

ECONOMIC GROWTH CENTER

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CENTER DISCUSSION PAPER NO. 295

JAPAN'S "GREAT DEPRESSION"

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August 1978

Note: Center Discussion Papers are preliminary materials circulated to stimulate discussion and critical comment. References in publications to Discussion Papers should be cleared with the author to protect the tentative character of these papers.

1. Introduction

Although the "Great Depression" was a world-wide phenomenon it had different manifestations in different countries. The depth of the depression, its duration, the degree to which various sectors of the economy were affected by it, the transmission mechanism, the role of economic policy and the effect on the political system were all different from one country to another. The purpose of the present paper is to describe and analyze the causes and manifestations of the great depression in Japan, and while doing so dispel some of the myths related to it. It must be remembered that a depression is not only an economic phenomenon but has important sociological and psychological aspects. It causes a great deal of human suffering and reference to it is often loaded with emotions. It is fertile soil for political movements to pursue their goals and provides material for popular writers to paint exaggerated pictures. The great depression in Japan is usually described as a traumatic event that disrupted the economy, with vivid descriptions of masses of unemployed roaming the streets. The fact that following the depression Japan took the path which led to war and destruction serves to magnify the size of the economic catastrophe. It is, therefore, interesting to look at the Japanese case from an international perspective and see whether the conventional view can be maintained.

A second question has to do with the inter-relationship between the depression and Japan's return to the gold standard on January 11, 1930. It has often been argued that returning to the gold standard at this point of time has either caused, or largely intensified, the depression in Japan. In order to assess this view we have to look at different aspects of the

gold standard system and evaluate the effect of each on economic performance. It is often argued that the main problem was in that Japan returned to the gold standard at the prewar par, while the internal implications of the monetary system are neglected. This view needs to be scrutinized.

The discussion proceeds as follows: in section 2 we compare Japan to other countries and draw some conclusions about the special features of the Japanese case. Section 3 discusses the return to the gold standard and its various effects, and section 4 gives a summary and conclusions.

2. The "Great Depression" in Japan

The great depression in Japan is pictured in different, almost contrary ways in the Japanese literature and in references to it by foreign scholars. While the Japanese regard it as a catastrophe of major proportions, it is considered to have been fairly mild by foreign observers who study the American or European case. Let us look at the great depression in Japan from an international perspective and see how Japan fared relative to other countries. Table 1 compares the rate of growth of the Japanese economy with that of the U.S. and several European countries.

(Table 1)
Japan is the only country where no absolute decline in GNP took place, while the accumulated reduction in GNP amounted to more than 30% in the U.S., more than 25% in Germany, more than 10% in France and Sweden, and about 5% in the U.K. The events in Japan as judged by these figures do not deserve the name of a "great" depression but of a relatively mild one.¹

Since the depression is often referred to as one that started in and had a large effect on the industrialized countries, we compare in Table 2 indices of industrial production of several countries. This table, (Table 2) too, indicates that the effect of the depression on the industrial sector in Japan was relatively mild. Compared to a decline of about 54% in the U.S. and Germany, 28% in France and 17% in the United Kingdom, industrial production in Japan stood at its lowest point in 1931 at only 6% below the 1929 level.²

Much of the concern with depressions (and with the "great depression" in particular) had to do with the question of employment. Unfortunately, no overall unemployment figures are available for Japan at this period. Japan did not have an unemployment insurance system such as England, nor were data collected by trade unions as in the U.S. In Japan there is a widespread view that the number of unemployed at the bottom of the depression amounted to three million workers.

Sato challenged this figure which was based on employment statistics of the Bank of Japan. He showed that these statistics reflect only the situation in the modern sector of the economy, composed of large scale companies, which suffered more than the traditional, medium-small scale ones. Another source of bias was introduced by the fact that some of the companies who were large in 1929 became smaller in 1933 and were eliminated from the census. Furthermore, and most important, the number of three million unemployed is not compatible with the fact that output in the non-agricultural sector declined by only 0.5% in 1930 and increased by 3.7% in 1931. Taking these factors into account Sato concludes that the number of unemployed was about one million.³

Let us first look at some published figures on unemployment rates. As mentioned before, there was no systematic collection of unemployment data in Japan but there are estimates supplied by the Home Ministry.⁴ These are presented in Table 3 together with data for several other countries. (Table 3) According to these figures the unemployment rate in Japan was much less than in the U.S., the U.K. or Germany, not only at the lowest point of the depression but even compared to the 1929 rate of unemployment in these countries. A similar picture is obtained by the use of Ohkawa's estimates of gainfully occupied population⁵ which show that employment in all industries has actually increased in 1930 by 235,000 and only in 1931 was there a reduction of 629,000 (the respective figures for non-agriculture are 248,000 and 712,000). This serves to support Sato's contention that total open unemployment was, at its worst, not more than one million workers.⁶ As is also mentioned by Sato, the relatively small reduction in total output precludes the existence of wide-spread disguised unemployment in the economy, over and above that which was there before the depression.⁷

One of the main victims of the depression was world trade, the volume of which decreased by about one quarter from 1929 to 1932, as shown in the last column of Table 4. The decline was more pronounced (Table 4) in Europe, where trade fell by almost 40%. In Japan, however, the effect of the depression was very mild by comparison, only a 3% decline from 1929 to 1930, a recovery to the 1929 level in 1931 and a staggering 23% increase in 1932.⁸ From this it can be deducted that there was no marked unemployment in the export industries.

