

The North Korean Industrial Enterprise: Control, Concentration, and Managerial Functions

JOSEPH S. CHUNG

Illinois Institute of Technology

I. CHANGE IN OWNERSHIP: NATIONALIZATION AND COOPERATIZATION

State ownership of the means of production is an organizational objective in the Communist economic policy. No time was wasted in North Korea in implementing this policy. The nationalization decree¹ was proclaimed by the Provisional People's Committee on October 10, 1946, a year after the partition of Korea. Even before the formal decree, key industrial enterprises had been in the control of the people's committees under the leadership and assistance of the Soviet occupation force.² Thus the decree simply legalized what had been de facto nationalization up to that time.

The change in ownership was made easier by the fact that almost all the key industrial enterprises were formerly owned and controlled by the Japanese, whose mass withdrawal made the transition and takeover relatively simple, as compared to Communist countries in Europe. As a consequence of the nationalization, 1,034 key industrial enterprises were confiscated, totalling 90 per cent of all North Korean industry, according to one estimate.³ It is not clear, however, what exactly is meant by this percentage figure: does this mean 90 per cent of the total financial assets, or of the total value of past output, or of the total annual productive capacity in value terms? For one thing, only 72.4 per cent of the gross industrial output originated in the nationalized sector in 1946, as is shown in Table 1.

TABLE 1
CHANGE IN THE RELATIVE IMPORTANCE OF STATE, COOPERATIVE, AND PRIVATE ENTERPRISES 1945-1962

	1946	1949	1953	1954	1957	1958	1960	1961	1962
I. No. of enterprises									
1. State owned	n.a.	n.a.	n.a.	743	n.a.	1795	2254	2129	2205
Locally managed				184		1054	1750	1567	1594
2. Producers' cooperatives		567	581	556	824	819	489	489	385
Fisheries' cooperatives				165	n.a.	176	155	149	171
3. Private enterprises	n.a.	n.a.	n.a.	n.a.	633	n.a.	—	—	—
II. Gross Industrial Product according to ownership (%)									
1. State owned	72.4	85.5	86.2	88.9	90.6	87.7	89.7	n.a.	n.a.
2. Cooperatives	—	5.2	9.9	7.3	8.1	12.2	10.3	n.a.	n.a.
3. Private	27.6	9.3	3.9	3.8	2.0	0.1	—	—	—
Small merchandise industry	(4.4)	(1.5)	(1.0)	(1.1)	(0.5)	(0.1)	—	—	—
III. Percentage of former private entrepreneurs, handicraft workers, and merchants transferred into socialized sectors (as of December)									
1. Socialized		22.5	33.7	39.5	77.2	100.0	100.0	100.0	100.0
Joined cooperatives		(11.0)	(16.7)	(18.7)	(54.2)	(76.6)			
Turned workers, clerks, etc.		(11.5)	(17.0)	(10.8)	(23.1)	(23.4)			
2. Not socialized		77.5	66.3	60.5	22.8	—	—	—	—

As in agriculture and commerce, socialization of industry was completed in 1958, and as a result, private ownership and control of industrial enterprises disappeared from the North Korean scene altogether. In the beginning and up to the Korean War, private ownership of some enterprises was tolerated and even encouraged officially. A decision of the Provisional People's Committee dated October 4, 1964,⁴ included a clause that guaranteed enterprises and commercial houses owned by Korean citizens against nationalization. Significantly, another stipulation called for an expansion of private enterprises. It authorized the provisional government to sell or make available to Koreans Japanese-owned consumer goods factories employing fewer than fifty workers. Expediency under conditions of transition and economic disarray seemed to be the chief guiding line in this decision. The private sector was useful to the regime in so far as the entrepreneurial and administrative skill was in short supply after the Japanese withdrawal. In addition to the economic calculation of maximizing the use of scarce resources, there were propaganda effects in South Korea to be considered.

In spite of the ostensibly tolerant attitude on the part of the regime toward private enterprise, private entrepreneurs had to overcome numerous obstacles and handicaps in the course of operations. As a matter of fact, they had been experiencing a steady decline in their role even before the Korean War. The regime's labor, rationing, and price policies and its control of raw materials had placed the private entrepreneurs at a competitive disadvantage. The government

SOURCES: (Table 1)

I. For 1954, 1956, 1958, and 1960, Joint Publications Research Service (JPRS), *Economic Report on North Korea (ERNK)*, No. 79, p. 21; for 1949, 1953, and 1957, "Our Country's Cooperative Management," *Kyongje komsul* (Economic Construction), February 1958, p. 65; for 1961 and 1962, JPRS, *1963 North Korean Central Yearbook*, p. 262.

II. For 1954, "Our Country's Cooperative Management,"; for 1957, *Choson ch'angung yongam*, 1958, p. 180; for the rest, *ERNK*, No. 79, p. 23.

