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The Role of Savings in Japan's Postwar
Economic Growth

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by

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*This is a condensation of the original prepared by Reed J. Irvine, Chief, Far Eastern Section, Division of International Finance, Board of Governors of the Federal Reserve System. The language of the original text has been used throughout, but this version has not been cleared with either the Bank of Japan or Rissho University and reference should be made to the original for quotations or citations.

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The Role of Savings in Japan's Postwar Economic Growth

Official estimates of Japan's gross national product for the year ending March 31, 1960 show a gain over the previous year of 17.7 per cent in real terms. This is even higher than the preliminary estimates made earlier this year. The total has now been set at ¥12,522 billion, which is equivalent to about \$35 billion. This remarkable gain is exceptional even for Japan, where the average rate of growth in real terms for the years 1952-59 was 8.4 per cent. It brought per capita national income nearly to the \$300 level, 16.3 per cent above 1958-59.

A recent study prepared by the Research Department of the Bank of Japan and Rissho University, published in the Economic Bulletin for Asia and the Far East of September 1960, analyzes in great detail the role of savings in Japanese growth. This analysis reveals some highly interesting and valuable facts about savings in Japan. In order to bring its main points to the attention of those who may not have the time to read the full text, we have taken the liberty of summarizing this lengthy and statistically replete study by a process of excerpting.*

I. Introduction

Japan's high rate of growth has been supported by a high rate of domestic investment and saving. During 1953-1958, gross domestic investment averaged 28.0 per cent of GNP, and gross domestic saving 27.6 per cent, the small balance representing the inflow of foreign capital, as shown in the current account deficit on the balance of payments.

The annual rate of increase in private equipment investment was especially striking, averaging 15.0 per cent during 1952-1958. Supported by technological innovation, it has constituted a decisive factor in the recent rapid growth of the Japanese economy.

The fact that the Japanese economy was able to avoid vicious inflation in spite of its rapid economic growth (achieved by means of the extension of a huge amount of banking credit) was due to the stabilizing affects of a high rate of voluntary savings, mainly in the personal sector.

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II. Personal Saving

Personal saving, which carries an overwhelmingly heavy weight in the gross domestic saving in Japan, was not too important in early postwar years when the economy was undergoing rehabilitation. In 1946, the level of real personal consumption was as low as 62.1 per cent of the prewar level, and the level of per capita real personal consumption only 56.6 per cent of prewar. The period of rehabilitation witnessed a rapid increase in private consumption but a decrease in personal saving. In fiscal 1951, when the rehabilitation period ended, real personal income for the first time in postwar years exceeded the prewar level, while real personal saving also for the first time showed a striking increase (52 per cent over the preceding year). Per capita real consumption in that year still remained at 81.7 per cent of prewar, but recovered to the prewar level two years later. Since then, personal saving has showed a steady tendency to increase, but has generally fluctuated more than personal consumption.

While the share of personal income in national income in Japan does not differ greatly from that in the United Kingdom or the United States of America, the share of personal saving in national income in Japan is greater. This is due to the high personal propensity to save, which stood in 1957 at 18 per cent of the disposable personal income. Considering the comparatively low level of consumption in Japan among the industrialized countries of the world, the personal propensity to save in Japan is remarkably high in terms of international comparison.

A comparison of per capita disposable personal income with its average propensity to save shows that average propensity to save fluctuates considerably and does not always increase as real income rises.

Average propensity to save of farm families fluctuates with variations in the annual rate of change in their real disposable income. However, the rate of saving which is not very great, varies between 3.4 per cent (in fiscal 1954) and 9.2 per cent (in fiscal 1951). In the prewar period, it also fluctuated to a greater extent because of violent fluctuations in income, but it frequently reached 15 to 20 per cent. The marginal propensity to save for current income, estimated from a time-series-function of farm-families between 1921 and 1936 by Mr. Yoshimasa Kurabayashi, is 22 per cent, and the average propensity to save during the same period is in the neighborhood of 13 per cent, quite high when compared with recent figures. Postwar propensity to save of farm families, compared with that of urban workers' households, has remained at a low level since fiscal 1955, and is conspicuously low, as compared with the propensity to save for disposable personal income in the national income data.

