Tsukuba Economics Working Papers
No. 2009-011

The Rise of the Current Banking System in Japan, 1868-1936

by

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August 2009

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Abstract

Learning by doing convinced the Japanese government to create in 1882 a relatively transparent and credible central bank, Bank of Japan, and adopted the gold standard in 1898 to prove it. Unfortunately, the government did not see it fit to enforce transparency on other financial and non financial institutions in an effort to maximize the supply of capital and reduce its cost. To remedy for this deficiency, the government imposed on Bank of Japan to offer implicit deposit insurance. For a long period, this arrangement helped the government of Japan to place the Japanese economy on a fast development track but it also created a serious moral hazard problem. Through various subterfuges, the government was able to escape the necessity to enforce a minimum amount of transparency. World War I brought about golden opportunities that the Japanese economy exploited full at the cost of high rates of inflation thanks to the exit of most developed countries, including Japan, out of the gold standard. The return of the US to the gold standard soon after the end of the war at the old parity forced Japan to reconsider moving to a flexible exchange rate regime or returning to the gold standard either at the old parity at the cost of a depression or at a new parity with a devaluation. For ten years, the government of Japan did not make up its mind. Instead, it instructed Bank of Japan to continue offering free implicit deposit insurance. The moral hazard problem became acute dragging the Japanese economy into many financial crises but the government refused to impose transparency. After falling initially for two decades following the creation of Bank of Japan, real and nominal interest rates meandered without any clear direction and remained on average relatively high. Finally, the government decided to return to the gold standard at the old parity to clean up the weaker and inefficient institutions and reduce the cost of capital. We demonstrate that the government walked into this trap knowing well the economic consequences. Thanks to the naiveté of an otherwise brilliant economist and a former governor of Bank of Japan, the return ended up in a disaster and the government still refused to enforce transparency, preferring instead to impose financial repression out of which the current banking system was born.

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Introduction

Before World War I, Japan was a newly developed country struggling to achieve military parity with western powers through a policy of rapid economic development. Despite a severe scarcity of capital, it achieved great successes in closing the gap during the thirties causing capital to become even scarcer. Understandably, the Japanese government searched tirelessly and for a long time for ways to lower the cost of capital and promote competition. It formulated and implemented many reforms of the financial system and the monetary, exchange rate and trade policies. The major reforms and policy changes that impacted the cost and availability of capital were the following. Reform of the currency in 1881, the creation of the Bank of Japan in 1882, the promulgation of two banking acts in 1890, the adoption of the gold standard in 1896, the creation of two development banks at the end of the nineteenth century, the 1921 and 1926 bank acts, and the return to the gold standard in 1930. Some of the reforms were helpful but a few were counter-productive. The last reform, the decision to return to the gold standard in 1930, was catastrophic.

After flirting with relatively free banking while the comparative advantage of Japanese economy was in low wage and light industries, the government decided that small banks are inherently unstable and badly managed. The government deemed this system responsible for the high cost of capital and inconsistent with an increase in the average capital labor ratio in Japan. The higher average capital labor ratio was a result of a conscious decision made after the start of World War I to change the comparative advantage of Japan from low wage industries to high value added heavy industries. During the nineteen twenties, the government, regardless of its political affiliation, was convinced that the development of heavy industries required large banks and lower cost of capital. Starting from before World War I, it promoted a principle of "big is strong" and encouraged, transfer of technology and learning by doing. On the other hand, since its creation of the Bank of Japan (BOJ) in 1882, the government of Japan had assigned to it tacitly the task of protecting bank depositors. In its pursuit of fast economic development, and despite ample evidence of which it was aware, the government turned a blind eye on the lack of transparency in the management of certain joint stock financial and non financial institutions. Consciously, it failed to develop or let develop appropriate financial institutions that would have taken care of the deficiency for fear of upsetting the march towards achieving parity with the developed western world while retaining independence. Our main hypothesis is that the implicit deposit insurance, a lack of a healthy stock market, stiff restrictions on foreign direct investment and the 1890 Ordinary Bank Act combined to discourage the transparency of financial and non financial institutions and prevented the fall of the real cost of capital.

In this work, we provide a detailed analysis of the reforms. We provide evidence in favor of our hypothesis and evidence that both small and large banks are one of the causes of financial instability and/or higher costs of capital. We show that the main culprits were incorrect monetary and exchange rate policies and the failure of the government to enforce transparency in the financial system. The conclusion drawn by the government that small banks are responsible led to financial repression, direct control of interest rates on deposits and loans, and extensive control by government of economic activity starting in the mid thirties. We surmise that this conclusion provided the raison d'être for the perpetuation of inefficiencies in the Japanese financial system.

I Creation of the free banking system

The Early Meiji government reforms sought to improve transparency in economic affairs and achieve and maintain price stability. The ultimate goal of the reforms was to increase the supply of capital and reduce its cost in terms of lower nominal and real interest rates and reduced risk. Furthermore, the best way to achieve these goals was to have a convertible currency, Matsukata (1900).

The actual monetary policy of the Meiji government between 1868 and 1878 was quite dissonant with these goals. Often, the Meiji government printed paper money to help finance its expenditures and confused paper money and capital. In 1868, the young government was destitute with no tax base. Furthermore, the unequal treaty imposed by the European powers and the US on the government of Japan in 1858 prevented it from increasing tariffs above 5% without their explicit agreement. Unlike the governments of its contemporary developing countries, e.g. Canada and the United States of America, the Meiji government could not raise revenues by increasing tariffs. In the first few years of its existence, printing money was its only way to defray its expenditures. Addicted, the Meiji government considered printing money as a source of revenue for a relatively long time thereafter.

Progressively, the Meiji government took control of the land tax from the hands of the feudal lords and reformed it in 1870. Henceforth, the base of the tax is the value of land and land owners must pay it in money instead of rice. Thanks to this reform, the government was able to create an important and stable source of revenue -that is, except for inflation- for at least two decades hence. Yet, despite this tax reform, revenues still fell short of expenditures. To make up for the shortfall, each large ministry, such as the Home Ministry (Minbusho) and the Ministry of Finance (Okurasho), has taken to the habit to print paper money of its own, bearing its name. This helped to increase the already wide selection of paper monies circulating in the country. Adding to the confusion and faithful to its official monetary policy position, the government declared that all paper money is convertible into gold at the fixed parity it fixed in 1868, although its specie reserve evaluated at that parity fell way short of the total supply of paper money. Of course, the government suffered from a credibility gap.

To facilitate trade and apparently to support its claim that the paper money was convertible, the government created in 1868 the Osaka Mint to produce one yen standard coins in gold and silver. These coins determined the official parity of one yen paper money. The habit of printing paper yen to pay for the government budget deficit eventually caused the market prices of the gold yen and silver yen coins to rise in terms of “the” paper yen. In 1870, the silver yen was worth 2.4 paper yens. The government was aware of this depreciation. To control the damage, the government announced on different occasions that it would make the paper yen in the future freely convertible at par into silver and gold yens. Convinced that this promise was enough, it issued in 1871 an (imperial) ordinance that people must exchange one paper yen for one silver yen. Anyone accepting or paying a premium for gold or silver yen coins must pay for the first time (thereafter) a penalty equal to (double) the premium received.

The government knew that it did not have the resources to achieve convertibility. After the government won complete military control of the country and demonstrated some fiscal responsibility, and after economic conditions improved, the paper yen appreciated and reached parity in 1876. However, this recovery was short lived. Due to the start of an insurrection in the southwest in 1877, the government lapsed into its old ways and the paper yen started to depreciate again. In 1881, the price of silver yen reached 1.81 paper yen. Over the whole period from 1868 to 1881, the depreciation of the paper yen corresponded to an average inflation rate of 10%. Inflation and depreciation of the paper yen were not the only financial and monetary problems that the young Meiji government faced. A third major problem was the plethora of paper yen bills. There were about one thousand and six hundred kinds of paper yen bills circulating in the country. A fourth problem was the persistent balance of trade deficit. A fifth problem was the high growth rate of paper money supply. This component of money supply increased at a 40% growth rate from ¥24 million in 1868 to ¥89.6 million in 1873. The monetization of a previously barter economy must have absorbed much of the growth of the money supply. The remainder showed up in a higher inflation rate.

Initially, the government believed that a solution to these problems was to convince people to accept one paper yen in exchange for one silver yen. Thus, it announced a plan to replace the plethora of money papers by a single paper money and promised to exchange the single paper money for silver yen coins. Eventually, the government did succeed in replacing the various paper yens by a single paper yen, but did nothing to convince the public of the convertibility on demand of paper yens into silver yen coins. Instead, the government announced in March 1873 that it would redeem all paper yens in exchange for newly created government bonds bearing a 6% interest rate.

Earlier in 1872, the government issued the National Bank Act of 1872. The act encouraged the creation and regulated the operation of national banks. These banks were of a peculiar nature. The owners of a national bank must contribute six tenths of the bank's capital in paper yen and four tenths in specie. The government would exchange the paper yen portion for an equal amount of face value bonds bearing six percent interest. The owners of a national bank would deposit the bonds and the specie with the government and receive in exchange an amount of paper yen bearing the name of the bank equal to the face value of the bonds. The government called the new paper yens national bank notes and they were convertible into specie on demand. It did not expect national banks to solicit or receive deposits. The main objective of creating national banks was to replace the de facto inconvertible by a convertible paper yen. The government authorized the creation of a maximum of ¥100 million of national bank notes to replace all inconvertible government paper.

The prospective owners of a national bank would earn a 6% interest on their government bonds and an average of 12% on their loans of an equal amount of their notes. However, they would tie up forty percent of their capital in sterile gold reserves. Thus, they could expect to earn a nominal rate of return of 11% on their capital. This is barely enough to compensate them for inflation since the average inflation rate during this period was 10%. They could scarcely expect the inflation rate to be significantly lower given the lack of credibility of the government commitment to a low inflation rate and to stop using money creation to finance its growing budget deficit,

These same facts provided the public with an opportunity to profit from transforming national banks notes into species (silver). An arbitrager could borrow convertible national bank notes and convert them at the lending national bank into specie at the rate of one for one. He would use part of the proceeds to purchase inconvertible government paper yen at a discount with which to repay the initial loan plus interest. The remainder of the specie was a pure profit. National banks ended up exchanging species reserves for inconvertible paper money without much of the national bank notes remaining in circulation. Thus, it is not surprising that, between 1874 and 1875, the number of national banks never exceeded four and the total supply of national bank notes fell by 25% from ¥2 million to ¥1.5 million. The four national banks were created thanks to government pressures on certain merchants, and the total of national bank notes in circulation did not exceed ¥2 million yen. Fearing a complete loss of their specie reserves the owners of those national banks petitioned the government to exonerate them from the convertibility requirement.

The objective of the 1872 National Bank Act was to reduce the cost of capital not by creating financial intermediaries, long term investment banks or merchant banks to collect savings and finance trade. Rather, the government intended to purchase with the act the convertibility of the paper yen in order to increase the fluidity of capital by reducing investment and transaction risks. Yet, it continued to show no fiscal discipline. As future events revealed, the fiscal policy of the government betrayed its actual monetary policy despite the fact that the act contained a clause that sets a ¥100 million ceiling on the total supply of national bank notes. A rebellion broke out in the southwest of the country in 1877 shattering the credibility of the government's commitment to convertibility. To pay for the expenses of suppressing the rebellion, the government printed ¥27 million of its own paper yen and borrowed ¥15 million of national bank notes from a national bank conveniently created for this purpose.[1] Until the end of the eighteen seventies, monetary policy remained in the service of a fiscal policy characterized by a desire to increase the supply of capital to reduce its cost of capital by all means; the easiest of them, self defeating and most often used was money printing.

Disappointed with the 1872 National Bank Act, the government decided in 1876 to amend it. It abandoned the idea of enlisting the help of private capital to convince the public of the convertibility of the paper yen. In the final stages of the Meiji restoration, the new Meiji government agreed to offer pension benefits paid in rice to the Samurai class and to the warlords of the previous regime in order to placate them. Probably, concerned about the heavy burden the pension benefits placed on the government budget, the government decided in 1876 to relieve itself of this commitment and replace these pension rights by government bonds equal in face value to the present discount value of the pension benefits. Given the failure of the first experiment with national banks and the fact that a few of the Samurai class had specie reserves, it was necessary to amend the 1872 National Bank Act.

The 1876 (revision of) National Bank Act required prospective owners of a National Bank to contribute 80% of the bank's capital in the form of government bonds bearing an interest rate of 4% or more and the remainder in any kind of Japanese currency (including inconvertible paper yen). The owners must deposit the bonds with the government in exchange of national bank notes bearing the bank's name of an amount equal to the face value of the bonds. The national bank notes were not convertible into species and the 1876 National Bank Act imposed a ¥34 million ceiling on the total supply of national bank notes. This is a relatively large amount given that the total money supply in 1876 was ¥93 million.

The government viewed the new national banks as a way to help the Samurai class to earn a decent living through a partnership with merchants or landlords who often contributed the 20% portion of the capital in the form of currency. It also viewed the new national banks as a way to increase the supply of capital for economic development and thereby reduce the cost of capital because government members believed for a long time that money and capital are equivalent, Matsukata (1900). The new national banks monetized new government debt and helped to reduce the pressure on the government to find other sources of revenue. By the end of 1878, the total supply of national bank notes amounted to ¥25 million. It reached the maximum allowed under the 1876 National Bank Act at the end of 1879. Around one hundred and fifty national banks were created in various regions of the country. This time around, the National Bank Act achieved its numerical goal in three years.

The fast growth of the supply of national bank notes accompanied a fast growth of the supply of government paper money. The stock of government paper money increased at a rate of 24% per annum between 1876 and 1878. Over the entire period from 1868 to 1881, the growth rate of the paper money component of the money stock was approximately 15.3%. In contrast, real GDP grew at an annual rate of approximately 2%. The inflation rate was about 10%. The use of money for

[1] The famous Fifteenth National Bank or Nobles Bank

portfolio diversification must have absorbed the excess 3% of the growth rate of paper money supply over the growth rate of nominal GDP.