III. Kim Il, "Concerning Further Development of Local Industries," *Chonguk ch'ibang sanop mit sengsan hyopdong ch'ohap yolsong ja tarohae sunhonjip* (Documents of Nationwide Local Industries and Producers' Cooperatives Enthusiasts Meeting) (Pyongyang: Korean Labor Party Publishing House, 1959), p. 34. For number of private enterprises, Academy of Science, Institute of Economic and Legal Research, *Hebangku uri nara si imin kyongje palchon* (Development of the People's Economy Since the Liberation) (Pyongyang: Academy of Science Publishing House, 1960), p. 179.

set wage-rate ceilings, with the result that private manufacturers were not able to attract needed labor. Diverting workers from state enterprises was extremely difficult, as only government workers were entitled to rations, and in addition, they were required to obtain discharges from the state firms for the transfer. Other than operating from inventories and obtaining occasional supplies from the free market, private manufacturers depended on the government for allocations of raw materials. The government allocation policy, however, gave priority to state firms. If and when allocation was made, it was done on a contract to furnish the government with a corresponding amount of finished products at a government-fixed price.⁵ Moreover, private firms required government permission to operate or to expand.⁶ Under such conditions it was not surprising to find that by 1950 private manufacturers were typically operating at about one-fourth of the plant capacity,⁷ and that the contribution of the private sector to the gross industrial product declined from 27.6 per cent in 1946 to only 9.3 per cent in 1949. During the Korean War the private sector attenuated further so that in 1953 it produced a mere 3.9 per cent of the gross industrial output. By 1958 private enterprise as a form of business ceased to exist.

From the very beginning the private sector was largely confined to small-scale manufacturing such as food processing; weaving and spinning; metal-working; manufacture of stationery, paper, and cosmetics; cottage handicrafts, etc. As late as in 1957, almost 30 per cent of the food processing and 14 per cent of metal-working were performed by the private manufacturing establishments, as shown in Table 2. The table also indicates that the disappearance of individual firms in 1958 was abrupt in some sectors, judging from the fact that their role was still substantial in the preceding year. On the other hand, the decline of private enterprise as a whole in terms of its contribution to the total industrial output had been gradual. The scale of operation of the private manufacturing firms was extremely small: in May 1957, the average number of workers per establishment was only 2.5.⁸ Only 14 per cent of a total of 633 private firms employed more than 5 workers, and the rest—86 per cent—were operating with an average of 1.4 workers per establishment.⁹

The gradual decline of the private sector was due mainly to the absorption of the private manufacturers and their workers into the

cooperatives. Signaled by a decision of the Korean Labor (Communist) Party central committee dated September 1, 1947, producers' cooperatives were formed initially under the supervision of the already existing consumers' cooperatives. The "conversion" of the handicraft workers, cottage industry workers, and "free-lance" workers was emphasized. There were, as of the end of 1947, twenty-eight producers' cooperatives in existence. A new decision made by

TABLE 2
CONTRIBUTION OF THE PRIVATE SECTOR TO THE
GROSS INDUSTRIAL PRODUCT, 1957
(Data for First Quarter)

	Contribution as % of the gross output in the respective industry
Food processing	29.6
Oil paper	12.6
Stationery	10.0
Metal-working	13.6
Paper	6.2
Textiles	5.2
Cosmetics	9.0
Cultural goods	7.7

SOURCE: Cho Chae-son, *Kuodgic lisoson choson ndongdangui kyongje chongchaek* (Economic Policy of the Korean Labor Party During the Period of Transition) (Pyongyang: Korean Labor Party Publishing House, 1958), p. 114.

the central committee on March 24, 1953, established producers' and fisheries' cooperatives as separate and distinct organizations independent of the consumers' cooperatives.¹⁰

Another decision of the central committee dated September 29, 1957, further modified the organization of the cooperatives. Henceforth producers' cooperatives were to be divided and classified into three forms or types according to the nature of the organization, property arrangements, and settlement of incomes earned. Basically the same criteria used to classify the agricultural cooperatives were employed. Thus, in the case of Type III cooperatives, there is complete communal ownership of all the means of production, and distribution of incomes is based solely on labor contribution. This form is considered to be "superior" and most "advanced," being

completely "socialistic." In the Type II cooperatives, which are considered "intermediate" and "transitional," private ownership of the means of production is still permitted while attempt is made to absorb gradually the privately owned portion of the property into community ownership. In the second form, control and management of the means of production are made collectively, but capital still earns a share of the income, although labor is the principal criterion for income distribution. The Type I form, which permitted private ownership of means of production and which is considered "primitive," does not exist in North Korea any longer.¹¹

The proportion of producers' cooperatives belonging to the third type increased from 23.6 per cent in 1956 to 62.0 per cent in 1959, and it reached 75 per cent in 1960; the remaining 25 per cent was of the second type.¹² Although recent data are lacking, a tendency toward transforming all the cooperatives into the third form is clear enough. If events in agriculture are any indication, it will not be long before all the cooperatives are completely converted to this last and "highest" form.

Besides the producers' cooperatives, there sprang up in 1956 what are called production-marketing (*sengsan paumae*) cooperatives. They are a kind of semi-producers' and semi-sellers' cooperatives, as the name implies. The primary purpose behind their formation was said to be that of converting small and medium private merchants into "socialistic" industrial workers. Tax incentives were introduced in 1956 to make the conversion economically advantageous by granting a reduction in tax rates or by outright tax exemption.¹³ It is expected that they will be absorbed by producers' cooperatives, consumers' cooperatives, and state commercial institutions in due course of time. To this extent they are transitional in character.