Whereas the rate of increase in the farm households' savings has declined since 1951 and has shown large annual changes, the rate of increase in the urban workers households' savings has continued to rise little by little.

Households other than those of farm and urban workers are composed largely of non-farm individual business proprietors, but practically no statistical data are available for their consumption and savings. It is not only impossible to make a direct statistical analysis, but also by no means easy to make an indirect estimation of them. However, since it is believed that the savings by non-farm individual business proprietors comprise a fairly large proportion of total individual savings, we have to make some estimation of them, albeit a bold one.

The results obtained by this method and procedure of estimation are given in Table I. The table indicates an amazing fact that, whereas disposable income of "other households" constitutes only about one fourth of the total personal disposable income, their savings exceed one half of the total personal savings. Furthermore, the saving ratio of "other households" stayed at 30 per cent even at the lowest, and rose to above 50 per cent at the highest, while the ratio was always below 10 per cent in the case of farmers, and exceeded 10 per cent for the urban workers only in and after 1956. This high ratio of savings of "other households" has greatly affected the saving ratio of the entire individual sector.

Table I
Personal Income and Savings, 1951-1957
(In billion yen)

Fiscal year	All households			Proprietors' households in agriculture, forestry and fisheries			Urban workers' households		
	Disposable income (Y)	Savings (S)	Savings ratio (%)	Disposable income	Savings	Savings ratio (%)	Disposable income	Savings	Savings ratio (%)
1951 ..	3,700.5	632.0	17.1	1,438.7	128.1	8.9	1,421.9	41.2	2.9
1952 ..	4,326.4	692.6	16.0	1,670.5	119.2	7.1	1,667.7	73.9	4.4
1953 ..	4,820.8	535.4	11.1	1,866.3	97.5	5.2	1,839.4	104.9	5.7
1954 ..	5,253.5	597.6	11.4	1,897.2	51.2	2.7	2,086.1	162.5	7.8
1955 ..	5,824.3	848.9	14.6	2,015.8	175.6	8.7	2,293.3	222.4	9.7
1956 ..	6,461.0	1,146.8	17.7	2,014.5	66.4	3.3	2,718.1	308.3	11.3
1957 ..	7,082.7	1,345.4	19.0	2,404.6	155.8	6.47	2,987.1	379.1	12.7

(Table continued on next page.)

Table I - Continued

Other Households					
	Disposable income (Y')	Savings S'	Savings ratio (%)	Percentage	
				$\frac{Y'}{Y}$	$\frac{S'}{S}$
1951	839.9	462.7	55.1	22.7	73.2
1952	988.2	499.5	50.5	22.8	72.1
1953	1,115.1	333.0	29.9	23.1	62.2
1954	1,270.2	383.9	30.2	24.2	64.2
1955	1,515.2	450.9	29.8	26.0	53.1
1956	1,728.4	772.1	44.7	26.8	67.3
1957	1,691.0	810.5	47.9	23.9	60.2

Why is the saving ratio so high in "other households"? As a matter of course, there are some errors in estimation. But, even if a very conservative estimate is made, there is practically no room for doubt that the ratio is far above that for either farm households or urban workers. The "other households" include those depending on income from their property and transfer income alone, but these latter households form a rather negligible proportion of the category. It appears therefore that the saving ratio of individual business proprietors' households (non-agricultural-forestry-fishery) must be very high.

The foregoing analysis reveals that over one half of personal savings, which occupy a major part of national savings, is made by non-farm individual business proprietors who are mainly responsible for the internationally known strong propensity to save of individuals in Japan. The propensity to save of farm families and urban workers is far below that of individuals as a whole.

Urban workers and farm families show practically no difference in their propensity to consume as against the same average income, and the propensity of the two is far above that of non-farm proprietors. However, urban workers' average propensity to consume has recently become less than that of farm families, owing to the much higher real income level achieved by the former.

If due account is taken of the tendency toward disintegration of classes in farm villages and the low rate of increase in agricultural income, one can rule out the return of the time when farm families' savings could play an important role. It should be noticed in this connection that land owners in farm villages were among those classes which effected large savings at least in a certain period in prewar days. According to surveys conducted during the 1910's,

farm rents paid out by owner-tenant farmers and tenant farmers in those days constituted about 30 per cent of their total agricultural receipts, and some 60 per cent of land owners' income was farm rents. Moreover, the land owners' propensity to save was more than 30 per cent. This class of land owners has now gone out of existence, and the strength of the savings absorbing structure that relies on agricultural production must have been correspondingly reduced.

