

ON THE ALLOCATION OF INVESTMENT IN THE SEVENTIES: A HYPOTHESIS

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INTRODUCTION

THE PROCESS OF ECONOMIC growth in China can be divided into two stages—the growth of the 1950s and that of the 1960s. In the 1950s China's economy developed at a rapid pace. In the 1960s, however, it was marked by turbulent fluctuation, and as a whole, the pace of development was slow.

In investment allocation, too, there was a sharp contrast between the 1950s and the 1960s. One of the features of investment allocation in the 1950s, and especially in the First Five-Year Plan (1953–57), was the priority given to the heavy industry, of which iron and steel and machinery formed the core. The special feature of the 1960s can be said to have been an emphasis on investment in agriculture, the agriculture-supporting industries, and such strategic areas as petroleum. It would seem that in the 1960s there was very little investment in areas other than these.

Now, at the beginning of the 1970s, a state of emergency with respect to population pressure and inadequacy of farm production has become a thing of the past, although neither has been wiped away entirely, and once again the possibility presents itself of a policy of industrialization based on long-term planning. A classic manifestation of this situation is to be seen in the make-up of products imported by China.

In 1959, the year in which the peak for the 1950s in quantity of trade was recorded, 40.5 per cent of imports consisted of machinery and equipment. If one adds to this metals (and ores), petroleum and petroleum products, chemical products, and rubber, the figure rises to 77.4 per cent [1, p. 107]. At that time those items which would be a direct help to industrialization centering on the heavy industry were imported. In 1963, when China was in the midst of economic crisis, 36.3 per cent of imports consisted of foodstuffs, and the next largest item was textiles, at 15.1 per cent. Machinery and equipment were a mere 6.9 per cent [1, p. 107]. In 1969 machinery and equipment, and metals recovered to 13.7 per cent and 25.8 per cent, respectively. Foodstuffs fell to 19.7 per cent. Furthermore, chemical fertilizers maintained the high level of 9.9 per cent [2, p. 62]. In other words, in 1969 the structure of imports had partly lost the feature of the 1960s of sharply increasing import of foodstuffs and textiles and was going back to the pattern of the 1950s.

This fact presents us with the following question. That is, will the inter-sector distribution of investment in the 1970s be fundamentally the same as that of the 1950s, excluding some investment in the agricultural sector, of which there was hardly any in the 1950s? The present writing aims at serving as reference material with respect to this problem.

Starting with the conclusion, it is that in the 1970s a new pattern will arise in the sense that it will be necessary to increase investment rapidly in such basic sectors as transportation, mining, power, etc. It is quite possible that there will be a great enough emphasis on these sectors to constitute a contrast with both the emphasis on the heavy industry centering on iron and steel and machinery in the 1950s and the emphasis on agriculture and the agriculture-supporting industries in the 1960s. Furthermore, industrialization in the 1970s will be different from that in the 1950s in another sense, that is, because of the fact that the "recovery factors" which are considered to have had such an important influence on the course of economic development in the 1950s, disappeared in the same decade.

I. CONDITIONS IN THE 1950S

When viewed in relation to the theme of this paper, China's economic development in the 1950s was dominated by several non-recurring factors. Here the following two points will be treated: first, "recovery factors" and, second, the mobilization of idle equipment.

A. *The "Recovery Factors"*

The degree of influence that the "recovery factors" had in Chinese industrialization policy in the 1950s cannot be determined quantitatively. One can, however, cite a few good examples of these factors, and of these, the iron and steel industry is perhaps most typical.

In the 1950s the iron and steel industry, called the "field marshal," was an area in which investment was concentrated. In the First Five-Year Plan one-third of the investment in the iron and steel industry was directed to the Anshan iron works; another one-third was directed to the new Wuhan and Paot'ou iron works; the remaining one-third went to other iron works.

Construction of the Anshan iron works was just about completed in 1958. However, construction at the Paot'ou and Wuhan works continued only to 1960, at which time it was discontinued. Whereas, on the one hand, production capacity of Anshan on a crude steel basis at the end of the 1960s was approximately 6 million tons annually, the total for both Wuhan and Paot'ou was only about 2.3 million tons. Since the Anshan works already had a capacity of 900,000 tons in 1952, there was an increase of about 5 million tons in the following years. One cannot quote accurate figures owing to the fact that the amount of investment from 1958 onwards are not known, but one thing is certain, that is, it took more investment to achieve a capacity of 2.3 million tons than it took to increase capacity by 5 million tons at Anshan. This difference can be explained by the

“recovery factors” at the Anshan works [5, Chapter 8].