In 1958, the year cooperatization was completed, there were 819 producers' cooperatives and 176 fisheries' cooperatives. The number of the former has been sharply declining since then, so that at the end of 1962 there were only 385 producers' cooperatives, nearly a 53 per cent decline over 1958. A similar reduction in the number of cooperatives in agriculture about this time, it is recalled, was attributed to the deliberate policy toward a larger scale of operation and the consequent merging of the collective farms. The reduction in the number of producers' cooperatives does not signify such a

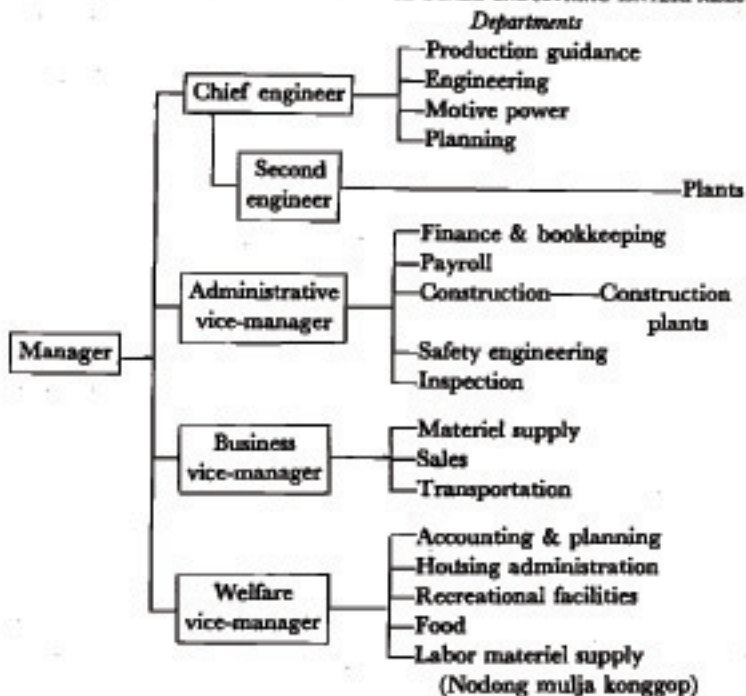
tendency. It seems to be more the result of a large-scale transformation of these cooperatives and their members into state enterprises, central and local. It was, for example, reported in 1960 that 347 producers' cooperatives with over 53,000 members were converted into state industrial enterprises,¹⁴ with an average membership of about 153 workers. There has not been any significant change in the number of fisheries' cooperatives. At the end of 1962 there were 66,000 workers in a combined total of 556 producers' and fisheries' cooperatives.¹⁵ This makes the average number of workers per industrial cooperative about 119. Comparing the average size in terms of the number of workers of cooperatives absorbed into state enterprises in 1960 and that of remaining cooperatives in 1962 seems to point to a conjecture that larger-than-average cooperative plants tend to be turned into state enterprises. However, the figure for 1962 is for both producers' and fisheries' cooperatives, while that for 1960 applies only to the former. It would be interesting to speculate whether or not this tendency toward converting cooperatives into state enterprises will continue in the future. In 1960, the last year for which such information is available, state enterprises contributed an overwhelming portion—89.7 per cent—of the gross industrial product, the rest originating in the cooperative sector. In 1962 there were 2,205 state industrial enterprises and 556 industrial cooperatives.

II. MANAGERIAL FUNCTIONS OF THE STATE ENTERPRISE

State enterprises are classified into central and local enterprises depending on their size, sphere of influence, and utilization of output. Accordingly, central enterprises are those which operate on a larger scale and whose products possess nationwide significance, being utilized throughout the economy. Local enterprises, in contrast, are small in size and their products are mainly for local consumption, typically utilizing locally available resources. Central state enterprises are controlled by the appropriate ministries of the central government through the respective bureaus concerned, whereas local state enterprises are under the control of the appropriate agencies of the provincial or municipal people's committee, as will be seen later.

Though the North Korean industrial enterprise is an administrative arm of the central government, it is an independent and autonomous unit of production in so far as it is deemed solely responsible for fulfilling the assigned tasks. The highest authority of the enterprise is the state-appointed manager, who assumes total responsibility for the productive activities of the enterprise executed under his direction. He functions as a kind of entrepreneur and is assisted in his task by the chief engineer, vice-manager, second engineer, supervisors, etc. The chief engineer, acting as the "chief of staff" for the enterprise, is the principal representative of the manager and shares the responsibility in matters of production with the manager.¹⁶ The recently reformed organizational structure provides for three vice-managers for large-scale enterprises: administrative vice-manager, business vice-manager, and welfare vice-manager. The following is the reformed organizational chart of large-scale industrial enterprises.¹⁷

ORGANIZATIONAL CHART OF LARGE-SCALE INDUSTRIAL ENTERPRISES



In contrast to the state enterprise, the highest managing and administrative unit of a producers' or fisheries' cooperative is elected by the general assembly of the members of the respective cooperatives and is under the direct supervision of the governing body of the provincial or municipal association of cooperatives. The central committee of the nationwide association of cooperative industries assumes the responsibility of setting up the general guidelines concerning the goals and activities of all the industrial cooperatives in the country. The governing body of each association is, in turn, elected by the general assembly made up of the representatives from each member cooperative.¹⁸

