

THE KYOTO UNIVERSITY ECONOMIC REVIEW

MEMOIRS OF THE FACULTY OF ECONOMICS
IN THE KYOTO UNIVERSITY

Vol. XXXI No. 1

APRIL 1961

No. 70

CONTENTS

Imperialism as a Concept *Hitoshi SHIZUTA* 1

**The Income-Doubling Program
and Public Investment** *Yasuhiko SHIMA* 14

**Agricultural Structure in
Post-war Western Germany** *Ryoichi YAMAOKA* 53

PUBLISHED BY

THE FACULTY OF ECONOMICS, KYOTO UNIVERSITY
SAKYO-KU, KYOTO, JAPAN

THE INCOME DOUBLING PROGRAM AND PUBLIC INVESTMENT

By Yasuhiko SHIMA*

- 1) Background of the subject problem
- 2) Income doubling and income discrepancy
- 3) Regional discrepancy and regional concentration of economic power
- 4) Elevation of Industrial Structure and the Public Investment
- 5) Capital Cost in Public Enterprises
- 6) Theory of the Planning of Public Investment

I. Background of the subject problem

Ikeda Cabinet, during the course of formulating its new policy suddenly revised the figure of the annual economic growth rate of 7.2% as set-up by Economic Planning Agency who had been seriously tackling the Income Doubling Program, to 9%.

Closely observing the process in which such modification was made and the way the Income Doubling Program was rewritten in accordance with the newly set-up growth rate, we are led to believe that said modification was rather arbitrarily made due to their political reason.

Be that as it may, the impact of the said revision of the economic growth rate could not be confined to itself; instead its repercussion cannot be but far reaching because the practice of their new policies such as of tax reduction, increased spending for public investment and social welfare etc. hinges largely upon whether or not their anticipated fiscal revenue be realized through the economic growth according to such revised rate.

Ironical it is, the said modification of economic growth rate gives us an uneffaceable impression that their policies came first and to financially substantiate such policies they had to raise the growth rate.

It is, however, not correct either to simply claim that said 9% entirely lacks its ground, for the Income Doubling Program advocated by Ikeda Cabinet is supported by "Shimomura Theory".

As it has been made public, Shimomura contends that "Japanese economy upto 1956 had had gross demand in excess of supply capacity and therefore tight money policy had, more or less, to be persued, but since 1957 the

* Professor of Economics, Kyoto University.

increase in production capacity resulting from the ever-increased industrial investment has changed the whole picture into reverse. Therefore the financial and monetary policy must now put greater emphasis on how to wisely vitalize the productive power thus enlarged, and it should avoid to adopt a policy that gives too much precaution against over-heating of national economy." With such premises, the rate of industrial investment of about 15% of gross national products was set from which the investment for the replacement of obsolete equipment was deducted and the net investment rate was thus figured out as 11%. On the other hand, he found out the net increase of gross national products to be almost equivalent to the former from the statistics of 1951-1956. According to Shimomura, "the rate of raising the gross national products for the following year by the industrial investment, namely the output coefficient is approximately 1:1 and therefore the growth rate should reasonably be 11%, though after 1957 the increase in gross national products had fallen short of that in industrial investment, hence the output coefficient has become less than 1. However since the production capacity is annually raised by 11% as the result of that much of industrial investment, a policy of rapid economic growth in line with the growth rate of 11% should be employed." Above is the outline of the logics advocated by Shimomura, but it has been theoretically refuted as to his approach to the output coefficient as well as regarding its basis of calculation.

Though his contention has been theoretically repelled the fact still remains that it actually is constituting a driving force of the economic policy of Ikeda Cabinet.

In this study where the economic policy is the main issue, the theoretical aspects of the problem is intentionally left untouched and instead the realities upon which the Shimomura theory is based, is further explored.

Now, when the industrial investment is taken as an independent factor, the forecast of the growth of national economy tends to be too bullish. Theoretically speaking, however, the industrial investment is by no means an independent variable but has greatly to do with idle equipment and profit rate. However for the large enterprises who are in the midst of the technological innovation and whose profits are safeguarded by the fiscal and monetary policy, it is possible to plan a long-range production program taking into their account the industrial investment to their advantage.

A large steel maker mentioned in this connection, "We are planning to construct two units of blast furnace, erect equipment for wide flange beam, hot strip and cold strip mill by 1965 with the capital investment of 72 billion yen but we are ready to make further investment. We have now

a tentative plan to produce 45 million tons of iron and steel in 1970 based on the economic growth rate of 7.2% but once it is raised to 9%, much more production would be made possible." (*Nihon Keizai Shinbun* Sept. 13)

The large makers are capable of making full advantage of the Income Doubling Program of the government and as the matter of fact, the large iron and steel companies, for instance, are expecting, at the account closing for the latter half of the fiscal year, the profit by 15-20% more than the previous half.

Should this increase rate attained even during such semi-annual basis continues, two and half years to three years be sufficient to achieve the goal of "Income Doubling Program".

Besides it is the industrial investment of large enterprises that plays a vital role in bringing about so-called investment boom. According to the survey of the Development Bank, the industrial investment made by the large enterprises during 1960 was by 48% greater than the previous year, while the *White Paper* says that during 1959 the total equipment investment made by 1669 companies having the capital of more than 100 million yen or by 23% more than the previous year. This amount must be representing the substantial part of all the industrial investment made during the said year.

In view of the fact that the production of mining and manufacturing industries was increased by 29% and gross national products by 16% over the previous year mainly based on such industrial investment, it could be claimed that to hold the growth rate at 9% is still too conservative if the said growth rates were exceptionally large. In contrast with above, how about the figure of 7.2% as originally advocated by the Economic Planning Agency? They also have their own reasoning. The figure close to this percentage first appeared before the people on the *Economic White Paper* compiled for the year of 1957 which was characterized by the self-retrospection of the "too rapid economic expansion". By "too rapid economic expansion" was meant that the forecast of the growth rates of gross national products and of the production of mining and manufacturing industries then set respectively at 4.3% and 7.3% were actually proved to be 13.9% for the former and 23.4% for the latter while private investment showed increase by 80% over the previous year, and that they in turn brought about a drastic increase of import and the aggravation of international balance of payments.

The said *Economic White Paper* then also stressed the importance of eliminating the so-called "dual economic structure".

The "dual economic structure" means that there is a wide discrepancy of income between the large enterprises and those of medium-small size in the presence of a great number of low-income people as well as of disguised employment under the pressure of over-population. Moreover the labour population is to continue to increase for the coming ten years. In order to secure jobs for them, the economic growth rate must be maintained on a pitch as high as possible. "The growth rate of 4% will hardly be able to absorb such yearly increasing population and to withstand further aggravation of the dual structure. May be it is too much to expect a speed of 11% such as of express train while said 4% is the velocity too slow of a local train; it is therefore eagerly hoped for to take at least the growth rate of 6-7%, a moderate pace of running a semi-express". (*Economic White Paper*, 1957 p. 38,)

This was their conclusion and the figure of 7% was supposed to have been worked out particularly for the sake of the employment policy to overcome the economic dual structure. Now it could be summarized that the rate of 9% is the figure advocated from the standpoint of industrial investment in favour of the large enterprises, while that of 7.2% is the figure for the persuasion of the policy aimed at narrowing the gap of the dual economic structure. However on the other hand, Shimomura theory too points out the possibility as well as the necessity of maintaining high rate of investment even in face of the labour abundance in Japan, while the *Economic White Paper* of this year also presented a positive structural policy (constitutional improvement of agricultural management, fostering of high-processing industry, encouragement of industrial combine, the improvement of the research and development capability as well as the decentralization of industries etc.) in preparation for the economic liberalization. Therefore unless the above two contentions are put into contrast as to the sheer point of 9% and 7.2% or from the narrow view point of the speed of economic growth, (the former is inherently contending for high speed economic growth while the latter advocating for the removal of dual economic structure), the two are considered to have lost each identity at least in the facial expression of the new policy* of Ikeda Cabinet.

The problem however lies in that neither Shimomura theory nor Economic Planning Agency fail to recognize the reality that the rapid growth

* "... By properly leading and guiding the economic growth, it aims to have national economy achieve almost doubled income level within the coming ten years, materializing full employment having the incomes between that of forestry and fishery and other industries, those between large enterprises and small enterprises, those among that of each region balanced each other so that economic security will be given also to those who are economically less competent."

of economy itself has accelerated the aggravation of dual economic structure in the process of industrial investment boom and therefore none of them have worked out the policy based on such sheer reality though the contention for rapid economic growth and that advocating for the removal of dual structure are compromised at least from the standpoint of economic policy. As already described, the *White Paper* of 1957 only pointed out the pressure of over-population as what has brought about the dual structure while warning the industrial investment to be excessive just from the international balance of payments.

The dual structure has surely its deep root in the historical background of Japan who had been once left far behind the advanced countries and therefore such structure newly accelerated by the speedy growth of national economy in the post-war years starting from the said social foundation is something to be seriously studied. In the second and third sections, this problem is further explored.

Apart from what may be the reason for this, so long as the government pursues the policy for such high degree of economic growth, they have to face the task of having the economic gaps narrowed down and of carrying out the economic renovation, and this is a problem of grave importance.

The reason why the *Economic White Paper* of this year presented the structural policy (the policy to correct the industrial structure) is supposed to lie in this point. This involves, in a sense, the most serious problem faced by the government after the war, the significance of which are almost equal to the democratization policy and land-reformation program enforced in the post-war days.