When the Anshan works finally fell into the hands of the Liberation Army on November 3, 1948, it already had a history of exactly thirty years. It had been constructed by the Japanese and destroyed by the Russians, who took away 66 per cent of the ore-extracting equipment, 73 per cent of the iron production equipment, 56 per cent of the steel production equipment, and 87 per cent of the rolling equipment [7, p. 33]. Take blast furnaces for example. In the days of Japanese control nine were constructed. Of these, except the No. 1, No. 2, and No. 4 furnaces, six were all destroyed by the Russians. Reconstruction began in 1953 with the No. 8 furnace and ended in 1957 with completion of the No. 3 furnace. When a new No. 10 furnace was built in 1958, construction of the blast furnace was completed [5, Chapter 8].

There is no room for doubt that there was a considerable advantage here in terms of both the amount of investment and the time it took for construction when compared to starting from scratch. This was true for both this department and such associated departments as mining and transportation, etc.

Although not to the same extent as in the iron and steel industry, such a factor is to be seen also in the area of railroad construction. By 1949 railroads in China had comparatively been well developed. Some of them, however, were destroyed in the war with Japan and in the civil war between the Nationalists and the Communists, and these became the object of restoration in the new China. In addition, like the stretch between Paochi and Chengtu, there were some railroads on which foreign capital interests had started work before the war and which had been discontinued before completion. Although it was no easy matter to complete them, there was most certainly a great saving in terms of investment and construction time.

Let us now take a look at this “recovery factors” in the power industry. China’s hydroelectric capacity was 188,000 kw in 1952 and reached 1,170,000 kw in 1958, of which the Fêngman power plant accounted for 560,000 kw. Needless to say, the Fêngman plant represented almost in its entirety restoration of original facilities.

Industrialization in the 1950s was strongly influenced by such “recovery factors,” and it is clear that by the end of the decade these factors had already disappeared. This is an indication that in this respect the course of industrialization in the 1950s was of a “one-time” nature.

B. *Mobilization of Idle Equipment*

One feature of investment distribution in China in the 1950s and particularly of that in the period of the First Five-Year Plan was the fact that there was a saving of investment in several basic sectors of the national economy, and at first in the areas of transportation and mining it was possible to keep up with increasing demand without additional new equipment because of the fact that the rate of use of equipment had been low.

Trends in supply and demand for transportation were as described below.

Demand for transportation changed just about in proportion to changes in

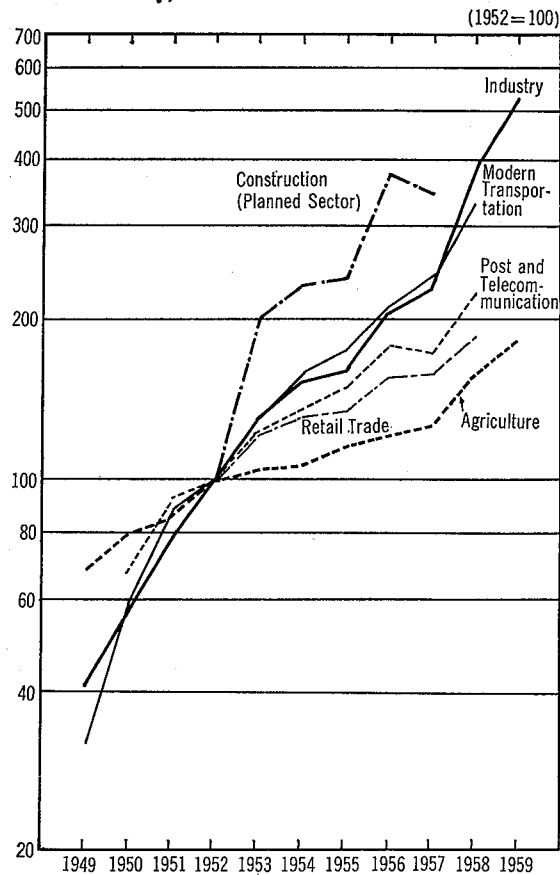
economic activity. Figure 1 gives a partial account of it.

