan. Soviet sources have declared that,

Of China's total output in 1960, the enterprises built with Soviet technical aid accounts for 51 percent of the rolled stocks, about 85 percent of trucks and tractors, 40 percent of the electrical power, 55 percent of the steam and hydrolic turbines, 19 percent of the aluminium, 70 percent of the tin, 100 percent of the synthetic rubber, etc.³

Li Fu-Ch'un, the Planning Chief of China, also stated that, the Soviet selected "The latest technical achievements" and gave China "first class and most advanced equipment."⁴

¹Feng-Hwa Mah, op. cit., p. 37.

²Ibid.

³"Soviet Economic and Technical Aid to China: Facts and Figures", Soviet Documents, II (October 12, 1964), 18.

⁴Calvin Suey Keu Chin, A Study of Chinese Dependence Upon Soviet Union For Economic Development As A Factor In Communist China's Foreign Policy (HongKong: Union Research Institute, 1959), p. 73.

Table 11. Sino-Soviet trade, 1950-1961

	Million rubbles ^a												
	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962 ^b
Soviet exports	350	431	499	628	684	674	660	490	571	859	735	331	210
Soviet imports	172	298	373	428	521	579	688	664	793	990	763	496	464
Balance	178	133	126	200	163	94	-28	-174	-223	-131	-28	-166	-254

^a Values for all years are shown in "new" foreign trade rubles, introduced January 1, 1961. Conversion at the official exchange rate, \$1.00 equals 0.90 rubles, will provide reasonable approximations of dollar values.

^b *Far Eastern Economic Review*, XXXXIII (September 19, 1963), p. 723.

^c Minus sign denotes Soviet import surplus. Minor discrepancies between balance shown and difference of items are due to rounding.

Source: 1950-1954: Voneshniaia Torgovlia, No. 10(1959), p. 288; 1955-1959: Voneshniaia Torgovlia USSR za 1955-1959 gody (Moscow, 1961); 1960-1961: Voneshniaia Torgovlia USSR za gody (Moscow, 1962). Oleg Hoeffding, "Sino-Soviet Economic Relations—1959-1962," *Annals of the American Academy of Political and Social Science*. CCCIL (September 1963), p. 103.

These figures illustrate the enormous extent to which the Soviet Union played its part in Chinese economic development in the years of their cooperation. Although the amount of capital loaned by Russia was small, the investment made was very effective. Nevertheless, the above figures reflect the state of underdevelopment that China was in, prior to the First Plan.

The Era of Conflict

The Chinese economic calamities coincided with the Sino-Soviet rift. Moreover, her industrialization drive received a severe blow, as she could not obtain sufficient long-term loans from the Communist Bloc nor from the West. In summer of 1960, 1,300 highly-skilled Soviet specialists were recalled.¹ This gave the Chinese economy a paralytic stroke.

By July 1960, at the time of the withdrawal, at least 137 of the 291 projects remained uncompleted. The departure of the Soviet experts, together with blueprints, and the drastic reduction in the supply of complete sets of equipment and key engineering items, put not only these uncompleted projects out of operation, but other related projects as well. According to Po-I-Po, 300 projects covering a wide range of industries and spreading

¹"Peking-Moscow: Major Pronouncements," China News Analysis, No. 479 (August 2, 1963), p. 5.

throughout the country came to an abrupt halt as a result of the Soviet withdrawal.¹

Sino-Soviet Trade

Prior to 1959 Communist Chinese trade showed a very high degree of dependence upon the Soviet Russia. But the period following 1959 is characterized by independence from the U. S. S. R. and diversification of trade relations among the non-Bloc countries.

Because of the lack of availability of data from the Chinese official sources, one must have recourse to secondary data which may not be accurate but may throw a light in that direction. Again, during this period the frequent fluctuations in the exchange rates have made it difficult to arrive at the actual change in Chinese trade, in terms of other currencies.

Since the extension of the first Soviet loan of \$300 million in 1950, China signed trade agreements each year. She demanded industrial equipment, intercommunication instruments, mining instruments, chemical plants and cereals. For return, she exported silk textiles, tea, wool, non-ferrous metals, vegetable oils, cotton textiles, and rice.

¹ Ronald Hsia, "Economic Changes in Communist China", The Political Quarterly, XXXV (July-September, 1964), 309.

Table 12. Sino-Russian 1960-1962 trade^a

	1960	1961	1962
<u>Chinese Imports</u>			
Complete plant	336.5	71.0	8.0
Other machinery and equipment	117.0	26.3	16.6
Petroleum products	90.9	108.6	72.5
Steel products	33.4	16.6	15.0
Cereals ^b	-----	15.8	18.7
Others	157.6	92.3	79.3
Total	735.4	330.6	210.1
<u>Chinese Exports</u>			
Metals ores, conc.	55.1	43.5	31.8
Metals and alloys	55.5	38.5	29.3
Oil seeds, etc.	38.8	1.1	-----
Rice	49.7	0.3	18.4
Teschles	125.6	113.7	106.5
Clothing	172.8	157.7	163.0
Others	265.8	141.5	115.7
Total	763.3		464.7

^aNew rubles in million. 1 N. R. equals U. S. \$1.1

^bRye, wheat and flour, cotton, wool, silk—excluding clothing.

Source: Far Eastern Economic Review, XXXXIII (September 19, 1963), p. 723.

Under the protocols signed in February and December 1955, the U. S. S. R. promised to deliver machine tools, building machinery, road-building equipment and other things. China, in exchange, agreed to export jute, wool, silk and vegetable oils.

According to Chinese official sources, 10 of the Soviet-aided industrial projects had been completed by 1954.¹ These included a heavy steel-rolling mill, a seamless steel-tubing mill, the sheet-steel mill of the Anshan Iron and Steel Company, and the Haichow open cut mine at Fushin. In February 1955, the Soviet "gift machinery" to the Friendship State Farm in Hailwong Kiang was reported to consist of 98 tractors, 100 harvestors, 128 tractor ploughs, and 120 tractor drawn grain planters.²

The decrease in China's foreign trade in 1956 and 1957, could be explained in terms of political turmoil that took place in the Soviet Bloc that year. The Hungarian revolt and the Polish crisis, together with Russia's repressive action in these countries, had an adverse effect on the Bloc's trade. Russian loans were also reduced during this period, causing Sino-Soviet trade to decline further.³ China's trade

¹E. F. Szezepanik, "Foreign Trade of Mainland China," Contemporary China, 1958-1959, III (1960), 85.

²Ibid.

³Robert F. Dernberger (ed. C. F. Remer), Three Essays on International Economics of Communist China (Ann Arbor: University of

with the Free World leaped upwards. Another reason for the drop in China's total trade in 1956-1957 was that it was deliberately planned to be reduced by 8.4 percent, for the Chinese Planners thought that increased foreign trade increased the burden of payment on the economy.¹

Then arrived the period of China's ambitious Great Leap Forward, and Sino-Soviet trade boomed once again. The Soviet Union during this period wholeheartedly supported Chinese aims and laid before them expensive technical, material, and human resources.