In order to overcome such anticipated crisis and to resolve the problem of dual structure, new policy places greater emphasis on tax reduction, public investment and social security programs etc. Thus among these the problem particularly on the controversial aspects of the public investment will be further examined in the Section 4 and 5.

Public investment is necessary, in the first place, for the direct reinforcement of the facilities that sustain the productive power in rapid growth (for example, roads, harbour facilities, industrial water, etc.).

Secondly it is required to correct the unbalance between the ever-expanding production and consumption (Shimomura theory also recognizes this point).

In the third place, it is demanded for the modernization of the agrarian areas that have so far been barely supported by the conventional policy for the maintenance of small owner-farmers.

Last but certainly not least, it is needed for ironing out such frictions

and inconsistency that are to be accompanied by the high rate of growth of productive power, namely for the rearrangement among various industries, relocation of labour force, prevention of unemployment as well as for the improvement of public welfare facilities, etc.,

It must duly be noted here, however, that such public investment policy is to be carried out in a socio-economic climate quite different from that before the war when the economic policy could find its mainstay in Keynesian theory. Whereas the social realities then dealt by Keynesian theory was a type of panic desperately called for public investment that could answer to the serious shortage of effective demand and the unemployment resulted from the insufficiency of private investment, our current private investment is so active as to produce Shimomura theory. Maybe the problems of excessive equipment and economic depression might emerge therefrom, but it is for the purpose to adjust a number of frictions and inconsistency being caused by the increase of production power and therefore to further push ahead the private investment that the public investment is currently demanded.

Thus the civilian sub-committee of the Economic Deliberation Council concluded as follows: private sector and the private investments are the driving force for the materialization of the Income Doubling Program while the government should recede into the position to play only a supplementary role and focus its efforts to the public investment to fortify the economic foundations that are to bolster the activities of the civilian industries.

Therefore the large enterprises should realize that the great social responsibilities rest upon their shoulders (*Nippon Keizai Shinbun*, Sept. 30).

Thus the government theoretically retreats into the background of indirect controlling and this must certainly be their idea underlying the Income Doubling Program, but nevertheless, the new policy counting upon the spontaneous increase of financial revenue has already provoked claims in the preliminary budget prepared by the various administrative branches of the government such as for the increase of the number of officials amounting to as many as 119,000 personnel and also for the setting-up of four public corporate bodies by the different ministries for the same purpose of the administration of water utilization apparently taking advantage of the current public investment policy. Such move of the government makes us suspicious of the enlargement of officialdom (*Nippon Keizai Shinbun*, Sept. 22, "Down with the increase of government officials").

Also there is a growing apprehension if the local self-government might be oppressed due to the tax reduction policy and as the result of the control of financial source for the emphatic enforcement of the new policy. (*Kyoto Shinbun*, Oct. 10, "Local organizations should be united").

Again, many are afraid that should the civilians come to be unable to keep up with the positive policy of economic growth, the official control might come to be intensified (*Asahi Shinbun*, Sept. 6). Such apprehensive feeling as reflected in the public opinion has its reasoning. "The policy for high rate economic growth might be pursued at the sacrifice of democracy" sounds like a paradox but it involves a great danger.

II. Income Doubling and Income Discrepancy

The Economic Planning Agency criticizes Shimomura theory, the sponsor of the growth rate of 9%, with the following reasons (*Nippon Keizai Shinbun*): "according to Shimomura theory, the productive capacity is first estimated above all, on the basis of industrial investment trend and then the outline scale of national gross products is figured out therefrom. This national gross products are, in turn, allocated to such demand factors as government spending, inventory investment, housing investment, export, etc. and the remaining balance is appropriated to the individual consumption. As the result, the spending of consumption is to result in the annual increase by over 10%. On the other hand, according to the calculation made by the Economic Planning Agency, while the growth rate of NGP during 1959 as against the previous year was 16%, the rise in the individual consumption level was but 4.8%. It has been thus proved to be too much to expect the yearly expansion of consumption over 10% and if such rate is to be maintained, the monetary wage must be drastically raised."

According to Shimomura theory, the gross production and gross consumption are to be balanced each other, and should the consumption of the individual fail to measure up to that level, a proper demand-stimulating policy will have to be employed.

If it is so, the criticizer and the criticized are supposed to be standing on the same theoretical footing, and yet there is a difference of nuance in that the Economic Planning Agency, though it minds the gap between the production and the consumption, is more cautious of the policy that may cause inflation.

Now, if it is admitted, as already referred to, that Shimomura theory has an aspect as supported by the idea of the national economic accounting based on the equilibrium between the gross production and the gross consumption, it is quite natural if said theory ignores the process of producing various unbalances including the income discrepancy in the course of the production increase and also the process of bringing about an unbalance between the production and consumption.

Candidly speaking, the national economic accounting is nothing but a

book-keeping of the national economy which is so made as to always keep balance between the incoming production and the outgoing consumption regardless of the ups and downs of the national economy. Therefore it provides no clue to solve the problem of the actual unbalance.

Elaborating upon it a little further, the terminology of national gross products as used for the purpose of the national economic accounting is, in reality, such and such tons of steel products, for instance, of Yahata Steel Works.

As already touched upon in the previous chapter, behind the large makers who gain profits several times more than what they originally expected there must be a great number of medium-small enterprises who have to retrench their business scale being driven into a predicament by an intense competition.

Besides above, we have to think of the process of how such gigantic sum of profits, in the form of dividends and interests, stream back to the hands of those having large capital and to the large income earners through the mechanism of taxation and monetary policies, an integral part to the policy of Income Doubling Program. The table (1) is presented here to show such trend through the increase of stocks classified by the owner and its distribution. According to this table the increase of the stocks possessed by industrial companies is most salient mostly due to the fact that the mutual holding of stocks among the companies for the formation of combine has become popular since 1958, and yet the number of stocks held by the financial institutes is overwhelmingly large.

Table (1) Increase rate of stockholding		
		Increase rate against previous period
Number of stocks issued	19,467,480 (unit : 1000 stocks)	17.3 %
Number of stockholders	6,937 (unit : 1000 persons)	6.3 %
No. of stocks held per industrial co.	69,618	21.3 %
No. of stocks held per financial institute	418,798	16.6 %
No. of stocks held per capita	1,320	8.5 %
Distribution according to the No. of stocks held		
	No. of stockholders	No. of stocks held
Over 100 thousand stocks	- %	51.24 %
Below 5 thousand stocks	96.14 %	33.21 %

Surveyed by Nikko Security Co.

Such mutual ties between industrial companies and financial institutes are giving rise to a complicated issue as to whether or not the dividend be entered in the profit account as a part of tax reduction program and this point is yet remaining to be clarified by the new policy.

Such obscurity, however, implicitly indicates, that one of the focal points of the tax reduction policy in question is to facilitate capital-accumulation. While the number of investors in general has increased, the relative importance of such individual stockholders has decreased against that of corporate persons.

Though the number of medium-small shareholders having less than 5,000 stocks are strikingly large, the number of shares held by them occupies but 33.21%.

When such actual process of production and distribution is closely observed we can safely say that there exists a wide discrepancy among the economic groups of large, medium and small scale in the share of national income corresponding to the national gross products within the frame-work of national economic accounting.

Now, however, the low-income earners who are the majority among them are sensitively afflicted, in the process of economic circulation, by even a slight rise of commodity price, tax and other fees which is to be entailed by Income Doubling Program as will be referred to later, and thus their actual spending will have to be curtailed.

If it is so, the unbalance between the gross production and the gross spending will sooner or later take place. The causes that invite a new dual structure are existent in all phases of the production, distribution and consumption of the economic circulation in the course of high growth rate of national economy.

I cannot afford to make further analysis of the over-all processes of the economic circulation here, instead my study is now focused on the income discrepancy to take place in the process of distribution and consumption.

A material that indicates the income discrepancy classified according to the income brackets, is quoted from the *Economic White Paper*. The Table (2) shows the result of the survey on domestic economy of the workers living in the urban areas throughout Japan conducted by the Statistics Bureau of Prime Minister's Office which is presented in terms of the household of 5 persons. (*Economic White Paper* 1960, p. 264). In this table, five brackets from (1) to (5) gained respectively an income increase ranging from 7.3% to 8.2% over the previous year which is close to the growth rate of 7.2% originally worked out by the Economic planning Agency. However as to the brackets of (1) and (2), the growth of consumption spending is

held substantially lower than that of income, and moreover as for the bracket (1) the red-ink of ¥ 2,910 is recorded.

Even apart from the domestic economy of (1) and setting up the bracket of (2) as a standard, the income of (5) is 2.5 times as much as that of (2) and the surplus of domestic economy of the former is 9 times as much as that of the latter.

The problem of low-income earners has been a serious issue since the so-called "Jinmu boom" (1955-1956) when the number of those belonging to the low-income bracket whose annual income were less than ¥ 80,000 had increased from 2,640,000 to 3,260,000, while the number of employees having the monthly income of less than ¥ 8,000 was said to have expanded from 5,270,000 to 6,160,000. (Low income earners totaled ca. 10,000,000). Since then, though the nominal income of these low-wage workers has increased, the income discrepancy has persistently continued to exist as seen in the Table (2). This particular issue has been consecutively taken up for public attention in the annual white paper compiled by the Welfare Ministry, and therefore I am not going any further into its details, but it is afraid that such manneristic presentation of the problem might lead the people into thinking of a plausible excuse of "over-population pressure" instead of seriously tackling this problem.

