

89-F-12

Tax System and Economic Development
--A Case for Japan--

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November 1989

A paper presented to Conference on International Symposium on Tax Policy and Economic Development among Pacific Asian Countries held in Taipei, January 5-7, 1990.

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Introduction

This paper aims to describe the main features of the tax system up to 1930's which was differentiated from recent Asian developing countries and find out the favorable elements which contributed to its economic development. This paper also examines the tax incentives in the post-war years from the view point of industrial policy.

The way of viewing tax system is probably different from the conventional one in not emphasizing the argument on dual economy and in not adopting the typical protective argument for industry. Even though I do not deny totally the validity of conventional arguments as an alternative explanation, I hope that an adoption of new points of view could add something to the conventional view.

1. Japanese Tax Structure up to 1930's.

In this section we trace the development of tax system before the World War II and point out the main characteristics of the tax system for the period. The period starts from 1880 when several taxes or charges of old type was abolished and ends when the Japanese economy began to be transformed into the war economy.1)

The characteristics of the tax system can be pointed up though comparing it with normal pattern of development of the tax system or other standards. There has been already many arguments on normal pattern especially in reference to Hinrichs [11] and Musgrave [21] and it is not needed to repeat the arguments here. As is well known Hinrichs adopted a four-fold classification of stages; traditional, transitional adoption of new and modern. Traditional societies appear to rely on a combination of direct taxes on agriculture, poll taxes and non-tax revenue. In transitional stage, indirect taxation becomes more important, and in particular trade taxes occupies the dominant position as the economy opens in trade. The domestic indirect taxes - typically excises, sales and transaction taxes - become important with the development of modern type of production in domestic economy. In the final stage the new type of direct tax - the taxation of net income of individuals and business corporations becomes important.

Hinrichs was cautious to be determinism and he wrote the pattern "dose not necessarily mean that all countries have traced or will follow such a sequence at all times." Even though we need to be careful as Hinrichs his four-fold

classification of stages is useful as a benchmark by which features of a particular development of tax system are characterized. Therefore, in the following we chiefly rely on Hinrichs' stage in pointing up several features of development in the Japanese tax system.

Another standard which is used in the following is the recent state of tax systems in Asian countries. Economic development of Asian countries are diverse and we can not specify the stage of development as a whole, a specific country may correspond to traditional stage, to "adoption" of new stage, or to early modern stage. In spite of these diversities, I believe that the present state of tax development of Asian countries is still useful to point out several features of the development of the tax system in prewar Japan because the existence of significant departure of the Japanese tax system in the period from the recent experience of Asian countries may add another characteristic different from one based on Hinrichs' classification of stages.

Changes in the Tax System: We trace here main tax reforms or revisions before 1930's.

It is needless to say that the reform of land tax (1873) had been one of most important ones. It prepared the solid tax base for land tax which became the main source of tax revenues. The content of reform was (i) uniform taxation among taxpayers, (ii) fixing 3% of land price as the tax rate, (iii) landowners (not agricultural producers) as taxpayers and (iv) payment in cash.

Next important development of tax system was the initiation of income tax in 1887. Even though income tax adopted schedule system and also included cor-

porate income, it began to tax high income earners in urban areas and served to distribute income between rich urban areas and poor rural areas.

Following the Sino-Japanese war which had increased defense expenditures the following revision of tax system was taken in 1886; several taxes (tax on salt, tax on vehicles, tax on ships, tax on licenses for soy sauce producers, tax on profit of soy sauce producers and other taxes) was abolished and a new tax on business (usually tax on sales, on number of employees and on rent of used buildings) was introduced. In 1899, a new tax on cargo by its weights and other taxes were introduced, and in 1901 excise on sugar was introduced.

In order to finance the Russo-Japanese War in 1904 the government increased tax revenues by raising tax rates on land tax, business tax, income tax and other taxes and by introducing a new tax on consumption of woolen goods and a new tax on consumption of oil as a temporary tax plan. In 1905, the inheritance tax was introduced again for financing the War. After the War the temporary tax plan was on the whole continued as permanent tax increases.

A major change was taken in 1920 in the structure income tax. Interest income from savings deposits began to be taxed separately and dividend became a part of individual income and taxed at progression rates with other incomes. However, the schedular system continued to be maintained.

In 1925, there was an important change in tax system. One is the abolition of business tax and the introduction of business profit tax and the other is the introduction of tax on interest on capital which levy tax on interest from financial asset. In 1926, local tax was extensively revised.