According to Chinese reports, during the first months of 1958 the Soviet Union supplied China with complete sets of up-to-date equipment for more than 20 large metallurgical, machine building, power, and coal enterprises. In addition to this, the U. S. S. R. increased her exports of industrial goods and equipment in 1958 by four-fold over that of 1957. She also supplied 8,000 trucks, 2,000 trailers, more than half a million tons of petroleum, locomotives, and rails.² In return China supplied soybeans, rice, edible oils and fats, minerals, meat, poultry, eggs, tea, fruits, hemp, tobacco, and light industrial products. This indicates a gradual change on the side of Chinese exports from consisting entirely of raw agricultural items to commercial cash crops, meat, and light industrial goods.

¹Ibid., p. 134.

²Ibid., p. 111.

The Sino-Soviet agreement on the further extension of economic co-operation was signed in Moscow on February 7, 1959. Under the agreement the countries undertook to cooperatively construct 78 large plants in the following industries: metallurgy, building materials, chemical, coal, oil, machine building, radio equipment and power generators. Total value of these activities was estimated at \$1.250 billion.¹

In the years of the Great Leap (1958 and 1959) China's imports from Russia rose by 75 percent, and her exports by 49 percent. Both exports as well as imports reached their highest watermark in 1959. The Sino-Soviet trade accountee for approximately half of China's total trade. The trade expansion was the direct result of the urgent demands for capital equipemnts and raw materials, generated by the Great Leap. The "completed sets of equipment" reached a peak in 1959, accounting for 42 percent of total exports to China.²

Had it not been for Soviet Russia's cooperation, China could never have been able to implement a "Leap" in the face of foreign

¹ Szczepanik, *op. cit.*, p. 111.

² Oleg Hoeffending, "Sino-Soviet Economic Relations 1959-1962", The Annals of the American Academy of Political and Social Science, CCCIL (September, 1963), 94-106.

exchange shortages, the United States' embargo, and the Western reluctance to trade with China.

Chinese exports in 1959 showed an increase in dairy products and rice, but the most conspicuous increase was in textiles and clothing. The latter may have a direct relation to the suspension of shipments of cotton to the West.¹

The protocol signed in February 1959, covering the period 1959-1967, was to assure China of Soviet Russia's forthcoming assistance in her future economic development and implied the "progressive integration of the Chinese economy into that of the Communist Bloc."²

It is a matter of speculation when one tries to gauge the motives of Russia in refusing to extend any credits to China during the period of vigorous trade. On the contrary, she demanded repayments by raising Chinese exports. It might be that they had already paid out large sums in loans to the Chinese (the latest agreement signed in 1959 was for 5.0 billion rubles), and they may have felt worried about repayment.³

¹A. Boon, "The Foreign Trade of China," The China Quarterly, No. 11 (July-September, 1962), 181.

²Jean Polaris, "The Sino-Soviet Dispute", International Affairs, XXX(October, 1964), 649.

³"Hard Bargaining" The Economist, CCIX (April 15, 1961), 209.

In any event, China, the only and the largest underdeveloped country in the world, was thus rendered without any kind of external economic assistance from any source. At the same time, from 1958 on, Mongolia, North Vietnam, and North Korea was treated to a bounty of Soviet economic development assistance, which, when compared on a per capita basis, far exceeded anything that China had received from Russians.¹

Nevertheless, Sino-Soviet cooperation has benefited the Chinese to an enormous extent. According to Mr. M. A. Shushlov's report in the April 3, 1964 issue of Pravda, Soviet Union had built more than 200 large industrial enterprises, shops, and other projects equipped with modern machinery. The Soviet-assisted factories enabled China to produce annually 8,700,000 tons of iron, 8,400,000 tons of steel, and 32,300,000 tons of coal and shale, 70 percent of China's tin output, 100 percent of its synthetic rubber output, 25 to 30 percent of its electric output, and 80 percent of the carriers and tractors produced annually. The Soviet-aided defense plants were the core of Chinese defense industry.²

¹Hoffending, op. cit., p. 104.

²Wolfstone, op. cit., p. 421.

The Era of Sino-Soviet Conflict

Sino-Soviet economic and political relations took a dramatic turn in recent years.

According to the figures given in Table , it is clear that the Sino-Soviet trade reached its zenith in 1959. Afterwards, it consistently declines, both in exports and in imports. China had incurred a huge debt in her trade dealings with Russia. Since then, she has been making a deliberate effort to create a surplus in her Soviet trade accounts. The decline in Russian trade has further reduced China's ability to repay the deficit. The withdrawal of the Soviet technical specialists coincided with Chinese agricultural disasters. Lack of sufficient loans from the bloc as well as from the West slowed down her industrialization drive.

At least 137 of the 291 Soviet-aided projects remained uncompleted at the time of the withdrawal of the Soviet aid in July 1960. As a result, Chinese total trade receded to about the 1958 level and there was also a reversion to the 1958 orientation. The bloc trade declined by 15 percent and was balanced, and the trade with the non-Communist world rose by 10 percent, which enabled China to earn a surplus in transferable currency.¹

¹A. Boon, "The Foreign Trade in China," The China Quarterly, No. 11 (July-September, 1962), 181.

In 1961, it was declared that China could not execute the agreed volume. As a result, there was a deficit of approximately \$320 million (288 million new rubles). In 1962, owing to continued bad agricultural yields, China had to buy cereals from other countries and curtail her exports of foodstuffs. As a result her total trade also declined. In the same year, 1961, Marshal Chen, referring to Sino-Soviet relations in Geneva, stated, "China is too big to be anybody's satellite."¹

In 1960, China's imports from the U. S. S. R. still accounted for 50 percent of her total imports, but in 1961 and 1962 the proportion fell to 30 percent and 25 percent, respectively.² This was a direct consequence of the Soviet decision to drop her aid to China. Over and above the commercial debt, however, the Soviet government also exacted repayment of the Korean War loan.³ This added to the strain that the Chinese economy was already undergoing because of the economic disasters that preceded this period.

We can observe from the Table , on the Sino-Soviet trade, that in 1960-1962 imports from China dwindled by about 500 million new rubles, while exports fell about 300 million. In a communique

¹"Peking Duck Egg," The Economist, CC (July 8, 1961) 120.

²Polaris, op. cit., p. 647.

³Joan Robinson, "Chinese Communes," The Political Quarterly, XXXV (July-September, 1964), 285.

on the trade talks held in 1963 in Moscow, it was stated that the Chinese would be used to pay off part of the debt payable in 1965.¹ Since the Chinese are badly in need of foreign exchange to buy industrial equipment from the West, it has been typical of the Chinese to build up a trade surplus with their trading partners. It is quite evident from the trade figures given in items (Table), that China has built up this surplus by slashing down the imports of capital goods from the U. S. S. R. Thus, she turns to the West for her industrial goods.