The income difference cannot simply be explained by "over-population pressure". By far authentic is to examine the process that entailed such income discrepancy analysing the dynamic growth of economy as had been seen during the period from "Jinmu boom" to "Iwato boom" than to look into this problem from static viewpoint.

Table (2) Balance of payments of domestic economy of the worker's household classified by income bracket

		1	2	3	4	5
Disposable Income		15,700	25,797	32,815	40,382	63,048
Expenditure		18,612	24,097	29,220	34,752	47,597
Balance		-2,910	+1,701	+3,595	+6,080	+15,451
Growth rate against previous year	Disposable Income	8.2 %	7.3 %	8.2 %	7.5 %	8.2 %
	Expenditure	4.9	5.6	7.3	7.2	6.0

The Table 2 indicates that the income curve from (1) toward (5) traces sharper rising trend than the expenditure curve (the income of (5) is 4.0 times as much as that of (1) while the expenditure of (5) is only 2.5 times as much as that of (1)).

Because the expenditure tends to be comparatively slow-responsive to

the change of income, the lower-income groups either record deficit or leave slimmer surplus in their domestic economy, while higher income brackets show reverse. Then, what are the items of household expenditure that make it comparatively constant regardless of the income? To answer this, let us see the ratio of spending for foodstuffs which are taking lead in the current price rise, as against the total expenditure. This ratio or Engel's coefficient is currently 38.2% (Tokyo Metropolis) in the case of the standard worker's household (expenditure: ¥ 37,422). When such consumption spending approaches ¥ 15,000 said coefficient even goes beyond 50%. In such case, for instance, 6% of price rise in foods means already a heavy burden on the part of the low-income earning class.

The rise of price that follows the current rise of commodity price is seen in utility service having so-called monopoly or administrative price such as city water, power, gas, transportation and communication, medical treatment, education and other public fees and taxation. The proportion of such expenditure in a standard domestic economy of the workers occupies 31.9%, and it is worse in case of those belonging to lower-income bracket where the burden of taxation has become the heaviest among them all since after the war apart from the current price rise, whereas it was only 26.3% for the standard household economy in the prewar days.

Since the standard Engel's coefficient before the war (see *Welfare White Paper* of 1951) was 35.6% (household of city workers), the current one is still a bit higher. Therefore the domestic economy in the post-war days is supposed to become less flexible due to the increased weight of the expenditure for food-stuffs as well as that of the imposed spending for public fees, tax etc.. The price increase of these items first attack low-income earners and it accelerates the widening of income gaps.

The problem lies therefore in that the very factor entailing the rise of commodity prices and fees inherently exists in the high rate economic growth itself.

Viewing first from consumption, it should not be overlooked that a popular word of so-called "consumption boom" provokes the desire of those belonging to the medium or lower income bracket to gain more cash income per worker and or per household in their efforts to keep up with the economic boom and to elevate themselves beyond their meager subsistence, and this in turn augments their cash-spending and it will further bring about a distorted "demonstration effect".

The expenditure of the low-income earners is first directed to the food-stuffs and services of the petty enterprises, but because of the low productivity and the poor mechanism of distribution, these enterprises cannot meet the

increase of said demand. Here, one of the forces to raise the price of commodities and fees starts to move.

On the other hand the same desire of the low-income earners to gain more cash in the days of economic boom constitutes the factor to raise the cost of wage in the cottage industries.

Though the current industrial investment of high rate is providing more chances of employment, it does not necessarily facilitate the flow of the working forces direct to the large enterprises due to the existence of a thick strata of petty enterprises in this country.

It should rather say that the migration of the laborers from the agrarian villages to the cottage industries and the movement of workers from one cottage industry to the other outnumber those absorbed by the large industries, and this is bringing about a substantial increase of initial wages in the petty industries. It is not limited to the wage increase alone. The small enterprises facing the keener competition of securing the labor, now find it necessary to improve welfare facilities for the workers if they want to keep them to the jobs. Again they have to modernise their stores and equipments in order to survive the cut-throat competition among them. They are also demanded to spend more money to conform to the Public Sanitation Law and are obligated to subsidize the employees for the practice of social insurance plan.

In the case of the small enterprises whose survival has so far greatly been depending on the low wage of low productivity, the cost-raising factors as mentioned above cannot but be reflected directly on the price rise of their selling products.

However such price rise will in turn bring pressure particularly upon the subsistence of low-income people. Thus the current increase of cash income of those belonging to the low-income brackets and the price of the consumer goods mostly seen as to the products of small enterprises are influencing upon each other and they are, all in all, paving the way to a new double structure in the process of high economic growth.

The factors causing higher public fees and taxes should be explained from different angle and since they have greatly to do with the policies of the central and local governments as well as with public investment, and since they are to be dealt with as a major subject in Chapter 4 and on, here only the followings are pointed out :

Here in this country the high investment is being made despite the insufficient capital accumulation, a conflict between the private and public investments and again between one public investment and the other inevitably takes place. Because of this, the shortage or lagging of the investment

in the public construction programs or in the projects of public corporation are witnessed, and it, in turn, entails the heavier burden of monetary interests as well as that of the redemption of the principal sum.

Thus in order to tide over such predicament they come to seek its solution by raising the public fees. There must be another reasons for raising the fees but the primary reason can be found therein.

In the last place, what financially oppresses the low-income people and has greatly to do with the public policy as well as public investment, is the problem of rising price of land and the house rent.

Judging from the relative price, taking the year of 1952 as the base, the rise of residential cost ranks atop and moreover the discrepancy, in the housing conditions of the rented rooms—the houses financed by local governments and by public housing corporation—rented houses, is the direct reflection of that of income, namely the cost of residence is heavier for those belonging to the lower income bracket. (It is the heaviest for the people whose subsistence is subsidized by the government as well as those living in slam quaters).

One exception is the case of the household economy of the standard worker's family where the house and land rents are indicated to be relatively low. This may be attributable to the economic control enforced during and after the war.

However when viewed from another angle, it can be considered as an indication that the domestic economy of the workers has become more rigid as compared with that of the pre-war days and that this is oppressing the housing expenditure, thus they have to be satisfied with poorer housing conditions.

The nominal wage of 1960 is 307 times as high as that of the prewar days (base: 1934-1936), while the consumer price of the foodstuffs is 338 times and tax is 844 times (national and local taxes per capita), whereas the housing expenditure is held only 219 times.

However as mentioned already the rise of housing cost of late is stupendous, namely the house building cost is 610 time as high as that of the prewar standard while the price of land is 810 times. The rent of houses constructed by the local government or by the Public Housing Corporation is not determined by the demand-supply but by the cost-accounting. Therefore the rise of house building cost and that of price of land will be immediately reflected on the house-rent and it oppresses the low-income people, while such explosive rise of the price of land obviously has its root in the policy for the high rate growth of economy.

Summarizing what has been mentioned above, we can say that there

exists a vicious cycle between the Income Doubling Program and the income discrepancy.

Though high growth of economy as being carried out on the basis of high private investment paves the way for a rapid augmentation of employment, it does not serve to the removal of the dual structure existing in the Japanese industries. Instead it will further accelerate the price rise and acts as a cause to additionally create dual structure through the process of such economic expansion.

Moreover in such high growth, the price of land and stocks as well as interest etc. belonging to the category of "unproductive income" will be further raised while public fees will get higher. This too helps deepen the dual structure and create further income discrepancy.

This means that the policy of the public authorities should now bear greater responsibility for the liquidation of the dual structure because it is through tax re-adjustment (Reformation of tax system) as well as by means of the public investment that such inherent problem find its solution.

III. Regional Discrepancy and Regional Concentration of Economic Power

The income discrepancy is an abstract expression of dual structure using the terms of economics. In the course of the study on this particular subject, it cannot but come face to face with the problem of the concentration and monopoly of the economic power to be caused by the economic circulation in high economic growth.

In this chapter, the problems of regional discrepancy and the regional concentration of economic power to be brought about in the economic circulation among different regions are to be analysed.

The Japanese economy even before the War had been characterized by the high rate of growth since Meiji era and this had resulted in the maintenance of the vast areas of agrarian villages controlled under a semi-feudalistic landlord system. This was, in fact, a geographical double structure. Then, how has the high economic growth after the war with said landlord system done away with, changed said double structure? This can be presented perhaps as the problem under monopoly in its strict sense of the word.*

* Since the authentic statistics as to the distribution of national income according to the geographical locations are lacking, it is hardly possible to make comparative study on the change in the regional discrepancy of economic power between pre- and post-war. However if the difference of the tax amount borne by per resident could be taken as an indirect indication of the regional discrepancy of economic power, the changes taken place from pre-war to post-war could be inferred.

As already seen above, though the intention of the government to liquidate the dual structure by the policy of high-rate economic growth could be observed, they lacked the due recognition that the high growth of economy itself had proved to intensify the dual structure. Sooner or later the gap between their intention and the economic reality will be made clarified.