III. Corporate Saving

During 1951-1958, the proportion of corporate investment to gross private capital formation averaged as high as 70 per cent, and corporate investment, which increased remarkably, worked as a driving force for the speedy expansion of the Japanese economy.

Nevertheless, total corporate saving (internal reserves and depreciation) that had been accumulated for investment as an average proportion of total investment fund resources during 1951-1958 is no more than 53 per cent, though the proportion shows some cyclical fluctuations--a rise in the period of recovery and a drop in the period of boom. The small proportion of own saving to total investment funds, which results in constant excessive investment, is attributable to the fairly fast tempo of investment expansion in the past. The corporations, in covering the lack of funds caused by excessive investment, resort mostly to the so-called indirect finance, especially bank credit.

Value added in the corporate business has steadily increased since 1953 for all enterprises. Since 1956, the ratio of value added to net sales has been levelling off for big and medium enterprises, while the ratio for small and petty enterprises, which is less than that for big ones, has been rising. Of the value added, the proportion distributed to wages has steadily declined, except in 1958, as a result of a greater rise in labor productivity than in wages. It is clear that this has become a fundamental factor for the tendency of the rate of savings to increase. As has already been pointed out, the percentage of gross saving in value added in the medium and small enterprises is lower than in the big enterprises, which is the natural result of a higher proportion of the value added going to wages in the medium and small enterprises where labor is employed intensively. During 1953-1958, the share of wages in gross value added of small and medium business averaged between 59-65 per cent, as compared with 46.5 per cent for big business.

That the saving capacity of medium and small enterprises has greatly increased during recent business cycles has not necessarily been brought about by means of pegging wages at low levels, but has resulted, in general, from (1) promotion of modernization through investments for introducing technological innovation, increasing productivity, and strengthening of organic relationship with big enterprises and (2) improvement of the management of medium and small enterprises, aided by co-operative arrangements among themselves as well as by orderly adjustment and expansion of the financial system for these enterprises.

Distribution of gross profit reveals that financial expenses are comparatively heavy in Japanese enterprises on account of the large dependence upon borrowing, while dividend payments are relatively small owing to the comparative insignificance of their paid-in capital. However, the total of these two items, i.e. the over-all capital expense, is considerably higher than that for the United Kingdom or the United States, since in Japan the ratio of corporate saving to total capital employed is comparatively small, whereas the rates of interest and dividends are high. But in Japan, since the corporate tax is relatively low, the reserve rate (the rate of saving) to the gross profit including depreciation is maintained at a level equivalent to that for the United Kingdom.

The role of treasury funds in capital accumulation in Japanese enterprises, which was fairly significant during the postwar inflationary period, has now diminished notably.

As inflation tended to subside after the implementation of the economic stabilization measure in 1949, the significance of the government measures for capital accumulation and of the direct role played by the treasury funds lessened gradually. Business has now returned to normal, and the capacity for accumulating voluntary private savings is enhanced.

Japan's postwar taxation of enterprises was characterized by the transition from a tax system aiming mainly at rehabilitation by the treasury under the inflation to a normal tax system. In the meantime, emphasis has been laid upon the internal accumulation of capital, the improvement of the management of enterprises and the promotion of modernization investment. Thus great influence has been exercised on corporate saving and capital formation.

Dr. Shoup's recommendation in 1949 had a decisive influence on the revision of the Japanese tax system in 1955, which was based on the direct tax principle and the theory of personification of enterprises. This revision aimed at lightening and equalizing the tax burden on enterprises by abolishing corporate tax on excess income, by exempting capital gains from taxation and by expediting assets revaluation. The corporate tax rate has been lowered three times since; in particular, the rate applicable to petty corporations was drastically cut down (from 42 per cent in 1952 to 33 per cent) to foster medium and small enterprises, and capital accumulation by them.