Figure 1 shows that modern transportation (power-driven) increased at just about the same rate as did industrial production. In China traditional means of transportation (those utilizing human and animal power and the forces of Nature) still play an important role, but demand for such traditional means of transportation is closely tied to agricultural production.

Figures 2, 3, and 4 show how supply side (means of transportation) changed as demand for transportation increased.

Figure 2 shows that the increase in the railway freight turnover was far more

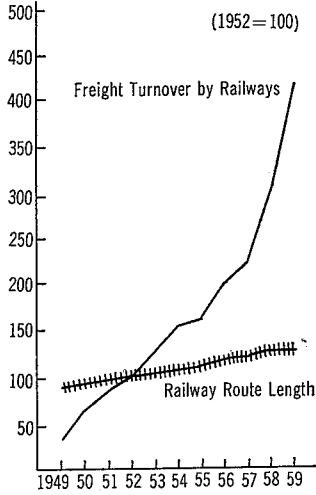
Fig. 1. Growth of Selected Sectors or Branches of China's National Economy, 1949-59



Source: S. Ishikawa, *National Income and Capital Formation in Mainland China; An Examination of Official Statistics* (Tokyo: The Institute of Asian Economic Affairs, 1965), p. 79.

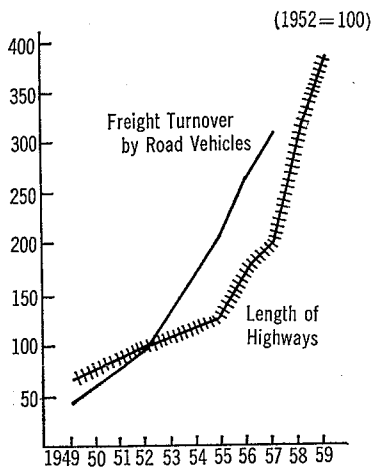
- Notes: 1. The transportation index represents freight turnover by all means of modern transportation.
2. Other indices have been prepared on the basis of 1952 fixed prices.

Fig. 2. Growth of Railway Route Length, Freight Turnover, 1949-59



Source: See [5, p. 206].

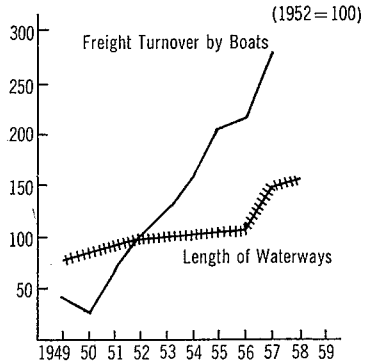
Fig. 3. Growth of Road Transportation, 1949-59



Source: See [5, p. 207].

Note: Freight turnover includes both that by motor vehicles and traditional vehicles.

Fig. 4. Growth of Inland Waterway Transportation, 1949-59



Source: [5, p. 208].

- Notes: 1. Loads carried by both steamships and sailing vessels are included in the freight turnover for 1952-57.
 2. For 1949-52, only loads carried by sailing vessels are included.

rapid than the increase in total railroad mileage (expressed in kilometers). Figure 4 shows the same thing, this time with respect to inland waterways. However, since waterways are dominated by natural conditions, this figure is not very meaningful. Figure 3 shows that the rate of increase in the quantity of load hauled by road transportation means was just about the same as that of total road mileage (expressed in kilometers).

Railroads require modern-type investment in large quantities. Roads, on the other hand, can be constructed chiefly through the intensive labor input.

In the 1950s there was a rapid rise in the rate of utilization of both water routes and railways. Table I shows this numerically. Roughly speaking, the rate

TABLE I
FREIGHT TURNOVER PER KILOMETER OF EXISTING TRANSPORTATION ROUTE
(In thousand ton-kilometers)

	Railroad	Highways		Inland Waterways
		Motor Vehicles	Traditional Vehicles	
1949	837	3.09	8.79	
1950	1751	3.82	8.73	
1951	2208	4.98	9.09	
1952	2454	6.08	9.95	83.24
1953	3117	9.48	10.50	
1954	3604	13.27	10.81	
1955	3612	15.06	10.10	159.19
1956	4116	15.42	8.66	188.67
1957	4507	15.47	8.33	167.31
1958	5947	17.40		

Source: [5, p. 208].