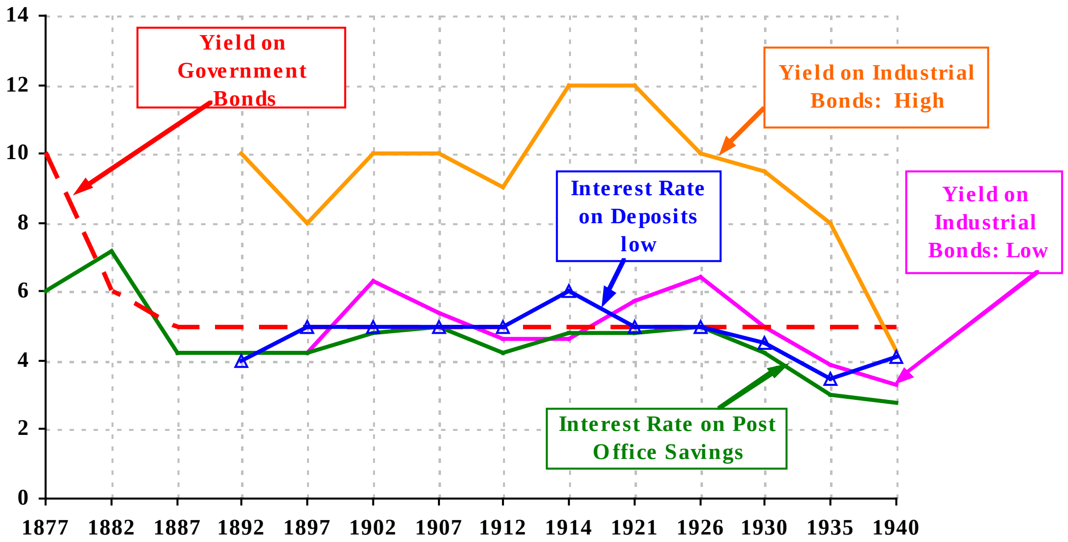
During the period 1868-1881, the government faced a major civil war and various challenges to its authority at the same time that it has engaged the country in an economic development program designed to meet the foreign military threats and challenges. The economic development program emphasized heavy involvement of the government in building a modern army, a modern infrastructure including education and the creation of government owned enterprises in manufacturing, mining, communication, and transportation industries.

Given the enormous size of the task, the unwillingness of the government to borrow abroad and the limited fiscal revenues, part of the burden of collecting the required resources fell on monetary policy. Before the reform of the land tax, one foreign loan and printing money provided the necessary revenues. This practice continued until 1880. After the reform of the land tax and the pacification of the country, the pressures on monetary policy temporarily abated. The government gained credibility between 1874 and 1876 and the price of the silver yen stabilized. When the civil war in the southwest of the country started in 1877, the government drafted again monetary policy to help finance its expenditures.

Due to the unequal treaty, government revenues from custom duties were not significant until the end of World War I. In 1876, the government reduced the rate of the land tax to 2.5% from 3%. Since then, the contribution of the land tax stagnated in absolute value. Government monopoly enterprises were profitable but many government owned enterprises were not. The government did not introduce income tax or indirect taxes until the 1880's. Until 1900, the tax on liquor, which the government introduced in 1876, was the only indirect tax of significance. This tax contributed five times as much as the customs duties and its contribution grew substantially over time. Essentially, recourse to monetary policy to rescue fiscal policy was inevitable as long as the government was unable to adhere to fiscal discipline. Unfortunately, this monetary policy produced inflation not price stability. It contributed to keep nominal interest rates high. As figure 1 shows, the yield on government bonds was 10% in 1877 and the nominal interest rate on loans was 14% at the high (more risky) end in 1892 even after the inflation dropped following the Matsukata deflation of 1882-1885. Matsukata (1900) reports that interest rates during the eighteen seventies were between 15% and 20%.[2]

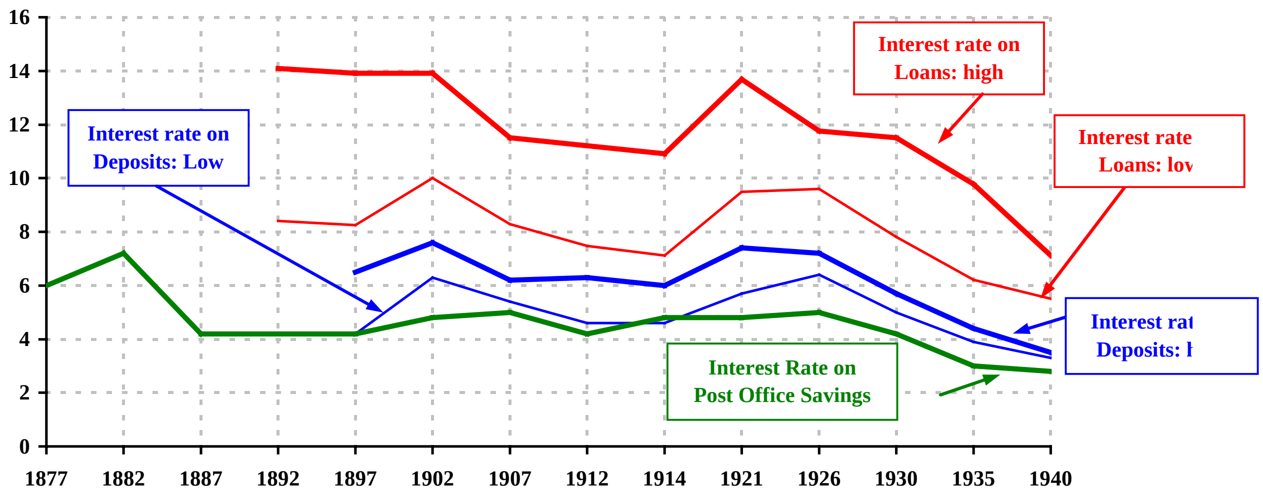
[2] Matsukata (1900), p 61

Figure 1
Yields on government and industrial bonds, bank deposits and post office saving deposits (%)
Average of all Banks



Source: Bank of Japan (1966) pp.260-263, Table 111

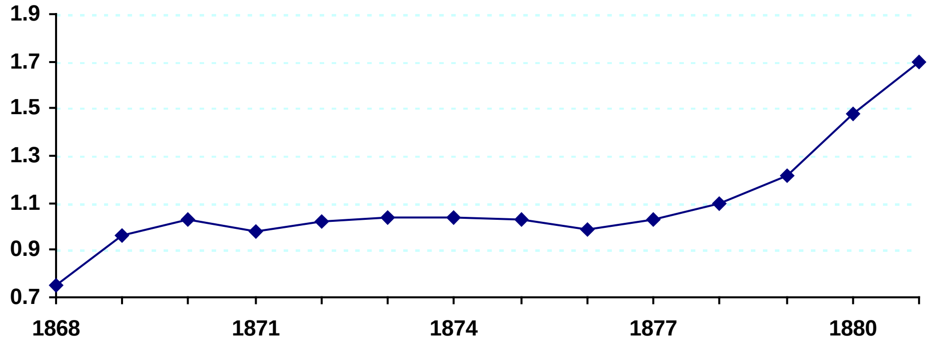
Figure 2
Interest Rates on Loans and Deposits (%)
Average of all Banks except for Post Office deposits



Source: Bank of Japan (1966), pp.260-263, Table 111

Inflation, a form of forced savings, seignorage and the land tax provided the government with resources to finance its development program and other government expenditures apparently at a low cost of capital. The government created modern industries and badly needed human and physical infrastructure for agricultural and industry. Ranis (1959) provides evidence of the increase of productivity n the agricultural sector that land owners and government skimmed away. They used the newly accumulated pool of resources for investment in other industries. In this sense, the monetary policy and the amendment of the national banks act have increased the supply of capital and reduced its user cost.

Figure 3
Yearly Price average of silver yen in terms of paper yen



Source: Matsukata (1900) Table IX, pp. 29-33

The clumsiness found its expression in a chronic deficit of the trade account and net exports of species (bullion and coins), which continued unabated until 1882. Capital inflows could not finance the deficit because of the unequal treaty and the government decision to inhibit the entry of foreign investment in any form. Although the country was officially on the gold standard, practically, the government admitted that it couldn't enforce a fixed parity for the paper yen. Thus, inflation in terms of paper money was not responsible by itself for the chronic deficit of the merchandise account. As figure 3 shows, after a few years of stability from 1871 to 1876, the price of the silver yen resumed its upward trend. Over the period 1868–1881, the silver yen appreciated at a 6.5% annual rate.

The depreciation of the paper yen, the recurrent balance of trade deficit and the relatively high inflation rate in terms of paper yen (10%) were constant reminders that the government did not achieve the price stability and the transparency in the management of its own affairs necessary to lower significantly the interest rate and user cost of capital. However, the government was aware that its announced monetary policy was not the same as its actual monetary policy. Two major factions inside the government viewed the establishment of convertibility as the best way to improve transparency and insure a stable value of the paper yen. Although there was an agreement among members of the Japanese government as to the necessity to establish convertibility, there was a wide disagreement about how to achieve it and at what parity.

1. *The Great Debate*

Towards the end of the 1870's a debated raged about the causes of the depreciation of the paper yen. The protagonists were Okuma and Matsukata. We review their opinions and the policies they recommended in turn.

（1）*Okuma's program*

Okuma, minister of finance (MOF) from 1869 to 1881, argued that inflation was not due to the depreciation of the paper yen but to the rise of the price of silver.[3] The indisputable fact of the rise of the price of silver in terms of paper yen (see figure 3 above) was due to the scarcity of silver coins in the domestic market. According to Okuma, the expansion of economic activity and increased prosperity during the period 1868-1879 led to an expansion of Japan's foreign trade, especially of the demand for imports. Thus, the trade deficits were due to a shortfall of domestic production. To settle these deficits the Japanese importers used silver. Thus, the recurrent balance of trade deficit caused a continuous net outflow of species, which eventually caused the scarcity, and the rise of the price of silver.[4]

Government documents show that the government was also concerned about inflation and its effects on real government revenues. An anonymous author of a government document argued the government should reform the land tax and make it payable in rice rather than money, as it was the case before the 1870 land tax reform.[5] Landowners and farmers (who own land) have enriched themselves thanks to the price inflation of rice. Over the period 1870-1879, inflation at a 10% rate slashed in half the purchasing power of the revenues collected from the land tax paid in money. That is, gains of the landowners were a loss to government. Given the primordial importance of this tax in total government revenues, this continuous reduction in its purchasing power was troublesome. Although the government never implemented it, the proposal of a return to the payment of the land tax in kind shows that, by 1879, balancing the government budget had become a serious matter. Members of the government council had understood the linkage between budget deficit and inflation. They were concerned about the lack of transparency in the management of government affairs.

Okuma may have been aware of the linkages between the government fiscal and monetary policies. He realized that the traditional way of preparing budgets in Japan often results in discrepancies between actual expenditures and actual revenues. The government can calculate its expenditures accurately but can only estimate its revenues. He believed that the principle of public finance is that actual expenditures should not exceed actual revenues by a substantial amount. In practice, however, this was not the case because revenues are limited and the worthy causes for government spending are unlimited. The government must be careful to establish priorities and exercise wisdom and abstinence. Government should undertake urgent and relatively important expenditures and cut down luxury expenditures to insure that the actual revenues can pay for the actual expenditures.[6]

Okuma was concerned about government budget deficits and the addiction of various government departments to money printing. He was also aware of the weakness and the ineffectiveness of the national bank system and the financial system in general. Under the feudal system, the warlords did spend and finance local projects out of local revenues. After the Meiji restoration, the government

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3 Yoshino (1975) (Vol. 1, chapter 7, p. 35) quotes Okuma

4 Ibid.

5 Bank of Japan (1958), Vol. 4, p. 1203

6 Ibid., pp. 1197-99

centralized the expenditures but collected revenues from all over the country. It maintained only a few offices in large strategic cities. This caused a dislocation of the country's poorly organized private financial system, which suffered from lack of intermediation, free movement of capital and lack of transparency. To help overcome theses weakness, the government provided loans and financial aid to private corporations making the problem even worse.

Okuma recommended that the government should reduce its expenditures in various ways: The government should eliminate luxury expenditures, economize on salaries of foreign advisors and stop construction of new buildings. Presumably, these measures would reduce government budget deficit and the need to print excessive paper yens.[7]

In order to stop the net outflow of species and increase its supply in the domestic market, Okuma recommended that government procurements should favor Japanese made products over foreign made products. This would reduce imports and encourage domestic producers. It would also reduce the pressures on the species reserves of the government. The government should require the payment of tariffs and custom duties in silver or gold coins. The ministry of finance shall make all payments for government expenditures in species. The government should make the redemption of its bonds denominated in foreign currency and payment of the expenditures of Japan's embassies out of receipts from exports. These steps would help the government build up its species reserve, and thus it would gradually strengthen the credibility of the government's commitment to convertibility and transparency.[8]

He also recommended the repeal of the unequal treaty to allow the Japanese government to raise tariffs against imports in order to reduce imports and increase government revenues. To develop exports, he proposed various measures to stimulate production. He recommended lowering the land tax to encourage farmers to increase productivity of Japanese agriculture and create or increase the surplus destined for exports. To make up for the resulting loss in government revenue, he proposed the imposition of a new tax (perhaps on consumption). The government needed to develop further the infrastructure of roads and ports to promote the increase of the output (productivity) of industry and agriculture. Given the dislocation of the financial system and the lack of financial intermediation, the government should protect and promote the so-called quasi banks. These actions would help increase domestic output, thereby creating a bigger surplus for exports. The increase of exports and the reduction of imports would generate a net inflow of species, which would remove the current shortage in the domestic market. Finally, he recommended that the government redeems gradually paper money and impose a ceiling on the total amount of paper money circulating in the country. Thus, he was opposed to an outright deflationary policy.[9]

He convinced the government to prevail and it did on the First and Second National Banks to sell species. He also convinced the government to create the Yokohama Species Bank (YSB) in 1878. The main purpose of the bank was to increase the supply of species in the domestic market in two ways. The government invited the public to deposit species in the new bank, which the latter can use to purchase paper yen. A second and more effective way was to endow the new bank with a fund in paper money that it would use to discount bills of exchange of exporters and importers. Both Japanese exporters and importers complained they do not have easy access to credit. Foreign merchants and banks had a virtual monopoly in the export-import credit market. Discounting export bills of exchange would help YSB to earn species and, at the same time, it would help exporters gain easier access to foreign markets. This would help increase exports and the inflow of species. Furthermore, providing the discounting service to both importers and exporters would earn the bank

[7] Ibid., pp. 1198
[8] Ibid. p. 1197
[9] Ibid. p. 1198

commissions in species. Increasing exports would also help to increase the growth rate of real GDP and absorb the excess supply of paper money. It would also help remove the pressure to retire a large portion of the excess supply of paper money and avoid a depression. We infer that, for Okuma, the parity at which convertibility should take place is the price of silver yen at the time the Japanese economy and the government fulfill the conditions required for convertibility.