In fact when the growth rate of 7.2%, the basis of their new policy was raised to 9%, the critical atmosphere in the Enlarged Council of Policy Deliberation of Liberal Democratic Party was said to have been quite dominating worrying that it might further intensify the discrepancy of economic power among the regions and that between the cities and the agrarian villages. Let us also pay attention to the fact that the apprehension that the high economic growth led by the industrial investment of large enter-

The change taken place from pre-war to post-war as to 5 developed and 5 under-developed prefectures viewed from the tax borne by per resident.
(national average : 100)

	1934		1956	
5 Developed	Tokyo	185.8	Tokyo	270.4
	Osaka	181.0	Osaka	238.2
	Hyogo	169.8	Kanagawa	176.2
	Kyoto	143.0	Hyogo	168.9
	Aichi	117.2	Aichi	131.7
5 Under-developed	Fukushima	62.0	Kochi	39.9
	Chiba	61.6	Tokushima	39.4
	Kochi	61.2	Yamanashi	38.6
	Ibaragi	55.4	Ibaragi	37.8
	Iwate	49.9	Kagoshima	30.5

However in the above table, the pre-war difference that the highest (Tokyo) is 3.7 times as high as the lowest (Iwate) and the post-war difference that the highest (Tokyo) is 9 times as much as the lowest (Kagoshima) are what were caused by the change took place in the structure of taxation and they are not necessarily representing the change of regional income difference itself. We, just the same, can roughly pick up 5 developed and 5 under-developed prefectures from the standpoint of the discrepancy in the taxes borne by each prefecture in the pre-war years and so with after the War as presented in the table where as for the developed area of 5 prefectures, viz. Hyogo and Kyoto showed such declining from 1934 to 1956 that the former ranked one step lower while the latter totally disappeared, and instead Kanagawa prefecture emerged. This means that Tokyo-Yokohama area has gained more importance over the Kyoto-Osaka-Kobe area in its economic power. Talking about 5 under-developed prefectures such as Fukushima and Iwate belonging to Tohoku area (1934) disappeared in 1956 and instead, the fact that Kochi and Tokushima prefectures in Shikoku Island and Kagoshima prefecture located in the southern tip of Kyushu Island appeared as belonging to the under-developed area, may be worthy of our attention.

prises might produce dual structure, is gaining ground even within the Liberal-Democratic Party.

Parties cannot help being sensitive to the intensification of the regional discrepancy of economic power because of their dependance upon the political support of the regional people whom they are representing. This holds true with the local governments as they are too regionally organized.

This is the reason why the problem of regional discrepancy, regardless of its causes, has recently become a political highlight in connection with the Income Doubling Program.

Of late the Economic Planning Agency and the Ministry of International Trade and Industry (MITI) have come to pay greater attention to the problem of regional discrepancy of the economic power and that among enterprises. In particular, the former published a paper of "Analysis of the people's living conditions classified by regions" (1959-Aug.). However the Economic Stabilization Board, the predecessor of the Economic Planning Agency made public already in 1950 "Analysis of current conditions according to the prefecture" and "Problems in the measurement of local economic power" and had long tackled this problem. I have no knowledge as to how the regional analysis has been conducted in the transitions of administrative mechanism since then.

My impression is that the current studies on the analysis of regional problem is failing to make close study on the economic circulation among the regions and on the regional concentration of economic power, just ending up with the analysis of the regional differences as they are. I once prepared statistics as presented in Table 3 based on the regional analysis made by the Economic Stabilisation Board.

(Y. Shima, *Contemporary Local Finance*, 1951)

This was not simply intended to present the regional difference in the economic power but it tried to put in contrast the under-developed area gradually losing its weight, with the developed area to which the economic power is being concentrated in the order of production followed by income and then deposit.

However the regional structure of the national economy as reflected on the table (3) is that on the stage of the post-war reconstruction where the income tax was absorbed from every corner of the agrarian villages through the taxation system imposed upon the masses and which was channeled into the large industries by the financial authorities that played dominating role in the income redistribution.

Then, since 1950 the process of income distribution and redistribution

Table (3) The regional distribution of amounts
of production, income and deposit.
(1948)

	Production	Income	Deposit
All Japan	1,000	1,000	1,000
Tokyo	71	136	251
Osaka	78	82	124
Aichi	47	54	65
Kyoto	19	28	29
Iwate	13	8	7
Yamanashi	6	6	4
Shimane	5	5	3
Kagoshima	13	12	5
Miyazaki	10	8	4

Contemporary Local Finance.

centering around the monopoly has started to resume its function where income tax has come to be reduced, while public investment has come to rely on the accumulated funds. With such background, how has changed the regional economic structure? This must be the major subject of this paper but to my great regret there are no official data available to clarify this aspect of change.

“Analysis of the people’s living conditions classified by regions” too seems to be indifferent to this problem. Though the *White Paper on the Income of the Peoples* carries statistics on the income of the prefectural inhabitants, since that of the productive income of the prefectural people are missing as to some important prefectures, it is impossible to prepare a table corresponding to the Table (3).

And yet an approximate trend of the regional concentration and difference in the economic power in the post-war years could be found out by tracing the changes took place in each prefecture as to the personnel income, corporate income, the incomes accrued from dividend and interest, etc. as presented in the taxation statistics.

These aspects have been made clear in my book *Theory on the Contemporary State and Public Finance* and therefore they are not referred to here.

Besides, since *The collected data for the measurement of the power of the people classified by the local government jurisdiction (To-Do-Fu-Ken)* compiled by Japan Red Cross Society carries various regional statistics, though they are not by all means perfect, it could be possible to prepare a table

somewhat similar to the Table (3).

Table (4) The index of regional economic power

	Amount of shipment of industrial products	Amount of bank loan (year base)	Capital of companies
All Japan	1,000	1,000	1,000
Tokyo	148.2	438.5	438.4
Kanagawa	72.2	13.4	28.5
Osaka	131.1	179.6	175.3
Hyogo	79.2	14.4	80.3
Aichi	92.2	74.1	48.8
Iwate	6.7	1.2	2.2
Yamanashi	3.5	1.7	2.4
Shimane	3.8	1.6	1.7
Nagasaki	4.9	2.1	1.9
Kagoshima	4.0	2.4	3.2

Remarks: amount of shipment of industrial products, surveyed by MITI in 1956; amount of bank loan is the survey of Bank of Japan (1958); capital of companies is the survey of National Taxation Bureau (1957).

In the table above, the column of the capital of companies is given just for reference's sake, the index of which are quite corresponding respectively to those of the amount of bank loan for the cases of Tokyo, Osaka as well as the under-developed prefectures, except those of Kanagawa and Hyogo prefectures where the weight of bank loan is far below that of the amount of industrial products shipment, but these two prefectures should be considered being covered by each economic zone of Tokyo and Osaka.

Therefore, Japan can be roughly divided into two areas or into the area where the concentration of bank loan is getting intensified more than that of the amount of shipment of industrial products and the area where the trend is reverse (most of the prefectures belong to the latter). If the amount of shipment of industrial products is represented by the term of industrial power and that of bank loan is expressed by financial power, these two indicate, by and large, the law of economic circulation functioning among the regions.

However in our country, where the economy is growing at high rate, the regional concentration of industry (industrial plants) is being taken up as a problem more serious than that of the financial power. The core of this problem is centered around the dual structure between the cities and the agricultural villages being brought about by the so-called concentration

of factories into 4 big industrial zones already began since before the war.

According to the survey recently conducted by MITI, simultaneously with the widening of gap between the industrial powers of different scales, the regional concentration of such power is being greatly expedited, and the said 4 big industrial zones occupy 63% of the industrial enterprises of all over Japan, 64.6% of all workers, 68.8% of total national output and 70.4% of all the added value.

Particularly as for the added value, if that of the lowest prefecture of Kagoshima is taken as 1, that of Tokyo is 169, Osaka 133, Kanagawa 92, Hyogo 86, and Aichi is 81. (*Nippon Keizai Shinbun*, Sept. 13). This causes great difference in financial power between the so-called rich and poor prefectures.

To cope with such situation, the government is now working out a program of decentralization of industries, and on the other hand, local governments are enthusiastically inducing the factories to their own territories.

Originally, however, the very concentration of industries itself entices more intensive services of markets, traffics and communications, financial institutes and of other public facilities, and this again tends to push concentration spiral.

Therefore in order to realize the industrial decentralization, it is a prerequisite to make a bold and ambitious public investment, but here again advantage goes to the rich prefectures that have easier access to the central government who sponsors public investment.

On the other hand, the regional concentration of industries gives rise to the social problems such as of housing shortage, congestion of traffic, shortage of industrial and drinking water, of ground sinking, pollution of the air and river, and fire, etc. In order to mitigate such dilemma, public investment in the localities in question would have to be intensified.

Therefore, when the potential budgetary spending accruing therefrom and burdens to be borne by the inhabitants are taken into consideration, the difference of rich and poor among the local public bodies is nothing but a mere show and is deceptive. Should the budgetary balance of a well-to-do regional public body record surplus, the inhabitants there, particularly the people of low-income bracket will have deficit in their domestic economy. The one who benefits most is the central government who can most efficiently take out national taxes from a selected few well-to-do regions amounting to several tens of billions of yen in the form of the natural increase of revenue.

Again, the problem of the regional concentration of the financial power stands on the way of the decentralization of industries. The concentration

of financial and monetary power to Tokyo has its origin in the days of war economy, and as it was so much fostered during the occupation that the most of the head offices of chemical fibre manufacturing companies have been moved to Tokyo from Kansai in the climate of industrial investment boom started since 1956.