In the light of the preceding section it appears that what has to be explained is not so much why the depression occurred in Japan but why it took such a mild form, relative to other countries. One logical explanation is that Japan was less industrialized than other countries. This explanation can, however, be dismissed because countries who engaged in export of agricultural goods and raw materials were hard hit by the depression. Moreover, in Japan itself it was the agricultural sector that bore the brunt of the depression.

A second explanation, presented by Lewis,⁹ is that prices in Japan were more flexible in their downward movement than in other countries, so that the effect of the depression was more on prices and less on quantities. This is mainly true in respect to export prices which went down to the extent that enabled Japan to sell the same quantity of exports. It must be emphasized, and this will be an important point in the following discussion, that the reduction in prices of Japanese goods in foreign markets was not a result of a depreciation in the value of the yen. In spite of the overvalued exchange rate export prices adjusted themselves to changing demand conditions. As far as domestic prices are concerned, there is evidence to show that the average price level in Japan indeed went down more than in other countries in 1930, but, as seen in Table 5, less at the trough of the price cycle. While the index of wholesale prices (Table 5) declined by 18% in Japan in 1930, more than in any other country, the lowest point of 69.6 was actually higher than in all other countries except Sweden. Thus we can conclude that, while prices absorbed the initial shock of the depression, their overall

performance was not much different than in other countries.

A third, and probably more important factor that served to alleviate the consequences of the depression, was the structure of the industrial sector and the labor market. A large share of total output in the non-agricultural sector was produced by small firms who relied on family members rather than hired labor.¹⁰ The demand for the products of these firms was quite inelastic and did not change much even under deflationary conditions. The labor force of large companies, mainly in the textile industry, was comprised of young women who, when laid off by the companies, went back to their homes in the rural areas. The availability of cheap imports, caused by the overvalued yen, enabled firms to get cheap raw materials and to make profits even during a period of declining prices.¹¹

Let us now turn to analyze the effect of the depression in the agricultural sector. As mentioned before, the burden of the depression did not fall equally on all sectors of the economy, and the agricultural sector was the hardest hit by it. Since the cultivation of silk cocoons was an important source of income for farmers, the reduction in the export price of raw silk, amounting to about 50%, had a considerable impact on farmers' income. This was accompanied by a reduction in the price of agricultural commodities, mainly rice, in the domestic market, resulting both from the reduction in demand as well as an increase in supply. The production of rice increased 12% between 1929 and 1930.¹²

However, we have to remember that the depression was not a blow which landed on the agricultural sector in a period of prosperity, but one that was superimposed on an already existing trend. Since the beginning of the 1920s there has been a deterioration in the performance of Japanese agriculture, and this sector, which played an important role in the Meiji period, showed signs of slowing down. Several reasons have been cited for this development, among them that existing agricultural technology reached the limit of substantial improvements, and that the policy of importing cheap rice from the colonies depressed prices in Japan. This trend was reflected in the downward movement of prices received by farmers: The rice price index (1934-36 = 100) went down from 140.9 in 1924 to 96.8 in 1929, before reaching the bottom of 60.2 in 1931, while the index of prices received by farmers for all commodities declined from 138.5 to 114.3 and 69.3 respectively. Even the price of cocoons started its declining trend long before the depression, going down from 258.5 in 1925 to 170.6 and 75.5 in 1929 and 1931 respectively.¹³

The second point to note is that there was a reduction not only in the price of farm output but also in prices paid by farmers for inputs. As seen from Table 6, the relative price of output to inputs declined by 14% in 1930 but recovered in 1932 with a higher value than in 1929.