Note: Freight turnover in inland waterways includes both that by steamships and sailing vessels.

of utilization of railroad lines, locomotives, and goods wagons as well as motor vehicles rose sharply and by the end of the 1950s seems to have approached a limit (see Tables II and III). For waterways and roads, however, there was plenty of room left for more intensive utilization, and there was a constant effort made to improve the rate of utilization of such waters as the Yangtze River and the eastern coastal waters.

Towards the end of the First Five-Year Plan period some of the major trunk-line railways reached a state of saturation in utilization. There were signs of this already in September of 1956 on the Chinghan, the Lunghai, and the Shiht'ai, and in 1957 freight began to be short-shipped on these lines and such other lines as the Lanhsin, the Paolan, and the Chinp'u. By the latter half of 1958 the situation was pressing, and on September 17 of that year the Transportation Ministry issued an emergency directive concerning the securing of iron and steel production through transportation. Inadequate transportation capacity was a universal phenomenon covering all phases of transportation, whether long-distance or short-distance, on water or on land. This situation continued until 1960. Needless to

TABLE II
EFFICIENCY OF LOCOMOTIVES AND GOODS WAGONS

	Unit	1949	1952	1957	1958
Average daily run per freight locomotive	km	308.7	396.8	366.0	391.0
Average gross weight hauled per freight locomotive	tons	1,011.2	1,245.3	1,520.2	1,704.0
Average daily efficiency per freight locomotive	thousand ton-km	295	434	477	600
Coal consumption per freight locomotive per thousand ton-km	kg	252	195	146	148
Average turn-round time per goods wagon	days	4.39	2.90	2.84	2.75
Average turn-round distance per goods wagon	km	668.7	676.1	709.2	703.6
Average daily run per goods wagon	km	154.9	233.1	249.9	255.6
Average stopping time per goods wagon per run	hours	—	11.4	10.7	10.4
Average speed of freight train including stops	km/hr	19.9	25.5	25.2	25.7
Average load per goods wagon	tons	26.6	28.9	34.7	37.6
Average daily efficiency per goods wagon	ton-km	2,509.4	4,557.6	5,999.0	6,596.0

Source: [6, p. 153].

Note: For "average turn-round time per goods wagon," refer "Kuanyü 'huansuan huoch'ê chouchuan shihchien' tê shangch'ie" [A study of the average turn-round time per goods wagon], *T'ungchi kungtso t'unghsün*, 1956, No. 3, p. 26.

TABLE III
EFFICIENCY OF LORRIES

		1950	1952	1957	1958
Percentage of lorries in serviceable condition	(%)	63.7	71.0	71.7	82.5
Percentage of lorries in actual use	(%)	30.1	39.5	66.3	77.9
Average daily run per lorry	(km)	79.8	109.2	162.2	174.3
Average daily efficiency per ton of capacity of lorries	(ton-km)	18	32	78	113

Source: [6, p. 154].

say, this phenomenon was brought about by an explosive high tide in economic activities at that time. However, the situation was no doubt aggravated still further when production and transportation plans fell into confusion in the face of this emergency situation. And for this reason the real situation with respect to the transportation supply-and-demand balance may not have been as black as it seems to have been.

There is hardly any direct data available concerning the mining department. That is to say, there is much less data available concerning mine capacity than there is concerning production volume of various mineral resources in the 1950s. There is, therefore, little way of knowing about rates of operation. One can say, however, that the demand and supply balance of mineral resources was similar to that of transportation. That is, toward the end of the First Five-Year Plan

period such production became inadequate, and in the period of the Great Leap Forward this inadequacy became pronounced.