（2）*Matsukata's program*

In contrast, a young official and future finance minister, Matsukata, argued that the reason for the rise in the price of silver was the excessive issue of paper money. The appropriate solution is for the government to redeem the excess supply of paper money. Matsukata argued that the attempts by the government to increase the supply of silver have failed. YSB, the bank that the government created to increase the supply of species, was on the brink of bankruptcy in 1881. The price of silver yen continued to rise despite the fact that the government reduced its expenditures, doubled the tax on liquor, and decided to sell certain government enterprises. He concluded that the government must seriously set up a fund to redeem the excess of the paper money supply and to increase the species reserve of the government in order to prepare for convertibility at the old parity of one silver yen for one paper yen, Yoshino (1975).[10]

In Matsukata's opinion, the financial system that evolved in Japan during the 1870's didn't lower the cost of capital for several reasons. First, the inconvertible paper money is "inelastic". The supply of inconvertible paper money does not adjust properly and automatically to economic conditions. It is easy for its growth rate to increase in response to or to stimulate an increase in economic activity. However, its growth rate does not decrease to prevent overheating or eliminate an excess of its supply. The co-existence of government paper money and national bank notes create confusion. Furthermore, the system of national banks that the government created is ill suited for lowering the cost of capital and increasing its supply.

Second, the trade account deficit caused a shortage of species thereby causing a shortage of ("working") capital. Indeed, there was a scarcity of capital in all major industries, manufacturing transportation, communication etc. Only a few national banks had a capital in excess of ¥100,000. Many had a capital less than or equal to ¥5,000. There was no inter-bank market that would have allowed funds to move freely from banks with surplus funds to banks in need of them. From 1873 to 1885, loans of national banks accounted for more than 50% of their lending, as figure 4 shows... National banks concentrated their lending in long term fixed loans, causing a shortage of working capital. Consequently, interest rates remained high and economic growth suffered.

Matsukata realized that lowering the cost of capital and achieving price stability through adherence to the gold standard required transparency through an overhaul of government fiscal and economic development policy, reform of the financial system and the creation of a relatively independent central bank.

"In national economic affairs, there is nothing of greater importance than a financial policy….If that policy (respecting paper currency i.e. monetary) be false, the price of paper money will be in constant fluctuations and the credit of the country will be lowered, in short, all the evils of national economy result therefrom."[11]

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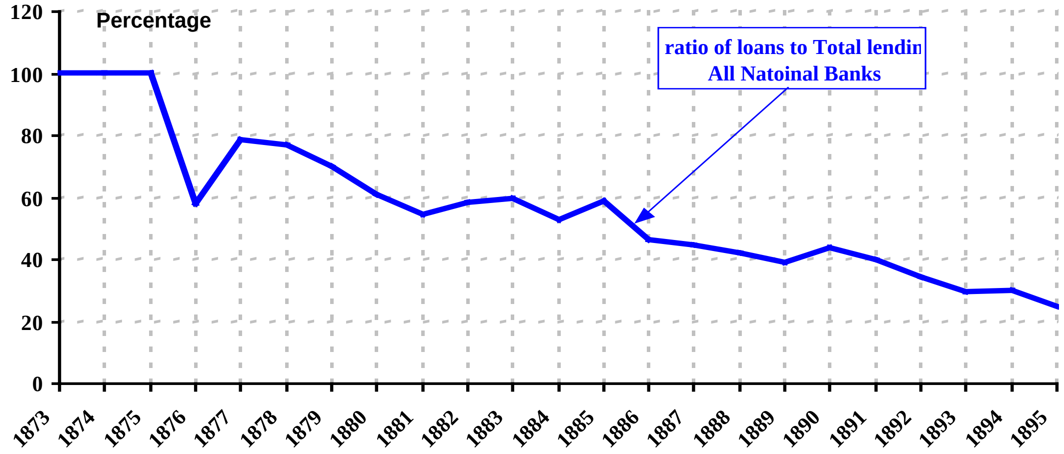
[10] Vol. 2, pp. 40-43

[11] Matsukata (1900), p 43 and Bank of Japan (1958), Vol. 4, pp. 983. The last reference contains the original proposals of Matsukata under the title "Zaiseigi…." and "Prospectus towards the establishment of Bank of Japan"

Figure 4
Ratio of loans to total lending of all National Banks



Source: Bank of Japan (1966) table 66, pp. 198-199

To prepare for convertibility, Matsukata made the following set of recommendations. The government must enforce on itself fiscal discipline. It must redeem all inconvertible paper money and replace it by a single convertible paper note with a reduced but "elastic" supply. It must create a comfortable species reserve. It must phase out the national bank system and replace it by a suitable banking system organized around a central bank. The central bank must operate a clear monetary policy. Finally, the government should create a savings bank and long term investment banks.

To convince the government to take the necessary measures, he designed a coherent program of reforms.[12] The main objective of his program was to achieve the convertibility of the yen in order to reduce the cost of capital and increase its supply with an ultimate goal to create a hospitable environment for economic development.

A central bank lowers the cost and increases the supply of capital

Matsukata provides many reasons for creating a central bank.[13] These reasons define the outline of the early monetary policy of the central bank of Japan (BOJ). A central bank would help remove financial distress among banks by operating a money market between national banks to improve the circulation of capital in the country.

It would exercise supervision on national banks and help make them more transparent and better managed. It would provide for emergency lending to national banks during tight money markets to prevent any one bank from falling into bankruptcy, especially at the peak of business cycles. During peaks of economic activity all national banks would probably find themselves fully loaned, leaving little reserves to meet depositors' demands. This situation would expose them to runs. A central bank could provide them with liquidity that would prevent runs on them and prevent the economy from falling into a depression. It would provide liquidity assistance to private enterprises during tight money markets in order to prevent retrenchment of private enterprise activity. This would ultimately soften a possible downturn in economic activity. It would lower the interest rate, at first to 8%. It would act as the bank of the government. Finally, it would regulate international finance through the discounting of bills of exchange labeled in foreign currencies

[12] Matsukata's program is contained in a document entitled "Zaiseiji" (Arguments for private and public finance) that he submitted to the chair of the prime minister of the Meiji government (Daijo-Daijin) in September 1881, Bank of Japan (1958), vol. 4, pp. 983-988

[13] Matsukata (1900), Bank of Japan (1958). pp. 993-1003, and Yoshino (1975) Vol. 1, pp. 98-118

National banks locked their notes in long term loans to industry on the security of real estate, government bonds or own shares. They cannot dispose of these securities easily or use them to augment the supply of money. Those who take the loans (or are receive payments with the proceeds of the loans) do not deposit back the money in national banks. Consequently, national banks could not make money. Matsukata argued that if national banks used their capital to discount bills of exchange they would tie up their capital for a much shorter period and they could sell those bills of exchange immediately and use the proceeds to discount more bills of exchange. This process helps to increase the turnover of capital, increase working capital and lower interest rates and thus the cost of capital.

Of course, the government cannot dictate to national banks what they should do. Instead, it would show them the way. The central bank would discount exchange bills of less than one hundred days maturity endorsed by more than three men of reliable standing. It would also make loans (of no longer than 30 days) on the security of government bonds and bills of exchange.

One of the main businesses of the central bank would be to assist economic development through discounting of bills, and purchase and sale of bullion species to which operations it will devote its capital. By using its capital for discounting, it would increase the supply of working capital and lower the interest rate and the cost of capital. The central bank will fix the interest rate as it wishes but at first, it would fix it at 8%. This rate is much lower than the prevailing interest rates at the end of the eighteen seventies. Matsukata argued that interest rates in England and France are so low because their respective central banks engaged in extensive discounting.

Discounting of bills of exchange is not the same as long term loans. Thus, the country needs both a central bank and investment banks to lower the cost of capital and increase its supply. Matsukata emphasized in his plan for the establishment of a central bank, the importance of specialization in the supply of financial services. The central bank would specialize in the discounting of bills of exchange. Ordinary banks would supply long term financing of economic development. This specialization is essential for the good financial health of the country, especially that the use of checks was not popular among banks and their clientele. The unpopularity of checks left little room for ordinary banks to create money in response to expansion in economic activity or asset demand for money.

The central bank would also prove useful for dealing with the temporary scarcity of paper money when farmers pay their land taxes. Usually farmers pay their land taxes after the rice harvest. This relatively huge payment sucks out of the circular flow a huge chunk of the money supply. The proceeds of the tax lingered in government coffers for a long time since government expenditures are spread out evenly across the year. A central bank would create an account where government could deposit its tax revenues throughout the year and out of which it would make its disbursements. The central bank could use the temporary excess of government revenues to discount foreign exchange bills. This would help the Japanese economy in many ways. Merchants who export Japanese products would prefer to use their foreign currency receipts to import foreign products and sell them in Japan rather than repatriate species. When they repatriate species, they have to pay transportation and insurance costs and bear foreign exchange risk. When they import goods, they can make a profit with no foreign exchange risk. This practice ties up their capital in foreign countries. To encourage merchants to keep employing their capital at home and to increase the supply of species and money in the country, a central bank could use the temporary surplus of the government budget to discount foreign exchange bills. The discounting would recycle immediately the proceeds from the land tax and prevent the recurrent rise in interest rates that accompany the payment of those taxes. It would also make up for the inability of ordinary banks to create money and increase the turnover rates of capital in Japan. Obviously, this recycling would lower significantly the interest rates and the cost of capital.

Matsukata considered "public finance" as government policy relative to the financial sector, including government finance. He believed that without sound public finance, a country cannot prosper, its inhabitants cannot be happy and its national security is impaired. Financial transactions are similar to blood circulating in the human body and the financial sector is like the heart. Without a sound financial sector, a country is like a ship without an anchor. The appropriate goals of public finance are to build a financial anchor for the economy of the country, to accumulate species to redeem paper currency, to promote the production of goods, and to reduce imports and promote exports in order to generate a net inflow of species.[14] Important pillars of "public finance" of a country are a central bank, a savings bank, and a business-promoting bank, Kangyo Bank, also known as Hypothec Bank.

The creation of the "financial" anchor was Matsukata's answer to the difficulties that Japan faced at the end of the 1870's. It would solve the problems of the continuous outflow of species, the deterioration of the trade account, the not infrequent upward jump of the prices of goods (rice) as during the eighteen seventies, and the scarcity of species in the domestic market (that caused a depreciation of the paper yen). Thirteen years (1881) after the Meiji restoration, the financial sector had not improved much and the government did not have a clear blueprint for the future of "public finance".

Promoting production is necessary to make it easy for the Japanese economy to correct the trade imbalance. Exports would increase and imports would decrease creating eventually a net inflow of species. The recurrent trade account deficit caused a net outflow of species, which is responsible for the current lack of specie reserves and the depreciation of the paper yen. The trade account deficit is a result of the deficit in domestic production, which in turn is due to the lack of a sound financial anchor for the circulation of money (capital).

The ministry of finance (MOF) and the national banking system do not constitute the appropriate anchor. MOF is responsible for the management of government expenditures and revenues and for building up and maintaining the credit worthiness of government. It is not appropriate for MOF to manage and control the circulation of money (capital), make loans to private corporations and interfere in the affairs of banks. If it does, it would lose the specie reserves of the government and cause a loss transparency of both government finance and "public finance". Although the national banks system covered the whole country, it couldn't promote free money (capital) movements from localities with surplus to localities experiencing a shortage. Consequently, interest rates and the cost of capital remained high, national banks are not profitable and the "growth" of the production of goods is depressed.

The building of a sound "public finance" is the appropriate cure to the current difficulties. He observed that the advanced European countries (Great Britain, France, Holland, Germany…) organized their public finance around a central bank. Without a central bank, the financial system becomes decadent and the country must rely as India, Turkey and China do on foreign capital with all the negative consequences on the country's domestic production and sovereignty. The laws, the institutions and the tax systems in those countries are very poor and/or unstable while foreigners (European) have wisdom and wealth. If Japan were to maintain the status quo, it would fall into the same trap and come under the domination of foreign capital. In Matsukata's plan, the central bank would have the monopoly to issue paper money and would promote business, a private banking system would replace the national bank system and the central bank would redeem all inconvertible paper money of all kinds and replace them with convertible central bank notes. The causes of the depreciation of the currency are attributable to the excessive issue of paper money and to insufficient government reserves.

[14] Bank of Japan (1958), p. 983

Limitations on the business of the central bank

BOJ cannot loan to risky and dangerous kinds of businesses. The government should own one half of the capital of BOJ and BOJ must make monthly reports about its business to MOF.

Banks

Matsukata pointed out that "Industry and thrift are the chief factors in the production of wealth". However, he noticed that the economic growth set off by the Meiji Restoration created certain imbalances. Incomes of farmers are improving but the financing of economic development remained inadequate. Interest rates remained high and there were obstacles to the movement of capital from regions. The excess demand for capital created by the growing Japanese economy generated a growing demand for capital but the supply of capital failed to grow at the same rate. After the successful establishment of a central bank, the government should create a savings bank. The savings bank would be government owned and would provide small savers (farmers and workers) with the opportunity to save or to increase their savings. To encourage poor classes to save will be the business of the savings bank. When these poor classes start savings, industry can develop and thrive as those classes start to invest in housing through the help of loans from the savings bank. The savings bank would move capital from regions where it is in excess supply to regions where it is in excess demand. Eventually, the savings bank will merge with the existing postal savings system. Matsukata envisaged that the savings bank would pay a 7% interest rate on deposits. [15]

Hypothec Bank:

Soyeda (1994) pointed out that in the 1880's the interest rates charged on bank loans were on average equal to 12.5% and frequently exceeded 36%. Fifty per cent of bank loans were loans to framers. About 45% of bank loans had collateral of land and/or houses. Farmers contracted small loans secured by a mortgage on their land. Often, they could pay neither interest nor the land tax. Soon they fell in arrears and must forfeit their land. About fifty per cent of sold collateral was agricultural and forest land. This represented about 1% of agricultural loans. These facts explain the high interest rates in the country and the decrease in the number of small land owners who are usually faithful (yeomen) to the imperial government. Many of the small framers were forced to become tenants or migrate to cities where industry is not yet developed and jobs are scarce. In contrast, when farmers can keep their land, they are also ale to work part time in tea growing, silk, cotton and porcelain making, and textile industries, created thanks to the development of small scale industry. These industries became the major exporters that helped Japan to cover its imports of machinery and raw material. If government doesn't help reduce their debt burden and keep ownership of their land through long term loans at low interest rates, small farmers may become the fodder for social agitation and the loss of the major burgeoning exporting industries with deleterious effects on the Japanese economy and society.[16]

The government must create appropriate financial institutions that would free up banks capital, increase the supply of loanable funds, reduce risk and thus reduce interest rates. The appropriate solution was to create a Hypothec Bank and a system of agricultural banks, one per prefecture. This system would reduce the risk of lending, encourage savings and increase the supply of loanable funds. It would encourage the movement of capital and the production of goods through the promotion of various business investments. The system would promote economic activity in the sectors of agriculture, industry and transportation. It would also free up the capital of common

[15] The duration of the Savings Bank charter would be 25 years and the government would select its president, Matsukata (1900), pg. 66. See also Bank of Japan (1958), pp.984, 985.