In the full swing of investments a single new project alone sometimes amounts to even one billion yen, and it necessitates to hold negotiations for raising funds in Tokyo. It is then, obvious that the formation of a combine among enterprises all the more brings leading bankers and industrial magnates together and helps expedite regional combination.

The regional concentration (regional discrepancy) of financial powers reflect itself first on that of stock ownership and the exchange of stocks to the large cities (particularly Tokyo).

45.98% of stocks are owned by the residents in Tokyo, 15.58% in Osaka while the ratio of the total stocks possessed by those in the prefectures covering 6 largest cities as against the national total is 76.96%. (Surveyed by Nissho-Japan Security Co.: latter half of 1959). Moreover, the annual amount of transaction in Tokyo Stock Exchange expanded 40 times from 1960 to 1959 while its ratio against the national total rose from 56.1% to 66.6%. On the other hand, though the amount of transaction in Osaka and Nagoya stock exchanges increased about 30 times, its ratio against the national total declined from 28.1% to 24.9% in the case of the former, while the latter from 5.8% to 4%. This was the result of industrial investment boom during the said period.

The regional concentration of financial power can be also recognized by observing the transition, after a certain interval of time, of regional concentration percentage of the outstanding deposit in and the loans of all the banks classified by the prefecture. Table (5) is the comparison made between 1951 and 1960, which indicates the transition in 10 years including the period of investment boom after the war.

During this time-span the total national deposit expanded from 1,000 billion yen to 7,700 billion yen, while the amount of total national loans from 990 billion yen to 7,200 billion yen.

In either case, the concentration percentages of the eight regions as selected in the table (5) are large. However, when the amount of bank deposit is viewed, the weight of all the regions had gone down during this period except Tokyo, and the concentration ratio of the 8 regions declined from 72.0% of the national total to 68.7%, while as to the amount of bank loan, the percentages of Tokyo, Aichi and Osaka went up and thus the concentration ratio of 8 regions rose from 72.2% to 76.8%.

Table (5)
Transition of Concentration (%) of the Outstanding
Deposit and Loan of Banks all over Japan.

Region	Concentration (%) of Outstanding deposit		Concentration (%) of Outstanding loan	
	1951	1960	1951	1960
All Japan	100.0	100.0	100.0	100.0
Tokyo	27.6	32.5	33.4	39.6
Kanagawa	9.2	3.0	1.8	1.7
Shizuoka	2.3	2.4	2.0	1.9
Aichi	6.8	6.7	6.2	6.8
Kyoto	2.7	2.5	2.2	1.8
Osaka	15.3	14.9	18.7	19.2
Hyogo	4.6	3.8	4.6	3.1
Fukuoka	3.5	2.9	3.3	2.7

(Bank of Japan: *Monthly report on financial statistics* and
Monthly report on economic statistics.)

Remarks: 1951: End of Jan., 1960: End of June.

In both years of 1951 and 1960, the percentages of the amount of the deposit in and the loan of the banks are high for Tokyo and Osaka as being only two regions that saw the ratio of concentration of loan higher than that of deposit. However in 1960 the concentration ratio of loan in Aichi prefecture went slightly over that of the deposit. This indicates the large growth rate of investment in this region. These transitions tell us that except Tokyo, Osaka and Nagoya, in all the remaining 5 regions, to say nothing of those not listed on the table (5), the loan ratio is lower than deposit ratio through the said period. The pattern that the private funds of local regions are pumped up and absorbed into the three major cities has continued to exist for the past 10 years. Such trend will be made all the more clear when the observation is made as to the operations of Bureau of Funds, Annuity Funds of Easy-Payment Insurance of financial machineries of Agricultural Association as well as that of the National Annuity Funds to be newly established, all of which have closely linked to the public investment.

In order to make closer access to the problem of public investment, let us examine the flow among regions of the financial funds (national revenue). The flow of the financial funds inherently involves authoritarian factors such as taxation and the sales of the products of Monopoly bureau and in fact, it helps mitigate a regional dual structure. Such function is currently called, "built-in stabilizer."

As we can see thereby, the move of financial funds is, when viewed from over-all stand-point, accelerating the regional concentration of economic power together with the private finance or even more powerfully than the latter. This particular picture can be well proved by the table of the government payments to or receipts from open market classified by the jurisdiction of each branch of the Japan Bank.

The table (6) is the one prepared in 1956 and is a bit out of date, but it still serves to indicate the general trend.

Table (6) Distribution % of the government payments to or receipts from open market as classified by the jurisdiction of branches of Japan Bank.

Jurisdiction	Receipts		Payments	
	Gross Income	Taxation	Gross Payment	Public Project
All Japan	100.0	100.0	100.0	100.0
Kanto	46.9	44.6	64.5	20.7
Hokkaido	4.7	2.8	4.4	12.3
Tohoku	4.5	3.5	4.3	8.5
Shinetsu	4.2	3.8	3.0	7.0
Tokai	7.9	9.0	3.9	9.9
Kinki	18.6	24.5	9.0	14.6
Chugoku	4.3	3.9	3.6	9.4
Shikoku	1.7	1.6	1.5	3.9
Kyushu	7.1	6.3	5.8	12.5

(Prepared from the report on Balance of Payments of national treasury, Treasury Bureau, Bank of Japan-1956.)

The gross income of this table includes those of the accounts of Foodstuffs Control, National Railways, Telegraph and Telephone Public Corporation, Bureau of Funds, and of Foreign Exchange. This gross income is outstandingly concentrative and when Kanto and Kinki are put together, it occupies 65% of the total.

The regional structure of the taxation revenue is roughly corresponding to that indicated in this table. Namely, the financial revenue comes heavily from the wealthy regions of the country, and this trend of concentration is more pronounced with the gross payment.

The typical examples are the payment of the outlay of national defence of the government general accounts and that of Foreign Exchange Account. The sum to be paid from Foodstuff Control Account is first deposited in the Central Depository of Agriculture and Forestry from the national treasury before it is remitted to its regional branches. Therefore though it is to be

eventually decentralized, the huge sum is at least temporarily stay in the capital city and this is something to seriously think about. There are of course such items which are comparatively decentralized as the expenditure for the local public projects as you see in the table.

The item similar to this one is the government subsidy for the compulsory education, subsidy to the local government revenue, etc. When the relations between the concentrative taxation revenue from the wealthy regions as seen above and such dispersing payment to the local areas alone are taken up it gives us an impression that the national finance is trying to correct the dual structure or the gap between the wealthy and poor regions. The system of the central government subsidy to the local government revenue is, as mentioned above, a typical one and as the matter of fact, by such system, huge amount of corporate and income taxes collected from the wealthy regions is being re-distributed to the local public bodies according to their economic power.

However, it must be noted, that the objective of such system is to help the local administrations standardize themselves according to a certain criterion and that such re-distribution is in itself an evidence that the centralisation of financial and monetary powers is so remarkably advanced.

The system of government subsidy to the local public bodies and the public projects should therefore be regarded from the aspect of concentration of economic power and authorities rather than to see it as being a means to correct the local difference.

IV. Elevation of Industrial Structure and the Public Investment

Public investment is given an important role to play in the "Income Doubling Program". In the national economy 10 years after the basic year, the weight of the secondary industries (mining, manufacturing, and construction) is expected to see the highest increase (from 33% to 39%), but from the standpoint of capital formation, a great emphasis is placed on the "administrative investment" for the strengthening of industrial foundations (it may tentatively be regarded here as a financial investment in social and indirect capital), while the civilian investment in industry will be slightly slowed down (from 51, 9% to 43,7%).

Such anticipation is supported by the idea that there was already a sharp rise of capital coefficient in the basic year (average of 1956-1958) and thus the pressure of the productive capacity thus expanded is to be mitigated by the administrative investment, a substantial demand factor in the future. For such purpose a certain control over the investment must of course be exercised on both the civilian investment and public investment

as referred to later, but in order to make closer access to the problem of the weight of public investment, comparison is made here as to the pattern of the industrial structure of Western-Europe (West Germany), a goal of the Income Doubling Program and the ultimate picture of Japanese industrial structure 10 years ahead.

According to the table (7) the ratio of the individual consumption is to be equal to that of West Germany in 1957, while the gross capital formation including the said administrative investment will surpass that of West Germany.

Table (7) Comparison as to the structure of national income by industries and the gross spending classified

Comparison of the structure of national income classified by industries (%)			
	Japan		W. Germany
	Basic year	Target year	1957
Primary Ind.	19	10	9
Secondary Ind.	33	39	49
Tertiary Ind.	38	40	49
Traffic Comm., Public utilities	10	11	8
National Income	100	100	100
Comparison of the structure of gross national spending (%)			
Gross Consumption	70	67	72
Individual Cons.	60	58	58
Government Cons.	10	9	14
Gross investment	30	32	24
Gross capital formation	26	29	22
Inventory	4	3	2
Ordinary Overseas Surplus	—	1	4
Gross national spending	100	100	100

As to the structure of national income classified by industries, the weight of the primary industry of Japan approaches that of West Germany but the ratio of the secondary industry is still substantially below that of the latter. In the domains of the service industry, traffic and communication as well as the public utilities, the weight goes beyond these of West Germany. That the weight of these two branches of industry is high means that the ratio of the public investment other than the "administrative investment"

referred to in connection with the gross spending, is high, while the large expansion rate as to the secondary industries also implies the same.