(Table 6)

The reduction in input prices caught up quickly with the reduction in output prices and left the farmers in a better position than before

the depression. In addition, there was a decline in prices of goods consumed by farmers which also served to mitigate their hardship.¹⁴

Another factor which tended to alleviate the plight of the farmers was the decline in rent. The rent of paddy fields went down by 37% and that of upland fields 14% between 1929 and 1930.¹⁵ It is interesting to look at value-added in agriculture, calculated at 1934-36 prices. From 1929 to 1930 there was a 12.5% increase in this figure, followed by a 17.7% decrease in 1931 but an increase of 9.8% and 18.9% in 1932 and 1933 respectively. The total effect was an increase of 21% in agricultural value-added in fixed prices between 1929 and 1933, a year in which the figure reached an all time record. Another indication of the proposition that the conditions in the agricultural sector were not as bad as has been claimed, is in the behavior of the net capital stock series. There was a continuous, though small, annual increase in the real net capital stock, namely net investment was positive.

All this evidence does not mean that farmers did not suffer under the depression. The main reason lay in the increase of the real burden of debt. However, the effect of the depression appears to be of a very short-run nature, not much different from other calamities which befell Japanese agriculture during the prewar period.

3. The Gold Standard

The term "gold standard" is somewhat ambiguous and may include all or some of the following: (1) full convertibility of fiat money into gold, (2) permission to buy gold bullions from the central bank and ship them abroad, (3) a commitment of the government to a fixed exchange rate with the value of domestic currency defined in terms of gold, and (4) a fixed ratio between currency in circulation and the amount of gold reserves held by the central bank. When Japan went off the gold standard on September 12, 1917, it was done through an imposition of an embargo on gold exports, but at the same time it was also a transition from a fixed to a floating exchange rate regime. Nevertheless, another feature of the gold standard, namely the gold reserve requirements with respect to domestic currency, was left intact. The return to the gold standard in 1930 was done through the abolition of the embargo on gold shipment, thus fixing the exchange rate in terms of gold, or, what amounted to the same thing (since the U.S. was on the gold standard) in terms of the American dollar, at the prewar rate of \$49 3/8 per ¥ 100. It was, of course, possible for Japan to return to the gold standard and at the same time devalue the yen. Decisions about return to gold (abolition of the gold embargo) and rate of exchange were, therefore, two independent decisions, although, in the minds of many, they were regarded as one and the same. There was one sense in which these two decisions came to fulfil the same basic goal. Rightly or wrongly, it was felt that being off the gold standard (at a time when virtually all industrialized countries returned to it) and devaluing the currency would undermine Japan's position in the world economy.

The abolition of the embargo on gold exports, implemented on January 11, 1930, culminated repeated efforts on the part of several governments during the 20s to accomplish this act, efforts which failed for one reason or another. In the early 20s, when Japan still had large reserves of foreign exchange, accumulated during World War I, the embargo was not effective and its abolition could be carried out easily, but when the Kato government finally declared its intention to do so the Kanto earthquake in 1923, followed by a large import surplus, made implementation impossible. An adverse balance of payments in the late 20s made it necessary to take extensive preparatory measures before the gold standard could be re-installed. These measures were taken by the Hamaguchi cabinet, with Junnosuke Inouye, the long-time advocate of a return to the gold standard, as its finance minister, and on November 21, 1929 the government declared its intention to abolish the embargo, which was duly carried out at the beginning of the following year.

During this period two crucial questions had to be answered: The first was a question of timing; a prerequisite for successful re-adoption of the gold standard was the establishment of favorable internal, as well as external, conditions. If Japan was not to lose a large amount of its gold reserves (and it was expected that some, even considerable, outflow would occur), domestic prices should not be rising when the step is taken; therefore a deflationary policy was called for. Moreover, since the balance of payments is affected by the terms of trade, rather than by the absolute level of domestic prices, it was necessary that domestic deflationary policy should not be sterilized by a reduction in prices abroad. The second question was concerned with the exchange rate,

namely whether to return to gold at the old, pre-1917, par or at a devalued rate. Japan could observe examples of both alternatives: England, who returned to the gold standard in 1925 at the prewar par, and France, who in 1928 chose to devalue the franc by 80 percent relative to the prewar exchange rate. The advantages of a devaluation were that the transition be easier, no strong deflationary measures were needed and speculation, in favor of the yen prior to and against the yen after the event, would not arise.

As mentioned above, it would be wrong to regard the return to the gold standard from purely a technical economic aspect. The step was conceived to have educational merit, both at home and abroad. It was aimed at a reduction in conspicuous consumption, an increase in saving and frugality, a move towards restructuring industry and increasing efficiency and at the same time enable Japan to become a member of the group of respectable nations, all of whom were already on the gold standard at that time. Some of Japan's leaders thought that the great boom which had occurred during World War I caused people to lose qualities which were deemed necessary for a country to develop at a rapid pace, qualities that could be restored by a "shock treatment" of a mild recession. There was, however, one factor which could not be foreseen: the return to the gold standard coincided with the world depression which started in the U.S. and spread rapidly to all industrialized countries. There is no doubt that timing was wrong. It is, however, doubtful

whether a return to gold at a somewhat depreciated rate would have resulted in a depression of much lesser degree. Let us see why we believe that the return to gold had a relatively small impact on the course taken by the economy.