Economic efficiency and responsibility of the state enterprise is largely managed according to what is called the system of independent economic accounting (*Tokrip chaesanje*), by which the government attempts, by making each enterprise independently accountable for its efficiency, to ensure the most economic use of resources for meeting the assigned quotas. In addition to the fixed capital, each enterprise under the system receives from the state a minimum sum of working capital in the beginning of the period to enable it to begin production. The enterprise, however, is required to meet the various expenses in the course of production such as raw material cost, wages and salaries, depreciation for machinery and equipment, etc., with the fund obtained through sale of its output. In the event of a shortage in working capital, it can borrow from banks according to plan but has to pay interest on the loan. An additional supply of state funds is made only when the state plan is modified to expand its output goals. This prompts the enterprise to be financially on its own rather than entirely dependent on the state for operating capital. The state makes the enterprise responsible for abiding strictly by the established rules, standards, and contracts by imposing fines for breach of contract. Banks may also refuse to make further loans to those enterprises which have defaulted their financial obligations in the past. The firm is left with a certain measure of independence and initiative in so far as it could modify technological processes to achieve economies, choose the kind of inputs, and sell the outputs at its discretion and disposition within a range bounded by specific (or vague) directives.¹⁹

The system of independent economic accounting is in contrast to that based on budget allocation. Under this system the enterprise

receives a given budget from the state to cover the operating expenses. If, at the end of a given period, there is any surplus of revenues over expenditures, this is turned over to the state. In case of deficit, an additional budget is allocated to make up for the loss.²⁰ Increasingly, the former system has been substituted for the latter, and it is believed that the majority of North Korean enterprises, especially those of large and medium sizes, are presently under the system. Infusion of a measure of incentives seems to distinguish the present system from the budget-financing system under which the enterprise is not directly responsible for its efficiency.

The primary task of a North Korean enterprise manager is to fulfill the planned quota, while in the West the production decisions of the firm, including the level of output, are made largely in reference to the profit motive. This generalization, while it does explain the essential difference between the two systems, is not wholly accurate in so far as profits do play some role in the managerial decision-making of the North Korean enterprise. The enterprise is not only asked to fulfill the "quantitative indices" such as the quantity of output, etc., but also the "qualitative indices." The latter include effectiveness in the utilization of equipment and productive capacity, labor productivity, cost reduction, profit, and so on.²¹ Simply fulfilling the quota, while the most important, is only one of the multitude of success indicators of the management. In other words, the North Korean enterprise is not encouraged to deliver the planned output at any cost. Rather, its success (or failure) and the managerial rewards (or penalties) depend on fulfilling the quota while minimizing the cost.

A tentative conclusion seems to be that the North Korean system of enterprise incentives very closely resembles that used in the USSR,²² especially before the recent Russian relaxation in central planning and the introduction of profit motives in some sectors of industry, but is quite different from the Yugoslav setup, in which profit maximization is allowed as a rule.²³

While in the North Korean institutional setup, maximizing profit may not be the final goal to be pursued, it (especially unplanned profit) nevertheless plays an important role in that it is used as a barometer of how efficient the firm is in minimizing the cost of producing the planned output. This is demonstrated in the scheme below showing the price structure of industrial products. Price is

cumulatively built up by adding planned profit to the planned costs of production. In the case of the interindustry wholesale price, turnover tax is also added to make up the price. Interenterprise wholesale price is that charged for the products when an enterprise buys or sells the output of another as input, whereas the interindustry wholesale price is relevant when output of the industrial

←Interindustry Wholesale Price →			
←Interenterprise Wholesale Price →			Turnover Tax
←Planned Cost →		←Planned Profit →	Turnover Tax
←Actual Cost →	←Unplanned Profit →	←Planned Profit →	Turnover Tax

sector is sold to commercial distributional centers. Since the turnover income, defined as the difference between the interindustry price and the interenterprise price, is taxed by the government in its entirety as turnover tax, the effective after-tax price to the enterprise is the same whether the transaction is between enterprises or between the enterprise and the commercial agency. Actual cost being the only undetermined variable, the levels of all other variables (prices, planned profit, planned cost, and turnover tax) being fixed by the state, it is clear that unplanned profit is the measure for successful cost reduction and depends solely on minimizing the actual cost below planned costs. This seems to correspond to the Russian system, in which "the rule of economic accounting is minimization of cost through the best possible utilization of inputs and maximization of unplanned profits without infringing any of the plan's provisions concerning prices and output mix"²⁴ in the fulfillment of tasks determined by the state.