Sino-Soviet trade fell by 37 percent in 1962 over that of 1961, while in absolute terms, Russian exports totalled 210 million new rubles compared to 496, respectively.² Total industrial equipment imports fell to 25 million rubles from its 1961 level of 97 million. Oil, an important import, had fallen by 25 percent, probably because China had found a friend in Albania—a new oil-country.

While her exports rose to one-fifth, from her earlier position of being one-seventh in 1960, China's food products had found their way to Russia in much smaller quantities in 1962; for she herself had to import grains from abroad. China had also cut down her imports

¹Colina MacDougall, "Russian Trade Down" Far Eastern Economic Review, XXXXI (September 26, 1963), 802-803.

²Ibid.

of petroleum and steel. The imports of complete plants also declined more or less into insignificance. At the same time, China has been buying wheat from other countries and selling rice which is more expensive, thus gaining the benefit of the trade. Her textile products have also found markets abroad. Nevertheless, it appears that the Soviet Union did not deliberately cut her exports to China since the quarrel, but she had undoubtedly adopted a purely commercial policy toward China — "cash on the barrelhead." It was China who cut down on imports in order to pay for her debts and to spread out her trade relations, while not keeping all the eggs in the same basket.

The Soviet Union supplied no grains to China, while exporting 6.8 million tons of grains in 1960 and 7.5 million in 1961 to other countries. At the same time China had to purchase grains worth \$300 million of hard-earned foreign exchange from the West. "While acknowledging China's food difficulties, 500,000 tons of Cuba sugar due to Russia was to be delivered to China in 1961, as an 'interest free loan' repayable in 1964-1967."¹ The U. S. S. R. also sold 300,000 tons of wheat, rye, and flour to China and exported 7 million tons to other countries. China decided to buy six million tons of cereals from non-bloc countries.

¹Hoeffding, *op. cit.*, p. 104.

According to the Sino-Soviet trade agreement, concluded in Peking on April 20, 1962, "Russia is to take Chinese ores and send back rolled metals, oil and chemicals, lorries and machinery." In 1962, Russian exports to China totalled 210 million new rubles, compared with 330 in 1961 and 735 in 1960. It was a fall of 37 percent trade in 1961. Nevertheless, Chinese exports have fallen only from 496 million in 1961 to 464 million in 1962, despite Chinese agricultural disasters. This indicates as to the frantic zeal with which Chinese are wanting to repay their obligations to the "fraternal country" prior to the date agreed upon and then follow her own paths.

CHAPTER VI

TRADE WITH "FRATERNAL COUNTRIES"

As seen from the Table , on China's trade with other Communist countries, the statistics are often not available, except for that of Poland. Until 1956, trade was conducted on the basis of annual trade. But in 1956 East Germany and Czechoslovakia entered into a long term (1957-1962) agreement to supply plants and equipment for Chinese Second Five Year Plan. In 1958 and 1959 all the rest of the East European countries signed agreements up to 1962, except Rumania.¹

Soviet Russia wanted to integrate the Chinese economy into the Socialist bloc's planned development programs, by making her a member of the Council for Mutual Economic Assistance (COMECON). This would enable the Russians to coordinate each other's plans, and yield the advantages of the division of labor within the Socialist camp. But the Chinese would not accept Soviet supremacy in the COMECON,

¹Pauline Lewin, The Foreign Trade of Communist China: Its Impact on the Free World (New York: Frederick A. Praeger, 1964), p. 50.

Table 13. China's trade with East-European Communist countries, 1953-1957^a

	1953	1954	1955	1956	1957	Total
BULGARIA						
Exports	18.2	-----	17.1	20.6	-----	-----
Imports	21.2	-----	18.2	20.6	-----	-----
CZECHOSLOVAKIA						
Exports	-----	-----	-----	256.6	267.8	-----
Imports	-----	-----	-----	258.9	320.0	-----
EAST GERMANY						
Exports	212.1	269.5	376.6	343.6	354.2	1,556.0
Imports	241.5	398.0	389.6	379.7	423.0	1,831.8
HUNGARY						
Exports	134.3	-----	116.1	111.6	110.7	-----
Imports	118.2	-----	146.1	123.8	119.0	-----
POLAND						
Exports	109.0	118.0	141.0	141.0	149.0	658.0
Imports	124.0	148.0	139.0	201.0	179.0	791.0
EAST EUROPEAN						
Total trade ^b	360	425	455	467	490	2,200
Balance of trade ^b	-----	-----	-----	-25	-40	-----

^aRubles in million^bin U. S. \$ million

Note: The tab does not include Albania, Rumania, and Yugoslavia. Thus, in total for 1957 can be estimated at about U. S. \$500 million.

Source: *Contemporary China*, III (1960), p. 89. Data based on Vneshnia torgovlia, Moscow, October 1958.

and so refused to join it. Nevertheless, it is quite interesting to note that China's trade relations within the Communist Bloc have been having a direct bearing on her relations with Russia. During the period of Sino-Soviet cooperation (1949-1959) China's trade with satellite countries reached its climax. No sooner had the Sino-Soviet quarrel reached its heights at the Bucharest Communist Conference than there resulted the tearing up of Sino-Soviet trade contracts and withdrawal of Soviet technicians from China. There followed a deterioration in China's economic relations with the East European satellite countries.

Of course, the European Communist countries had not shown much enthusiasm in trading with China, since her exports consisted of low quality raw materials. With the exception of Albania, they have all been pro-Russian in their economic and political approach to their problems. China found Albania as her only ally in the Balkans. Unfortunately for her, Albania is the most underdeveloped agricultural country of the bloc, and so her economy is not quite complementary to that of China to establish compatible trading relations. On the contrary, China has to pour aid into Albania which strains her economy. In return China gets Albania's political support.

Survey of Bloc Trade

Albania. Sino-Albanian trade did not develop before 1956. It was in the same year that very important oil wells were discovered which gave a hope to Albania's oil industry, to quadruple production by 1960.¹ While Russia herself produced a huge bulk of oil and the satellite countries entirely depended on Russia, her prospects of exporting oil to the bloc were remote. China was the only prospective buyer. They exchanged oil, copper, chrome ores for steel, rubber, industrial raw materials and textiles from China.² Albania expected to export around 2 million metric tons of oil annually.³ Thus, China was fairly successful in replacing Russia as her source of oil.

In 1959, Sino-Albanian trade amounted to 2.7 percent of Albania's total foreign trade, while Russo-Albanian trade was 50 percent of it.⁴ While in 1961, Sino-Albanian trade was 28.2 percent. By 1962, the year touching the height of Sino-Soviet schism and the

¹Daniel Tretiak, "The Founding of the Sino-Albanian Entente," The China Quarterly, No. 10 (April-June, 1962), 131.