Before we address ourselves to this issue, it may be instructive to ask why Japan did choose to fix the value of the yen at the old par. Three types of considerations economic, political and moral led to this decision. As mentioned before, the re-adoption of the gold standard was preceded by a period of preparations, in which a deflationary policy in Japan was aimed at the elimination of the import surplus and the restoration of the exchange rate at its prewar level. These two targets have been largely achieved: in 1929 Japan had a trade surplus and the yen climbed up to its desired rate. While the last phenomenon was, to a large extent, the result of speculation, it looked as if the prewar par really represented a long-run equilibrium of foreign exchange. There was also a more immediate reason; an outstanding loan amounting to 230 million yen in 4% government bonds was due for repayment in the London market and could be renewed, according to the Japanese view, only if Japan manifested the strength of its economy by returning to the gold standard. The political consideration was related to the power struggle within the Japanese Diet: a change in the rate of exchange could be implemented only through passage of a law. Since the ruling Minseito party was only the second largest party,¹⁶ and in the face of objections by members of the Seiyukai opposition party, the amendment to the law would encounter strong opposition. On the other hand, a return to the old par took the form of an abolition of the 1917 decree (which

required permission for the export of gold) by the Minister of Finance, and no approval by the Diet was necessary.¹⁷ The moral argument was that devaluation would be degrading for Japan and that even if a return to the old par were to impose hardship on the Japanese people this would have beneficial results in the long-run.

With hindsight, it is clear that Japan did not choose the right time to return to the gold standard, but the question we have to answer is whether, given the external developments, the return to gold at the old par did greatly aggravate economic conditions.

In order to do so we shall look at three issues: (1) the effect of the exchange rate on the balance of payments. (2) The effect of the gold outflow on money and prices. (3) The effect of speculation and anti-speculation government policy. Let us look at them in succession.

a. The effect of the return to gold at the prewar par on Japanese trade:

Let us assume that Japan would have devalued the yen at the time of her re-adoption of the gold standard. How would it affect Japanese exports and imports and what would be the impact on the distribution of income? The argument for devaluation is that it reduces the price of domestic goods in foreign markets and thus increases the volume of exports. This argument is true when export prices are determined according to domestic prices. However, as we mentioned before, prices of Japanese-made goods in foreign markets slumped without a devaluation. The Japanese sold their products accepting for it "what the traffic would bear", and doing so were able, unlike other countries, to keep

the volume at almost the same level.¹⁸ It seems very unlikely, in these circumstances, that a devaluation would have substantially increased the volume of exports. On the other hand, the high value of the yen made it possible for both Japanese industry and consumers to obtain cheap imports, which served to counter the effect of cheaper prices of final goods and a reduction in money income. In this context it is interesting to note that France, who devalued the franc by 80% in 1928, suffered more from the depression than England who returned to gold at the old par.¹⁹

Another question is concerned with the effect of gold outflow on the balance of payments. After the return to gold Japan experienced a mass outflow of gold, amounting to ¥750 million during the period 1930-32. This development as well as other changes in the balance of payments are presented in Table 7. As can be seen, both exports and imports went
(Table 7)
down after 1929 but the deficit in the balance of trade did not increase. Actually, it was substantially smaller than the average deficit during the period 1920-28, which amounted to ¥493 million. The outflow of gold was, therefore, not used to bridge the gap between imports and exports of goods and services, but was mainly motivated by speculation.

b. Monetary effects of the return to the gold standard.

To understand the monetary effects of the gold outflow we have first to describe the Japanese monetary system under the gold standard. Until June 1932 the Act of Note Issue stipulated that the amount of notes could not exceed the amount of gold plus ¥120 million, against which government securities or bonds, as well as commercial bills, were held by the Bank of Japan. The act was revised on July 1, 1932, and the amount of notes not covered by gold reserves was increased to ¥1,000 million. However,

even before the revision, the actual amount of notes was not, in fact, equal to the sum of gold reserves plus ¥120 million, but in excess of it, as seen in Table 8.

(Table 8)

The effect of the outflow of gold depends on the extent to which the government actually follows the "rules of the game" of the gold standard, namely does not sterilize a reduction in gold reserves by an increase in the excess of issue. An inspection of Table 8 shows that at first the government has kept the rules: the reduction between 1929 and 1930 in the quantity of notes, ¥206 million, is almost equal to the reduction in gold reserves, ¥246 million. However, the picture is very different for the transition from 1930 to 1931, with gold reserves decreasing by ¥350 million but notes issued going down by only ¥106 million, with a substantial increase in the excess issue. The same is true for the period since 1932; here we must note that although Japan re-imposed the embargo on gold exports in December 1931 it was still on the gold standard as far as domestic note issue was concerned.