Just about the same thing can be said with regard to electricity. Capacity, quantity of electricity generated, and rate of utilization of equipment were as shown in Table IV. In 1958 the rate of utilization of equipment reached 63 per

TABLE IV
INCREASE IN GENERATING CAPACITY AND ELECTRIC POWER OUTPUT
(1949=100)

Year	Capacity	Output	Rate of Utilization of Equipment (%)
1949	100	100	26.6
1950	100.7	105.5	28.0
1951	101.8	133.4	35.2
1952	106.2	168.4	43.4
1953	127.1	213.4	50.2
1954	140.4	255.2	51.7
1955	162.1	284.9	51.5
1956	195.3	361.7	54.3
1957	239.8	448.7	54.7
1958	337.1	638.7	63.0
1959	510.2	962.8	—

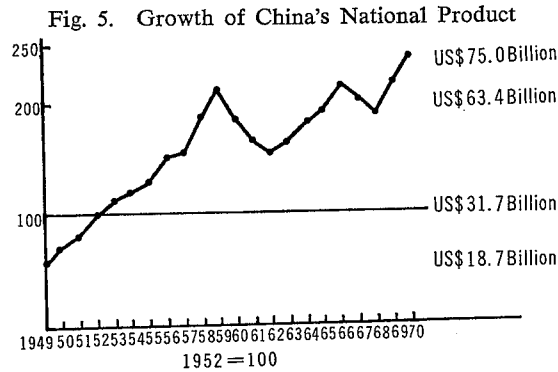
Source: E. Onoye, "Chūgoku no denryoku kōgyō" [China's electric power industry], in *Chūgoku keizai no chōki tembō* [Long-term projection of Chinese economy], ed. S. Ishikawa (Tokyo: Institute of Developing Economies, 1964), p. 297.

cent, which belongs to the highest category by international standards, and it was clear that no substantial rise in excess of this could be expected. Furthermore, the relationship between supply and demand in electricity was very similar to that in transportation and mining. At the end of the 1950s economic growth was producing an increase in the demand for power in proportion to itself, and a further increase in power generated could be made possible only by a commensurate increase in facilities.

II. A COMPARISON OF THE END OF THE 1950S AND THE BEGINNING OF THE 1970S

Our main concern lies in the study of investment distribution in the 1970s. Up to now we have discussed the situation in the 1950s. Our next task is to discuss the change that took place in the period of approximately ten years between then and the present time, as well as whether or not this change has been fundamental. This task must be approached from both the supply and demand sides.

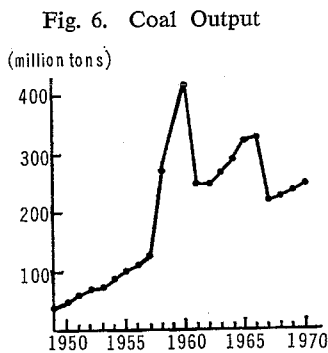
On the demand side, it is practically impossible to calculate the real magnitude of demand for transportation, minerals, and electricity. We will assume that this demand has changed in proportion to national income and industrial production. Then, we can get an idea of how such demand has changed by comparing the level of national income or industrial production in 1970 with that at the end



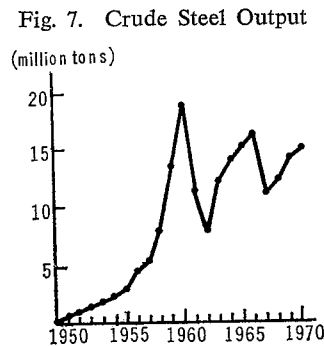
Source: [4, p. 128].

of the 1950s. Our first data for this purpose is Figure 5. Since this is a very rough estimation, we shall use Figures 6–11, showing estimated output of several industrial and agricultural products, to supplement it. Generally speaking, China's economy was marked by turbulent fluctuation in the 1960s, and as a whole the average growth rate was extremely low. The production of coal and crude steel, as shown in Figures 6 and 7, is representative of a considerable number of industrial products. As far as output goes, the level at the beginning of 1970 was lower than that at the end of the 1950s. Chemical fertilizers and petroleum, however, were an exception, special emphasis having been put on their development in the 1960s, and during this period they advanced rapidly, as are shown in Figures 8 and 9. Farm products and light industrial products using these fertilizers and petroleum as raw materials increased steadily in the 1960s because of the policy importance attached to them. However, since they were visited by a sharp decline in production right after the Great Leap Forward, that is, at the beginning of the 1960s, the rate of increase for the ten-year period was only about 20 per cent.