Not only does profit influence managerial behavior as a success indicator, but it also has built-in material incentives for the manager and the workers of the enterprise. As a material inducement for economic utilization of resources, a portion of the profit is allowed to be retained by the enterprise for various purposes. Around 1956

it was reported that 50 per cent of the profit was paid to the state and the remaining half was kept by the enterprise for accumulation in the "enterprise fund." A source in 1963 indicates that 30 per cent of the fund is earmarked for the introduction of new technology, improvement in the existing equipment, expansion in production and product diversification, and quality improvement. Of the remaining, 30 per cent is allocated to improve the cultural and welfare facilities of the workers and 40 per cent for rewards and temporary subsidies to workers.²⁵

Unlimited maximization of profit, as well as unlimited over-fulfillment of goals, however, is not encouraged, especially when a firm produces multiple products, for it may tempt the firm to produce more of those commodities whose unit profit is higher, in an effort to increase the over-all profit of the firm. In other words, there is a danger that the firm may overfulfill the target of more profitable commodities at the expense of less profitable products. In such cases, a balance of profit and plan fulfillment in each individual product rather than an over-all profit seems to be emphasized. Kim Il-song, deploring such practices, was quoted as having said that "a considerable number of our enterprises and their leaders are producing easily processable and [or] expensive products in an unnecessarily large quantity, and, by long storage or idle stockpiling of these products, they are failing to assure a prompt currency circulation as well as a return to the state and are even jeopardizing the commodity circulation plans."²⁶

Since fixed capital is allocated by the state, the decisions faced by the manager are basically of a short-run nature. Long-run decisions dealing with the size of the plant and the number of firms are largely in the domain of the state as reflected in its policy on the allocation of fixed capital and other priorities to different enterprises and various industrial sectors.

III. SIZE AND CONCENTRATION

What has been the trend of the size, distribution, and the degree of concentration of the North Korean industrial enterprise? No data are available on the cooperative enterprises other than the fact that at the end of 1962 the average number of workers per cooperative ran about 119, as pointed out earlier. However, since

the role of state enterprises is overwhelming, an analysis and conclusion based on state enterprises alone will tell a great deal regarding the subject. Available data on state enterprises are based on the number of workers employed. Ideally, other information such as distribution according to output, capacity, and assets would also be needed. The number of employed workers, however, may be to some degree a measure of other size criteria mentioned.

As shown in Table 3, the number of enterprises in every size class increased between 1954 and 1962. The same is true for the period between 1960 and 1962 except for those employing between 501 and 1,000. The rate of growth for 1954-1962 is the highest for the level of firms with more than 2,000 workers, followed by those with 100 or fewer workers. The change in the relative frequencies during the period reflects the differential growth. In 1954, 1.2 per cent of all state enterprises employed more than 2,000 workers, while this figure rose to 2.7 in 1960 and 3.2 in 1962. The percentage of establishments employing 100 or fewer workers also increased from 43.0 to 46.2 per cent between 1954 and 1962. In recent years, between 1960 and 1962, the percentage in this class declined, and this is partially explained by an increase in the relative importance of firms with 101 to 500 workers. Between 1954 and 1960 the percentage in the latter declined substantially. Simultaneous emphasis on the large-scale industrial plants on one hand, and on the local industries on the other (see Section 4), largely explains the situation. In an economy where the development of heavy industry has been assigned priority, the emergence of a number of giant enterprises is not surprising.²⁷

The Lorenz curves constructed indicate a substantial degree of concentration of workers in firms employing more than 500 workers. For example, in 1957, the last year for which data are available, 13.4 per cent (501 to 1,000 workers) of state firms employed 26.1 per cent of all state firm workers. In the same year, firms hiring more than 3,000 constituted only 0.9 per cent of all state enterprises but employed 10.4 per cent of the total workers in the state firms, while, on the other hand, firms hiring 100 or fewer comprised 36.2 per cent of all firms but employed only 3.5 per cent of the total workers. Between 1954 and 1957, however, there was some tendency toward lesser concentration. Unfortunately, data since 1957 are incomplete for constructing Lorenz curves, and this prevents any