It is quite clear from the foregoing analysis that the gold outflow in itself was no constraint on the ability of the Bank of Japan to increase the issue of Bank Notes in excess of the required reserve ratio. It was the unwillingness of the government to increase its borrowing from the Bank and to reflate the economy that affected the amount of currency. When this reluctance was overcome, in 1931, the gold standard was no effective constraint.

The reduction in the note issue of the Bank of Japan had an effect on the total amount of currency in circulation, which also included coins, government notes and Yokohama Specie Bank notes. At the same time there was a reduction in the amount of deposits held by the public in commercial banks. As seen in Table 9 the reduction in deposits from 1930 to 1931 was (Table 9) twice as large as the reduction in currency and from 1930 to 1931 more than three times as large.

Considering the relation between gold and the money supply, it is instructive to look at the American case. As shown by Friedman and Schwartz, there was a reduction in the stock of money during the depression despite an increase in the amount of gold reserves. In their words: "We did not permit the inflow of gold to expand the U.S. money stock. We not only sterilized it, we went much further. Our money stock moved perversely, going down as the gold stock went up".²⁰

The same was true in Japan, only in the opposite direction, namely a reduction in the quantity of gold not matched by a corresponding reduction in the amount of notes in circulation. In 1930 the reduction in gold exceeded the reduction in notes by ¥40 million, in 1931 the difference increased to ¥258 million. It is, therefore, impossible to blame the gold standard for the reduction in the stock of money, since the government could have sterilized its effect, and, to some extent, actually did so.

The effects of speculation and anti-speculation policies.

Expectations of a return to the gold standard at the old par, reinforced after the establishment of the Hamaguchi cabinet in July 1929, gave rise to speculative demand for yen and increased its value vis-a-vis other currencies. When, as the yen reached its old par value, the government decided that the time was ripe for lifting the embargo, speculators acted against the yen and demand for foreign currency increased. It must be said that the government expected this to happen²¹ and in order to meet the increased demand for foreign exchange, took several steps prior to lifting the embargo. These included an increase in foreign exchange reserves from ¥183 million at the end of June to ¥304 million at the end of December 1929, and opening credit lines in London and New York, to the amount of ¥100 million.²²

These steps, however, were to no avail; speculators not only sold yen to profit on their previous transactions but, as time went on, bought foreign currency in expectation that its value will increase upon reimposition of the embargo. The result was a rapid dwindling of Japan's gold reserves. The gold reserves of the Bank of Japan went down from ¥1,073 million on January 10, 1930 to ¥826 million at the end of the year, and plunged further to ¥521 million on December 5, 1931.²³ The government found itself in the position of a physician, called to treat a patient who suffers from two diseases, the cure for the one aggravating the other. In order to stem speculators, a tight money policy was adopted and interest rates were increased.²⁴ It was, however, too late to curb the gold outflow.

The speculative effect of lifting the gold embargo and the resulting gold outflow may have been an important aggravating factor but cannot be regarded as the major cause for the depression. Nor did the measures taken to counter speculation have, by themselves, a considerable effect on the economy: they were mostly taken at a late stage in the last three months of 1931, and investment decisions were probably influenced more by expectations about future demand than by changes in interest rates.

While the psychological impact of speculation and the resulting gold outflow should not be undermined, their effect on the real side of the economy were rather limited. To a large extent they played the role of a warning signal that, perhaps more than anything else, pointed to the need for a change in policy. This change took place on December 13, 1931 when the new Inukai government, with Takahashi as Finance Minister, re-imposed the embargo on gold exports, and by the use of an expansionary economic policy, led Japan out of the depression.

Summary and Conclusions

The three coinciding events in the early 1930s--the depression in Japan, the world-wide depression and the policies of the Japanese government raise the question of the causal relationship among them; in particular, whether the depression in Japan was chiefly the outcome of domestic factors or of imported ones. We attempted to show that the extent and duration of the depression in Japan were considerably milder than in other countries and that the blame can be placed mainly on events which were outside the control of the Japanese government.

With present day hindsight it is, of course, possible to say that had the government acted differently Japan may have suffered even less, but this could hardly be expected when considering the "state of the art" at that time. The decisive cause for the depression was the reduction in export prices brought about by the decline in foreign demand. Devaluation of the yen would be quite ineffective in increasing export quantities and would have had an inverse effect on import prices. The quantity of money was not wholly determined by the amount of gold and could be increased even while the gold stock went down. Speculation, while exerting a negative impact on aggregate demand, was not the decisive factor in lowering it.