[16] Soyeda, 1994, pp. 484-487

banks to increase the supply of funds to finance commercial activity and increase their rate of turnover. This would also contribute to a fall in the cost of capital.

The system (Hypothec Bank and the fifty agricultural banks, one per prefecture) would lend only for productive purposes in order to avoid bankruptcy of the farmers and the system. Productive activities are "reclamation of waste lands, irrigation, improvement of soil, construction of rural roads, dikes, aqueducts, and farm houses, planting of forests, purchase of seeds, manure, silk worm cocoons, machines, implements, and cattle".[17] Farmers can borrow on the security of land and houses. Tenants can form mutual borrowing societies of no less than twenty persons with common unlimited liability in order to enable them to borrow without collateral.

Hypothec Bank would be a joint stock company and the government would guarantee an 8% dividend rate for ten years.[18] It would have the privilege to issue bonds. Its headquarters would be in Tokyo and it would have branches in various important regions of the country. The government would appoint its president and it would operate under the supervision of the ministry of finance. To help develop the land and businesses of the country, the bank would make loans on the security of the credit worthiness of businesses and collaterals. A piece of land, a house and real estate are examples of collateral that the Hypothec bank would accept (Matsukata, 1900). Local governments would verify the quality of businesses and collaterals. The interest rate on loans should depend on the borrower's business but the average interest rate it charges should not exceed 8%.[19]

Major characteristics of Matsukata's program

The major goals of Matsukata's program of reforms were three: Create the appropriate financial and economic environments for market forces to restore the exchange rate between the paper yen and silver yen to its official value of one, reduce interest rates and increase the supply of capital.

Restoring the freely determined market exchange rate to its official value means to restore confidence in the paper yen and the management of government finances, improve transparency and thus reduce uncertainty. This would induce an increase in savings and deposits in financial institutions and increase the supply of capital, further contributing to a reduction of the cost of capital. The reduction of the cost of capital and increase in its supply would boost output of goods and thus increase exports and reduce imports. Consequently, the trade deficit would decrease and the net inflow of species would increase, further bolstering confidence in the paper yen, thus reducing uncertainty and the cost of capital.

（３） Resolution of the controversy

Okuma and Matsukata reform programs have in common the intermediate goal of increasing the stock of species reserves available to the domestic economy. They both advocated a reduction of government spending and fiscal discipline. They differed in the ultimate goal and the reform program they designed to achieve their goals. Unlike Matsukata, Okuma didn't wish the market exchange rate of the paper yen to revert to its official value. Probably, he was aware that this would throw the Japanese economy into a depression. However, Okuma did not recognize the needs to improve the transparency of government and national banks, reduce uncertainty, reduce the cost of capital and increase its supply. Theses were the ultimate goals of Matsukata's reforms and required a fundamental reform of the fledgling financial system. Okuma's creation of YSB was a step in the

[17] Soyeda, 1994, pp. 485

[18] Its starting capital would be ¥5 million. It would be chartered for 90 years.

[19] See also Bank of Japan (1958), p-985-986

right direction but it left the financial system intact. His advocacy of the unilateral abrogation of the unequal treaty at that time was of course unrealistic.

Matsukata's proposal for the creation of a central bank using private and public capital and a sinking fund to redeem the inconvertible paper money out of government budget surpluses combined with the creation of YSB offered a better chance to deliver on his promise to reduce the cost of capital and increase its supply. Eventually, Matsukata won the trust of the young government. This gave him a chance to implement his program.

The government started already in 1880 to reduce government expenditures and raised taxes on liquor. In addition, it created a redemption fund to redeem some of its notes and decided to privatize some of its industrial enterprises that are not directly related to defense. It deposited the proceeds in the redemption fund. Unfortunately, those actions were not enough to reverse the depreciation of the paper yen. Finance minister Okuma resigned and Matsukata became Finance Minister in October 1881.

As soon as he became Minister of Finance (MOF), Matsukata started to implement his reform of the financial system of Japan. The most urgent business was to establish the credibility of a clear and transparent anti-inflationary monetary policy through a publicly verifiable commitment to convertibility. Fiscal discipline and the creation of the central bank of Japan were the central pieces of the program.

Fiscal Discipline

The government stopped the practice of financing the excess of it expenditures over its revenue by drawing paper money out of a paper money reserve normally used to replace worn out government notes. Matsukata planned to pay back all paper money that government drew out of the paper money reserve. He tightened control over government disbursements and receipts by centralizing them in the hands of the Minister of Finance. The ministry of finance started to issue (3 months, 6 months, and 9 months) treasury bills to cover temporary shortfalls of revenues. In 1883 and 1884, the government continued to reduce its military and administration expenditures, undisturbed by the depression that developed due in part to the implementation of Matsukata's program of reforms. Between 1882 and 1884, the cumulative budget surplus was $40 million, half of the size of the average paper money supply during that period.

In 1886, the government produced surpluses in its general account budget. Matsukata used the increase in the alcohol tax and the savings from the reduction in government expenditures and sale of government enterprises to reduce the supply of government paper money. Between 1880 and 1884 the supply of government paper money decreased by 25%. The specie reserve increased from ¥7 million in 1881 to ¥39 million in 1884. By this time, it represented about one third of the total supply of paper money. In June 1885, the government declared that it would start in January 1886 to exchange inconvertible government paper money for silver coins. Matsukata believed that these accomplishments helped to build confidence in government monetary and fiscal policy and confidence in the future of the Japanese economy.

Creation of the Bank of Japan

After cleaning up government finances at the expense of a depression known as the Matsukata Deflation, Matsukata turned his attention to the creation of the Bank of Japan (BOJ). Following his recommendations, the government promulgated the 1882 Bank of Japan Imperial Ordinance and created BOJ as a joint stock company charted for 30 years. The government retained ownership of half of the capital and the public contributed the other half. It fixed the capital of the bank at ¥10 million. Only Japanese subjects could own shares in BOJ. The bank must retain as reserves at least 10% of the profit after payment of dividends to its private shareholders.

Article 11 of the Act specifies the business of BOJ. It has the monopoly of issuing notes convertible into silver. It shall discount or purchase government bills, bills of exchange or commercial bills. It shall buy and sell gold bullion, make loans on the security of gold or silver, and make advances or loans for fixed periods upon the security of government bonds or treasury bills. Article 12 of the act prohibits the bank from engaging in any business other than specified in article 11 and from making loans on the security of real estate, shares of banks or corporations, and BOJ shares. The article prohibits BOJ from engage in any industrial enterprise and from purchasing its own shares or shares of industrial corporations.

Articles 20 and 21 prohibit BOJ directors from holding offices in banks and corporations and require MOF to conduct periodic auditing of BOJ's books. Article 22 requires BOJ to make monthly reports to MOF and the latter to monitor the former. The minister of finance appoints the governor and vice governor.[20] The 1882 Bank of Japan imperial ordinance prohibited BOJ from creating convertible notes for a while.[21] During this time, the government started earnestly to increase its species reserve and redeem some of its inconvertible notes. In May 1884, the government issued an imperial ordinance called the Convertible Bank Notes Regulation of 1884. Article II of this imperial ordinance 1884 requires BOJ to keep sufficient reserves in silver coins to honor the convertibility of its notes. Holders of BOJ's notes could exchange them for silver at BOJ's offices at the rate of 1 yen silver for one yen note.[22] In May 1885, the government decided that BOJ had achieved enough credibility and instructed it to start issuing convertible notes to replace its inconvertible notes.

The creation of a central bank physically independent of MOF and the requirements that it could not make loans on the security of real estate, corporate shares or participate in the capital of industrial enterprises strengthened the credibility of an anti-inflationary policy, improved transparency, and reduced the erratic behavior of money supply. These restrictions would help to achieve price stability and reduce uncertainty contributing to a reduction of the interest rate and the cost of capital.

The 1882 imperial ordinance did not prevent explicitly the government of Japan from obtaining loans from BOJ using freshly issued government bonds designed to cover its budget deficits. The ordinance allowed money supply to fluctuate with commercial activity regardless of the nature of that activity. The only restraint was the maintenance of a sufficient reserve fund in silver. During periods of excessive economic activity, the corresponding excessive increase in loans and paper money would, at the same price of silver, entail an increase in the domestic inflation rate and reduce the competitiveness of Japanese products, causing a balance of trade deficit and a loss of specie reserves. The loss of specie reserves would automatically cause BOJ to increase its discount rate in order to reduce the growth rate of loans and paper money and possibly reverse capital flows.

Redemption of paper money and fiscal discipline

In addition to the creation of BOJ, the government bolstered its transparency and credibility in several ways. It started to use treasury bills to bridge temporary shortfalls of its revenues relative to its expenditures. It implemented a serious redemption program of its paper money in exchange for species. The government increased its revenues, reduced its expenditures and generated a budget surplus. Matsukata used the surplus to purchase species and reduce the supply of inconvertible paper money. Between 1882 and 1884, the government retired 20% of inconvertible paper money. To enable YSB to discount importers and exporters bills and earn more species, the government gave it in 1881 a loan of ¥1.2 million in species out of its specie reserve. Thanks to its retrenchment policy and a reorganization of YSB, the government increased its species reserve fund from ¥7.3

[20] Bank of Japan (1958), pp. 1007-1107

[21] Bank of Japan (1958), pp. 1003

[22] Matsukata (1900), pp-71-72

million yen in 1881 to ¥39.6 million in 1884. This reserve represented a comfortable 44% reserve ratio against the total outstanding supply of inconvertible paper money in that year. Matsukata used some of this government reserve and further budget surpluses to retire gradually ¥40 million more of inconvertible paper money starting in January 1886.

BOJ started to issue convertible notes in 1885, probably through exchange of convertible notes for specie coins. This exchange was a testimony to the high level of credibility the government had achieved through a commitment to fiscal discipline and convertibility of BOJ notes. The inconvertible paper yen reached parity with the silver yen in 1885. After the 20% contraction of the inconvertible paper money, it was not advisable to contract the supply of paper money any further. To complete the redemption of inconvertible paper money, the government needed to borrow from BOJ convertible notes. Under the 1882 and 1884 ordinances that created BOJ, the government could not easily borrow from BOJ. The government decided to amend article II of the 1884 Convertible Bank Note Regulation. This is the subject of the August 1888 imperial ordinance. This ordinance became the basis for the monetary policy of BOJ until 1942.

The 1888 amendment committed Japan effectively to a bimetallic standard (silver and/or gold). BOJ shall keep a specie reserve equal in value to the total amount of convertible notes issued. This requirement made BOJ look like a modern currency board without any power to implement an active monetary policy. In fact, the amendment created a few loopholes. BOJ may further issue convertible notes on the security of government bonds or treasury bills or other bonds or commercial bills of a regular nature up to a maximum of ¥70 million. BOJ would use ¥27 million of this amount to redeem all remaining national bank notes and ¥22 million to supply the government with a loan of convertible notes at 2% interest (later reduced to 0%). The government will use the loan to redeem the remainder of its inconvertible paper notes and would repay it at the discretion of MOF. [23]

This loophole allowed BOJ to increase the supply of convertible paper money to accommodate economic growth without lowering the species reserve ratio below the rate of 40% that the Bank of England (was known to have) had observed. In 1888, BOJ had approximately ¥45 million worth of species and there were ¥65 million of convertible notes issued. In case of emergency, the amendment allowed BOJ flexibility. It could issue convertible notes with the permission of MOF up to a maximum of ¥5 million on the security of government bonds but must pay interest to MOF at a rate of 5%.

Gradually, the government converted the remaining ¥28 million of national bank notes into BOJ convertible notes. It forced each national bank to build a conversion fund out of its profits to supplement the proceeds from selling the government bonds that national banks deposited with MOF at the time of their creation. The conversion of national bank notes was completed in 1900.

The 1888 amendment required BOJ to publish daily tables showing the amount of convertible notes it issued and the amount of its specie reserve. This requirement enhanced the transparency of BOJ, consolidated the credit worthiness of BOJ and the government and further enhanced the commitment of the government to a specie standard. It placed serious limits on the ability of BOJ to use the loopholes to violate its commitments to stable prices and forced the government and BOJ to respect the upper limit on the total amount of convertible notes issued. The government raised the limit to ¥85 million in 1890 in view of the strong economic expansion of the late 1880’s after the economy recovered from the Matsukata deflation (1882-1885). In 1890, the reserve ratio was 44% and the supply of convertible notes reached ¥102 million. The government borrowed ¥22 million of convertible notes from BOJ in 1890 and completed the replacement of its notes by BOJ silver

[23] Matsukata, 1900, p.85

convertible notes. Practically, this conversion committed BOJ to a minimum reserve ratio of 40% in silver. For a few years to come, Japan was de-facto on a silver standard.

These actions laid down the foundations for a stable currency and a better-anchored financial system. The average yield on government bonds decreased from 10% in 1877 to 5% in 1887. Similarly, the interest rate on postal savings decreased from a peak of 7% in 1882 to 5% in 1887. Although the financial system is still in shambles, yet we can already discern improvements in the supply of capital, the average cost of capital and the confidence in the currency. The 1890 financial crisis proves the point.

2. The 1890 financial crisis

In March 1890, stock market prices fell; at the end of 1890, the Japanese economy went into a recession. From 1886 to 1890, the Japanese economy experienced a boom particularly in the banking, railroad construction and cotton industries. According to the Nagoya Higher Commercial College, the index of industrial production increased from 1.42 in 1884 to 3.74 in 1890. In 1891, the index dropped to 3.5.[24] In 1890 alone, the index increased at a rate of 9.8%. The production of rice increased from an average of 4500 tons per year during 1870-1884 to 6400 in 1890. The railway network increased from 160 km in 1880 to 984 km in 1889. Total revenues of railway companies quadrupled from ¥1.05 million in 1880 to ¥4.09 million in 1890. The textiles index of the Nagoya higher commercial college increased from 1.3 in 1881 to 5.86 in 1890. In 1890 alone it increased by more than 20% from 3.32 to 4.63.[25] The production levels of gold, silver, copper and coal more than tripled between 1880 and 1890 and more than doubled between 1885 and 1890.[26]

In tune with the strong expansion in economic activity, national banks expanded their business and expanded rapidly. True, their reserves remained small relative to their total lending and their paid in capital hardly increased. However, the expansion of their deposits testifies to the reduction in uncertainty enabling the supply of capital to expand under the leadership of BOJ. The rapid development of national bank assets was not without its drawback.