The scale of these public investments may perhaps be indicating the low level of the capital concentration and accumulation of productive power and thus be showing the relative weakness of the monopolistic status in Japan even after 10 years, to say nothing of today, in comparison with those of West Germany at present.

Let us now give thought to the present realities rather than to those ten years ahead, and in order to further look into the problem, statistics are quoted from the *Economic White Paper* for the year of 1960.

Table (8) is a comparison as to the equipment investment as well as the capital unit per large enterprise between Japan and West Germany.

Table (8) Comparison as to the equipment investment unit and capital unit between the enterprise in Japan and West Germany

Type of industry	Average unit of investment per company (A)		Average unit of capital per company (B)		(A)/(B)	
	Japan	W. G.	Japan	W. G.	Japan	W. G.
Mining	9.27	17.19	9.08	44.62	102%	38%
Construction	4.68	1.99	3.29	2.19	142	91
Iron & Steel	13.76	22.98	16.30	39.17	85	58
Non-ferrous metal	6.52	6.03	6.60	12.28	98	49
Machines	1.02	2.42	3.84	5.89	27	41
Electric Machines	5.63	7.02	11.83	27.43	48	25
Shipbuilding	10.54	5.57	21.00	7.44	50	74
Automotive Ind.	4.40	28.06	5.98	37.60	73	77
Chemical Ind.	9.89	11.59	8.48	27.57	117	42
Papers	8.72	2.72	6.72	5.01	129	54
Textiles	5.78	1.81	6.31	4.48	91	40
Foods	4.43	1.09	5.58	2.58	79	42

Remarks: 736 Japanese companies having capital of over ¥ 100,000,000 were chosen, while 873 large enterprises in W. G. were taken up.
(Prepared from the statistics appeared on page 331-332 of *Economic White Paper-1960*)

It is obvious from this table that with the exception of the industries of consumer goods as well as shipbuilding and construction that have been expanded by the government investment and financing, all other heavy and chemical industries are markedly lower than those in West Germany particularly as to the capital unit, and yet since the over-strained investment in

equipment is made, the ratio of the investment unit as against the capital unit goes up even more than 70-80%. Besides in Japan the company's capital is not always fully paid-up, said percentage actually goes even beyond 100% in many cases.

Still other observation can be made in the table (8); we can not only find out therefrom the low level of capital concentration and of the accumulation of productive power, relative weakness of monopolistic status as already referred to above but also such characteristics of Japanese economy as excessive competition among the monopolistic groups, overlapping investment, the rise of capital coefficient or the overhead-cost of individual enterprise, excessive dependence upon the borrowed capital and loan, pressure of capital cost (finance cost), and the increase of public investment to mitigate and reduce the burden of such capital cost, the haphazardness and the inefficiency of public investment that swings to and fro according to the competition among the monopoly groups, the rise of capital coefficient and capital cost within the public corporation and public utility enterprise, as well as raising of public fees to cover up said burdens, etc..

This means, in other words, that the weight of public investment and its allocation to the different ends in a given country may probably be determined by the degree of capital concentration and of the accumulation of productive power and by the scale of industrial investment, by the size of capital coefficient, speed of economic growth as well as by the change taking place in the industrial structure and last but not least by the co-relations among industries. Of course I am not attempting here to work out the law of public investment, instead what mentioned above is just a hypothesis, thus I am only attempting to further approach the problem of public investment in the course of high growth on such hypothesis. "The elucidation of Income Doubling Program" carries a table in which the demarcation between the fields of each civilian and public investments is drawn.

Modifying this table a little, the field proper for the public investment is further examined.

The said table is by no means a perfect one and the borderline among each field is quite obscure, but anyway I will make a general explanation of same as follows:

(A) represents the limitation of public investment on one end in a sense that it could be replaced with civilian investment depending upon the extent of the capital accumulation of the latter. While (D) shows the limitation of public investment on other end. This is the field where administrative investment should cover as mentioned before, bordering the fiscal "consumptive expenditure", and is the domain of public investment to be made at

the cost of the general accounts of the government budget.

The scope of (C) has not directly to do with public investment and therefore it may be questionable to list it on the table and yet it has meaning in that these civilian enterprises are directly related to the projects of (D) and (B) (public projects, and other government projects).

While the relations between (C) and (B) (D) are as such, there are also co-relations between (A) and (B), (B) and (D), as well as between (A) and (D). The key industries of (A) could be nationalized, while the civilian capital could take part in the government enterprises of (B).

Table (9) The fields of public investment

	Civilian enterprises	Government enterprises & government projects
	(A)	(B)
Production Capital	Key industries (Electric, Iron & Steel, Shipbuilding, etc.) Agriculture & Forestry, Medium-small size enter- prises	National Railways, Tele- phone & Telegram, Power source development, Local public enterprises
	(C)	(D)
Social capital	Construction enterprises and other industries relat- ed to (B) and (D)	Roads, harbours, land & river conservation, Recon- struction of natural disast- ers. Housing, city-const- ruction, Land-building for industrial use. Development of irrigation and industrial water

Talking about the relations between (B) and (D), "administrative invest-ment is also made in (B), while if the public projects of (D) is operated in a form of enterprise, it approaches (B).

Particularly when a category such as "quasi-public enterprise" be estab-lished for the projects performed by local public bodies, and if a self-sup-ported accounting system be imposed thereon, such projects as local water-supply, improvement of harbour facilities, hospitals, markets, butchery and even the tourist industry could be placed under the scope of (B).

Looking into the relations between (A) and (D), some enterprises among the key industries of (A) having comparatively high capital accumulation can independently or in co-operation with the construction enterprise of (C) as a joint venture carry out the projects such as the improvement of har-bour facilities, ground-construction for industry and the development of

industrial water supply etc. belonging to the category of (D).

These co-relations serve to our recognition that some projects which are supposed to be handled as government program or government enterprises because they are considered as social capital or social expenditure, come under the capital cost of the monopoly enterprise. Hence there arises the problem of the identification of each of and co-relations between "the social capital" and "production capital".

The conception of these terms are also very obscure. If the word of key industry means the enterprises having the nature of social gross capital that are inherently brought into being by the socialization of productive power, the civilian and government enterprises belonging to the categories of (A) and (B) will be worthy of being called social capital. However, according to the "Income Doubling Program", (B) and (D) seem to be called "social capital" in the sense that the social indirect capital is equivalent to the social overhead-cost, where there is a new view-point from which the investment of "the social capital" (public investment) is taken as the capital coefficient against the national economy or as the material balance for the national gross products.

This is a new theoretical and systematic approach to the problem of public investment and should be duly appreciated in that such way of grasping the issue has never been attempted so far and that thus it constitutes a characteristic feature of the "Income Doubling Program".

However in reality, public investment is not guided by the "Program". In the course of the elevation of the industrial structure entailed by the competition of industrial investment among the monopolistic enterprises of (A), the public investment cannot but assume the function to reduce the capital coefficient or to share the capital cost of the monopolistic enterprises. This is the basic feature common to all the public investments of (A) (B) and (D).

When such feature of public investment is admitted to exist, what is meant by "social capital"? We should say that by and large, it is the "social expenditure" to be catered for by the "administrative investment" of (D), as it has a feature of "industrial investment" that improves the productive power of the monopolistic enterprise but it is inherently a social "expenditure". (Reference: K. W. Cup, *Private enterprise and social expenditure*) With the premise of the explanation as to the Table of "the fields of public investment" as given above, let us make analysis of the public investment in the fields of (A) (B) and (D) of the Japanese national economy. Here, however, though the public investment in the agriculture and forestry as well as in medium-small enterprises of (A) bears great im-

portance for the elevation of the industrial structure, it is left out because of the limitation of the space of this papers, while the analysis on the "administrative investment" is to be made just as far as it is necessary.

In the process of an intense industrial investment that has been made since 1955, the capital coefficient of the monopolistic enterprises or the new development industries has come to rise sharply. Though the rise of capital coefficient is an inevitable phenomenon when the economy is picking up, or during the elevation of the industrial structure but since the capital coefficient is the reciprocal of the output coefficient, the rise of capital coefficient has two effects; the one is that brings pressure on the current earning power of the enterprise and the other that entails over-productive capacity of the enterprise in the future.

Let us see actual situation of the rise of capital coefficient in the heavy and chemical industries.

Table (10) Marginal capital coefficient of the principal industries

	1955-57	1956-58	1957-59
Manufacturing Ind.	0.91	1.23	1.05
Iron & Steel	0.54	1.55	2.31
Chem. Ind. (except fertilizer)	1.68	2.48	3.56
General machines	0.30	0.38	0.53
Electric machines	0.60	0.55	0.60
Textile	0.80	2.88	1.23
Elect. power	7.53	9.80	7.95

Remarks: Marginal capital coefficient

$$= \frac{\text{Increment of tangible fixed asset}}{\text{Increment of added value}}$$

(*Economic White Paper*, Page 134)

Among them, iron & steel and chemical industries have seen consistent rise of the capital coefficient. As to the former it is understood that the modernization investment and the expenditure for the ground-building, etc. are included, while the construction cost for the consolidation of, particularly, petrochemical industry must be covered by the latter.