The previous discussion has been concerned with the depression itself, but we have also to consider some of its consequences. Much has been said about the depression as a major factor in strengthening the military faction who led Japan on the way to war. However unfortunate this turn of events, it cannot negate some positive economic effects. The depression accelerated already existing trends in changing the structure of the economy, chief among them a reduction in the role played by the agricultural sector. We must also note that one of the aims of the government in its deflationary policy (climaxed by the return to gold) was to create a mild recession which would cause firms and consumers to "rationalize" their behavior and increase efficiency. In this respect it was a repetition of the much acclaimed "Matsukata deflation" in the 1880's, considered as a turning point in early Japanese industrialization.²⁵ The coincidence of the world depression with this deflationary policy tilted the economy too far but at the same time did result in a higher level of efficiency and competitiveness. This was manifested by Japan's rapid

recovery from the depression and the large increase in exports since 1931.²⁶

It is to be lamented that much of this new potential was directed to war efforts rather than to improve the welfare of the Japanese people.

Footnotes

¹It is therefore not surprising to find books about the depression in other countries where Japan is referred to as virtually the only country to emerge unscathed from the depression. See Derek H. Aldcroft, The Inter-war Economy: Britain, 1919-1939 (New York, 1970) p. 41 and W. Arthur Lewis, Economic Survey 1919-1939 (London, 1949), p.61.

²The index for Japan given in Table 2, the Yasuba index, shows a reduction in industrial production between 1929 and 1931. Two other indices of manufacturing production (which exclude public utilities and mining) show an increase in the same period, 6% according to Shionoya and 2.3% according to Shinohara. See Yuichi Shionoya, "Nihon no Kōgyō Seisan Shisū 1874-1940" (Japan's Index of Manufacturing Production 1874-1940) in Miyohei Shinohara, Sangyō Kōzōron (Industrial Structure) Tokyo, 1966), Appendix, pp.1-27 and Miyohei Shinohara, Estimates of Long-Term Economic Statistics of Japan Since 1868, Vol. 10 (Tokyo, 1972), p.147.

³Kuzuo Sato, "Daifukyōki no Nihon Keizai" (The Japanese Economy in the Great Depression), Keizai Kenkyū 27 (January 1976), p.5.

⁴Department of Overseas Trade, Economic Conditions of Japan to 30th June 1930, (London, 1930), p. 15.

⁵Kazushi Ohkawa, The Growth Rate of the Japanese Economy Since 1878, (Tokyo, 1957), p. 145.

⁶Sansom, at that time the commercial councillor at the British Embassy in Tokyo, observed that at the end of 1931 the dimensions of unemployment, though disquieting, were not so severe as to constitute a serious social problem.

⁷Sato, "Daifukyōki", p. 5.

⁸As we shall see later the main effect of the depression in Japan was on export prices, not volume.

⁹W. Arthur Lewis, Economic Survey 1919-1939, (London, 1949), p.118.

¹⁰Thus in 1929 30% of all employees in manufacturing were in firms with 4 workers or less. Calculated from Shinohara, Estimates of Long-Term Economic Statistics, Vol. 10, pp. 248-257.

¹¹Sansom mentioned in his report that "Most industrial and commercial undertakings in Japan had managed to make some profits in 1931, and some even placed funds to reserve", Department of Overseas Trade, Economic Conditions to December 31, 1932, p.11.

¹²Sato, "Daifukyōki", p. 6. The price of rice rose slightly at the end of 1931 when Northern Japan was hit by bad crop. See Yamamura, "Then Came the Great Depression", p.200.

¹³Mataji Umemura et. al., Estimates of Long-Term Economic Statistics of Japan Since 1868, Vol. 9 (Tokyo, 1966), pp. 160-1.

¹⁴The following passage from Sansom's report is of interest:

"There is good reason to believe that the press accounts of suffering among farmers were often more sensational than exact, and that there were motives of party politics behind the agitation which brought the problem to the foreground. The truth is that agrarian distress is in some measure endemic in Japan partly because some rice-growing regions are poor in soil and climate, partly because of the difficulty of reconciling an agricultural and an industrial economy". Department of Overseas Trade, Economic Conditions to December 31, 1932, p. 14.

¹⁵Calculated from Umemura, Estimates of Long-Term Economic Statistics, Vol. 9, p. 221.

¹⁶Manabu Takita, "Japan's Gold Embargo Lifted and Reimposed", Oita Commercial College, Research Department Bulletin No. 3 (December 1932), p.27.

¹⁷Yukio Cho, Showa Kyōkō, (Tokyo, 1973), p. 95. (The Showa Panic)

¹⁸Cho describes it as a dumping-type policy, Showa Kyōkō, p. 118.

¹⁹How can we reconcile our contention that devaluation would not have had a considerable effect with the large increase in exports after the devaluation of December 1931. First we have to remember that this devaluation was very considerable, 50% in one year, while a devaluation in January 1930 would have been around 10%. Secondly, a major change in composition as well as geographical distribution of Japanese exports took place: between 1929 and

1932 the share of export to the U.S. declined from 44 to 19 per cent and the share of textiles went down from 67 to 53 per cent. Moreover, increased efficiency due to the depression may well have played a role.