After 1930's public finance had been influenced by the extension of war in

China. The introduction of temporal tax on gains (of corporations and of unincorporated business) aimed to finance increased defense expenditures.

Though it is out of the scope of this paper, we mention the following revision in late 1930's, namely the introduction of tax on owned capital, on consumption of liquor and on securities transactions.

Finally, in 1940, the separation of individual income tax and corporate income tax was taken and lowered level of exemption in individual income tax made income tax mass tax. At the same time the method of withholding on salaried income began.

Quantitative Aspects of Changes in the Tax System: Tax revenues had been changed reflecting legislative changes in tax laws explained above. We can trace these changes as the variations among tax categories to total tax. Table 1 shows the ratio of tax categories from 1880 to 1934. Even though this table is self-explanatory to tax expert, let me repeat the reason why such categories in Table 1 is adopted. The main reason is that these tax categories are filled to Hinrichs' classification of tax system in the four stage of the development, tax systems namely from taxation on (i) land (from agriculture), to (ii) foreign trade, to (iii) sales (or consumption), to (iv) income. These tax categories also correspond to the studies on tax ratio and tax effort (Chelliah, Baas & Kelly [6]) and Tait, Gratz & Eichengreen [23]).

Although these tax categories are rather prevalent in international comparisons of taxation, a caution must be taken. These tax categories usually exclude non tax revenues, typically profits of government enterprises. Sometimes

Table 1: Ratio of Tax Categories to Total Tax in Japan (1880 - 1934)

(%)

	Income Tax	Property Tax	Foreign Trade Tax	Sales Tax	Other Tax	Direct Tax	Indirect Tax	Total Tax/GNP
1880-84	13.34	64.60	2.77	17.43	1.87	77.94	22.07	-
1885-89	16.02	60.48	3.93	17.83	1.75	76.50	23.51	11.0
1890-94	18.16	53.72	4.98	21.16	7.98	71.88	28.12	8.8
1895-99	23.90	43.11	6.11	23.65	3.23	67.01	32.99	7.7
1900-04	28.32	34.29	7.67	26.70	3.02	62.60	37.39	6.0
1905-09	32.43	27.43	9.48	28.12	2.53	59.86	40.13	12.0
1910-14	35.59	24.72	10.22	27.21	2.26	60.31	39.69	11.2
1915-19	47.99	18.43	6.84	23.55	3.19	66.42	33.58	8.0
1920-24	50.00	15.63	7.15	24.46	2.76	65.63	34.37	9.3
1925-29	48.10	17.23	8.84	23.20	2.63	65.33	34.67	11.7
1930-34	43.15	21.12	8.92	24.14	2.67	64.27	35.73	8.8

Source: Ministry of Finance, History of Ministry of Finance for a Century (1964), Ministry of Finance, History of Budgetary System in Meiji and Taisho Period (1924) and Ministry of Interior, Summary of Local Finance (1923) [All in Japanese]

in developing countries the size of profits of government enterprise is not so small and neglecting these revenues may lead to misunderstand the tax structure because profits of government enterprise could be interpreted as a hidden type of sales taxes. In spite of its importance, non-tax revenues are excluded in this paper because of unavailability of comparable statistics among developing countries. 2)

Several features of the development of the Japanese tax system in the comparison with the ideal type of Hinrichs are summarized as follows;

(i) Japanese tax system clearly started from the tax system dominated by land tax (see early high ratio of property tax).

(ii) However, foreign trade tax had never get the predominant position in tax revenue (the maximum ratio about 10%).

(iii) Substituting for foreign trade tax sales tax (particularly excise) and income tax particularly enterprize tax) occupied a considerable portion even in the early stage. It is also needed to add that sales tax alone had never get the predominant position.

(iv) After the First World War income tax became the most important source of tax revenues even though personal income tax took a form of schedule as system and separate income tax did not yet adopted. So in this respect income tax in this stage cannot be regarded as modern income tax.

In respect to the first and the second feature it is appropriate for us to explain the background which brought about these features.

The strategic role of Japanese land tax in the context of economic development has been emphasized almost everywhere in studies on modern economic history

in Japan. Therefore we need not repeat the argument here. However, the fact which is essential for well functioning land tax is that Japan had already developed the land tax system in pre-Meiji periods. 3) Particularly the fiscal cadastre for land tax had been firmly drawn up in long historical tradition. Another fact worth emphasizing is that the land ownership by daimyo (feudal lords) in pre-Meiji period had been totally confiscated at the Meiji restoration so that there was no critical political opposition toward the adoption of land tax.