Now regarding the power industry, the highest capital coefficient has been maintained, while slow but gradual rise as to the general machine industries during this period must not be overlooked, because this branch of industry is given a pivotal position in the "Income Doubling Program" and also because it is in this industry that 5,500 billion yen worth of investment is scheduled to be made for more specialization and scaling up.

As already pointed out, the rise of capital coefficient is a reflection of

the brisk investment for the modernization as well as for the technological innovation, and therefore it promises the elevation of industrial structure and the increase of productive power in the future. However, at the same time, it could be taken as an indication of rapid rise of the price of land as well as rent accompanied by the keen competition for land securement as seen in the case of plant erection or enlargement and of the ground-building for the industrial use.

Again when it is viewed from the cost angle, such rise of capital coefficient tells as the rise of the cost of getting finance entailed by the competition for barrowing capital necessary for the procurement of long-term fixed assets.

Thus the rise of capital cost including the rise of the price of land, rent and the monetary interest constitute a minus factor against the elevation of the industrial structure, and it will tend to make the high growth of industry drift toward inflation.

Naturally, in order to cope with the increase of capital cost as mentioned above, the monopolistic enterprises sometimes put their management together, sometimes divide it further, or tie-up with financial institutes for the formation of an integrated organization for the procurement of capital and they give impetus to the public investment.

Particularly the centralized organization for the procurement of necessary funds including that of the public investment as described in the previous chapter of "Regional Discrepancy and Regional concentration of Economic Power" is the most salient feature of the process of high rate economic growth after the war. This is therefore worthy of re-examination from the standpoint of the financial market, but because of the limited space, the problem of public investment in the key industries alone is studied here in connection with the industrial structure, referring now to power as well as iron and steel industries where the capital coefficient is extremely high and its rising rate is sharp as given in the table (9).

Needless to say that the weight of the public investment in these two branches of industry is high. For example, the projects of power-source development that require the highest capital cost, is being handled by the Power-Source Development Company whose capital is invested 99% by the government. On the other hand nine power companies are enjoying their business in the perfect regional monopoly.

Compared with power industry, the iron steel industry is much closer in its pattern to the civilian enterprise but the fact remains that the two large companies of Yahata and Fuji are the offshoots of "Nittetsu", the company incorporated for national policy, and they are still maintaining the

special degree of concentration of capital and production.

The very fact that the power as well as iron and steel companies have stood out in between other key civilian industries and the public enterprises as special type of enterprises of large scale and that they have monopolized the lion's share of the public investment reveals that the concentration level of the capital and production of our key industries is still low and their present degree of cartel and monopoly involves weakness. It is, however, noteworthy that there is a sign that these companies are recently moving to form up combinates with chemical and machine industries in the face of domestic and international competitions, as a new form of monopoly. (S. Uchida: Inconsistency between the elevation of Japanese heavy and chemical industries and the large scale enterprises, *Keizai Hyoron*, Nov. issue, 1960).

The relative weakness of the monopoly in Japan (from the international viewpoint), as mentioned above, also reveals itself in the problem of monopoly price. In Japan, as often pointed out, there is no administered price as typically seen in the United States. The phenomenon that the monopoly price has little effect of "downward rigidity" in the time of economic recession implies the above. However, the obscurity of the borderline between the key civilian industries and the public enterprises as explained above, or rather its continuity is implicitly telling us that there is, in our country a peculiar type of administered price such as public fees, and that they are supposed to be supplementing the monopoly price.

Our public fees show "a peculiar cheapness" but in the current process of high growth, its rising speed indicates "a peculiar rapidity". I cannot afford to make further analysis on the public fees here, the mutually supplementary function between the key industries and the public enterprises will be clarified in the following chapter from the side of public enterprise.

V. Capital Cost in Public Enterprises

The term of public enterprise as used here means such enterprise as operated by the government or by the local public bodies, taking care of the domain of (B) of the table (9) indicating the fields of public investment where the close relations between (B) and (A) (D) are taken for granted.

First of all, it must be noted that the position and the function of the public enterprises are subject to change as the industrial structure will be progressively reorganized. When people hear "public enterprise" or "public utility enterprise", they are apt to think that these enterprises are something that serve to the interests of the public in general or to the benefit of the consumers.

It is because of such preoccupied idea that said enterprises are sometime called "service industry" or treated as belonging to the category of tertiary industry. However, even in case they are made to fall under the scope of service industry, it should be entirely wrong if the rise of the hair-cut fee of barber-shop and that of the fare of the National Railways are treated together simply as the problem of "service fee".

At the lower stage of industrial structure it was not necessarily wrong if the public enterprises were regarded as those rendering service mainly to the interests of the people in general. However, as the industrial structure undergoes progressive reorganization, it gradually deepens its relations with the heavy and chemical industries through the output and input of the public enterprises, or the raw materials that the latter purchases and the products or services it supplies to the former and thus the public enterprises have come to assume the feature inherent to the heavy or chemical industries. There are many examples showing such tendency.

Our national railways had long been managed with the business principle of "passengers first" (the income of passenger fares preferred to freight) but since during the war it has become "a main artery of industrial transportation". Talking about the power companies which are close in its nature to the public enterprise, their power-supply ratio was once one part for lighting purpose and three parts for industrial power at the beginning of Showa era (ca. 35 years ago) and so it was also right after the war, but at present said proportion changed to 1:5. The largest industrial consumer of electric power toward the end of Taisho era was traffic industry followed by the textile industry and chemical industry in that order, namely the power was mainly consumed for service or for the production of consumer goods. Today the principal consumers are chemical and metal industries while the weight of traffic and textile industries has fallen far below. Maybe it is a little too specific but it was in the middle of Taisho era when the industrial salt gained more importance over the salt for food, and particularly after the Manchurian Incident when chemical industry had rapidly expanded, the monopoly sale of salt was shifted from that of the monopoly of state finance to that of the public service monopoly.

Such tendency has all the more accelerated in the current process of the elevation of the industrial structure, and the public enterprises (public corporations in local areas) have come to be involved in this trend more extensively.

Take for instance, water-supply enterprise operated by local public corporation has come to cater for the increasing demand of industrial water, while the same is true with the enterprise of power development as well as

of town-gas supply operated by the local public corporation. In the field of gas-supply, the local corporation is consolidating its ties with iron & steel industry for the utilization of off-gas of blast furnace and of coke-oven gas.

The above examples indicate that the public corporation itself is being dragged into serving the heavy and chemical industries.

Hence the public enterprise itself is subject to the influence of the law of "investment calls for another investment" in its relations with monopolistic key-industries, and thus it comes to share the burden of capital cost of the monopoly business enterprises. In a broader sense, the capital cost or over-head cost covers also the sales promotion cost, financial cost and the part of transportation cost, most of which are the reflection of the lack of planning for the current economic growth and the excessive competition among monopolies, and thus the burden of these costs are taken care of by the public traffic and communication corporations.

It is well known that to meet the daily and seasonal traffic rush of the commuters and the passengers, the traffic enterprises have to maintain enormous amount of fixed assets which bring financial pressure upon its business management.

In Japan large-size buses are running through narrow roads, while dump-trucks are damaging them. All of these are urging to make "administrative investment." The rise in the cost of sales promotion such as of propaganda or advertisement gives rise to the specialization of such enterprise that takes over these costs which are, in many cases, shared in Japan by the public communication corporations.

What effect has then been brought about by the change of the nature of the public enterprises and their relations with industries particularly those with the monopolistic industrial groups upon the capital and financial structures of public corporations, is to be further studied here. Of course I am not dealing with all sorts of public corporations in this limited papers but would focus my thought only to the local corporations that most typically indicate the inconsistency of the public enterprise in the process of high economic growth. Similar to the case of private power and transportation enterprises, the ratio of the fixed assets in the total assets of the public corporations generally goes beyond or around 90%.

Local public corporations are not exception to this. Particularly in such local public corporation as operating the power or water-supply has such ratio as 93.7% for the former and 92.9% for the latter.

This is the very reason why they have to be operated as public enterprise for which public investment must be made. Now, however, the public enterprises have to enlarge the equipment in concert with the rapid civilian

industrial investment because of the industrial co-relations existing between them. On the other hand, while the investment of local public corporations had been restricted to the minimum during and after the war and thus their equipment had long been left obsolete they have suddenly been made to face a great necessity to either construct or modernize the equipment to cope with the plant construction, concentration of population, urbanization of local area etc. since 1955.

When this is reviewed from financial structure, it means the increase of long-term fixed assets, of construction and modernization cost, and in turn the augmentation of the project bonds of local public corporation. The weight of the local project bonds in the program of public financial investment and loaning of the government is on the increase and as the matter of fact, the ratio of the project bonds of local public corporations in its local bonds program has expanded from 24.0% in 1955 to 52.0% in 1960 outweighing the local bonds of general accounting and those of the direct state projects.

Now, the problem of capital coefficient or capital cost in the local public corporations presents itself here as that of the project bonds or interest burden and that of the redemption cost. Even as to the subscription of the public project bonds by the funds of the post office life insurance and the Funds Operation Bureau of the government, its terms and conditions get less favorable on the part of the local public corporations as compared with that of pre-war days. Besides, in the case of the bonds of public corporation, more and more of them have come to be placed on the open market for subscription in competition with the same financial source that tends to go direct into the private investment.

In the case of the government funds, the interest rate to be paid thereto is 6.5% per annum with redemption period of 25 years, but for public bonds placed on the open market, the interest rate is 7.6% with redemption terms of 7 years, while the durable years of the fixed assets are in the case of water-supply projects are set approximately over 55 years, and those of electric power generation and distribution over 40 years.