We can consider the level of national product at the beginning of the 1970s as being just about the same as or a little bit above the peak reached at the end of the 1950s. Therefore, as far as it concerns our theme, demand for transporta-

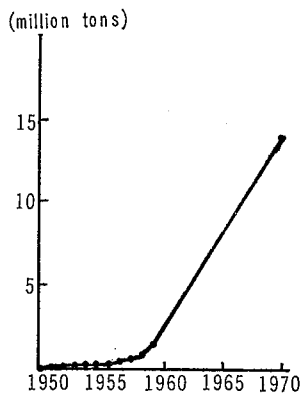


Source: [4, p. 130].



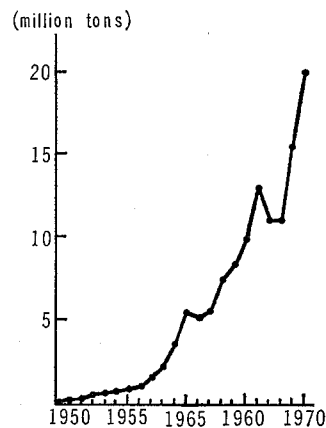
Source: [4, p. 130].

Fig. 8. Chemical Fertilizer Output



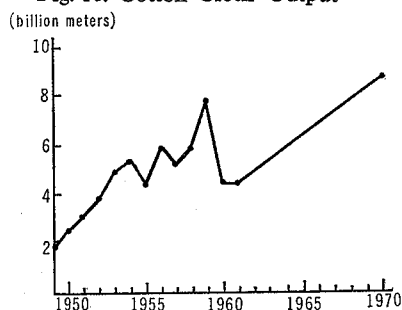
Source: [4, p. 131].

Fig. 9. Petroleum Output



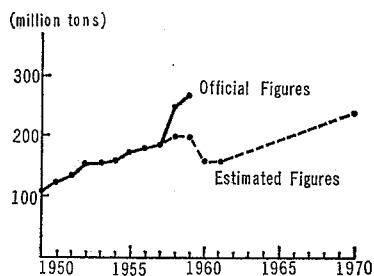
Source: [4, p. 131].

Fig. 10. Cotton Cloth Output



Source: [4, p. 132].

Fig. 11. Grain Output



Source: [4, p. 133].

tion and minerals at the beginning of the 1970s was, again, just about the same as or somewhat above that at the end of the 1950s.

Next let us consider the supply side. The situation with regard to investment in transportation, mining, and power in the 1960s is almost entirely obscure. There are, however, some data on railroad construction and a lot on construction of small-scale power stations in rural areas. The overall conclusion that can be drawn from such data is that there was very little investment, indeed, in the 1960s. That is to say, there seems not to have been a very great increase in transport capacity, mining capacity (excluding petroleum), power plants, and so on. Since there remain, however, some points of obscurity in this respect, it will be necessary to give the matter further consideration.

From the above the following conclusion can be drawn concerning supply and demand in these areas at the beginning of the 1970s. That is, both supply and demand were about the same as that at the end of the 1950s or perhaps had increased by a small amount. And for this reason the balance between supply and demand was about the same as it was at the end of the 1950s.

III. RECENT TRENDS

It is clear that economic activities in China have once again livened up since 1969, when the Great Cultural Revolution came to a close. What is the situation with respect to the sectors which we have been dealing with? First of all let us take a look from the demand side.

Since 1969 there has been an increasing number of newspaper articles in China reporting a rise in volume of traffic. In 1969 the reporting was of local and regional increases; thereafter, however, the nationwide situation began to be reported, and this trend became even clearer in 1971. The following excerpt from the *Jênmin jihpao* of July 3, 1971, is an example of such: "In the first five months [of 1971] the quantity of freight transported by railway increased by 15 per cent over that of the same period of last year. The increase was more than 20 per cent for south China, the northern coastal areas, and the trunk line along the Yangtze River."

The greatest increase in demand was in the mining sector, and for this reason newspaper articles calling for stepped-up production dealt more with this sector than any other. Of particular concern have been coal and iron ore. It is clear that in 1971 these sectors have become bottlenecks in China's economic development.

What is the picture on the supply side, then? Our knowledge of this is limited. We do know about railroad construction in southwest China, the building of 10,000–20,000-ton cargo ship one after another, importation of trucks from Japan, an increase in mining machinery among import items, and so on, but all of this information is far from being sufficient to indicate the situation in China as a whole. Nevertheless, there are literatures available indicating that, at least as far as the plans go, large-scale construction of mines and railways based on long-term intentions is about to begin.