²Szczepanik, "Foreign Trade of Mainland China", Contemporary China, 1958-1959, III (1960), 112.

³Daniel Tretiak, "China's European Ally", Far Eastern Economic Review, XXX (May 16, 1963), 370.

⁴Lewin, op. cit., p. 51.

first year of Russian open economic boycott against the Adriatic rene-gade, China took 59.1 percent of the Albanian total.¹ In 1961, China extended a loan of \$123 million to Albania and promised to establish two textile factories.²

Bulgaria. Sino-Bulgarian trade opened in 1952, and by 1958 Bulgarian exports reached 41 million rubles (calculated tourist exchange rate of 28 rubles to a pound).³ Besides agricultural machines and small electric motors, which form one-third of all Bulgarian exports to China, she also exports non-ferrous metals, chemicals, fertilizers, plants and power stations, drilling equipment, behicles and so on, for Chinese tin, tires, leather, jute, and such.⁴

East Germany. China and East Germany have one thing in common that stand out quite distinctly — struggle for recognition by the other nations of the world. East Germany is the most important trade partner of China, next only is the Soviet Russia, and closely followed by Czechoslovakia. East Germany supplied China

¹Tretiak, "China's European Ally", p. 371.

²Szczepanik, *op. cit.*, p. 112.

³Liliana Brisby, "Bulgaria: Leaping Forward Without Communes", *The China Quarterly*, No. 3 (July-September, 1963), 82.

⁴Szczepanik, *op. cit.*, p. 114.

Table 14. China's trade with Soviet bloc, 1958-1963 (U. S. \$ million)

	1958	1959	1960	1961	1962	1963
BULGARIA						
Imports from	11.3	16.3	--	--	--	--
Exports to	7.2	10.0	--	--	--	--
CZECHOSLOV						
Imports to	109.2	99.6	--	--	12	9
Exports to	91.0	95.5	--	--	26	29
EAST GERMANY						
Imports	--	--	89	50	20	--
Exports	--	--	90	36	29	--
HUNGARY						
Imports to	57.6	39.6	--	--	--	--
Exports to	33.5	44.3	--	--	--	--
POLAND						
Imports to	72.2	42.9	50	27	15	19
Exports to	36.3	56.1	46	21	23	25
RUMANIA						
Imports	25.9	29.4	33	9	2	14
Exports	16.6	29.9	26	20	11	10

Note: Roughly converted at the following rate, Polish Zloty 100 = rubbes 22.5; E. German Mark 100 = rubbes 40.50; Rumanian lei 100 = rubbes 15; Ruble 1 = U. S. \$1.1.

Source: 1958-1959 figures, Colina MacDougall, "China: East European Trade," Far Eastern Economic Review, LI(January 27, 1966), p. 123.

with complete sets of equipment for 32 power stations, two cement plants, and set of turbines in 1958-1959. The value of East German exports being almost doubled that of all the other Soviet satellites put together. China has incurring deficits on her East German trade until 1962.¹ About 90 percent of Chinese imports from East Germany consisted of capital goods, while China exported rice, vegetable oil, and raw materials.

Czechoslovakia, Hungary, Poland, and Yugoslavia exported railway equipment, machines, metallurgical products, trucks, chemicals, cables, power stations, radio transmitters, machine tools, tractors, and diesel engines, while China exported food stuffs and tea, oil seeds, non-ferrous metals, leather, tobacco, soybeans, and other agricultural products.

During the period 1953-1957 there was a marked increase in dealings with the Communist countries. The increase was reported to be from 72 percent in 1953, and to 80 percent in 1954-1956, in terms of value of goods.² In terms of volume of goods, it had already reached the 80 percent level by 1952.³ Chinese press reports stated that China's

¹Martin J. Esslin, "East Germany: Peking-Pankow Axis?", The China Quarterly, No. 3 (July-September, 1960), 86.

²Far Eastern Economic Review, XXI (December 13, 1956), 752.

³Ibid., p. 109.

trade with the Communist countries in 1958 was expected to increase by 10 percent above the 1957 level, which would make this trade about \$2,000 million, as compared with \$1,820 million of the 1957 level of trade.¹

China's East European trade figures were not made available until 1960, but in 1961 some figures have been declared by the partner countries.

The total trade of China with the Communist countries in 1960 was \$2,238 million and this dropped to \$1,184 million in 1961. Trade with the non-Communist nations was worth \$1,437 in 1960, which receded to \$1,381 million in 1961.² This shows that China's trade with the Communist countries has fallen more drastically than with the Free World.

Among the East European countries, her trade with Czechoslovakia fell by 67 percent and her exports to that country by 55 percent. Her imports from Poland fell by 26 percent and exports by 55 percent.³

¹Ibid., p. 109.

²Colina MacDougall, "China: East European Trade," Far Eastern Economic Review, XXXIX (March 14, 1963), 542.

³Ibid.

From the accompanying statistics on the Sino-East European trade, one can observe that the trade between these countries flourished until the turn of the decade of 1950's. By the last few months of 1959, there was a sign of decline, which culminated into a big drop in 1960.

This fall in trade with the European "fraternal! countries is directly related to her conflict with the U. S. S. R. , the withdrawal of Soviet aid, and Chinese efforts to build up an export surplus in order to accelerate the repayment of the previous Soviet aid. These factors were accompanied by the internal economic crisis owing to failure of the Great Leap. Again, Chinese goods were facing an inelastic demand in these countries. The agricultural calamities within China forced her to buy huge amounts of foodstuff from the West. As a result, her total trade declined and her industrial advance slowed down.

Trade With the Non-Communist World

The importance of the trade with non-Communist countries to the economy of China was comparatively little before 1960. With the decline in Sino-Bloc trade, there was a phenomenal rise in the Sino-Free World trade. Thus, in this discussion Sino-Bloc trade relations have been dealt with at length.

Communist China's first post-Korean contact with the Western trading interests took place at the Moscow international economic conference of April 1952. From then onwards, Sino-Western trade gradually rose. Chinese trade with the CONCOM countries is subject to government control and all exports must be licensed, and imports of Chinese manufactures are subject to quota.

Western Europe and Japan

Prior to 1960, Western European trade was much smaller, for Russia was the main source of supply of the industrial goods which went to China. After 1955, West Europe supplied a little over 10 percent of imports of China, and absorbed about 8 to 9 percent of Chinese exports. Even in the peak year of the Chinese trade (1958) West Europe supplied only about one-fifth of total Chinese imports.¹

The embargo was very important until 1957. In 1959, it was relaxed and there was a sharp rise in China's imports from the West. This indicates that Soviet bloc's supplies were inadequate. Again she had broken up trade relations with Japan, and had entered into the Great Leap with the background of good harvests that year. There was a great demand for iron and steel, fertilizer, rolled copper, and nickle.