The second feature, namely, the low proportion of foreign trade tax was mainly due to the restraint imposed by foreign countries. Compared with circumstances under which developing countries after the Second World War the surroundings around Japan in Meiji was quite different.

As is well known tariff policy of individual countries in the post-war period has been formulated in terms of multilateral negotiation under GATT rule. In principle GATT rule does not permit any country to treat a particular country unfavorably on its tariff policy. Around 1870's when Japan wanted open its door toward foreign countries after the period of closed economy for more than two centuries, the situation was quite different. Powerful countries could negotiate unilaterally tariff treaties to other countries and could enforce weaker countries to accept unfavorable and unequal treatment on tariffs. During the turmoil around Meiji restoration Japanese government was forced into accepting unfavorable tariff treaties to major western countries.

In 1866 Tokugawa government (Shogun) signed the tariff treaty which set a very low rate (uniformly 5% rate ad valorem). At the same time the treaty

required that raising tariff rates needed the consent of other party. This means that Meiji government succeeded Tokugawa government could not raised the tariff rate almost totally because of other party's opposition.

There was a long history for Meiji government to revise the tariff treaty in order to get the opportunity for raising tariff rates unilaterally. In 1899, the government particularly revised unfavorable position in changing tariff rates. In other words, the partial freedom to change tariff rates was gained in that occasion. And finally in 1910 the government was on an equal footing with major countries on determining tariff rates. In table 1 we can see that the ratio of foreign trade tax since 1900 had risen at some extent about for fifteen years. However the ratio reached barely about 10% at its highest.

Next we turn to the comparisons with recent experiences of Asian countries. Table 2 and Table 3 are adopted from the figures in the articles by Tait and others [23] and the book edited by Gandhi[8]. These tables show the ratio of tax categories from early 1970's to early 1980's. Comparing Japanese case (Table 1) with these figures in Table 2 and 3. We can point out such distinct differences as follows: the high ratio of property tax and the low ratio of foreign trade tax and comparatively lower ratio of consumption tax (foreign trade tax and sales tax).

These differences corresponds naturally to the features just mentioned based on Hinrichs' classification. However, a few comment need to be added.

Even though Japan is fitted to Hinrichs' classification, Recent experiences in Asian countries are opposite as the Tables 2 and 3 show except probably the case of Republic of China. And referring to the existing literatures (Tait &

Table 2: Ratio of Tax Categories to Total Tax (1972 - 76)

(%)

	Income Tax	Property Tax	Foreign Trade Tax	Sales Tax	Other Tax	Total Tax/GNP
Bangladesh	9.8	0.0	30.8	40.7	18.7	5.8
Burma	36.1	0.0	18.4	34.2	11.3	7.6
China, Republic of	14.4	12.2	31.3	41.5	0.6	20.0
India	18.8	0.1	13.3	57.3	11.2	13.9
Indonesia	66.8	0.8	15.6	12.3	1.5	16.3
Korea	28.5	4.1	13.9	50.2	3.3	13.6
Malaysia	30.0	0.6	31.8	22.5	15.1	22.5
Pakistan	13.6	2.7	35.8	41.3	6.6	11.4
Philippines	24.8	2.9	32.2	29.8	4.0	10.1
Sri Lanka	17.0	2.0	44.9	36.1	0.0	18.0
Thailand	17.0	2.1	30.7	46.8	0.0	14.0
Average(Total)	25.2	2.5	27.2	37.5	6.6	13.9
Average*(Pacific)	30.3	3.8	25.9	33.9	4.1	16.0

* Pacific Countries include China, Indonesia, Korea, Malaysia, Philippines & Thailand.

Source: A.A. Tait, W.K.M. Gratz and B.J. Eichengreen, "International Comparisons of Taxation for Selected Developing Countries, 1972-76" Staff Papers, Vol.26, No.1 (March 1979)

Table 3: Ratios of Tax Categories to Total Tax, Three-Year Average around early 1980

(%)