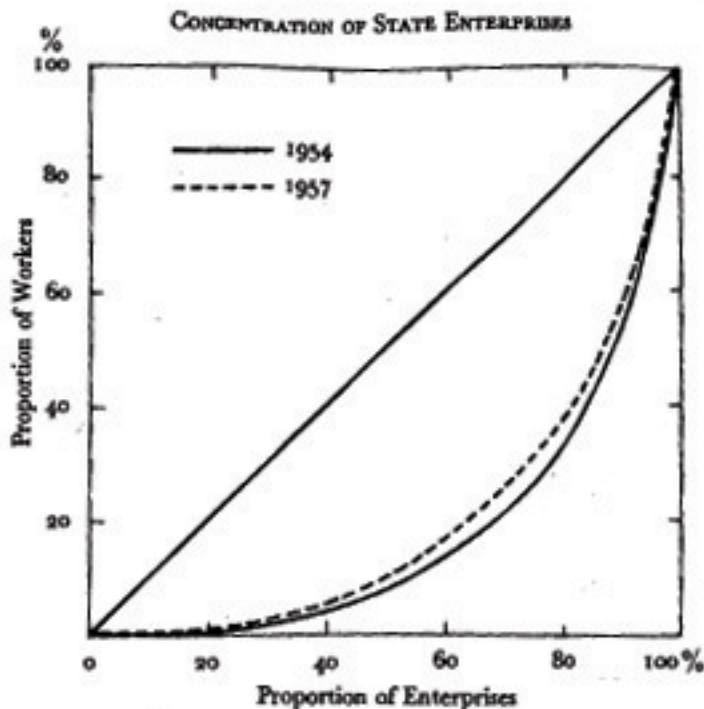
TABLE 3
SIZE DISTRIBUTION OF STATE ENTERPRISES ACCORDING TO NUMBER OF WORKERS

	No. of enterprises				No. of workers (%)	
	1954	1957	1960	1962	1954	1957
Total number of enterprises	742 (100.0%)	(100.0%)	2,254 (100.0%)	2,205* (100.0%)	100.0%	100.0%
100 or fewer workers	319 (43.0)	(36.2)	1,274 (56.5)	1,019 (46.2)	6.2	3.5
101 to 500 workers	287 (38.7)	(41.3)	645 (28.6)	825 (37.4)	29.4	28.2
501 to 1,000 workers	89 (12.0)	(13.4)	182 (8.1)	176 (8.0)	29.7	26.1
1,001 to 2,000 workers	38 (5.1)	(7.5)	92 (4.1)	115 (5.2)	23.3	27.1
2,001 to 3,000 workers	6 (0.8)	(0.7)	29 (1.3)	33 (1.5)	6.8	4.7
3,001 and over	3 (0.4)	(0.9)	32 (1.4)	37 (1.7)	4.6	10.4

* Number of enterprises based on percentage figures.

Source: 1. For 1954 and 1957, Academy of Science, *Uri nara nimin kyongji tto sangsongok kwo sangian kungyeui haeng chongnyong* (Interrelationship Between the Productivity and the Relations of Production in the People's Economy of Our Country) (Pyeongyang: Academy of Science Publishing House, 1960), p. 26.

2. JPRS, 1963 North Korean Central Yearbook, p. 262.



definite generalization on the trend and recent state of industrial concentration.

The fact that there has been a marked increase in large state enterprises both in absolute number and as a percentage of the total firms, while the percentage of output by state firms has remained relatively stable since 1954, seems to indicate that the trend to a larger scale is due mainly to increasing the size, especially of medium-sized plants within the state sector, rather than to shifting from cooperatives to state enterprises. Also, in spite of a recent decline in the number of cooperatives, the number of locally managed state firms has been on the rise. This trend, since local state firms are typically smaller in size relative to central state firms, appears to suggest that cooperatives have been mainly transformed into locally managed state enterprises, rather than centrally managed enterprises.

IV. DECENTRALIZATION IN INDUSTRIAL CONTROL

Growth in locally managed state enterprises is partly the result of the regime's deliberate policy to decentralize the industrial control system to a certain degree. Before 1958, all the local state enterprises were under the control of the provincial authorities. Since 1958, at the suggestion of Kim Il-song and the party, enterprises managed at the municipal and county level sprang up like "bamboo shoots after the rain" throughout North Korea. It was claimed that the mass movement initiated by Kim for the purpose of expanding the food-processing industry and the production of daily necessities resulted in the construction of more than one thousand new factories within two to three months and that more than 85 per cent of these factories immediately began production.²⁸ Judging from the hastiness and the number involved, they must have been small in size with little mechanization.

Several reasons may be advanced as factors influencing the North Korean policymakers toward emphasizing the local industries and instituting some measure of decentralization in industrial management. First of all, it simply reflects the regime's attempt to rectify the uneven growth of industry and agriculture on one hand, and heavy industry and light industry on the other. Official policy of parallel development of heavy as well as light industry and agriculture notwithstanding, actual efforts as reflected in investment and other policies have emphasized heavy industry. Local industries are typically consumer goods producers and processors of agricultural products for food.

Secondly, extensive central control of industry has brought with it excessive expansion, complexity, and compartmentalization in the central controlling organs. The resulting bureaucratic inefficiency, lethargy, and corruption, coupled by a sort of inter-ministry and interoffice rivalry, produced a waste of resources due to the lack of flexibility in the supply of materials and to an incorrect estimation of the needs of various sectors of industry. Concentration of control agencies in the capital had also invited a concentration of administrative personnel and technicians, with the result that able administrators and skilled workers were thinly distributed among local industries.²⁹ Economic waste arising from an imbalance in the allocation of personnel between central and

local industries had to be eliminated, that is, the marginal productivity of the trained personnel would rise if they were transformed from central to local enterprises according to the equimarginal principle.

Thirdly, the development of local factories, be they state operated or cooperative, would lead to fuller and better utilization of local resources to meet both national and local requirements. Any seasonal labor surplus that might arise in a particular locality at a particular time could be more effectively estimated and mobilized locally. Also, locating plants near the source of raw materials or consuming points would reduce transportation costs for those industries which are either raw-material-oriented or market-oriented from the locational economics point of view, if they use local raw materials or serve the local market in this case. Kim Il-song, speaking in October, 1959, at the national convention of local enterprises and cooperatives, pleaded emphatically for more effective and expanded exploitation of local raw materials, encouraging the managers to find ways to use local materials as inputs.³⁰ There has been limited success in the movement in that the proportion of raw materials originating from local sources in the gross output of local industries rose from 58.8 per cent in 1958 to 60.5 per cent and 62.5 per cent respectively in 1959 and 1960. Good results in this regard were also reported for 1962. Better utilization of agricultural by-products and waste industrial materials is also being urged.³¹