²⁰M. Friedman and Anna T. Schwartz, A Monetary History of the United States 1867-1960, (New York, 1963), p. 361. Likewise the stock of gold in France almost doubled between the end of 1929 and August 1931. See Gustav Cassell, The Downfall of the Gold Standard, (London, 1966), p. 60.

²¹Junnosuke Inouye, Problems of the Japanese Exchange, 1914-1926, (Glasgow, 1931), Ch. 4.

²²Takita "Japan's Gold Embargo", p. 26. Takita claims that the government was not well prepared for the policy change: a part of specie holdings was bought from the yokohama Specie Bank and was needed to cover the deficit in the trade balance, and the terms of foreign credit were very unfavorable.

²³Takita ibid. p. 29.

²⁴Other measures were also taken to stop the purchase of specie for speculative purposes. On October 14, 1931, the Yokohama Specie Bank declared that it will not sell specie except for real needs of foreign trade, and from November 1 of the same year it refused to sell specie for "speculative imports". Moral persuasion was also attempted by the Bank of Japan to restrain buying of foreign exchange by banks. See Takita ibid. pp. 40-42.

²⁵William W. Lockwood, The Economic Development of Japan (Princeton, 1954) p. 521. Incidentally, this depression also preceded the adoption of the gold standard in 1897.

²⁶Fukai concludes that: "the great strides made by our export trade are fundamentally due to the fact that the productive capacity of the nation was improved during the period of depression, making available a supply of goods at low cost" ("Monetary Policy" p. 393). Sansom writes: "That rationalization has been more than a popular phase is patent to anyone who has spent the last few years in Japan. The quality and the variety of Japanese manufacturers have improved at a remarkable rate. The development was doubtless not so sudden as it appears...But the hard time of 1930 seems to have accelerated the progress, with the result that today in many fields the Japanese manufacturer produces a better article than ever, and at less cost" (Department of Overseas Trade, Economic Conditions in Japan To December 31, 1973, p. 28).

Table 1: Rate of Growth - International Comparison
(percentage change relative to previous year - constant prices)

	Japan (GNP)	U.S. (GNP)	U.K. (NNI)	France (NI)	Germany (NI)	Sweden (NI)
	(1)	(2)	(3)	(4)	(5)	(6)
1929	1.1	6.0	4.8	9.9	0.0	7.8
1930	0.9	-8.9	3.8	-0.9	-3.8	2.7
1931	1.2	-5.9	-2.8	-4.5	-11.8	-5.3
1932	4.0	-14.6	-1.6	-6.7	-11.1	-5.6
1933	9.5	-2.9	5.4	0.0	0.5	2.0

Source:

Column (1) Kazuo Sato, "Daifukyōki no Nihon Keizai" (The Japanese Economy in the Great Depression), Keizai Kenkyū, 27, (January, 1976), p. 5.

Column (2) Calculated from Peter Temin, Did Monetary Forces Cause the Great Depression, (N. Y., 1976), p. 4.

Column (3) Derek H. Aldcroft, The Inter-war Economy: Britain, 1919-1939, (N. Y., 1970), pp. 32-33.

Columns (4) - (6) Calculated from Ingvar Svennilson, Growth and Stagnation in the European Economy, (Geneva, 1954), p. 233.

Table 2: Index of Industrial Production (1929 = 100)

	Japan	U.S.	U.K.	France	Germany
	(1)	(2)	(3)	(4)	(5)
1929	100.0	100.0	100.0	100.0	100.0
1930	96.9	80.7	92.3	99.1	85.9
1931	93.9	68.1	83.8	86.2	67.6
1932	102.5	53.8	83.5	71.6	53.3
1933	116.9	63.9	88.2	80.7	60.7
1934	132.4	66.4	98.8	75.2	79.8
1935	149.3	75.6	105.6	72.5	94.0

Source:

Column (1) Calculated from Yasukichi Yasuba, "A Revised Index of Industrial Production for Japan, 1905-1935", Osaka Economic Papers 19 (March 1971), p. 32.

Column (2) - (5) Bank of Japan, Hundred-Year Statistics of the Japanese Economy, (Tokyo, 1966), p. 397.

Table 3: Unemployment Rate^a (%)

	Japan	U.S.	U.K.	Germany
	(1)	(2)	(3)	(4)
1929	NA	12	8.2	NA
1930	5.3	21	11.8	NA
1931	6.1	26	16.7	23.7
1932	6.8	32	17.6	30.1
1933	5.6	31	16.4	25.8
1934	5.0	26	13.9	14.5
1935	4.6	23	13.2	11.6

^aUnemployment figures are based on different estimates as follows:

- Column (1) official estimates
(2) trade union returns
(3) compulsory unemployment insurance statistics
(4) employment exchange statistics

Source: League of Nations Statistical Year Book 1935/36,

(Geneva, 1936), pp. 59-60.