	Years	Income Tax	Property Tax	Foreign Trade Tax	Sales Tax	Other Tax	Direct Tax	Indirect Tax	Total Tax/GDP
Bangladesh	1981-83	15.41	3.03	40.09	38.93	2.55	18.44	81.57	7.43
Burma	1980-82	4.74	-	36.67	68.58	-	4.74	109.99	9.77
India	1981-83	17.01	1.00	22.34	57.69	1.96	18.01	98.04	14.53
Indonesia	1981-83	81.22	1.59	5.04	11.50	0.66	82.81	99.35	19.87
Korea	1982-84	26.36	1.05	16.80	51.16	3.30	27.41	95.37	16.59
Malaysia	1981-83	45.26	0.66	30.84	20.73	1.86	45.92	97.49	22.81
Pakistan	1981-83	19.28	0.35	39.99	40.35	0.02	19.63	99.97	12.92
Philippines	1981-83	22.35	4.03	26.00	45.20	2.42	26.38	97.58	10.75
Sri Lanka	1981-83	16.24	0.43	41.29	40.50	1.53	16.67	98.46	16.69
Thailand	1982-84	21.45	2.49	22.64	52.69	0.73	23.94	99.27	14.12
Average(Total)		26.93	1.46	28.17	42.73	1.50	28.40	97.71	14.55
Average*(Pacific)		39.33	1.96	20.26	36.25	1.79	41.29	97.81	16.83

* Pacific countries include Indonesia, Korea, Malaysia, Philippines & Thailand.

Source: V.P. Gandhi, Supply-Side Tax Policy: Its Reference to Developing Countries, (IMF, 1987)

Others [23] and Gandhi[8]) the average ratio of property taxes in developing countries in the world 1.9% (Tait & others) and 2.4% (Gandhi). From these considerations it may be appropriate for us to judge that Hinrichs' case is not normal and Japanese case is very exceptional. As was already argued in the literature on taxation in developing countries (typically Goode[9]), insufficiency of cadastre and political opposition in adopting high tax rate on land could be the main reasons for the lower ratio of property tax.

In regard to the low ratio of foreign trade tax in pre war Japan is truly exceptional in the sense in departing from Hinrichs' stages and from recent experiences in Asian countries. Incidentally, the average ratios of total developing countries were 36.7%(A. Tait & others) and 30.3%.

2. Favorable Factors to Economic Development

In this section we will argue in what respect the features of the tax system in the pre war period were favorable to economic development in rather theoretical contexts.

Role of Land Tax: In judging the contribution of features of tax system to economic development a few words on the theoretical problems on this issue should be added.

First on the desirability of land tax for economic development, so far the chief role of land tax was the channel as transferring of resources from tradi-

tional sector to modern sector. I do not deny the validity of the argument if the historical experiences in the past were fitted to the basic premises which are assumed in its desirable role. However, it is not always easy for us to confirm the fitness of the historical experiences to the premises.

Even though I am not economic historian, the following questions in the case of pre-war Japan could be raised. If the government successfully got funds from tax revenues from land tax, it is not guaranteed that the government used them wisely. In 1860's or 1870's Meiji government began to start the new factories in various fields. However, most of them was failed and sold off to the private sector. The channeling through the government was not so successful.

If the government was wise on the choices of types of social overhead capitals, the argument on the role of land tax is all right. Probably this is true for the Japanese case, but we need to verify the desirableness of allocation of public investments, and the scope of the analysis is naturally extended to the outside of tax system.

Actually many arguments in economic history have been done in the relation of question whether land tax was definitely favorable or not, and it seems to be that the question was not settled so easily.

From these considerations, if we confine the argument within tax analysis the following justification seems to be most convincing. As well known in the theoretical arguments on optimum tax, lump-sum tax is the most efficient way in taxation, 4) and if we accept the view that the land tax in the traditional or the transitional society is near to lump-sum tax, the Japanese case could be the typical case. Naturally we need to check the quantitative effect of the

favorable influence of land tax and we remain to expect the future research in the problem.

Low Ratio of Foreign Trade Tax: Next we turn to the features of low ratio for foreign trade tax. Probably the typical reaction to the feature is that pre-war, Japan could not use protective tariff effectively. Therefore, this is rather an unfavorable elements to economic development. However, I have a doubt on the typical reaction.

The essence of the infant industry argument consists of two factors. One factor is time which restricts the periods for protection and other factor is market failure which justifies intervention of the government. Usually the infant industry argument is stated as follows; there are such market failure that makes private sector to refrain initiating new ventures, but these new ventures are profitable in longer terms so that there must be an temporal government's protection. 5) In principle, the existence of market failure justifies the government intervention in some form, and most of protective case in developing countries can be interpreted as in this way.

However, most developing countries have usually adopted high level of protection for long period, not for short period. In spite of insufficient incentive high level of protection favors industry protected and this could be a factor which promote the industry in the economy. But many economists pointed that protection usually continued long after the learning period required and also higher rate of protection did not corresponds to the better performance of industries.

The experience of Japanese case, namely, the low ratio of foreign trade tax, seem to be unfavorable element to economic development at first sight, but it is possible to say that in the long-run it could avoid the unnecessary protection of industry and could rather promote economic development successfully.