¹ Lewin, op. cit., p. 52.

Until 1962, China had not bought very substantial quantities of Western machinery, though it bought consistently — in particular, from Britain and West Germany. Its main imports from England have been wool, iron and steel, non-ferrous metals, and chemicals. Imports from France, have been iron and steel and fertilizers, and in recent years, cereals. Imports from Germany have been iron and steel and chemicals. At the end of 1963, two fertilizer factories were ordered — one from Netherlands and the other from the United Kingdom. Italy supplies a petroleum refinery, and an alcohol plant from France.¹ China's trade Minister Lu Hsu-Chang, on his visit to Europe, indicated his interest in buying more of agricultural machinery, precision instruments, tractors, mining equipments, trucks, and aircrafts.²

Chinese exports to the industrial West have been mainly eggs, tung oil, oil seeds, hides, tea, silk, wool, edible oils, cotton, and such raw materials and agricultural products. The United Kingdom and West Germany have been the most important buyers (see Table

Japan is another source of industrial goods for China. China exchanged foodstuffs, coal, iron ore, salt and soybeans for Japanese

¹Lewin, op. cit., p. 57.

²V. Wolpert, "Minister Lu in London", Far Eastern Economic Review, XL (May 9, 1963), 313-317.

synthetic fibers, machine tools, steel, and chemicals. The total trade turnover in 1950 touched \$60 million, but was reduced to \$15 million in 1952, because of the embargo.¹ Then onwards Sino-Japanese trade expanded but gradually. In 1956, Chinese imports reached its highest at U. S. \$67.3 million, while Chinese exports touched 83.6 million. By 1958, when a Japanese worker tore off a Chinese flag, they receded to \$50.6 million and \$54.4 million and in 1959 they reached almost a vanishing point of \$3.6 million Chinese imports and 18.9 million exports. Sino-Japanese trade, with a rapprochement, again revived in 1962, to \$38.5 million Chinese imports and \$46 million Chinese exports to Japan.² In the future Japan is expected to replace Russia for Chinese industrial necessities. In 1963, medium and long term credit arrangements for China were worked out by Japan.

Canadian and Australian Grains

China has been buying small quantities of wheat from Canada and Australia prior to the agricultural calamities of 1959, 1960, and 1961. In these years China bought grains from Australia worth \$162

¹Lewin, op. cit., p. 58.

²Dick Wilson, "Trade Across the China Sea", Far Eastern Economic Review, XLV (September 3, 1964), 429.

Table 15. Chinese imports, main trading partners and type of commodity,
(U.S. \$ million)

	1960	1961	1962	1963
(Grain Exporters)				
Australia	24	162	97	202
Argentina	1	4	20	3
Canada	<u>9</u>	<u>121</u>	<u>137</u>	<u>97</u>
Total	34	287	260	302
West Europe (Industrial Export)				
France	53	36	43 ^a	58 ^a
Belgium	44	10	8	10
Italy	40	30	19	19
Netherlands	7	4	3	13
Sweden	13	8	5	5
Switzerland	8	6	4	4
United Kingdom	90	37	24	37
West Germany	<u>95</u>	<u>31</u>	<u>31</u>	<u>15</u>
Total	350	162	137	161
Japan (Mainly industrial)				
	<u>3</u>	<u>17</u>	<u>38</u>	<u>62</u>
Industrial total	353	179	175	223
Asian and African (raw materials, mainly rice, rubber, cotton, etc.)				
Burma	7	37	1	14
Ceylon	25	17	28	21
Indonesia	35	36	20	34
Malaya and Singapore	28	4	0	5
Syria	---	12	4	20
Pakistan	14	10	2	13
Tanzania	---	---	---	10
Sweden	9	4	9	12
Uganda	<u>5</u>	<u>9</u>	<u>---</u>	<u>11</u>
Raw material total	123	129	64	140
GRAND TOTAL	<u>510</u>	<u>595</u>	<u>499</u>	<u>665</u>
Total including countries not listed here	687	741	587	723

^a Includes cereals in the following value: 1964=\$29 million; 1963 = \$44 million; 1962 = \$29 million.

Source: Colina MacDougall, "China's Foreign Trade," Far Eastern Economic Review, LI(January 27, 1966), p. 122.

million in 1961, \$97 million in 1962, and \$202 million in 1963. Grain purchases from Canada amounted to \$121 million in 1961, \$137 million in 1962, and \$97 million in 1963. France supplied cereals worth \$29 million in 1962 and \$44 million in 1963. Argentina and Mexico also sold small quantities of grains. As a result, China had to spend (including 15 percent of freight charges), \$376 million in 1961, \$332 million in 1962, and \$398 million in 1963 on grain imports.¹ This diverted a huge amount of her scarce foreign exchange away from industrial imports.

Even during these days of scarcity of goods in China, she has been continuing to export rice, for rice commands a higher price than wheat.² She has tried to shift local consumption of rice to wheat through rationing.

Latin American, African, and Asian Trade

China is motivated to trade with these countries on political grounds, because economically these countries are not complementary. The gain through comparative advantage is not significant enough. The

¹Colina MacDougall, "China's Foreign Trade", Far Eastern Economic Review, LI (January 27, 1966), 122.

²Lewin, op. cit., p. 68.

trading partners, on the whole, are agricultural and labor intensive. Again, these countries are also trying to industrialize themselves and so, they need industrial equipment which China cannot supply for she is herself not yet an industrial country. Her cost of production of industrial goods is high compared with the industrially advanced nations. As a consequence, the demand for China's goods is limited, and the prospect for the economies of scale to operate in Chinese industrial production are dim. As seen earlier, the quality of goods produced in China has been too poor to compete with Western goods. Moreover, China's economy is not strong enough to enable her to extend credits on a large-scale to enable these developing nations to buy her goods. On the contrary, China would like to build up a surplus with all her trading partners, which these developing countries would not welcome. The agricultural goods that China buys from these countries are, in most cases, available from other sources more cheaply. Thus, the trade with these countries is probably a design for exporting Marxism, but these chances are rather remote.¹

Before 1956, no African state recognized Communist China, but today fourteen states have done so. Of these, China's big trading

¹Robert A. Scalapino, "Sino-Soviet Competition in Africa", Foreign Affairs, XXXXII (July, 1964), 653.

partners are the United Arab Republic, Morocco, Mali (including Senegal and Mauritania), Nigeria, and Ghana, in order of importance. In general, there is a declining tendency in her trade with these countries since 1960. They are also feeling the heat of the Sino-Soviet conflict. China has created a surplus with nearly every country except for small deficits with Kenya, Syria, and Morocco.¹

China bought Egyptian cotton, textiles, and peanuts from the UAR. Other cotton supplying countries are Sudan, Tanganyika, and Uganda. In general, Chinese imports from African countries are oil seeds, cereals, gum, skins, minerals, sugar, cotton, tobacco, coffee, industrial diamonds, and Algerian oil. Chinese exports consisted of light machinery, steel, textile machinery, sugar refining equipment, tea, pig iron, chemicals, paper, and dyes.