Fourthly, the development of local industry based on local resources is thought to complement and stimulate heavy industry as well as agriculture. The development of local industries largely founded on the exploitation of local resources will release part of the state investment funds for central and heavy industrial projects. It will also increase the demand for the products of heavy industry which provide producer goods to local industry. The expansion of domestic markets thus created will open up new possibilities and stimuli, and the benefits of external economies will spread. Local industries use as raw materials the products of collective farms such as vegetables, fruits, meat, flax, milk, eggs, hemp, etc. This means that development of local industries will stimulate agricultural production. Local industries are also expected to spur agriculture by extending technical assistance through increased production and repair of various small farm implements.³² In addition, local

industries are urged and empowered to set up directly medium-sized enterprises, such as ironworks with an annual capacity of ten to twenty thousand tons and cement manufacturing plants with an annual capacity of thirty to fifty thousand tons, whose products are to be supplied to local industries. This is a part of the renovation in the industrial management introduced in October, 1959.³³

Fifthly, expansion in local industries based on local sources for raw materials and labor is expected to increase the quantity of consumer goods supplied and improve their quality without diverting resources away from heavy industry. However, although the emphasis of the regime is to set up new factories based on local resources, local advantages, and local demand, there must be some competition between local industries and heavy industry for capital, skilled workers, and managers, and for other factors of production so long as their supply is scarce.

Finally, local industry, as it grows, may be expected to contribute an increasing share of the cost of industrialization, especially in the heavy industrial sector. As a matter of fact, the proportion of the state revenue contributed by local industry (presumably through turnover tax) has increased from 9.2 per cent in 1958 to 16.5 and 21.2 per cent in 1959 and 1960 respectively.³⁴

In 1961 local industry contributed 39 per cent of the gross industrial output and 56 per cent of the consumer goods output. The latter proportion rose to 59 per cent in 1963. Table 4 shows the proportion of major consumer goods originating in local industry in 1961 and 1963.

In the production of textile goods, centrally controlled enterprises are still predominant, local industry producing less than one-fifth of the textile goods produced in 1961. This is explained by the fact that the textile industry is dominated by a few large firms, the largest being the Pyongyang Textile Plant in the capital city. This plant produces cotton yarn, various cotton textile products, staple fiber products, flax products, dyed textile products, silk fabrics, and vinalon mixture fabrics. Up-to-date machines are used for basic processing, and the dye shop is said to be almost fully automated. Containing also the Pyongyang Silk Textile Plant and the Pyongyang Cotton Yarn Plant, the city of Pyongyang stands out as the largest textile center. Other major textile plants are the Sinuiju Textile Plant, the Kaesong Textile Plant, and the Kusong Textile Plant,

TABLE 4
PROPORTION OF MAJOR CONSUMER GOODS PRODUCED
BY LOCAL INDUSTRY 1961 AND 1963

	Proportion (%)	
	1961	1963
Textiles	19.4	n.a.
Confectioneries	85.0	n.a.
Bean paste	100.0	99.2
Underwear	65.6	n.a.
Processed vegetables	98.5	n.a.
Processed alcoholic beverages	86.2	n.a.
Socks	58.5	95.5
Soy sauce	100.0	95.5
Vegetable oil	66.8	57.9
Shoes	34.0	31.1
Total consumer goods	56.0	59.0

Sources: 1. For 1961, Pak Yong-song, "Formation of a Firm Foundation of Local Industry."

2. For 1963, "Statistical Material on the Development of the 1963 People's Economic Plan," *Kyongje chosok*, February 1964, pp. 42-46.

all of which are reported to be highly modernized. Local industry is chiefly confined to the use of inferior and low-quality materials, industrial wastes, and locally available raw materials such as rags, fabrics produced from wild plants, hemp, and flax, cloth remnants, etc.³⁵

Such common food items as soy sauce, bean paste, and processed vegetables are the main domain of local industry. These items are generally characterized by low capital and technical requirements for production and can be easily produced with primitive tools and equipment on a small scale. Judging from the number of trained and skilled workers and the machinery available in local industry, the level of mechanization is still very low. It was reported in 1962 that there were 4,000 technicians and skilled workers, 2,150 sets of lathes, 350 sets of shapers, etc., in all in local industry.³⁶ Recent North Korean literature and official speeches abound with an appeal for innovation and mechanization in local industry within local means.