We may think of the sum of deposits, paid-in capital and reserves as the national banks lending capacity. Figure 5 shows the lending capacity utilization rate i.e. the ratio of actual total lending of national banks and their lending capacity. Starting in 1887, this ratio increased above one and reached 1.66 in 1890. National banks participated vigorously in the expansion and spread themselves thin. In 1899, they loaned 50% more than their lending capacity and must have kept a small amount of cash reserves. Until 1889, more than 40% of their total lending was illiquid loans. In addition, deposits have grown in importance relative to the sum of paid in capital + reserves. These facts combined to make national banks vulnerable to economic downturns. Discounting of bills of exchange grew more important since 1880. The change in the asset structure of national banks reflects it. Figure 5 shows that the illiquidity ratio of national banks improved substantially from 1880 to 1889. However, this improvement was more than offset in the case of some banks by the continuous increase of the utilization rate of the national banks lending capacity, which reached 1.66 in 1890, and the fact that the illiquidity ratio reversed direction and increased by 12.5% in 1890.

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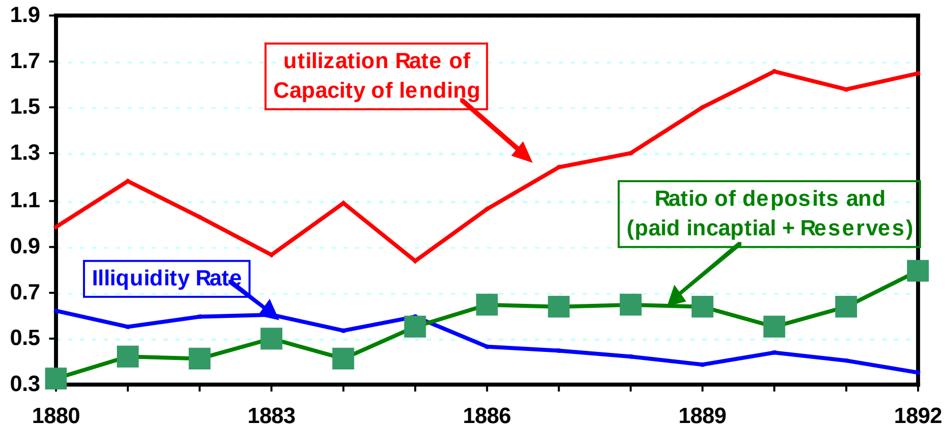
24 Bank of Japan (1966), p.398

25 Bank of Japan (1966),, p.94

26 Bank of Japan (1966), p. 98.

BOJ could have financed only a small fraction of the growing excess of their actual lending over their lending capacity. This excess was ¥48 million in 1889. National banks financed their excess lending through the emission of promissory notes.[27] Having the privilege to issue paper yen notes, it must not have been difficult for national banks to issue promissory notes. Matsukata (1900) suggests that national banks did issue more notes than their allowable quota despite strict government supervision.

Figure 5
National Banks lending capacity and liquidity



Notes: a) Lending capacity = Deposit +Capital +Reserves
b) Total lending = Loans + overdrafts + discounted bills of exchange
c) Illiquidity ratio = ratio of loans to total lending
Source; Bank of Japan (1966), pp. 196-197

Matsukata also pointed out that most of their loans were illiquid and national banks were usually loaned up especially during a business expansion. Since all of them were illiquid, he argued, no single one can relieve the stress on any other and they must run collectively into a liquidity crisis the longer the expansion lasts. One reason that he advocated the creation of a central bank was to help national banks with their liquidity problems during an expansion. Matsukata argued that a central bank would relieve the tension by increasing its volume of discounting, allowing the money supply to grow temporarily faster.

Unfortunately, Matsukata turned out to be right. The creation of BOJ with one of its mandates being to support the banking system has also created a moral hazard.

At the beginning of 1890, the Japanese economy showed signs of fatigue, it grew ahead of itself fueled by the rapid expansion of national banks lending. Stock market prices collapsed in March 1890. The main collateral for national banks loans were stocks of small and large private companies. The collapse of the stock market prices betrayed the weakness of the national bank balance sheets. However, BOJ proved to be of great significance in reducing uncertainty and protecting the national banking system from potentially lethal runs.

Figure 5 shows that deposits in national banks grew fast in importance and represented in 1889 64% of the sum of paid in capital and reserves. Now national banks are vulnerable given the composition of their asset portfolios. The fall in stock prices provoked a run on national banks in the beginning of March 1890. Being short on liquidity, national banks and other banks turned to BOJ for help.

[27] Yoshino (1975), Vol. 2 p. 262

BOJ did not question the transparency and quality of assets of national banks; it turned a blind eye. Faithful to Matsukata's design, it was willing to oblige but faced two hurdles.

Article 12 of the 1882 Bank of Japan imperial ordinance, prohibited BOJ from making loans on the security of real estate, private companies' shares, and to become a shareholder or owner of real estate. However, loans and overdrafts represented before 1889 more than 50% of total national banks lending and the collateral for such loans were mainly shares of private companies or real estate. To get out of the fix, BOJ used a loophole in article 11of the ordinance. This article allowed BOJ to discount bills of exchange and commercial bills without specifying the nature of the collateral. BOJ convinced itself that it could discount promissory notes on the security of private corporate bonds. However, BOJ was careful to limit itself to twelve large private companies: Nihon Yusen and eleven railway companies. Suddenly, securities of large private companies become liquid. This obviated the need for a stock market.

Articles 11 and 12 were not the only hurdle BOJ had to overcome. The 1888 amendment of article II of the 1884 imperial ordinance, promulgated in 1884 and known as the convertible bank note regulations ordinance imposed a ¥70 million ceiling on the total issue of BOJ notes without a corresponding increase in its specie reserve. Out of this maximum amount, the ordinance set apart ¥27 million for the retirement of national bank notes and ¥22 million for a loan to the government designed to complete the replacement of its notes. In 1889, discounting and loans have absorbed ¥23 million. BOJ has no more room to rescue the banks that were under stress in 1890. The objectives of high credibility and transparency were temporarily in direct conflict with BOJ's other implicit responsibility of insuring the solvency of the financial system. Both objectives and the solvency of the financial system promoted a low cost of capital and steadier economic growth and development. Yet, BOJ chose to insure the solvency of the financial system. We shall see that BOJ and the government of Japan will face this dilemma time and again throughout the period under study and they will solve it the same way.

The 1888 amendment to article II of the convertible currency regulations ordinance contained an emergency clause. The clause allowed BOJ upon approval of MOF a temporary issue of convertible notes without a corresponding increase in its specie reserve up to a maximum of ¥5 million in case of emergency at the cost of a minimum tax of 5% determined by MOF. BOJ considered that the early 1890 run on banks constituted such an emergency. In February 1890, MOF agreed and BOJ issued ¥5 million of convertible currency. During March 1890, BOJ discounted ¥8 million worth of national bank loans to rescue their depositors. During the entire year of 1890, BOJ's outstanding volume of discounting was ¥7.2 million or 70% higher than in 1889 but its loans decreased by ¥1.3 million.[28] During the period February 1890 – December 1890, BOJ discounted ¥15 million worth of exchange bills or 30% more than usual.[29] The temporary ¥5 million emergency facility was not enough. Thus, BOJ petitioned MOF to increase the maximum issue of convertible notes without a corresponding increase in species reserves from ¥70 million to ¥85 million. BOJ provided three reasons.

First, the Japanese economy experienced a rapid economic growth from 1885 to 1889. BOJ expected this trend to continue in the future. Without a commensurate increase in the ceiling on note issues, there will be a shortage of money with deleterious effects on economic growth. Second, net capital inflows were positive during the period 1885–1890 but too small and unreliable to generate a regular increase in the issue of convertible notes. Matsukata's deflation from 1882-1885 helped to produce a string of trade account surpluses that were probably responsible as well for positive net capital inflows. In 1890, there was a wheat crop failure in Japan and exports declined.

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[28] Goto (1970), p.190.
[29] Yoshino (1975), Vol. 2.

The trade account turned up a ¥25 million deficit down from a ¥10 million trade surplus in 1885 and the net capital inflows turned into ¥12 million net capital outflows down from an ¥8 million net capital inflow in 1889. The stock of species reserves at BOJ decreased from ¥58 million in 1889 to ¥48 million in 1890. BOJ did raise its discount rate from 5.48% in 1877 to 7.67% by March 1891. However, this was not enough to avoid wide fluctuations in capital flows. BOJ pointed out that in Europe central banks are able to insure a steady increase in their specie reserves by changing the discount rates in small steps. This policy did not work in Japan because Japan is too far from major capital markets. It takes forty days for cash transfers between major capital markets and Japan. BOJ cannot attract foreign capital in sufficient amounts at the right time to insure a steady growth of money supply and commercial capital without huge changes in its discount rate, i.e. the cost of capital. Increasing the cost of capital inside Japan would not increase its supply to the domestic economy.

Finally, an increase of the ceiling of note issue without a corresponding increase in species reserves would allow BOJ to earn more profits. This would allow BOJ to provide the government a free interest loan instead of 2% loan of ¥22 million the government needed to redeem its remaining outstanding inconvertible notes.[30]

The real intention from increasing the ceiling of note issue was to allow BOJ to increase its credit in step with the fast growth of commerce and industrial activity[31]. There was a lack of working capital in the export business of silk and tea. BOJ intended to use ¥10 million of the ¥15 million increase in the ceiling to extend credit to YSB to allow it to increase its volume of discounting of foreign exchange bills and to use ¥5 million to increase the volume of discounting of domestic commercial bills to help to take care of the 1890 banking crisis. These arguments convinced the government to, and it did, raise the ceiling on the issue of convertible notes without a corresponding increase in specie reserve from ¥70 to ¥85 million.

The expansion of the paper money supply following the change in the ceiling was consistent with the role that Matsukata assigned to BOJ but it was inconsistent with the adjustment mechanism of a species standard. Instead of allowing the money supply and/or its growth rate to contract with the outflow of species as domestic economic activity slowed down, BOJ caused the money supply to grow by 13% in 1890 and 4% in 1891. The species reserve of BOJ decreased by 5% in 1890 and almost recovered in 1891 to its level of 1889.

On May 15, 1890, BOJ introduced discounting with collateral of stocks and corporate bonds of selected private companies. According to BOJ, an industrial bank should have provided such discounting and loans. However, there was no industrial bank in Japan in 1890 and BOJ felt compelled to fill the gap.[32] Through such discounting BOJ rescued the cotton industry in Osaka and other industries. BOJ also helped stop the decline in deposits following the panic. BOJ provided liquidity to those banks that experienced heavy deposit withdrawals in 1890. In 1889, deposits in all banks were ¥ 68.5 million. In 1890, these deposits decreased to ¥62.7 million but recovered to reach ¥66 million in 1891 and ¥85 million in 1892.[33]

This discounting practice became a permanent feature of BOJ's monetary policy. Ordinary banks made loans on the security of private stocks and corporate bonds. BOJ's practice made these securities liquid obviating the need for a "costly risky" stock exchange market. During the period 1880-1895, the decline in the price of silver helped to propel Japanese exports to gold standard countries. These were the advanced countries of the time. The price of the yen in US dollars started

[30] Yoshino, Vol. 2, 1975, pp. 325-327

[31] Bank of Japan (?)

[32] Bank of Japan (1982), p. 432

[33] Bank of Japan (1982), Volume 1, pp. 428-449, discount table 7-2, p. 439

on a gentle downward sloping curve. The Japanese economy responded without experiencing too much inflation thanks to the credible commitment of the government to convertibility and BOJ's guarantee of the safety of the banking system, just as Matsukata envisioned. Monetary policy was supportive of economic development; it helped increased capital accumulation. Monetary policy finally gained independence; it was no more subservient to fiscal policy. Fiscal policy itself became more prudent. The government had to borrow (and pay interest) to finance a budget deficit since BOJ is now independent and has a ceiling on the issue of notes without a corresponding addition to its specie reserves.

This monetary policy was advanced for its time. It succeeded to draw a balance between the requirements of a fixed exchange rate system (gold standard) and BOJ's implicit responsibility for stable economic development. The policy reduced uncertainty, encouraging small and large savers to keep their savings in banks and keep them growing in order to maintain a steady growing supply of capital. The policy had its risks, not the least of them higher inflation rates and moral hazard. However, the commitment of the government to convertibility, the ceiling that the 1888 ordinance placed on BOJ's maximum issue of convertible notes and the requirement for BOJ to publish routinely information about the size of its species reserves helped to reduce the inflation risk to a negligible level. The other risk of moral hazard was ever present and required constant invention of palliatives to keep it under control. As we shall see, the palliatives worked in many cases but also failed in many others, especially after the government left the gold standard at the end of World War I. A determined repudiation of the natural cure, the promotion of transparency in corporate governance in the financial and non- financial sectors, led to a series of blunders. The blunders culminated in a deliberate decision to induce a depression followed by virtually a final takeover of the financial system by the government in 1936.

3. The Sino-Japanese War: July, 1894 – April, 1895

The total cost of the war to the Japanese government was ¥200 million, more than twice the 1894 annual expenditures of the general account of the government. The government raised ¥117 million through sales of war government bonds, ¥23 million from accumulated surplus of the government general account and ¥79 million from a special fund created out of the war indemnity Japan received from China after the end of the war. The excess of the funds raised for the actual war expenses was returned to the general account of the government. Unlike in the case of the 1877 civil war, it appeared as if the government did not resort to money printing to help finance the war. This was important for showing the public that BOJ retained its independence in agreement to the government commitment to convertibility and transparency in its fiscal affaires.

In fact, BOJ did participate in the financing mechanism but in such a way as to preserve credibility of its commitment to stable prices and relatively low interest rates. BOJ participated as a "special underwriter" for the issue of war government bonds and only Japanese nationals eventually bought the bonds. There was a proposal for the Japanese government to obtain a foreign loan, but MOF Matsukata advised the government against it. Given the fact that national banks were more than fully invested in long and short term loans, it was necessary to create a mechanism that preserved BOJ's independence. Yet it would raise the necessary funds through a huge sale of war bonds to the Japanese people without raising interest rates or rationing. The government stumbled on the following ingenious mechanism:

The government raised the necessary funds in a certain number of bond issues spaced over time. Each time, the government obtained a loan from BOJ in advance of the issue. The government spent the loan on the war effort causing an increase in economic activity, incomes and savings. It discouraged investment in industries that are unessential to the war effort and refused to build a railroad. It urged the Japanese people to reduce consumption and use the additional savings to buy war government bonds in small installments. With the proceeds of the sale, the government repaid the short term loans to BOJ.