3. Trade Policy in Oligopolistic Market - New View -

Against the traditional argument for infant industries the new view on trade policy or industrial policy has emerged since early 1980s. The new view focuses on trade policy among developed countries in contrast with infant industry argument in developing countries. It is theoretically based on oligopolistic case and usually assume the existence of established firms in domestic and foreign markets so that small countries case cannot be applied. The old view, i.e. infant industry argument is based on the condition of competitive market so that a standard case of small countries is relevant. In this sense, the old view is relevant to the tariff policy in the pre-war period treated in the last section, and the new view is fitted to analyze the trade policy and industrial policy in the post-war period. In this section we explain typical arguments for trade policy based on new view and try to examine the role of tax incentives for export in this context. 6)

Protection as Export Promotions: The first argument can be interpreted as

the new version of infant industry. This argument was raised by Krugman [19]. Krugman assumes the presence of some form of economies of scale. In other words, the firms operate under imperfect or monopolistic competition in a broad sense. Assume that there is a single domestic firm and a single foreign firm, both firms produce identical products, and marginal cost falls as total production of each firm increases. Without protection both firms are expected to operate in all markets. Suppose that the domestic market is protected by a tariff to the foreign firm, the domestic firm would increase its output in the domestic market. The marginal cost would fall due to economies of scale and domestic firm could expand its market share in foreign market on its favorable competitive position. More realistic version is the case of learning by doing. Learning by doing is that as a firm produces more it learns to produce more efficiently. With protection by tariff, the domestic firm produce more in domestic market and therefore learn quickly than foreign producer. Learning by doing comprises a time element so that this case has more similar characteristics with infant industry compared with the case of more technical economies of scale.

Promotion of Domestic Entry: The second argument of new version of infant industry is raised by Brander and Spencer[4]. As an initial situation, suppose that no domestic firms are operating in the market. The foreign firm dominating the home market is conscious of the possibility of entrance of domestic firm into the home market and set the price in such a way to deter domestic entry. A tariff imposed in this situation will not affect the price level in the domestic market if rate of tariff is not so high that the foreign firms afraid of

entry of domestic firm. In this case the government could extract rent from foreign firms. A sufficient high tariff gradually force the foreign firm to abandon the strategy of entry deterrence, and rise in domestic price is followed by domestic entry. A tariff encourages emergence of domestic firm. Though Brander and Spencer shown the interest case, their argument is of less empirical significance compared with Krugman's.

A Case for Export Subsidy: Brander and Spencer[5] presented another interesting case which analyzed the effect of export subsidy in the context of oligopolistic behavior. As is well known there is no empirically established theory which describes oligopolistic behavior generally. However, one of the plausible theories is Cournot's type, and basing on Cournot's equilibrium Brander and Spencer got a stable solution for export subsidy.

To make the argument as simple as possible, we assume the same situation as Krugman's i.e., two firms, one domestic and one foreign in world market. Naturally, each firm recognize that its profit depends on what its rival does. Cournot's point has such a characteristic that once equilibrium reached any threat by one firm is not believed by other. Suppose that subsidy for export is given on domestic firm. This firm tries to expand its output because expansion increase its profit. This move is credible so that foreign firm decreases its output and its share. In other words, demand function for foreign firm shifts permanently to the left. In effect the subsidy makes it possible for the domestic firm to get a larger market share in world market.

So far several cases for trade policy in oligopolistic situations were ex-

plained. Finally we add a remark on the role of tax incentives for export. In such a simple model as in perfect competition model various instruments (tariff, subsidy and export tax) in trade policy have symmetries and in a more complicated model the symmetries do not hold in even small country's case and perfect competition. 7) With oligopolistic behavior more differences among policy instruments appear. Though there has been no detailed treatment on the problem in the literature it is possible to say that tax incentives through corporate income tax have less reliable effect compared with tariffs and subsidies.

The main reason why the reliability of tax incentives as a policy instrument is questioned is the unreliability of the effect of corporate income tax in oligopolistic markets. As Harbrger explicitly formulated in perfect competition incidence and effect on relative price of corporate income tax is evident. However, in the world of oligopolistic behavior incidence and effect on relative price depends on the particular behavior of firms so that there is unreliability of effect. If the players of game know this unreliability, we could not expect such a reaction based on credibility as in a case for subsidy in this section. Probably tariff is more explicit instrument and even subsidy is more simple instrument compared with corporate income tax. In addition to the tax rate reduction in corporate income tax, we usually have tax incentives for depreciation and tax credit and these instrument adds the complexity to the effect of corporate income tax.