On her trade with Latin America, China imports Brazilian cloth, wood, and tobacco; Cuban sugar, and nickel, copper manganese, tobacco, and hides. China exports paper and chemicals to Brazil; to Cuba she sends rice, rolled steel, machinery, chemicals, cotton cloth, and tinned meat. Most of the other Latin American countries, such as Argentina,

¹Figures for 1960 and 1961 are taken from; 1963 Year Book of the Far Eastern Economic Review (HongKing: Far Eastern Review, 1964), p. 86.

Figures for 1962 are taken from; Daniel Wofstone, "Sino-African Economics", Far Eastern Economic Review, XXXXIII (January 13, 1964), 349.

Uruguay, and Chile, want China to pay in hard currency and their tariff walls are too high for Chinese goods. They would not allow China to build up a surplus in their trade, which has discouraged China in developing her South American trade.¹

Afro-Chinese annual trade has surpassed the \$100 million level only once (1960) in the last ten years, while in South America it has seldom touched \$10 million until she made Cuban sugar purchases in 1961 and Argentinian grains in 1962.²

With her Asian neighbors her motives behind trade are guided by politico-economic considerations. Burmese rice, Ceylon's rubber, and Indonesian oil are given preferred treatments and long-term contracts. She has expanded her trade with HongKong, Malaya, Indonesia, and Japan, since her first plan, so as to earn convertible exchange, cultivate politico-economic ties, and gauge the possibilities of getting long-term credits. China may dump her goods on the Asian market to compete with Japan and India in the future, so as to force her bargaining position there.³ She has been exporting food products to the Chinese

¹Lewin, op. cit., p. 72-74.

²Ibid., p. 72.

³Yuan-Li Wu, The Economy of Communist China: An Introduction, p. 180.

Table 16. Chinese exports, main trading partners and type of commodity
(U. S. \$ million)

	1960	1961	1962	1963
ASIA				
(Light industrial prod. and food)				
Burma	25	21	27	26
Ceylon	28	7	9	29
Hong Kong	208	180	212	260
Indonesia	52	35(10)	---	31 ^a
Malaya and Singapore	57	56	66	94
Syria	---	1	4	3
Pakistan	4	4	4	6
(Mainly light industrial products)				
Australia	11	7	11	15
Canada	6	3	4	5
WEST EUROPE				
(Mainly raw materials and agricultural products)				
France	23	16	17	21
Belgium	4	3	5	8
Italy	24	12	14	19
Netherlands	21	15	14	16
Sweden	6	4	5	8
Switzerland	9	9	10	10
United Kingdom	70	86	65	52
West Germany	69	40	39	41
Total			169	175
JAPAN				
(Mainly raw materials and agricultural products)				
Japan	21	31	46	75
Total			215	250
GRAND TOTAL			552	719
Total including countries not listed here	745	641	666	825

^a January-July, estimated (numbers in brackets denote number of months covered).

Source: Colina MacDougall, "China's Foreign Trade," Far Eastern Review, LI(January 27, 1966), p. 121.

inhabitants of HongKong and Malaya, and agricultural raw materials and light industrial goods to the rest of her co-traders.

Composition and Direction of Trade

In the pre-Communist era in 1947, consumer goods consisted of 19 percent, capital goods 18 percent, and the other 62 percent raw materials (such as cotton) and fuel (gasoline).¹ But soon after the Communist takeover, the composition of imports changed. Capital goods comprised 31 percent, consumer goods less than 9 percent, raw materials and fuel about 61 percent. For the period 1955-1957 imports from the Soviet consisted of machinery and equipment 37.2 percent, and from the West 7.6 percent; transportation equipment from Russia accounted for 2.5 percent and from the West 1.9 percent; crude chemicals, 1.7 percent from the "Iron Curtain" and 24.4 percent from the "Free countries"; while Russia supplied 19.8 percent of manufactures and the West supplied 22.9 percent of it; and other requirements amounted to 36.7 percent from the Soviets and 8.6 percent from the West.² There was only a very small portion of "other" things, consisting of consumer goods.

¹Yuan-Li Wu, An Economic Survey of Communist China (New York: Bookman Company, 1956), p. 469.

²Yuan-Li Wu, The Economy of Communist China: An Introduction, p. 174.

China's exports have predominantly been metals, foodstuffs, agricultural raw materials, textiles, and light industrial goods. During the period 1952-1957, for which the statistics are available, China has made huge surpluses by making net exports of food products to the tune of \$5.8 billion in 1952, \$7.6 billion in 1953, \$5.55 billion for 1954, about \$7 billion in 1955, \$7.5 billion in 1956, and \$6.6 billion in 1957.¹ Thus, she is to a very great extent dependent on agriculture for her imports.

As regards direction of trade, the Communist bloc took 26 percent of her trade in 1950, according to Soviet statistics (Chinese version, 33.5 percent). By the end of the First Plan it rose to 75 percent (about 50 percent with the Soviet Union).² This shows that the political affiliations, rather than economic considerations, have played a very important role in Chinese international trade relations. But there was a sudden change in the direction of trade by 1960. In 1960, the non-bloc trade was 42.2 percent of the total trade of \$3,475 million in 1961 and 1962. It was 56 percent each of the total trade of \$2,464 million

¹Based on figures given in Ta-Chung Liu and Kung-Chia Yeh, The Economy of the Chinese Mainland: National Income and Economic Development (Princeton, New Jersey: Princeton University Press, 1965), p. 253.

²Ibid., p. 175.

and \$2,198 million, respectively.¹ In 1963, there was a trend further away from the bloc — non-bloc countries absorbing 64 percent of the total trade of \$2,420 million.² This indicates that China's total volume of trade had touched its bottom in 1962, after a consistent decline since 1960. This tendency of rising non-bloc trade may be attributed to China's buying of grains from the West in her years of bad harvests. But the 1962 figures give a definite indication towards the future rise in China's Western trade.

From the above discussion one may come to the conclusion that China could implement her First Five Year Plan only because of Russian trade and assistance. The same is true of the Great Leap Forward. Internally the financing of this industrialization was made possible by cutting down the consumption to its minimum. If the same thing is looked at from the point of view of external economic relations it was financed by creating a trade surplus and giving high priority to industrial equipments and restricting the consumption of imports. It was only when she was faced with the Great Leap Forward disasters and the agricultural calamities that she had to buy huge amounts of grains

¹Based on figures given by, Colina MacDougall, "China's Foreign Trade", Far Eastern Economic Review, LI (January 27, 1966), 122.

²Ibid.