The first war bond issue in August 1894 was a stunning success. The government planned to raise ¥30 million to yield 5% (6% coupon) but the issue was oversubscribed with an excess demand of ¥47 million. The second issue in December 1894 was also a success. The government planned to raise ¥49 million to yield 10% (5% coupon) but it was oversubscribed with an excess demand of ¥41 million. The third issue in March 1895 subscribed by Soldiers Fund raised ¥10 million but it was not a success. The government intended to raise ¥35 million at a 5% interest rate but the public demand was only ¥1.57 million. To make up for the shortfall, the Trust account of MOF acquired ¥25 million yen on behalf of postal savings, the special account financed by the Chinese war indemnity contributed ¥5 million and BOJ acquired ¥3.42 million. The fourth issue was after the end of the war. [34]

In the first two issues, BOJ provided an initial loan for the value of the issue to the government and the government repaid it. During 1895, the average outstanding amount of loans of BOJ to the government was ¥41 million. In addition, BOJ made ¥10 million loans to the private sector. The paper money supply increased from ¥185 million in December 1894 to ¥200 million in December 1895. This is about a 12% increase. The terms of the loans was not clear but the fact that the paper money supply increased only by ¥25 million between December 1894 and December 1895 shows that the loans were short term.

To show its commitment to convertibility and avoid species outflows, BOJ raised its discount rate in steps from a low of 4.75% in May 1893 to 8.03% in July 1894 and kept it there until July 1895. Although BOJ lowered the discount rate to 7.3% in July 1895, it started to raise it again in July 1896. By March 1898, the discount rate was 10.59%. These discount rate movements betrayed BOJ's hot seat. On the one hand, it needed to convince the public of the irrevocable commitment of the government to convertibility and independence of BOJ. On the other hand, it wanted to be faithful to its other commitment to provide short term capital even at the expense of a very mild inflation. The first commitment prevented it from increasing the cost of capital in the long run by reining in inflation and the expansion in economic activity during and following the Sino-Japanese war through hefty increases in the discount rate. The tough stance on inflation and advances to government during and after the Sino-Japanese war convinced the public that the government was serious about its commitments to convertibility and BOJ's independence. As figure 1 shows, the average interest on bank loans remained equal to 14% between 1892 and 1902 and the highest yield on industrial bonds remained lower than its 1892 level of 10% during the same period. The behavior of BOJ and the Japanese government during the Sino-Japanese war showed that the Japanese economy could withstand the rigors of the gold standard although Japan was not yet officially on it and that it can benefit from adopting it.

4. *Adoption of the Gold Standard*

Matsukata started to implement his reform program at the end of 1881. The goal was to reduce the cost of capital and increase its supply by establishing and maintaining price stability and developing

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[34] After the end of the war, the government issued pension funds bonds to the veterans worth ¥70 million.

the financial sector. Establishing convertibility between paper yen and silver yen at the par fixed by the government in 1868 was one of the main pillars of the program. The price of paper yen in terms of silver increased thanks, among other measures, to a reduction of government expenditures, an increase in taxes, a string of budget surpluses, a drastic reduction of the supply of paper money and the creation of a credibly independent central bank committed to convertibility. One paper yen started to exchange at par for one silver yen in January 1886. The drastic reduction in the paper money supply caused the well known Matsukata deflation, which lasted, from the beginning of 1882 to the end of 1883. During the Matsukata deflation, the production of silk cocoons decreased from 50000 tons in 1881 to 32000 tons in 1885 or 36%, the index (Nagoya higher commercial college) of industrial production decreased from 1.58 in 1881 to 1.42 in 1884 or 10%. (The same index for textiles increased from 1.13 in 1881 to 1.43 in 1884) The recovery of the Japanese economy was helped by the resumption of a downward trend of the price of silver in terms of gold in 1884. Although, the government stated in 1868 that the paper yen would be convertible into gold, de-facto, it was resigned to and happy about the fact that it was able to offer in 1886 convertibility in silver.

The price of silver in terms of gold started to decrease in 1873 after major western countries adopted successively the gold standard: Germany and the United States of America in 1873, Sweden and Norway in 1874 and France in 1876. Other European countries soon followed. The rate of decrease in the price of silver accelerated after the output of silver increased considerably in the latter part of the Nineteenth century. Since Japan was on a de-facto silver standard, the price of its exports in terms of gold countries' moneys decreased considerably. The yen depreciated by 50% against the US dollar between 1870 and 1900. This helped to increase Japanese exports to countries on the gold standard and brought about a strong economic growth except when the price of silver reversed temporarily its downward trend. This happened in 1889 and 1890. In March 1890, the Japanese stock market crashed and the economy went into a short lived depression during which many national banks would have failed if BOJ didn't rescue them. It seems as if the decline of the price of silver helped the exports of silk and cotton. The government issued bonds to redeem paper yen in an amount equal to ¥10 million. It used budget surpluses to retire paper yen and increase the species reserve. The volume of exports of tea increased from 6000 tons in 1868 to 23,800 tons in 1895. The total value of exports picked up after 1885 and more than tripled by 1895 but the value of imports more than quadrupled during the same period.

The silver price hick up in terms of gold in 1889 corresponds to a 20% fall in the value of the exports of fabricated raw material such as raw silk, which fell by 50% but recovered in 1891.However, the geographical distribution of Japanese exports did not change much between 1873 and 1895. The share of exports to the silver countries (China, Korea) increased from 23% in 1873 to about 28% in 1895.

These arguments suggested that Japan would be better off to go on the silver standard. The Japanese government considered the choice of a standard important since it was the culmination of Matsukata's reform to stabilize prices by restoring convertibility. The government was concerned about the fall in the price of silver and a return to an inflationary environment. The Asahi Shinbun price index increased from 127 in 1884 to 177 in 1895 or at an average inflation rate of 3% per year. Due to the decline in the price of silver in terms of gold, the yen depreciated by 50% with respect to the US dollar, a major gold country.

The government set up the research committee on the monetary system in October 1893 to advise it on the appropriate choice between a gold standard and a silver standard and asked it to report on the advantages and disadvantages of each standard. The committee listed the following advantages of the silver standard.

The continuous depreciation of silver relative to gold helped increase exports. The data seemed to contradict this conclusion since they show the performance of exports to the gold countries was no better than the performance of exports to the silver countries. However, the depreciation of silver raised the prices of the competition from the gold countries and made Japanese products more competitive both in gold and silver standard countries.

The fall in the price of silver increased the price of imports from gold countries and reduced the liability of debtors and the taxes of those paying a fixed amount such as farmers. It increased the income of farmers who produce raw silk and tea. The expansion of the production of silk products increased the demand for laborers. The resulting expansion in economic activity helped to increase government tax revenues and expenditures. Although real wages decreased, employment increased. Overall, the depreciation of silver was beneficial to the working class. Local producers and workers in import competing industries benefited from the rise in the prices of imports. Furthermore, the fall in the price of silver discouraged the imports of luxury products. The increase in exports and the production of import competing industries stimulated Japan's domestic and international trade and transportation industry. The expansion coincided with the fall in the price of silver and a mild inflation. Thus, a mild inflation stimulates industry.

The fall in the price of silver in terms of gold will hurt somewhat workers, creditors and those people on fixed incomes. However, it helps a lot to increase exports, employment and profits. Overall, it encouraged the development of industry. Workers gain more employment and the development of industry stimulates demand for capital. This will help creditors (higher interest rates?) to expand their loans and offsets the loss of purchasing power of their loans due to inflation.[35]

The disadvantages of the silver standard are also serious. Higher prices of imports from the gold countries erode the purchasing power of workers and creditors and they increase uncertainty. The fall of the price of silver increases the price of equipment and capital goods, which are imported mainly from the gold standard countries. Inflation stimulates speculation and investment in real estate and causes a fall in the prices of financial assets (bonds) and an increase in interest rates. Both phenomena will result in a fall in the rates of growth of the real capital stock and real GDP.

Gold countries investment in Japan would also decrease due to the cost increase of doing business in Japan. The cost increase was due in turn to the uncertainty in the exchange rate of the yen in terms of the currencies of the gold standard countries. Price inflation would eventually translate into higher nominal wages and higher unit costs of exports causing more inflation and reducing the competitiveness of Japanese exports. (Inflation helps a few people and harms the majority of people).

Japan will need to borrow from the gold countries in the future to increase the quantity supplied of capital needed to develop its industries. A fixed exchange rate with gold countries through the adoption of the gold standard will help the Japanese governments and financial and non financial institutions to obtain loans (labeled either in yen or in other major currencies) from the gold countries. A fixed exchange would promote foreign direct investment from the pound sterling area as well. Finally, to stay on the silver standard would cause trade between Japan and the gold countries to stagnate.[36] [37]

The government also asked the committee to make recommendations concerning three issues: the desirability of maintaining the silver standard, the need for change, and what system should Japan

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[35] Yoshino, Vol. 2 (1975), p. 409.

[36] Gold countries, of course, will experience the opposite advantages and disadvantages.

[37] Yoshino (1975), Vol. 2, pp.395-398 and 406-412

adopt in case a change is necessary. There was no consensus among committee members. They referred the matter to a subcommittee. It turned out that a majority of the subcommittee members voted in favor of a resolution to keep Japan on the silver standard. Most likely dissatisfied with the outcome, MOF (Matsukata) asked the whole committee to make a recommendation about the need to change the current foreign exchange system in the future. The committee's members voted eight to seven in favor of recommending a change. Six out of the fifteen members voted to replace the silver standard with a gold standard. The government interpreted the voting results of the committee as a recommendation in favor of adopting the gold standard. Those who voted in favor of adopting the gold standard admitted the benefits from the deprecation of silver but argued that those benefits were temporary and that the gold countries will not sit idle, they will take measures to counteract the stagnation and depressing effects on their economies. They also argued that Japan must follow the examples of the developed countries (not the examples of the poorly developed countries) in order to keep harmony with the developed countries and promote the well being of the Japanese people. Finally, they argued that the (recent) fluctuations of the price of silver caused the recent derangement (1890 recession). To avoid such derangements it is better for Japan to opt for the gold standard.[38]

After the committee handed down its recommendations in 1895, the government announced that it would adopt the gold standard as soon as it would have accumulated enough gold reserves. The victory of Japan over China in the 1894-95 Sino-Japanese war allowed the Japanese government to extract an indemnity of £38 million and provided the Japanese government with the golden opportunity to complete the building of the necessary gold reserve to adopt the gold standard officially in 1897.

The adoption of the gold standard made it easier for the government of Japan to borrow abroad. The government became more confident and its credit rating in international financial markets may have improved significantly. Central and local governments and corporations became active borrowers in international financial markets. In 1897, the central government sold to foreign investors in London ¥43 million worth of its bonds denominated in yen and £10 million worth of its bonds denominated in pounds sterling. In 1902, it sold in London £50 million worth of its bonds at a 5% yield denominated in pound sterling. During the Russo-Japanese war, it floated successfully in London large loans labeled in pound sterling. Municipalities (Kobe, Yokohama, Osaka) and private companies floated successfully many bond issues labeled in foreign currencies.

The total foreign debt of Japan increased from ¥43 million in 1897 to ¥1.76 billion in 1911. The foreign bond issues contributed to increase BOJ's specie reserves and relaxed the financial constraints on economic development. They allowed BOJ to reduce the volume of its discounts to the private sector on the security of stocks from 100% of the face value of the collateral to 60%.

BOJ started to loan directly to private corporations, which helped to reduce the over loans by banks. Before the Russo-Japanese war of 1904-1905, BOJ's discount rate to banks was significantly lower than the interest rate it charged on direct loans to the non-financial sector. Large City Banks arbitraged the difference and their loans exceeded significantly their lending capacity (deposits + revenues + capital).[39] In response to a widespread and vigorous criticism of its discount rate policy, BOJ reduced the gap from 4.4 percentage points in June 1887 to zero in November 1899.[40] BOJ lowered the rate on loans to private industry to a level near the discount rate it charged large city banks.

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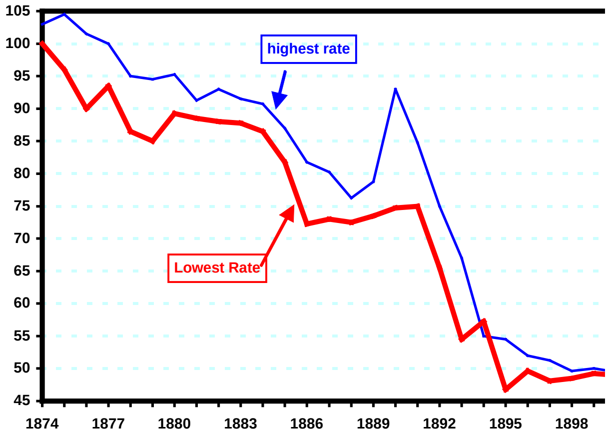
38 Yoshino (1975), Vol. 2, pp.419-424

39 The public called these banks Sayatori Banks or Arbitrage Banks.

40 Yoshino, Volume 2, 1975, p. 452. .

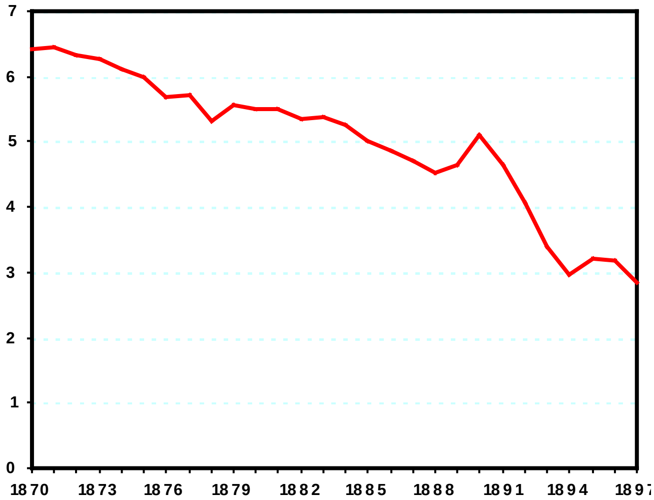
The benefits of the adoption of the gold standard are many. It required fiscal discipline, transparency in BOJ and government affairs and liberated monetary policy from the yoke of servitude to fiscal policy. As figure 6 shows, as soon as the deliberations of the research committee started, the exchange rate of the yen in terms of US dollars stabilized and its volatility, measured by the difference between its lows and highs decreased, except for the duration of the Sino Japanese war. As soon as Japan went on the gold standard, the volatility of the exchange rate became imperceptible. This was not a mean benefit for trade and industrial development.