4. Post-war Japanese Case

In this section being away from theoretical issues, we examine the Japanese case of tax incentives for export in its broader aspect. Recently there has been many studies on Japanese industrial policy and the author is not a specialist in the field of industrial organization so that the aim of this section is only limited to presenting a case and to understand how policy instruments are applied in the real world.

Tax Incentives for Export Conventionally Defined: The Japanese Tax System have its own measurement which is not so different to the concept of tax expenditures in the United States. The Tax Law consists mainly of the (Personal) Income Tax Law, the Corporation Income Tax Law and the Special Tax Measures Law. The Special Tax Measures Law picks up the whole of tax preference in regard to Personal Income Tax and Corporation Income Tax. In general, the range of special measures is much narrower than the tax expenditure. However, the structure of the Personal and Corporate Income Tax Law has been maintained for long time and we could get a consistent measurement on tax preference by relying on the estimation of tax revenue loss from special measures. 8)

The list of special measures was considerably expanded from 1951 to 1956. The tax reforms in 1950 under the recommendation of Shoup Mission curtailed special measures extensively and only three items of special measures survived. However, by 1956 the total number of special measures exceeded fifty because the government was very active toward the promotion of economic growth through tax devices. Revenue losses from special tax measures in 1956 amounted to 12% of

income tax revenue. The weight of revenue losses in recent years is shown in Table 5.

The main measures which were specified for the purpose of promotion of exports in this period were the special deduction of income from exports and the accelerated depreciation for the equipment related to promotion of exports. The former permitted from 1953 to 1965 producers of exported goods to deduct 3 percent of their gross sales abroad, up to 80 percent of their net operating income from exports. The latter allowed from 1961 to 1972 firms accelerated depreciation for their equipment if they raised the proportion of their business from exports over the previous year's level.

Along these measures for promotion of exports the measures for promotion of individual savings and promotion of business saving and investment was utilized extensively. And so far as the size of estimated revenue loss was concerned, the weight of measures for promotion of individual savings has been biggest, the weight of the measures to promotion of business savings and investment has ranked second, and the weight of the measures for promotion of export has ranked third (See Table 6). The rank has not been changed until now. However, the weight of measures for promotion of export declined because the special deduction of income from exports was eliminated in 1956 due to the violation of the rules of the General Agreement of Tariffs and Trade and the accelerated depreciation for the equipment related to promotion of exports was abolished in 1972 due to the tendency towards balance of trade surplus of the Japanese economy since that time. Just now the weight of tax incentives specifically ties to export promotion, namely the tax free reserve for overseas market

Table 5: Comparison of Estimated Revenue Loss from Special Tax Measures
and Tax Revenue, Fiscal 1966-1985

Per Cent of Revenue Loss to Tax Revenue

Fiscal Year	Total Income Tax	Individual Income Tax	Corporate Income Tax
1966	11.4	14.9	7.8
1967	9.6	12.6	6.7
1968	8.7	10.6	6.4
1969	8.7	10.9	6.5
1970	8.5	10.1	7.0
1971	9.6	10.2	8.9
1972	8.5	9.1	7.8
1973	6.4	7.6	5.0
1974	6.3	8.2	4.6
1975	8.0	9.0	5.0
1976	6.7	8.0	4.8
1977	6.7	8.9	4.1
1978	6.3	8.8	3.2
1979	5.3	7.1	3.1
1980	4.7	6.9	2.1
1981	4.9	6.9	2.3
1982	4.8	6.5	2.2
1983	4.7	6.3	2.6
1984	4.5	6.1	3.0
1985	5.3	6.8	3.4

Source: Data presented to the Diet by the Tax Bureau of the Ministry
of Finance and An Outline of Japanese Tax (each fiscal year)

Table 6: Percentage Distribution of the Estimated Revenue Loss
from Special Tax Measures, by Type of Incentive,
Fiscal Years 1968-1979

Fiscal Year	Promotion of Individual Saving and Investment	Promotion of Business Saving and Investment	Promotion of Exports and Foreign Investment	Other
1968	54.1	22.0	13.1	10.7
1969	48.1	21.5	13.7	16.4
1970	40.5	22.9	17.4	19.0
1971	37.8	26.7	15.2	19.2
1972	37.0	32.8	6.3	23.7
1973	42.7	33.3	3.4	20.5
1974	41.2	33.5	4.8	20.4
1975	36.7	34.1	4.9	23.0
1976	38.6	27.9	5.1	28.3
1977	42.2	24.5	3.8	29.5
1978	44.9	21.4	2.9	32.9
1979	47.5	26.3	2.2	26.2
1980	52.4	18.1	2.0	27.4
1981	57.4	17.6	1.8	23.1
1982	59.4	16.3	1.8	21.6
1983	57.4	20.5	2.0	19.9
1984	52.7	25.9	2.5	18.8
1985	57.2	25.0	2.2	15.4

Source: Data presented to the Diet by the Tax Bureau of the Ministry of Finance (Each fiscal year).