In case of the public corporations, the project bonds must be redeemed from the depreciation, and there are instances where the burden of monetary interests and the cost of refunding the project bonds far exceed the depreciations. Under such circumstances, it comes to be necessitated to have the excessive part of the financial cost which can not afford to be covered by the depreciation included in public fee. That is to say, the investment in the construction or equipment modernization cannot be catered for by the local bonds but by the raising of the public fee. To be more exact, since

the necessary funds for the construction as the modernization projects cannot be covered only by the local bonds (bonds placed on the open market), the public fees have to be raised.

Such situation is made clear by looking into the table (11) where the transition of the capital account of the local public corporation is given.

Table (11) Balance of Payments of Capital Accounts of the Local Public Corporations

	1953	1954	1955	1956
Capital Income	14,447	17,619	20,234	25,361
Project bonds (A)	12,737	15,981	18,010	21,836
Subsidy	371	319	422	456
Allotment for the cost of construction work	370	251	254	401
Others	969	1,068	1,548	2,668
Capital Expenditure	22,580	27,378	29,195	39,924
Const. & Remodelling cost(B)	20,756	23,435	23,289	32,652
Redemption of Liability (C)	1,313	2,375	4,009	5,245
Others	511	1,568	1,897	2,027
Balance	-8,133	-9,759	-8,961	-14,563
$\frac{A}{B} \times 100$	62%	68%	77%	67%
$\frac{C}{A} \times 100$	10%	15%	22%	24%

(K. Yamano: *Current situation and its analysis of the Public Enterprises*)

From this table alone, the relations between the necessary funds and the income of public fees are not made necessarily clear but it can be roughly inferred that the gap between the income by project bonds and the cost of construction and modernization work is comparatively large, and that the ratio of the cost of redemption of the liability as against the income by project bonds is persistently rising year after, thus the shortage of funds to be allocated to the construction and the modernization work is bringing more pressure upon the income by the public fees.

On the other hand, in the case of industrial investment of the key industries of private sector too, the weight of the cost of borrowed capital or financial cost is large, and this is said to be constituting a handicap of the Japanese economy in the international competition. However, it must not be overlooked that the gigantic profit that stands high above the international level is still existent for the private industries, which is entirely non-existent in the case of the public corporations.

The burdens of capital cost and financial cost of the public corporations

directly affect the enterprises themselves which in turn oppress the people in general.

Moreover, when a part of the capital and financial costs of the key industries of private sector (monopolistic business) is considered to be borne by the public investment and public enterprises to reinforce the high degree growth, it makes us skeptical as to who is eventually supporting whose growth.

Thus it is obvious that what is meant by the Schema of the Income Doubling Program, the social capital (public investment) = capital coefficient or the material balance of the national productive power.

VI. Theory of the Planning of Public Investment

The Schema of "the public investment=capital coefficient of national economy", is a new viewpoint of "Doubling Program" by which how much of public investment is necessary for the growth of so and so % of national income, is estimated, thus to systematically control the public investment.

However since the current public investment is actually being made subject to the investment competition among the private industrial groups, it is highly skeptical how far it can exercise said control. In fact "Doubling Program" determines the amount of investment based on the balance of "saving=investment", and this is presenting another controlling method of allocating the said amount to the various domains of public investment.

There is no denying that the public investment will contribute to solidifying the foundations of the productive power constituting itself an integral part of such power, but in reality, it is usually made, after the various troubles and confusions as well as inconsistencies have actually taken place due to the insufficiency of public investment, for the purpose of straightening out the chaotic state of economic life and the confusion of social life brought about by the competition among the monopolistic business groups as the result of anarchical industrial investment that brings about unsystematic increase of productive power.

Here lies the aspect of the public investment which is to be regarded as social capital or as sharing the social cost rather than as productive capital. Again this is the very reason why the public investment is expected to play a role of demand-creating function or of narrowing the gap of the unbalance between the production and consumption, rather than the role of creating the productive power. With the background as stated above, the public investment tends to be unsystematic and becomes an overlapping investment being involved in the competition among the monopoly groups,

rather than fulfilling its original mission of leading the economic growth into a well-balanced form.

Though the public investment is placed within the framework of public credit and the state finance, the very fact that it is supported by such public credit and the state finance opens up the way to the danger of making capricious investment.

Such danger is obviously recognized in the expansion of the public investment.

Now, the "Income Doubling Program" regards the "Proper distribution of industries by the public investment" as the "basic measures to reform the constitution or structure of our national economy". (Explanation: Page 53)

This must be the policy objective to be realized through "Doubling Program" that is entrusted with the correction of the dual structure of our national economy.

It must therefore be brought home that in this domain of policy, the public investment as really worthy of being a policy must be established versus that tends to be dragged into the complication of civilian investments, though the greatest difficulty is anticipated ahead thereof.

The planning of the proper distribution of industries is, so to speak, to shape up a new industrial foundations and in a sense, it is a plan of regional development. However the private capitals will not readily trust the government plan even when they are suffering an excessive concentration of industry in which they find themselves.

A spokesman of a large iron & steel maker said as follows:

"..... it is urgent matter for each enterprise to secure new plant locations in concert with the industrial expansion and we can hardly wait for the completion of the public facilities related to the industries (the plan of proper distribution of industries by the public investment). Therefore from the standpoint of the civilian industries, though there is no objection whatsoever to the idea of improved distribution of industrial locations, we would request, besides such long-term counter-measures, the urgent consideration of the government to reasonable solve the problems soonest possible such as the improvement of harbour facilities and transportation of the area where many enterprises are actually planning to move in, of securing the industrial water supply, of expediting the conversion of farming land to plant site, prevention of price rise of land and the solution of the indemnification of fishery, the trickiest problem of the enterprises concerned." (*Nippon Keizai Shinbun*, Nov. 29)

Here too the private capitals are asking for the public investment that

subordinates to the private investment rather than the structural policy through public investment.

Thus the public investment concentrates itself to the area where the private investments are concentratedly made. The examination of the process of high economic growth so far made, tells this, and the table (12) also supports such trend.

Table (12) The transition of the ratio of public investment made in the 4 largest industrial areas as against that made throughout the nation.

Average 1947-1949	1956	1957	1958
26.0%	30.0%	30.5%	33.6%

- Remarks: (1) 4 big industrial areas include Tokyo metropolis, Kanagawa, Aichi, Osaka, Hyogo, Fukuoka prefectures.
 (2) Figures of 1956, 1957 and 1958 are taken from *Economic White Papers* while the average of 1947-1949 is referred to "Economic Stabilization Board: Table of distribution of public project expenditure classified according to prefectures."
 (3) Public investments of 1947-1949 are those made in production, traffic, land-conservation, people's welfare facilities, while after 1956 are those made in conservation of rivers, road construction, city planning, public housing project, harbour facilities.

The said trend is not only supported by the fact but also from the planning theory based on "public investment=the material balance of national gross products", it must be so.

How such regional concentration of public investment and in turn the augmented concentration of private investment in such region can be corrected and how a reasonable distribution of public investment can be materialized? This is the problem of public investment that has greatly to do with the development of underdeveloped area, conservation of soil, mountain, and also with irrigation project, etc., but in this point the theory of "Doubling Program" is remaining obscure, though it has distribution standard anyway in a form of "standard formula of investment efficiency."

This is a formula by which the size of economic investment being enough to protect the amount of assets in a given area (in case of the public investment in land conservation, it is the amount of possible damage by natural calamity) is estimated in reference to the marginal capital coefficient of road construction and harbour facilities projects, since this sort of public investment can not be regarded as a positive factor that elevates GNP as that made in the construction of the highway and port facilities.

In another words, such type of flood having a probability of happening only once in 100 years may do a great damage if it actually comes, but if an investment be made to perfectly protect the area from such slimly

anticipated flood, the yearly investment efficiency will sharply decline. Therefore, if the income standard in the area be elevated, the damage therein will be yearly larger, and thus the investment efficiency will be improved to the point where the public investment comes to be economically justified. (Explanation: 63-64 page) Though this way of thinking may look quite reasonable, it is but an other side of the same idea of "public investment=material balance of GNP".

The efforts to try to place the distribution of public investment of Income Doubling Program on the standard which can be scientifically calculated, freeing it from the pressure of lobbyist or of the political parties should be duly appreciated, because here lies a sign of the break from the conventionalism of the conservative politics. However this program has proved itself to be having all the policy standards and therefore the economic standard of public investment conformed to the growth of national production or that of the productive power of the large enterprises. Thus the question remains if such program could develop the under-developed areas that locate outside of the so-called "the belt alongside the Pacific Coast".

Originally, since no active public investments will be made in the underdeveloped areas, the private investments will not be introduced thereto and the standard of income in such area will be remaining low. Then since the income level there is low, neither the public investment, nor civilian investments will positively made in such underdeveloped area. This is a vicious cycle of poverty as pointed out by Ragnar Nurkse (Problems of capital formation in underdeveloped countries).

However the vicious cycle of "under-developed countries are poor because they are poor" as mentioned by Nurkse is nothing but the reverse side of the law of capital accumulation of "the developed areas are wealthy because they are wealthy."

The "Doubling program" and the theory of its public investment based on the law of accumulation seems now to have fallen into the vicious cycle.