Figure 6
Exchange rate: US dollars per 100 yen New York



Source: Bank of Japan (1966), Table 121, pp. 318, December quote

Figure 7
Price of silver in gold



Source: Matsukata (1900), Table 26, pp. 147-157, December quote

BOJ could now use monetary policy to promote economic development under control of the gold standard. The gold standard forced BOJ to adhere to a policy of stable prices and refrain from abusing its power to finance economic growth with forced savings through inflation. The creation of the Hypothec Bank and Industrial Bank helped BOJ to stick to a low inflation policy. The adoption of the gold standard also helped because it allowed governments and corporations to access additional foreign financial resources. Accordingly, small and medium enterprises faced less competition to finance investment projects out of local resources. Finally, the adoption of the gold increased the supply of both short and long run capital substantially and lowered short and long term interest rates for a while. The highest and lowest interest rates charged by banks on their loans decreased on average by three percentage points between 1902 and 1914. The government reinforced these improvements of the supply and cost of capital by the enactment of the 1890 banking laws.

5. *The 1890 Banking Acts*

One of the major innovations for increasing the supply of capital and lowering its cost was the introduction of free banking. Long overdue, the government promulgated in 1890 the first banking acts. The 1890 Banking Acts covered the creation and operation of ordinary banks and savings banks.

（1）*The 1890 Ordinary Banks Act*

The 1890 Ordinary Banks Act was disarmingly simple and had eleven clauses.[41] The government did not implement it until 1893. The act defines a bank as a financial institution or enterprise who engages in one or more of the following activities: deposit taking and loan making, discount of securities or bills of exchange, and underwriting of securities and provision of brokerage services. Although there was no minimum capital requirement, a new bank needed to have a capital to be in business and it must receive the authorization of the Ministry of Finance.

The act dealt with public disclosure of the financial position of banks in clauses three and four. Every half a year, a bank must publish an annual business report. It must send a copy of the report to the ministry of finance along with its updated balance sheet. The famous fifth clause of the act prohibited a bank from making loans to any single individual or institution in excess of 10% of its paid-in-capital.

The sixth and seventh clauses specified the list of bank holidays and the definition of a business day for banks. If a bank must close down during a business day for emergency, it must inform the public through newspapers and must inform the local government. The eighth clause empowers the Ministry of Finance to order local governments at any time to perform an audit of a bank's books and verify its asset holdings.

Penalties for violating the act's various injunctions are the subject of clauses nine and ten. The penalty for violating the second clause of the act is a minimum of five yen and a maximum of fifty yen (article 256 of the commercial code). The penalty for failing to provide the required reports is a minimum of fifty yen and a maximum of ¥500 (article 262 of the commercial code). The penalty for gross misconduct is one year imprisonment (article 258 of the commercial code).[42] Of great interest is the fact that after a lot of agitation and complaints from bank owners, the government decided in 1895 to abolish clause five. Since then, and for the next fifty years, there was no limit on the amount of loans can extend to any individual borrower. This decision had deep implications for the transparency of financial and non financial institutions and economic development. It allowed competition relatively free rein to promote development of small and medium enterprises. However, it magnified the problems of moral hazard given the implicit commitment of BOJ to protect depositors.

（2）*The 1890 Savings Banks Act*

Another important innovation of the Japanese government was the creation of an opportunity for a parallel system of financial institutions to emerge subject to stricter oversight by the enactment of a second act, the 1890 Savings Banks Act. According to this act, any person or institution that accepts savings less than five yen is a savings bank. A savings bank must be a joint stock company with a

[41] Yoshikawa (1972) pp. 594-597

[42] The eleventh clause of the act excludes Bank of Japan and YSB from the act's domain of governance.

minimum capital of ¥30000. The directors of a savings bank assume unlimited responsibility for at least one year. To guarantee safety of deposits, a savings bank must deposit with the government a sum equal to one half of its paid in capital in government interest bearing bonds. This deposit is a sort of a fixed amount reserve unrelated to the volume of deposits. Savings banks can engage only in granting loans, discounting of admissible negotiable instruments, and/or purchasing of local or national government bonds. The term of any loan cannot exceed six months on the security of local or national government bonds. Admissible negotiable instruments are bills of exchange and promissory notes with at least two trustworthy endorsements. A savings bank cannot buy and sell bonds on a regular basis. That is they cannot underwrite bonds issues or deal in bonds. To start or to modify its bylaws, a savings bank needs the authorization of MOF through the local prefect. Violation of any of the articles of the Savings Banks Act results in a minimum penalty of ¥50 and a maximum penalty of ¥500 payable by the directors. In addition, the 1890 Ordinary Bank Act applies to a savings bank in matters other than those specified in the 1890 Savings Banks Act.[43]

This act imposed more transparency and reflected Matsukata's wisdom of creating financial institutions that cater to the collection of small savings of the low income rural and urban working class. The small savers needed no great returns; they needed safety first. On the other hand, the Japanese economy needed a large pool of long term capital at low and steady cost. Matsukata planned for a single national savings bank with an 8% interest rate ceiling on its loans. He had to settle with a large number of small local savings banks with no ceiling on their interest rates.

To complete the system, the government established the Hypothec Bank and Industrial Bank. During the period 1897-1900, it established an agricultural bank in each prefecture under the supervision of Hypothec Bank. The agricultural banks financed their loans by Hypothec Bank bond issues. In 1902, the government established the Industrial Bank. The Hypothec Bank and Industrial Bank helped to reduce the pressure on BOJ because they financed their loans through bond issues.

（3） *The dilemma*

To have a cheap and abundant capital or not to have, that was the question. The brief summary above shows the care with which the government has treated the budding financial system. Weary of European and US powers encroachment on its sovereignty, the Meiji government ruled out from the start any active direct contribution of foreign capital to the economic development of the country. Accordingly, the government was willing to accept the great risks of financial crises in order to encourage the mobilization and outright creation of financial resources, through free creation of banks, necessary to nurture the nascent economic development of the country. It imposed light requirements of information disclosure to reduce the cost of nouveau-entrepreneurs with low financial, accounting and entrepreneurial skills. The minimum capital requirement condition shines by its very absence. In addition, the 1890 Ordinary Banks Act did not impose any minimum reserve requirements or erect any protective firewalls.

An ordinary bank could operate other businesses of any kind. It could close its doors permanently at any time except that it has to inform the local government. There was no restriction on the form of governance of a bank. To mitigate the risks to depositors and to encourage, the government, following the Matsukata blueprint, offered de-facto deposit insurance for deposits in all ordinary or savings banks. In addition, the 1890 Savings Banks Act required savings banks to be more transparent in terms of disclosure of information and legal form of the company. It offered depositors more guarantees in terms of required reserves and reduced risk in terms of the composition of the savings bank portfolio. However, there was no arms length requirement on the

[43] Soyeda (1994) , pp. 418-419

lending of either type of banks intentionally, leaving them open to abuse. The intention was not to encourage abuse but to encourage economic development. Many entrepreneurs established an ordinary and a savings bank and used the savings bank to collect small savings and deposit them feed with the ordinary bank.[44] The entrepreneurs used the savings collected by both banks to invest in their businesses.

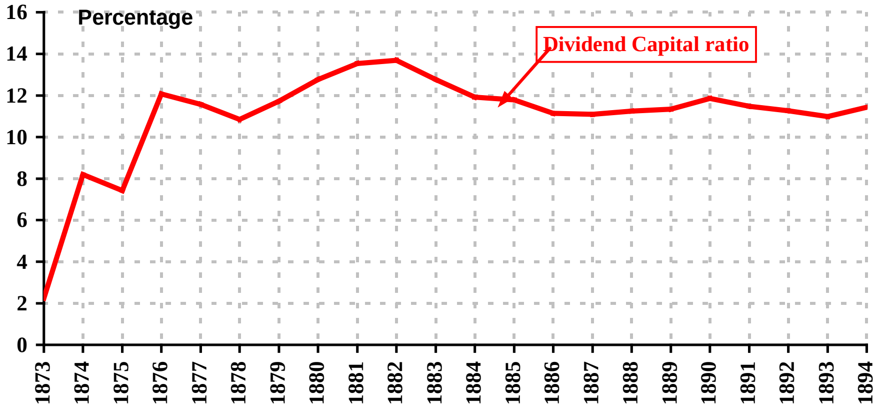
We also note that due to the fact it was not interested in generating income through taxing profits, the information disclosure was not a burning priority for the government. The land tax and indirect taxes seem to have provided ample sources of income for the government. The young Meiji government was careful not to offend the powerful financial interests that supported it through the arduous years it took to replace the feudal system by a modern state and consolidate its control over the country. The government was also interested in reducing interest rates charged by moneylenders. Moneylenders had considerable local monopoly power and charged the equivalent of usury rates. Instead of forcing them to lower interest rates by brute force, the government chose to use forces of competition, although it was well aware that it might take a long time before such market forces would succeed. Of course, income inequality was a less important priority than the rise to the foreign challenge and hegemony.

In response to the Meiji government encouragement after it took office in 1868, financial institutions of all kinds, sprouted up everywhere. According to the 1872 National Bank Act, those who desire to create a financial institution required the approval of the controller of the currency. In response to abuse, the government made illegal the use of the word bank in the name of an institution without the prior approval of the Treasury. Still more confusion and more abuse ensued since, in the absence of any banking laws, Treasury officials used their discretion. Thus, there were 247 officially recognized banks called *common banks* and 702 not officially recognized banks called *quasi banks*. This is an interesting feature of the early financial development of Japan. In 1890, national banks had a total capital including reserves of ¥61 million, common banks had a total capital of ¥25 million and quasi banks had a total capital of ¥14.5 million, Soyeda (1994). A few of the common banks were large, created by Mitsui and other powerful merchant houses, but most of them were small.

To some extent, the government had little choice. The 1890 Banking Acts merely acknowledged a fait accompli and sought to introduce some order to help collect and channel financial resources to the much needed task of the economic development of the country. The agricultural and industrial development of the country needed ample supply of capital at the least cost possible. Therefore, it is not surprising that the acts contained very few rules in order to avoid destroying the country's burgeoning financial and industrial sectors. Yet, the encouragement and financial reforms of the Meiji government were not empty promises. As figure 8 shows, the dividend per dollar invested in national banks climbed from 2% in 1873 to 12% in 1876 and remained often higher than 11%. The dividend rate was never less than 10.94% between 1877 and 1890. Although they were special, the high rates of return in national banks must have attracted capital in droves to the banking sector.

[44] Fuji Bank (1967), p. 103-104

Figure 8
Dividend Capital ratio, National Banks



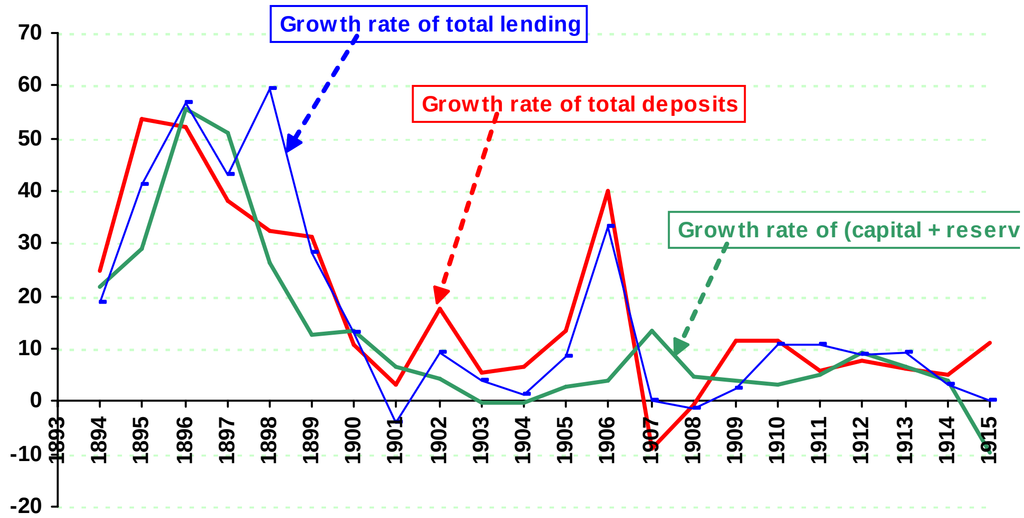
Source: Soyeda (1994), table III p. 435

After the implementation of the 1890 Banking Acts in 1893, quasi banks transformed themselves into ordinary banks, savings banks or moneylenders. The total number of ordinary and savings banks grew from 628 in 1893 with a total capital of ¥37.1 million to 913 with a total capital of ¥84.2 million in 1895. The number of banks, their total capital, and total deposits continued to grow fast until 1901.

Figure 9 shows that the yearly growth rates of total deposits total capital and reserves and total lending were higher than 10% between 1894 and 1900. The high growth rates in 1895 and 1896 (1905 and 1906) were due to the financial arrangement the government worked out with BOJ to finance the Sino-Japanese (Russo-Japanese) war. In 1901, eight years after the enactment of the 1890 Banking Acts, there were 1807 ordinary banks and 441 savings banks. The total paid in capital of ordinary banks had increased from ¥19 million in 1890 to ¥251 million in 1901, total accumulated reserves from ¥2.1 million in 1890 to ¥38.8 million, total deposits from ¥25 million in 1890 to ¥450 million in 1901, and total amount of lending from ¥39.5 million in 1890 to ¥635.1 million.[45] The total paid in capital of savings banks had increased from ¥0.5 million in 1893 to ¥17.1 million in 1901, total accumulated reserves from ¥0 million in 1893 to ¥3.4 million, total deposits from ¥6 million in 1893 to ¥74 million in 1901, and total amount of lending from ¥1 million in 1890 to ¥60.1 million.[46] This is not a mean performance by any standards; it lies at the foundation of the remarkable economic growth of the Japanese economy during the 1868-1920 period. It justifies the risk taken by the government by turning a blind eye on the lack of transparency of some ordinary and savings banks. Practically, there was not much difference between demand and time deposits, Time deposits accounted for more than one third of total deposits in ordinary banks and about one half in savings banks. The coexistence of the two types of banks is a reflection of the perceived difference in risks and degree of transparency.