A lengthy article entitled "Mao Tsê-tung ssühsiang chihyin womên to k'uai hao shêng ti hsiuchien t'iehlu" [Mao Tse-tung's thought tells us how to build railroad in greater number, faster, better, and more economically] by a writing group of the railway corps of the Chinese People's Liberation Army appeared in the No. 11 issue of *Hungch'i* in 1970 and appeared again in *Jênmin jihpao* of November 1 of the same year. In this article was included a number of important problems regarding railroad construction policy, but we will not delve any farther into the matter here. At any rate, we will take note of the fact that comprehensive policy with regard to railroad construction was indicated in this article. The fact that such an article appeared in *Hungch'i* and the *Jênmin jihpao*, two of the most important publications in China, would appear to indicate that there is about to be a renewal of large-scale railroad construction. For this very reason it behooves us to make clear the basic direction of such construction.

There is no literature quite like this concerning mine development, but, nevertheless, a comparatively great number of articles on the subject have been published. These articles cover all aspects of mining, including resource surveying,

mining engineering, mine construction, and manufacture of mining machinery. In 1971 such articles have become particularly frequent [3, Mar. 7, 1970] [3, June 13, 1971] [3, June 14, 1971] [3, Aug. 14, 1971] [3, Sept. 6, 1971] [3, Sept. 20, 1971].

IV. SUMMARY AND CONCLUSION

Our purpose here has been to put forth one viewpoint concerning investment allocation in China in the 1970s, and our main contention is that there will have to be a rapid increase in investment in such basic sectors as transportation, mining, power, and so on. This necessity is the natural result of the pattern that investment allocation took in the 1950s.

Two features of those areas that we have pointed out as being areas of investment emphasis are (1) that the period of gestation of investment is long and (2) that the marginal capital-output ratio is high. Furthermore, we have shown that economic development in China in the 1950s was much influenced by "recovery factors." These factors are, however, nonexistent in the 1970s. In the 1970s all construction has been and will be completely new, and for this reason the period of gestation of capital should become longer and the capital-output ratio should rise further.

The above conclusion is not, however, one which can be asserted on the basis of strong grounds. It includes development of an argument that is not backed up by data. It can therefore be said that we have only set forth a hypothesis. Let us summarize the main substance of this hypothesis once more.

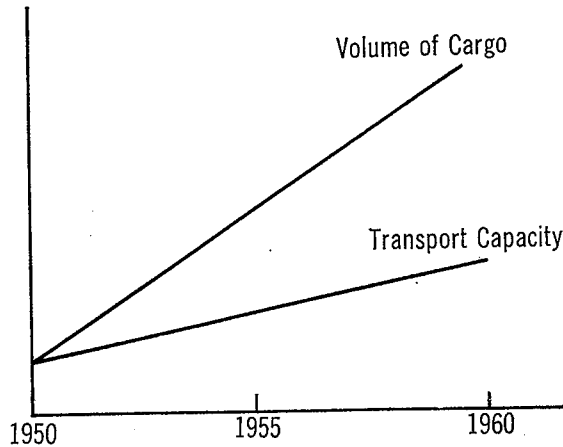
1. Freight traffic increased in the 1950s at about the same rate as agricultural and industrial production. Since this fact is backed up by data, there is for all intents and purposes little doubt about it. The above statement still holds true if the words "mineral resources" are substituted for the words "freight traffic."

2. We can consider, therefore, the demand for transportation and the demand for mineral resources (also electricity), thereafter, as having been proportionate to economic development as a whole (although the ratios of the two demands to such overall economic development differed). This conclusion is based not only on figures given by the Chinese authority in the past but is also supported by data furnished by other countries, leaving little room for doubt.

3. In the 1950s the increase in goods traffic was realized chiefly by raising the rate of utilization of existing means of transportation. Transport capacity and volume of cargo increased respectively as illustrated in Figure 12. The same relationship holds true if the words "volume of cargo" are replaced by the words "quantity of minerals" and "quantity of electricity," and the words "transport capacity" are replaced by the words "mine capacity" and "generating capacity." These quantities and capacities are for the most part backed up by data, but mine capacity remains somewhat obscure. Furthermore, among means of transportation, roads have increased in length at a tremendous rate and therefore are an exception to this statement.