During the process of severe inflation, nominal profits arise from insufficient depreciation. The income tax levied on these nominal profits is of the nature of a tax on capital, so long as the rate of the income tax is not changed. For the purpose of rectifying this irrationality of tax burden and promoting capital formation of enterprises, revaluation was effected three times in Japan after the war with the following results. First, depreciation was increased enough to enable the maintenance of normal real capital. Secondly, nominal profits were reduced, and the burden of corporate tax and business tax was lightened. Thirdly, dividend and wage payments were reduced, since the amounts of announced profit decreased.

Special tax measures for expediting capital accumulation are divided according to their purposes into promotion of modernization investments (accelerated depreciation), accumulation of internal reserves (tax exemption on various kinds of reserves), development of essential industries (tax exemption on essential commodities), and promotion of exports (special exemption on income from exports). Introduced just at a time when enterprises' profit-making ability was somewhat stagnant and their internal reserves were in the doldrums (which continued from 1951), the extended application of these measures was very timely and effective in promoting capital accumulation.

Of these effects, the most noteworthy is a remarkable reduction in the actual rates of tax burden on enterprises. While the monetary capital of enterprises became reinforced through an increase in the tax exemption on reserves, the increase in dividend and wage payments was restricted because of a fall in profits. On the other hand, modernization investments by enterprises were greatly expedited through the adoption of an accelerated depreciation system. Of all enterprises, the electric power, iron and steel, and spinning (chiefly synthetic fibres) industries, where technological innovation was actively carried out, enjoyed the most remarkable reduction in tax burden.

IV. Public Finance and Savings

Aside from the exceptional period immediately after the war, the importance of the central treasury (in the economy) has been limited. The transfer outlays which form part of the income of the private sector are included in the treasury outlays. Therefore, the government expenditures as final demand (i.e. excluding the transfer outlays) are represented by an item--purchase of goods and services by the government (including local governments)--in the national income statistics. The percentage of government purchases of goods and services in GNP during fiscal 1951-1958 was between 18-20, which is low as compared with that for many other industrialized countries. In the meantime, the ratio of tax burden to national income, about 20 per cent in recent years is also comparatively lower than that in Western European countries. In a word, in the development of Japan's postwar economy, the importance of government financial activities to the national economy has been relatively moderate, with the exception of the chaotic period immediately after the war.

Owing to these developments, in the recent remarkable growth of the Japanese economy, the treasury has played only a secondary role, while the increases in private savings and their flow into productive investments have been dominant.

During fiscal 1952-1958, the percentage of the government's current surpluses in total government income averaged 20-30 per cent, which is a little higher than the rate of savings in the entire national economy. Moreover, it has been showing a slight rising tendency of late. Most of these current surpluses have gone into capital formation in the government sector. The recent ratio of

the government's current surpluses to total national savings has been relatively low (15-20 per cent), which indicates clearly that the core of capital accumulation capacity is not so much with the government sector as with the private sector.

The present economic situation has completely changed from that prevailing during the postwar rehabilitation period, when a major portion of the funds required for rehabilitation was supplied by the Reconversion Finance Bank loans, predecessor of the present Treasury Investment and Loan Programs. It is no longer necessary to seek leadership for economic development in the Treasury Investment and Loan Programs.

The role of the government financial institutions today is not so important as in former days. It is recalled, for instance, that the Reconversion Finance Bank, predecessor of the existing Japan Development Bank, undertook huge amounts of "deficit financing" during 1947-48 (the Bank of Japan subscribed to the Reconversion Finance Bank's debentures). But the government financial institutions have gradually diminished in importance thereafter, and are now playing no more than a supplementary role.

V. Financial Structure and Savings

The well organized financial system (especially its savings absorbing structure) has rendered it easier for the public to accumulate savings, thereby enhancing the savings propensity.

The mechanism of bank credit expansion was a powerful factor in the development of postwar Japanese economy. We cannot conclude, however, that economic development can be achieved only by virtue of the credit expansion mechanism or that this is the best form of financial mechanism. The rapid economic development in Japan has been achieved partly owing to high technological standards, well-trained and abundant labor power, and remarkable adaptability of Japanese industry to changes in world demand. Although bank credit indicated a high rate of expansion in response to strong fund demand, it should not be forgotten that, as the funds circulate, the purchasing power of currency in the hands of the public is effectively channelled into reinvestment in productive industries through a vigorous will to save and also through the orderly financial system.