Classification is different the conventional one.

development and the special deduction for transactions involving the provision of technical services overseas, is negligible.

Tax Incentives Indirectly Tied to Export Promotion: The tax incentives for export conventionally defined are the tax incentives directly tied to export promotion. However, it is not difficult for us to see that tax incentives for export need to be treated more widely than conventionally defined, because conventionally defined tax incentives are mainly related to the performance in export. In the theoretical analysis the case for export promotion is supported by potentiality for export so that even if volumes of export is negligible there may be the case for export promotion. Moreover, if we take into account of dynamic efficiency, and if capital market is imperfect and unreliable to finance the investment for future, tax incentives for business saving and investment in general may lead to promote export in the future.

Special tax measures which aims to promote business saving and investment were adopted in early 1950's. These included accelerated depreciation for important industrial equipment (1951), tax free reserve for price fluctuation (1951), and other initial depreciation for specified industrial equipment. Such tax free reserves as reserves for bad debt and employee retirement allowance has been introduced in early 1950's and extensively used as tax saving devices even though these measures was sometimes justified in the rules of business accounting.

As Table 6 shows, the weight of special measures for the promotion of business saving and investment has been gradually diminished since 1977 because one

of targets of tax policy has shifted to the curtailment of special measures in order to gain more equitable tax system than before. The extent which these measure has contributed to lower the effective tax rate among corporations is studies by several specialists. Though we could not get data related these measures before 1963, the quantitative effect had been moderately high during the period from 1969 to 1973, namely on the average 8 or 9 percent reduction of tax payments in corporate income tax (approximately 2 percent reduction of effective tax rate including local taxes). Naturally there was difference in the degree of reduction among industries because of the differences of types of equipment used and also of the differences of investment behavior. From Table 7 and Table 8 we could get a rough image on the quantitative differences of tax reduction among industries. However, we could not get the significant relation between the degree of reduction of tax payments and the importance of specific industry seen from the expansion of export. Probably chemical industry and steel-metal-machinery industry were the cases where real investment in the sector was correlated to the level of reduction of tax burdens due to tax measures (Tajika & Yui [24]).

Trade Policy and Industrial Policy: Tax incentives need to be evaluated among various policy instruments of trade policy and industrial policy (Homma & others [12] and Hayashi [10]).

At first it must be mentioned that along the tax measures the government utilizes extensively financial instruments in influencing allocation of investment funds among industries. 9) Before 1975, our financial system was under

Table 7: Use of the Special Tax Measures in Depreciation
by Japanese Corporations,
by Type of Industry, Fiscal 1970

Percent

Size of corporation and type of industry	Legally permitted deductions under the special tax measures actually used	Total depreciation accounted for by special tax measures
Agriculture	78.8	3.5
Mining	56.0	4.2
Construction	92.3	29.1
Textiles	75.7	16.5
Chemicals	74.5	8.4
Steel and metals	69.4	22.0
Machinery	91.3	18.8
Foods	93.0	6.2
Printing	94.4	12.5
Other manufacturing	92.6	12.1
Wholesale trade	90.1	3.6
Retail trade	95.2	1.0
Restaurants	78.1	0.6
Financial	99.1	3.0
Real State	84.2	5.9
Public utilities	35.7	8.8
Services	97.1	1.9
Cooperatives	99.0	
Mutual companies	100.0	4.2
Medical	52.8	
All corporations	66.8	10.4

Source: National Tax Administration Agency, Hojin Kigyo no jittai
[Sample Survey of Corporate Business] (1972).