Table 17. Free-world countries' trade with China, 1950-1963^a

Year	Chinese imports				Chinese exports				Chinese "export" surplus
	Total free-world		Concom		Total free-world		Concom		
	Value	Index	Value	Index	Value	Index	Value	Index	
1950	452	67.5			535	69.7			+ 82.6
1951	446	66.6			525	68.4			+ 78.5
1952	273	41.4			368	48.0			+ 95.4
1953	287	42.9			433	56.4			+145.3
1954	294	43.9			380	49.5			+ 85.5
1955	317	47.3			487	63.4			+169.8
1956	434	64.9	204	58.6	641	83.7	225	85.3	+207.2
1957	528	78.9	210	60.4	624	81.4	204	77.4	+ 96.2
1958	771	115.2	447	128.8	756	98.6	226	85.6	- 15.1
1959	652	97.4	336	96.8	693	90.4	226	85.5	+ 41.8
1960	669	100.0	347	100.0	767	100.0	264	100.0	+ 97.7
1961	742	110.9	294	84.7	638	83.1	223	84.5	-104.7
1962	637	95.2	309	89.1	599	78.1	215	81.6	- 38.5
1963	654	97.7	316	91.0	754	98.4	245	93.0	+100.6

^a Cuban trade was included in free-world statistics, Chinese imports from Cuba were, U. S. \$32.1 in 1960, 95.6 in 1961 and 85.3 in 1962. Chinese exports to Cuba are unknown. Index = (1960 = 100). Value = U. S. dollars (millions)—figures are rounded.

Source: Based on tables given in, Yuan-Li Wu, The Economy of Communist China: An Introduction (New York: Frederick A. Praeger, 1965), pp. 183-184.

from the West, worth more than \$1.5 billion over the period of 1961-1964. This reduced her total trade and slowed down her industrial growth.

Poor quality Chinese goods is another big factor that inhibits her trade. She must develop new products and improve the quality of her goods. Unless she expands her exports, China will have to depend on foreign trade for her industrial development for a long time to come.

Once she pays up her debts to Russia, and gets over her internal food problem, she can expand her trade in the future. But in any event, China's rapid industrialization program, in the absence of a huge increase in exports, must depend on Western cooperation.

CHAPTER VII

AN APPRAISAL OF CHINA'S INDUSTRIALIZATION

National Income

As the discussion above has revealed, statistics of Chinese economic development have been highly unreliable. In any case, industrial figures are more reliable than the others. The national income figures are also highly controversial.

According to the official figures, the net material product increased by 53 percent in 1952-1957 (1952 = 100). By 1959, it was 150 percent. As given in Table , Liu-Yeh's estimates give us an increase in "net domestic product" between 1952 and 1957 as 33.4 percent increase (1952 = 100), with a 75 percent increase in 1959.¹ On the other hand, William W. Hollister shows an increase of 51 percent over the 1952-1957 period and 122 percent over 1952-1959.²

¹Ta-Chung Liu and Kung-Chia Yeh, "Preliminary Estimates of the National Income of the Chinese Mainland, 1952-1959," American Economic Review Papers and Proceedings, LI (May, 1961), 489.

²William W. Hollister, China's Gross National Product and Social Accounts, 1956-1957 (Chicago: The Free Press of Glencoe, 1958), pp. 132-133.

Professor Wu shows an increase of about 33 percent between 1952 and 1957, followed by another increase of 20 percent between 1957 and 1960, with a decline of 31 percent from 1960-1961.¹ Thus, the rate of annual growth over the 1952-1957 period would be, according to official figures, 8.9 percent, Liu-Yeh estimate 6 percent, Hollister's 8.6 percent; and Wu's 5.2 percent.

If we take the Liu-Yeh statistics on national income of China, we observe that over the First Five Year Plan agriculture had shown very little progress. During the good harvest years of 1958 and 1959 agriculture showed fairly good performance. Factory manufacturing had shown a very impressive gain of nearly a four-fold increase over 1952-1957. But the predominant share went to the producer's goods industries which increased six-fold over the same period, while consumer's goods was quite low. But then it was about three times higher than producer's goods. At the same time imports of consumption goods was substantial. Once the Communists took over, imports of consumption goods was very insignificant. As a result, with a rise in population rise in the rates of investment and taxation, and an

¹From Yuan-Li Wu, et al., The Economic Potential of Communist China (Menlo Park, California: Stanford Research Institute, 1963), pp. 241 and 340; quoted in Yuan-Li Wu, The Economy of Communist China: An Introduction (New York: Frederick A. Praeger, 1965), p. 88.

acceleration in the exports (especially of the agricultural products) meant a severe squeeze on the consumers and particularly those in the agricultural sector.

The shares of mining, construction, transportation, trade, and government administration were substantial.

Population Growth and Consumption

All through this study it has been observed that China's rapid population growth has been a formidable drag on her economic growth. Population growth has a very significant effect on labor-supply, per capita consumption, per capita output, composition of output, and volume of exports and imports.

Like all other economic statistics of China, population figures are also dubious. According to a British writer, Russell Warren Howe, China's population may be as low as 400 million, or the same as that of India.¹ The census taken by the Communist regime in 1953 showed a total of 583 million, which at the rate of 2 percent growth, should expand to 747 million today. Another source suggests, during those disasterous

¹Russell Warren Howe, "Chinese Checkers Check Again," Statist, September 3, 1965, p. 621; quoted in Dick Wilson, "Counting the Heads," Far Eastern Economic Review, LI (January 6, 1966), 22.

Table 18. National income of the Chinese Mainland, 1933 and 1952-1959^a
Billions of constant 1952 yuan^b

Value added in	1933	1952	1953	1954	1955	1956	1957	Conjectural estimate of domestic product	
								1958	1959
Agriculture	33.9	34.2	34.8	35.5	35.8	37.0	37.2	40	42
Manufacturing									
factories	3.9	6.5	8.3	9.6	10.4	14.5	16.0	19	25
Producer's goods	0.8	3.2	4.4	5.3	6.3	9.4	11.1	14	19
Consumers goods	2.5	3.3	3.9	4.3	4.1	5.1	4.9	5	6
Handicraft	4.4	4.7	4.8	5.0	5.1	5.3	5.4	6	6
Mining	0.5	1.5	1.5	1.8	2.3	2.4	3.1	4	5
Utilities	0.1	0.3	0.4	0.4	0.5	0.6	0.7	1	1
Construction	1.0	1.8	2.3	2.7	2.9	5.0	4.6	6	8
Modern transportation and communications	1.1	2.1	2.6	2.9	3.1	3.5	3.8	4	5
Old fashioned transportation	2.6	2.7	2.5	2.4	2.3	2.5	2.4	3	3
Trade	8.2	9.7	10.0	10.2	10.5	11.2	11.5	12	14
Government administration	1.4	3.3	3.7	4.0	4.1	4.8	5.0	5	6
Finance	0.4	1.3	1.3	1.5	1.5	1.7	1.8	2	2
Personal services	0.6	0.6	0.6	0.5	0.5	0.5	0.5	1	1
Residential rents	2.0	2.3	2.3	2.4	2.4	2.5	2.6	3	3
Work brigades		0.6	0.4	0.4	0.8	0.8	0.9	3	3
Net Domestic Product	59.5	71.4	75.3	79.3	82.3	92.1	95.3	108	125
Com. Chinese estimate of National income		61.1	70.0	73.9	78.8	88.8	93.5	125.3	152.4

^a Subitems are rounded figures.