There is no clear-cut explanation for the relationship between the individual's attitude towards asset holding and changes in interest rates and other financial conditions. However, in the non-corporate sector, there is a strong tendency for assets to be transformed from one type to another--as for example, an increase in stock holdings and inventory investment while the rise in demand deposits slowed down in the period of business upswing. In recent years, there tends to be a general preference for long-term deposits, contractual saving, and the like, which earn interest at higher rates.

There is an important problem of the effects of financial asset accumulation or the preference for financial asset holding on real saving, but not enough information is available at present to clear up the point. It can be safely said, however, that in Japan financial assets have power to recover the previous level, and the increase in financial assets which continues at an almost uniform rate is one of the factors supporting the current high rate of saving.

VI. Conclusion

The Japanese economy has maintained a high rate of saving since prewar days. This fact has not changed basically since the war, but conditions affecting the trend of savings in postwar days--for example, the influences upon the rate of savings exerted by changes which took place in the postwar pattern of income distribution and trend of income growth--are not entirely the same as those before the war. If we look at the economy of farm households, we see that the average income level of farm households exceeded the prewar level as early as about 1950, but the propensity to save remained far below prewar. In this connection, the postwar farm land reform and agricultural price support policy had an important bearing. The farm-land reform helped to raise the levels of income and consumption of tenant farmers by eliminating their burden of high farm rent. However, their will to save tended to weaken because, as owner-farmers, they became less attached to land than in prewar days. Numerous petty farm households, who could not live on farming alone, became more dependent upon income in the form of wages and salaries. This fact gave rise not only to a decline in their will to save, but also to a rise in their propensity to consume through the introduction of a consumption pattern similar to that of urban workers. Generally speaking, the feudalistic atmosphere in the farm society yielded to a more liberal attitude; and, along with mechanization of agricultural production, the initiative in the farm community came to rest on younger farmers whose propensity to save is generally smaller than that of their elders. The government's agricultural price support policy, which has stabilized farm income, also weakened the will to save. These changes have worked towards modernization of consumption pattern, stronger demand for durable consumer goods and a rise in the propensity to consume in the farm household sector as a whole.

The same thing appears to apply to urban workers to some extent. Since the end of the war, the development of labor union movements and various social security measures as well as the democratization of political and social concepts have worked as factors restricting the rise in the propensity to save of urban people, together with the influences of the high standard of living enjoyed by the members of the U.S. Forces and their families and various kinds of demonstration effects propagated through the mass communication media. However, in spite of these, the propensity of urban workers to save has gradually risen. At present, it is by no means lower than that both of prewar Japan and of developed countries today. One reason is that the distribution of income among workers which had temporarily become equalized under special postwar circumstances has again headed

toward inequality; in particular, the difference in income between laborers' households and clerical workers' households has become pronounced. However, one must keep in mind that the most significant reason for the high propensity to save in Japan is the traditional saving custom supported by the wide propagation of education, hard-working habits, strong will to raise the standard of living, and so on.

Since the war private consumption in Japan has showed little reaction to short-term income changes. This is believed to be due to the general tendency of private persons to determine their permanent level of consumption on the basis of the peak level of income attained recently, regardless of the changes in their income during the current period. As a consequence, the rate of saving generally tends to increase during a business upswing and decrease during a business downswing, and helps to act as a stabilizer of business fluctuations.

But, on the other hand, the acceleration of inflationary conditions resulting from this rehabilitation process dried up the basis of voluntary saving and, in supplementing this deficiency, it was necessary to depend on huge amounts of economic aid from the United States. Meanwhile, many problems including laxity in business management and financial irregularities arose.

Credit should be given to the campaign to enlighten the public on the importance of saving to the national economy, and further to promote rational habits by disseminating information to the farming and fishing villages. At present the saving campaign puts emphasis on the promotion of popular understanding of national economic policy and economic conditions, rather than a mere increase of savings.

Recent trends indicate that there is a small but steady reappearance of the inequality in income. This situation may be thought of as a factor contributing to the raising of the saving ratio on the whole, along with the recently rising trend with respect to income from property which fell sharply in postwar years.