4. By the end of the 1950s the rates of utilization of transportation, mining,

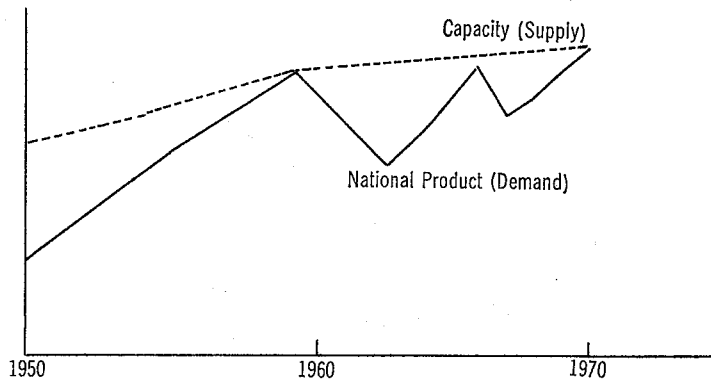
Fig. 12. Transport Capacity and Volume of Cargo



and power generating facilities were approaching a limit, and it was no longer possible to raise the rates of utilization any further. In other words, further increases in production were not possible without proportionate or even greater increases in equipment. This is not only backed up by quantitative data but is also corroborated by a great number of newspaper and periodical articles. If these rates of utilization are looked at in greater detail, it can be seen that in transportation there was still remaining capacity in some areas of the country, and the same thing can be said of maritime transportation. Nevertheless, it is clear that on the whole, rates of utilization were approaching a limit.

5. A comparison of the end of the 1950s and the beginning of the 1970s as to demand for transportation and transportation capacity shows that in neither case has there been a very great change. It is thus possible to consider the relationship between supply and demand existing at the end of the 1950s as being the same as that at the beginning of the 1970s. This point is the least substantiated by data. Let us first represent demand by the amount of agricultural and industrial production. This amount (it can just as well be considered as being national income) is considered to have just about followed the course shown in Figure 13. That is to say, the levels for 1959 and 1970 are just about the same, or perhaps that for 1970 is just slightly higher. Transport capacity, too, showed just about the same tendency. The difference between the two is that while demand fluctuated turbulently from 1959 to 1970, supply was just about constant. In any case, since there is little data to back up these points, they must be considered as being an assumption, and this has made it necessary that the whole content of the present writing be set forth as being not a fact, but rather a hypothesis. The lack of sufficient economic data holds true for all aspects of the Chinese economy during this period, but of particular significance in obscuring the picture with regard to our theme is the obscurity of the course that demand from the military sector took during this period. Furthermore, what has been said here concerning supply and demand in transportation also holds true for supply and demand of

Fig. 13. Transportation: Demand and Supply



minerals and electricity. It goes without saying, however, that of the different sectors of mining production, the petroleum sector must be excluded here since it is a clear exception.

6. It is evident that in the 1970s investment in the industrial sector will once again become brisk. As it does, however, there will be a great difference in the pattern of investment allocation from that of the 1950s. It will first be different in that there will have to be a rapid increase in investment in transportation and mining (also power). It was possible to economize to the utmost in investment in these sectors in the 1950s because there were idle equipment and facilities (including such in the mining sector which was exported) which were available for use. In the 1970s such excess capacity no longer exists.

7. The pattern in the 1970s is secondly different in that whereas in the 1950s the "recovery factors" played a strong role, in the 1970s construction has been and will be entirely new. In this sense the course of development in the 1950s can be said to have been unique—it will certainly not recur.

8. Transportation and mining are sectors in which the gestation period of investment is long and the incremental capital-output ratio is higher than for machinery and iron and steel (these are sectors in which investment was concentrated in the 1950s). Furthermore, in all sectors the gestation period of investment is far longer and the capital-output ratio is far higher for plants and facilities being newly constructed than for those being restored. The composite effect of all this would seem to be that the capital-output ratio in the 1970s will be higher than that of the 1950s. Needless to say, this last point cannot be asserted strongly as it is not based on sufficient evidence. If one considers points 1-7 as being a hypothesis set forth by the present writing, point 8 can be considered as being an implication of that hypothesis.

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