^b Official exchange rate: U. S. \$1 = 2,343 1952 Yuan (The "Jenming Pi") Note:

for wellknown reasons, the figures should not be converted into U. S. \$.

Source: Ta-Chung Liu and Kung-Chia Yeh, "Preliminary Estimate of the National Income of the Chinese Mainland, 1952-1959," The American Economic Review Papers and Proceedings, LI(May, 1961), p. 490.

years of 1960 to 1962, some 50 million people died of hunger and deficiency diseases.¹ In any case, various other estimates of total population fall between 700 to 725 million figure for 1966; and the estimated rate of growth falls between 2 percent to 2 1/4 percent.²

From the above table it is quite evident that the gross domestic product has been consistently rising from 1952 down to 1960, in absolute terms; and so has the gross domestic investment. The ratio of gross domestic product to gross domestic investment has also been successively rising until the last months of 1960. In 1952 it was 19.1 percent; in 1957, 25.8 percent; in the second year of the Great Leap (1959) it reached 33.8 percent. It touched its highest watermark in 1960, at the 43.7 percent level, and receded in its last months. In 1961 it reached its bottom at 21.4; and again picked up in 1962, reaching 32.8 percent level.

On the other hand, government consumption has been more or less around 10 percent of the gross domestic product.

As a result a larger bulk of the rising gross domestic product has been diverted away from consumption as the years passed by.

¹"General Survey", China News Analysis, No. 432 (August 10, 1962), 6.

At the same time, the population has been growing at an average rate of about 2.2 percent between 1949 and 1958. Thus, per capita personal consumption has been squeezed throughout the period under study.

A minimum subsistence level has been estimated at 168 yuan per capita for the urban population and 79.6 yuan for the rural population, or a mean of 92.6 yuan for the population in general.¹ The above table reveals that during this period, only during the period 1956-1959 has this subsistence level been met. In the year 1960 and 1961 the consumption level has fallen much below the bare subsistence level.

The peasants spent 58 percent of their income on food in 1955, 15 percent on clothing, 22 percent on consumer goods, and 5 percent on services, while urban workers spent 55 percent on food, 12 percent on clothing, 13 percent on consumers goods, and 20 percent on services, rent, utilities, and transportation.² These figures represent the characteristics of a typically underdeveloped society that the Chinese economy possesses.

As a consequence the rapid economic growth in Communist China has not really benefited the consumers; rather industrialization has taken place at the cost of consumers.

¹Yuan-Li Wu, op. cit., p. 90.

²Ibid., p. 91.

Table 19. Estimate of China's gross domestic product, investment and consumption, 1952-1962

	Gross domestic product (1952 B. Y.) ^a	Gross domestic investment ^a (1952 B. Y.) ^a	Government consumption ^a (1952 B. Y.) ^a	Residual ^a (1952 B. Y.) ^a	Mid-year population (in million)	Per capita personal consumption (in yuan)
1952	75.6	14.5	7.3	53.8	568.9	94.6
1953	78.9	19.0	9.1	50.8	582.6	87.2
1954	82.2	20.6	8.0	53.6	594.8	90.1
1955	86.1	22.1	8.4	55.6	608.2	91.4
1956	96.6	25.3	8.5	62.8	612.2	101.1
1957	100.0	25.8	10.3	63.9	637.2	100.3
1958	110.7	29.9	10.6	70.2	654.0	107.3
1959	119.1	40.3	11.0	67.8	668.0	101.5
1960	120.7	52.8	13.1	54.8	682.0	80.4
1961	82.1	17.6	11.2	53.3	693.0	76.9
1962 ^a	109.0	35.8	11.4	61.8	705.0	87.7

^a(1952 B. Y.) = In billions of 1952 yuan.

^bRevised estimates.

Source: Quoted in Yuan-Li Wu, *The Economy of Communist China: An Introduction* (New York: Frederick A. Praeger, 1965), p. 91.

According to Professor Wu, the rate of growth of the gross national product in Communist China is 6 percent a year, if the 1952-1962 period is considered. On a per capita basis, the annual growth rate of gross national product would be 3.6 percent for 1952-1960, and for 1952-1962 it would be 1.5 percent. If economic development means a rise in per capita personal consumption, the annual growth rate of .25 percent total during 1952-1960 period, and per capita consumption -2.5 percent. During the period of 1952-1962 it would be 1.4 percent total and -0.75 percent per capita.¹

Future Prospects

In a predominantly agricultural country like China, it is on the performance of the agricultural sector, which feeds the rapidly rising urban and the rural population and enables a high rate of investment without which industrialization would be slowed down and the squeeze on the consumers would be too hard to borne by them. The vagaries of the weather is another factor that poses an obstacle in the path of a rapid economic growth in China. She must provide herself with better farm equipment, increase the production of fertilizers. They must also take special measures to conserve and reclaim the land, so as to increase the acreage under cultivation.

¹Yuan-Li Wu, p. 203.

The high priority given to industrialization was changed in favor of "agriculture being the foundation and industry the leading factor" of economic development, in those hard years of 1960-1962. Most observers of the Chinese affairs feel that this shift in emphasis was temporary. Certainly, the Chinese Communists would not be able to afford another Great Leap disaster. Chinese peasants do have a certain freedom regarding their private plots and in marketing of produce not subject to state procurement. But it is not certain as to how long this freedom will last, for in the interest of national defence and rapid industrialization, the consumers may have to suffer even more. China has made disastrous blunders in isolating herself from the rest of the world and especially from the Soviet bloc, so that she is unable to obtain credits from other countries, which has put extra pressure on the consumers. This was only possible because it is a totalitarian regime.

China's steel output of 15 kilos per capita, is only one-thirtieth of British production and one-fifth of American. A minimum annual supply of 1.5 tons of coal energy per capita is essential to create conditions of an industrialized community. China, at present, has only 3 percent of this amount of energy. While the United States has eight tons of coal energy per capita.¹ Thus, China has to go a long way to rank

¹W. K., "China's Third Five Year Plan", The China Quarterly, No. 25 (January-March, 1966), 174.

among the industrial nations of the world. Her future economic development would depend on her ability to increase the productivity of her agricultural sector and controlling population growth. China should also pay particular attention to having a coordinated and a consistent planning mechanism.

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