Table 4: Total volume of exports (Index, 1929 = 100)

	Japan	U.K.	Germany	France	Europe	World
	(1)	(2)	(3)	(4)	(5)	(6)
1929	100	100	100	100	100	100
1930	97	81	94	90	90	94
1931	100	62	86	77	77	85
1932	123	63	60	59	62	74
1933	133	64	55	60	62	74

Source:

Column (1) Calculated from Takafusa Nakamura, Senzenki Nihon Keizai Seichō no Bunseki (An Analysis of Japan's Economic Growth in the Prewar Period), (Tokyo, 1971), p. 212.

Columns (2) - (4) Calculated from Svernilson, Growth and Stagnation, p. 314.

Columns (5) - (6) Calculated from *ibid.*, p. 292.

Table 5: Wholesale prices, 1929 = 100

	Japan	U.S.	U.K.	Germany	France	Sweden
1929	100.0	100.0	100.0	100.0	100.0	100.0
1930	81.9	83.7	85.2	90.7	86.4	88.9
1931	69.6	63.1	71.1	78.3	73.4	75.4
1932	77.2	52.5	68.9	67.4	64.6	72.2
1933	88.5	58.2	68.1	65.9	62.2	71.4

Source

Column (1) Calculated from Kozo Yamamura, "Then Came the Great Depression, Japan's Interwar Years" in Herman van der Wee (ed.), The Great Depression Revisited, (The Hague, 1972), p. 209.

Column (2) - (6) Calculated from Svernilson, Growth and Stagnation, p. 234.
This index is based on prices of 40 basic commodities.

Table 6: Prices received by farmers and prices of current inputs paid by farmers (index, 1934-36 = 100)

	Prices received by farmers	Prices paid by farmers	
	(1)	(2)	(3) = (1) ÷ (2)
1929	114.3	123.17	92.8
1930	75.3	93.20	79.4
1931	69.3	70.92	97.7
1932	77.8	82.92	93.8
1933	85.6	88.00	97.3

Source

Column (1) Umemura, Estimates of Long-term Economic Statistics, Vol. 9,
p. 161.

Column (2) *ibid.* p. 191.

Table 7: Balance of Payments, Japan Proper, Net Balance
(million yen)

	Merchandise Trade	Current Account	Monetary Gold	Long-time Capital	Short-term Capital(a)
	(1)	(2)	(3)	(4)	(5)
1929	-160.5	88.4	-2.6	-164.6	78.8
1930	-134.3	43.3	274.5	-303.7	-14.1
1931	-206.6	-81.5	370.8	-372.0	82.7
1932	-134.2	41.8	102.8	-258.0	113.4
1933	-113.0	43.2	7.7	-215.3	164.4

(a) including errors and omissions

Source

Kazushi Ohkawa et. al., Estimates of Long-Term Economic Statistics of Japan Since 1868, Vol. 1 (Tokyo, 1974), p. 193.

Table 8: Amounts of Bank Notes Issued and Reserves,
the Bank of Japan, (million yen)

	Special Reserves	Security Reserves	Bank Notes Issued	Excess of Issue
	(1)	(2)	(3)	(4) ^a
1929	1,072	570	1,642	450
1930	826	610	1,436	490
1931	470	861	1,331	741
1932	425	1,001	1,426	1
1933	425	1,120	1,545	120

^a1929-31 (4) = (3) - (1) - 120, 1931-32 (4) = (3) - (1) - 1000

Source

Tokyo Chamber of Commerce and Industry, Annual Statistical Report 1933

(Tokyo, 1934), p. 185.

Table 9: Currency in Circulation and Demand Deposits (million yen)

				Year to Year Changes		
	Currency in circulation ^(a)	Demand desposits of ordinary banks ^(b)	Total	Currency in circulation	Demand desposits of ordinary banks	Total
	(1)	(2)	(3)	(4)	(5)	(6)
1929	1,960	4118	6078	--	--	--
1930	1,763	3735	5498	-197	-383	-580
1931	1,665	3422	5087	-98	-313	-411
1932	1,735	3591	5326	70	169	239
1933	1,858	3810	5668	123	219	342

(a) includes government notes, Bank of Japan notes (excluding reserve against notes issued by other banks), Yokohama Specie Bank silver notes and subsidiary coins.

(b) Total private deposits minus time deposits.

Source

Column (1) Bank of Japan, Hundred Year Statistics, p. 167

Column (2) ibid., p. 201.