NOTES

1. For the complete text of the decree, see *Choson Chugwang yongam, 1949 (CCY)* (Korean Central Yearbook) (Pyongyang: Korean Central News Agency, 1950), p. 73.
2. Korean Affairs Institute, *Choson no keizai* (The Korean Economy) (Tokyo: Oriental Economist Press, 1956), p. 61.
3. *Ibid.*
4. For a summary of the entire decision, see George M. McCune, *Korea Today* (Cambridge, Mass.: Harvard University Press, 1950), pp. 186-187.
5. U.S. Department of State, *North Korea: A Case Study in the Technique of Takeover* (Washington, D.C.: U.S. Government Printing Office, 1961), pp. 78-79.
6. Ray Cromley, "North Korea Sovietized," *Wall Street Journal*, May 5, 1947, p. 4.
7. U.S. Department of State, *North Korea*, p. 79.
8. *Ibid.*, p. 114.
9. *Harbanghu uri naru ul imnin kyongje palchon*, p. 179.
10. "Our Country's Cooperative Management," *Kyongje komsul*, February 1958, p. 65.
11. Nam Chun-wha, "Socialistic Transformation of Private Commerce and Industry," Academy of Science, Institute of Economic and Legal Research, *8.15 haebang 15 chuyon kipsom kyongje nonmunjip* (Economic Essays Commemorating the 15th Anniversary of the 8.15 Liberation) (Pyongyang: Academy of Science Publishing House, 1960), pp. 114-116.
12. *Ibid.*, p. 117; *CCY*, 1961, p. 175.
13. Academy of Science, Institute of Economic and Legal Research, *Choson ni okeru shakaishugi no kiso kensetsu* (Construction of the Foundation of Socialism in Korea) (Tokyo: New Japan Publishing House, 1962), p. 69.
14. *CCY*, 1961, p. 175.
15. *JPRS, 1969 North Korean Central Yearbook*, p. 152.
16. O Hyon-sang, *Kyongje chisik* (Economic Knowledge) (Pyongyang: State Publishing House, 1957), pp. 129-130; *Kyongje chisik: kongop, nongop, sangop* (Economic Knowledge: Industry, Agriculture, and Commerce) (Pyongyang: Korean Labor Party Publishing House, 1963), pp. 7-10.
17. *Kyongje chisik: kongop, nongop, sangop*, p. 4.
18. O Hyon-sang, *Kyongje chisik*, pp. 129-130.
19. Lee Ki-hong, "What is the Independent Economic Accounting System?" *Kyongje chisik*, February 1960, pp. 36-39; "What is the Independent Accounting System?: Lecture on the Economy of the Republic," *Misju Chongnyon* (Democratic Youth), December 25, 1959, p. 3.
20. Chong Tac-sik, *Chungchi kyongjesak tekbon* (Primer on Political Economy) (Pyongyang: Korean Labor Party Publishing House, 1960), I, 204.
21. See Kim Tu-chil, "Qualitative and Quantitative Indices in Factory Operation," *Kulleju* (The worker), July 1963, pp. 46-48; Cho Won-hong, "What Significance does the Quality Index have in Enterprise Activities?", *Kulleju*, July 20, 1965, pp. 44-48; *Kongop Kipsso Kyongje* (The Economics of Industrial Enterprises) (Pyongyang: State Publishing House, 1957), Chapter XV.

22. Alec Nove, *The Soviet Economy* (New York: Frederick A. Praeger, 1961), pp. 155-167; Joseph S. Berliner, "The Informal Organization of the Soviet Firm," *Quarterly Journal of Economics*, August 1952, pp. 342-365; Alec Nove, "The Problem of [Success Indicators] in Soviet Industry," *Economica*, February 1958, pp. 1-13.

23. Under the Yugoslav planning system federal and republican plans no longer prescribe output norms for firms, figures in the central plan representing "generalized expectations rather than explicit norms." The firm itself sets its own goals for the year and no penalty is imposed for failing to fulfill these targets. "With output norms no longer available for the purpose, the new criterion of successful performance of the firm became profitability, that is to say, the ability to earn enough to cover costs at the existing market prices." (Benjamin Ward, "The Firm in Illyria: Market Syndicalism," *The American Economic Review*, September 1958, pp. 565-589. Quotations are from pp. 567-68.)

24. Nicolas Spulber, *The Soviet Economy* (New York: W. W. Norton, 1962), p. 56.

25. *Kyongje chisik*, p. 196.

26. Report orally submitted to the March 1954 plenum of the central committee of the Korean Labor Party as quoted in *Kongso kigyo Kyongje*, pp. 349-350.

27. The following is a list of selected large firms around 1963.

Firms	No. of workers
Pyongyang Cotton Textile	11,500
Kangson Steel (Pyongyang)	11,000
Hungnam Fertilizer (Hamheung)	8,000
Yongsong Machinery (Hamheung)	6,500
The 2.8 Vinalon (Hamheung)	5,600
Pyongyang Silk Textile	5,500

Sources: Hama Takeo, "North Korea's Industry and Agriculture," *Tairiku mondai* (Continental Affairs), May 1965, p. 55.

28. Kim Il, "Concerning Further Development of Local Industries," p. 23.

29. Pak Yun-kun, "Further Completion of the Form and Method of Industrial Management in Our Country," *8.15 haebong 15 chusyon kigyon kyongje ronmunjip*, pp. 128-129.

30. Kim Il, "Concerning Further Development of Local Industries," p. 6.

31. Pak Yong-song, "Formation of a Firm Foundation of Local Industry and Its New Stage of Development," *Kolloja*, September 20, 1962, pp. 16-23; *1963 North Korean Central Yearbook*, p. 153.

32. Chu Chang-yon, "Significance of Establishing a Local Industrial Base in Building Socialism in Our Country," *Nodong Sinmun*, June 7, 1963, p. 3.

33. Pak Yun-kun, "Further Completion of the Form and Method of Industrial Management," pp. 140-142.

34. Based on a table in *Kyongje Chisik*, October 1962, p. 25.

35. This paragraph is based on a lecture on economic geography offered by the Pyongyang Teachers College as it appeared in *Kyongje chisik*, May 1963, pp. 37-40.

36. Pak Yong-song, "Formation of a Firm Foundation of Local Industry."