Table 8: Use of the Special Tax Measures in Depreciation
by Japanese Corporations,
by Type of Industry, Fiscal 1980

Percent

Size of corporation and type of industry	Legally permitted deductions under the special tax measures actually used	Total depreciation accounted for by special tax measures
Agriculture	91.1	0.6
Mining	97.8	6.4
Construction	95.3	3.4
Textiles	96.2	5.5
Chemicals	95.2	2.7
Steel and metals	98.2	3.3
Machinery	98.7	2.7
Foods	96.6	3.2
Printing	97.6	6.9
Other manufacturing	95.5	3.4
Wholesale trade	97.7	1.1
Retail trade	97.6	0.2
Restaurants	94.6	0.2
Financial	99.6	0.5
Real State	95.9	2.2
Public utilities	86.1	3.8
Services	91.9	0.9
Other corporations	99.2	4.7
All corporations	94.3	2.7

Source: National Tax Administration Agency, Hojin Kigyo no jittai
[Sample Survey of Corporate Business] (1982).

rather tight regulation on interest rates, namely we have the maximum interest rates for deposits and also regulated interest for issuing bonds. Even some of the lending rates has been regulated, and the government can use its own financial intermediaries in allocating some portion of funds for investments among industries by offering preferential lower rates for loan compared with the level of interest rates prevailing among private financial intermediaries. Sometimes the differential between the prevailing rates in private sector and lowered rates for government financial institutions are supported by subsidy through the government budget. And these incentives has been targeted more broadly than tax incentives. It is needless to say that these policy measures cooperate with the tax incentives explained above and form an important part of industrial policy. A recent study on cost of capital (by Iwata & others [15]) suggests that the incentive effect through lower lending rates in government financial institution has almost the effect which is roughly comparable to tax incentives.

In respect to protective measures, in 1950's the government used extensively quota for imports and restraint to inflow of direct investment for protecting infant industries. After Japan entered as a member of GATT and IMF in 1960's, Japanese government gradually eliminated very restrictive quota and instead introduced highly protective tariffs. The government tried to delay eliminating those measures as late as possible in spite of frequent demands for liberalization by foreign governments. The timing of eliminations of the protective measures was mainly decided on judging whether the protected industry is established or not. Take two examples; in automobiles in early 1960s, the effective rate of tariff was about 40 percent while the share of export was neg-

ligible and when the rate declines to 10 percent in 1975 the share of export of total production was already 40 percent, and in the case of TV in 1960 the rate of tariff is 30 percent and when the share of export became 35 percent the tariff was lowered to about 5 percent.

Considering these situations, the argument of protection as export promotions explained in third section can be applied to Japanese trade policy and industrial policy in the 1950's and the 1960's. The typical case is Japan's steel industry. It received considerable financial support from the government during the 1950's chiefly through tax incentives and low-interest loans. Some of this financial support continued during the 1960's and early 1970's. The government kept explicit protection of its steel industry until the early 1960's and by about 1960 Japanese steel industry had become competitive in world market and become a net exporter. It seems to be, however, that foreign entry in domestic steel market was prevented by closedness of Japanese distribution system.

Recently, the case of semiconductors has attracted a wide attention because of a hot dispute between the United States and Japan. Japanese government explicitly targeted semiconductors in the early 1970's with tariffs and import restrictions though tax incentives played a minor role. In the mid-1970's these protective measures were formally abolished. U.S. semiconductors, however, could not enter into Japanese market. At the same time Japan began to export semiconductors in a substantial extent to U.S. Since the end of 1970's, Japanese semiconductors has established dominant position especially in new products. 9)

In summarizing the Japanese case for trade policy and industrial policy in

the post-war period, we can say that tax incentives for export promotion is not a major instrument and possibly could not be a very effective instrument for its own sake. Nevertheless, with tariffs, import restriction and lower costs of financing, trade policy or industrial policy as a whole achieved its objectives rather satisfactorily.

Notes

- 1) Even though Japan entered into Second World War in 1941, in late thirties the influence of war was already evident. Therefore, we exclude these years out of the scope of this paper.
- 2) A study on the relation of Japanese tax system Hinrichs' stages was done by Ishi[13]. Naturally the fact finding is similar to mine, but the data in this paper is more comprehensive including local taxes, and the interpretation and the viewpoint is different from Ishi's.
- 3) The role of land tax in the context of dual economy was concisely summarized in Bird [3].
- 4) This view is endorsed by Ahmad and Stern [1] and I join with their view on the Japanese case.
- 5) the critical evaluation on infant industry arguments was forcefully developed by Buldwin [2].
- 6) The main part of this section and the next section relies on the latter half of Kaizuka [17].
- 7) For these symmetries see Corden[7].

8) On an overview of tax incentives in Japan see Pechman and Kaizuka [22] and Kaizuka [16], and also Ishi's recent book [14].

9) On this subject several articles in Komiya, Fujiwara and Suzumura[18] are useful.

10) Krugman[20] describes vividly the case.

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