[45] Bank of Japan (1966), pp. 198-199
[46] Bank of Japan (1966), pp. 202

Figure 9
Growth rates of Total Capital, Total Deposits, and Lending (Ordinary Banks)



Source: Bank of Japan (1966), pp, 198-199, Table 66

The proliferation of ordinary banks was so rapid that the government decided in 1901 to stop licensing new ordinary banks and encouraged the existing ones to merge through various subterfuges including minimum capital requirements and administrative guidance. Clearly, mild regulations contained in the 1890 Banking Acts and BOJ's monetary policy to protect depositors and rescue banks in case of trouble made it easy to start new banks and businesses. As figures 1 and 3 show, the competition among banks helped to increase the supply of capital and lower the interest rates on loans between 1893 and 1914 while maintaining steady interest rates on deposits. The increased competition and supply of capital came at a price in terms of transparency, the emergence of so-called *organ banks* and an increasing fragility of the financial system.

6. Russo Japanese War Finance and its Aftermath

The war started in March 1904 and ended in September 1905. It showed the power of the gold standard to harness international financial resources and exposed the fragility of the financial system. The government expenditures on this war amounted to ¥1.729 billion. This was a large amount. It is eight times the government expenditures on the Sino-Japanese war, which Japan waged ten years earlier. It was seven times the government expenditures in 1904. The government financed ¥1.5 billion of the war expenditures through a special account and ¥221 million through the government general account. To cover the expenditures on the war through the special account, the government issued ¥729 million bonds on the domestic market and ¥912 million on the foreign financial market labeled in foreign currency. Since Japan won the war, the Japanese government expected Russia to pay an indemnity, as it was the case in the Sino-Japanese war. This indemnity was not forthcoming and the Japanese government was forced to raise taxes by ¥212 million to cover the extra expenditures in the general account.

To make it easier for the Japanese public to subscribe to the ¥729 million domestic war issue, the government obtained from BOJ short term loans, which it spent on the war effort. The expenditures raised people's incomes and stimulated economic activity. The war boom generated further increases in income. The government appealed to patriotism to convince Japanese people to use their increased incomes to buy its war bonds. The government used the proceeds of the sale of war bonds to repay its loans from BOJ.

In this way, BOJ helped the government to finance the war while maintaining its commitment to the gold standard. This commitment helped the government to obtain easier financing of its bond issue in foreign financial markets. BOJ succeeded in restraining the growth of money supply. The outstanding amount of BOJ notes increased from ¥213 million in March 1904 to ¥286 million in December 1904. It then decreased to ¥251 million in March 1905 and ¥219 million in May 1905. The war ended in September 1905. The Asahi Shinbun wholesale price index shows that the inflation rate increased from 4% in 1904 to 16% in 1905. BOJ species reserves fell from ¥121 million in 1903 to ¥90 million in 1904. They recovered to ¥119.8 million in 1905 thanks probably to the war foreign bond issue. To restrain the war boom, BOJ raised its discount rate and interest rate on its loans three times from 6.21% in June 1904 to 8.4% in June 1905.

The Portsmouth (in New Hampshire, US) peace treaty between Japan and Russia of September 1905 conceded the victory of Japan but did not compel Russia to pay a war indemnity to Japan despite the victory of Japan in the war and the vigorous attempts of the Japanese government to extract one. Immediately after the end of the war, the Japanese economy started to show signs of fatigue. The Japanese government hoped that a war indemnity would have prevented such a hangover after the war boom. To compensate for the failure to extract an indemnity and avoid the hangover, the Japanese government implemented an aggressive expansionary fiscal and monetary program. It nationalized railways in 1906, rebuilt and extended the Manchuria railway in Northeastern China and invested in a modernization of the army and navy. It sponsored joint ventures between Mitsui Zaibatsu and British (Vikers Co.) and American (Armstrong Co.) arm and warship producers to produce arms and war vessels for the Japanese army (Nihon Seiko-Sho) and encouraged the development of electric power generation. To finance these operations and maintain its commitment to the gold standard, it sponsored borrowing from abroad by private Japanese companies and local government. This allowed BOJ to reduce its discount rate three times from 8.4% in February 1906 to 6.5% in July 1906. These measures increased the supply of loanable funds to domestic industry and contributed to induce to a boom in the creation of new corporations and investment.

The vice president of BOJ and future Prime Minister Takahashi justified government actions by a concern about the ability of BOJ to keep Japan on the gold standard. He pointed out that there surge in government borrowing abroad to finance the war resulted in a substantial increase in Japan’s foreign debt service. In order to produce the required inflow of species to meet these obligations and keep Japan on the gold standard, it was necessary to induce an economic expansion to boost profits and exports. The boom ended in the beginning of 1907 due to the start of a worldwide depression. On January 20, 1907, stock prices collapsed, the value of the collateral stocks of many large banks (city banks) decreased significantly creating doubts about the ability of banks to meet regular deposit withdrawals. In March 1907, several banks (eight in Tokyo) experienced a run including a large bank (One Hundred and Thirty Eighth Bank). This time around, BOJ was selective. BOJ rescued banks with sound portfolios and management and encouraged or forced the rest to merge. Bank failures continued until 1909. During the two year period, forty banks stopped payments of deposits temporarily and many large sugar refining companies went bankrupt.

Between 1907 and 1914, Japan experienced serious difficulties. During this period, total species holdings by BOJ and government declined from their peak of ¥495 million, reached at the end of 1906, to ¥341 million in 1914. The Japanese government held more than half of Japan’s specie reserves overseas, probably to prove its commitment to the gold standard and to be able to refund its foreign debt. Outstanding foreign investment in Japan (mainly government foreign debt) increased from ¥1.37 billion in 1907 to ¥1.98 billion in 1914. The current account deficit deteriorated from ¥18 million in 1907 to ¥127 million in 1913. Furthermore, the Japanese government needed foreign capital to develop Korea and Taiwan. From July 1912 to May 1913, Japanese economy experienced another recession. A few banks went bankrupt. The Industrial Bank was on the brink of bankruptcy because of excessive investment in gold mining.

As in 1907, BOJ couldn't separate monetary policy from exchange rate policy because of the discipline of the gold standard. It reduced the discount rate from 8.4% in June 1905 to 6.5% in 1906. It had to raise it in December 1907 to 7.30%. It reduced it to 4.75% in March 1910. Since then it had to raise it again in November 1912. The discount rate reached 7.30 in July 1914. The gold standard created a nightmare for the government and BOJ. Indeed, BOJ's twin goals were in conflict. Its desire to support economic development by providing cheap short term loans (capital) and the need for stable prices achieved through adherence to the gold standard were not easily reconcilable, especially because of the need for imports of equipment from abroad.

BOJ provided easy financing through relatively low interest rates on the security of stocks of certain companies, emergency lending to troubled banks during panics and war finance. Many of these actions created pressure on domestic prices and on the current account. The relatively high foreign debt following the Russo-Japanese war made it difficult for Japan to obtain more foreign capital and for BOJ to maintain low interest rates. There was a clear conflict between maintaining low interest rates and ample supply of short term capital and the desire to maintain price stability with the help of the gold standard. The lack of transparency and the increased importance of the moral hazard problem started to take their toll. The start of World War I provided an escape and masked these problems as long as it lasted.

Ⅱ Turbulence of the free banking system

7. The Roaring Teens: World War I and its immediate aftermath

Japan entered World War I as an ally of UK with minor participation in combat. Its total war expenditures were ¥1.54 billion, of which ¥690 million was incurred during the "Siberian Excursion." The general account financed 33% of total war expenditures. The government financed the remaining 67 % with borrowing and government bond issues. BOJ was not directly involved in the finance of this war. However, it was heavily involved in dealing with the other financial consequences of the war.

On the eve of the war, MOF had a hard time dealing with deficit of the current account while adhering to the gold standard. The beginning of the war muddied the water further. The government invested a large part of Japan's specie reserve in the London financial market and a large part of the settlements of its international transactions transited through London. At the beginning of the war, its exports to Europe also suffered. The UK government embargo on gold exports made it difficult for Japan to pay for its imports and service its foreign debt. However, soon, the war disrupted the economics of the belligerent countries. The allies turned to Japan to make up for the fall of their output of consumption goods and to import war equipment and ammunitions. The Asian customers of the European belligerent countries turned also to Japan for imports. Japan's exports started to increase steadily causing a major boom of economic activity. The balance of trade and services started to improve and eventually produced a series of current account surpluses. The total surplus of the balance of trade for the period 1917-1918 reached ¥1.39 billion. The total surplus of the service account during the war period reached ¥2.73 billion. The embargo on gold exports turned Japan into a major international creditor. In 1914, Japan had ¥1.6 billion debt. At the end of 1918, Japan had 1.9 billion worth of assets. Its net asset position in 1918 was 0.3 billion. Its species reserve increased from ¥0.3 billion in 1914 to ¥1.5 billion in 1918. The stock of BOJ notes in circulation increased at an annual compound rate of 38% from ¥0.38 million in 1914 to ¥1.4 billion in 1918.

The wholesale price index was 126 in 1914 and 312 in 1918. This corresponds to a significant inflation rate of 25% per annum during the war. Many industries prospered. War equipment industry and transportation industries flourished. So did other industries: cotton, textile, silk reeling, iron and steel, shipbuilding, machine tools, electric power, chemical industry and shipping. The banking sector also grew fast. Deposit increased from ¥2.3 billion in 1914 to ¥8.1 billion in 1918. Before World War I, YSB had a monopoly on foreign exchange transactions. During the war, a few large city banks started to deal in foreign exchange transactions and bond issues. Brokers in call loan markets and bills of exchange prospered. BOJ extended credit to exporters to get around the US and UK gold embargos during the war. From 1914 to 1918, BOJ discounted ¥400 million worth of foreign exchange bills compared to ¥100 million worth of discounting of domestic currency bills. BOJ was forced to admit a larger class of collateral. Before the war, BOJ accepted government bonds and securities of ten corporations. During the war, BOJ added to the list of acceptable collateral, Hypothec Bank bonds, Industrial Bank bonds, municipal bonds of Osaka, Tokyo and Kyoto, foreign bonds, twenty-six stocks, and eighty-four corporate bonds. Starting in 1915, BOJ didn't have a list of acceptable collateral anymore. However, at the end of the war, BOJ became concerned about the length of the list of acceptable collateral.

Yoshino (1966) argued that the goal of BOJ was to contain inflation and to reduce the excessive growth of money supply. Normally, the gold standard would have forced exports to fall and imports to rise due to the higher domestic inflation rate, causing a loss of reduction of the growth rate of reserves and a reduction in the growth rate of money supply and credit. Other major Western countries (UK, US…) had also high inflation rates and imposed embargo on gold exports. This prevented the normal adjustment mechanism of the gold standard to work properly. At first, BOJ was content to build up its specie reserve, which trade deficits in the previous decade have reduced to dangerous levels. It attempted to build it even faster by redirecting imports of cotton from India to U.S. Before the war, BOJ used to pay for cotton imports from India with export bills to England. During the war, this was not possible because of the UK embargo on gold exports to the US. By changing the source of cotton imports from India to the US, BOJ could use the proceeds of its exports to the US to pay for cotton imports from the US and save transport and insurance costs. This was also necessary because the US imposed an embargo on gold exports in 19l7. The fast build up of the specie reserves resulted in a fast growth rate of money supply and prices. BOJ attempted to maintain price stability through sterilization but without much success.

BOJ species reserves increased from ¥218 million in 1914 to ¥715 million at the end of 1918 despite the gold embargos of other countries. In addition, BOJ discounted export bills, the proceeds of which it couldn't repatriate, especially after the US embargo. At the end of 1920, after the US and other countries removed their embargoes, BOJ's reserves increased to ¥1.247 billion dollars.

MOF imposed its own embargo on gold exports from Japan on September 12, 1917. Unlike, the other major industrial countries, US and UK, Japan did not revoke its embargo until the end of the nineteen twenties. The embargo frustrated the operation of the gold standard adjustment mechanism allowing Japanese domestic prices to deviate considerably from the prices of its major competitors when calculated at prewar parities.

During the war, the relatively high inflation rate of wholesale prices (25%) was of little importance since its major competitors experienced a comparable rate of inflation. However, after the end of the war, its major competitors have taken steps to reverse a substantial proportion of the war induced inflation, but Japan failed to reduce its inflation rate to the same extent. The price of rice increased substantially after the war and sparked riots in some regions of the country. BOJ attempted to deal with the consequences of the malfunction of the gold standard mechanism, Yoshino (1966).

BOJ sold domestic currency denominated government bonds to absorb the excessive increase in money supply. It promoted Japanese investment in China, England, France, and Russia. Such investments amounted to ¥540 million at the end of 1918. Most of them were government investments and politically motivated. The governments of the Allied countries sold ¥140 million worth of their bonds denominated in foreign currency to the Japanese government. BOJ acquired ¥100 million worth of UK exchequer treasury bills.[47] The government of Japan made a ¥270 million loan to the Chinese government and a ¥130 million loan to the Russian government. Both loans were politically motivated and they turned out to be completely irrecoverable. BOJ sold also foreign currency worth ¥1.4 billion to the government. The government paid for the purchase with the post office deposits. BOJ tried to develop the money market so that it can reduce its lending to domestic banks.[48] It also allowed private banks to operate in foreign exchange markets breaking the prewar monopoly of the Yokohama Specie Bank. To entice private banks to discount export and import bills, it agreed to vouch for some of them by apposing its stump. These bills earned the nickname of stamped bills. It also encouraged large city banks to issue bankers acceptances.

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[47] Yoshino (1978), vol. 4, pp. 858-862
[48] Yoshino, Ibid., pp. 858-862

These actions were not sufficient to reduce the inflation rate. This is not surprising since BOJ offset those actions with successive reduction of its discount rate from 7.30% in July 1914 to 6.5% in April 1916, to 5.84% in July 1916 and to 5.11% in March 1917. This decrease must have frustrated the gold standard adjustment mechanism still further. Starting in September 1918 after the United States government decided to lift the embargo on gold exports and the FED raised its discount rate, BOJ retraced its steps. It raised the discount rate to 5.85% in September 1918 and to 6.5% in November of the same year, to 7.3% in October 1919 and to 8.18% in November 1919. This series of increases was probably one of the causes of the 1920 depression. BOJ notes increased from ¥385 million in 1914 to ¥1.555 billion at the end of 1919 and its reserves increased from ¥715 million in 1918 to ¥1.242 billion at the end of 1920. BOJ's feeble attempts to reduce excessive liquidity did not have much impact.

At the end of 1916, there was a rumor of an armistice. This meant the return of European competitors to Asian markets, the stock market crashed. There was a threat of runs on banks since banks accepted stocks as collateral for loans and held stocks in their portfolio. BOJ reduced the discount rate and made loans to rescue banks. One of the big city banks availed itself of such loans.

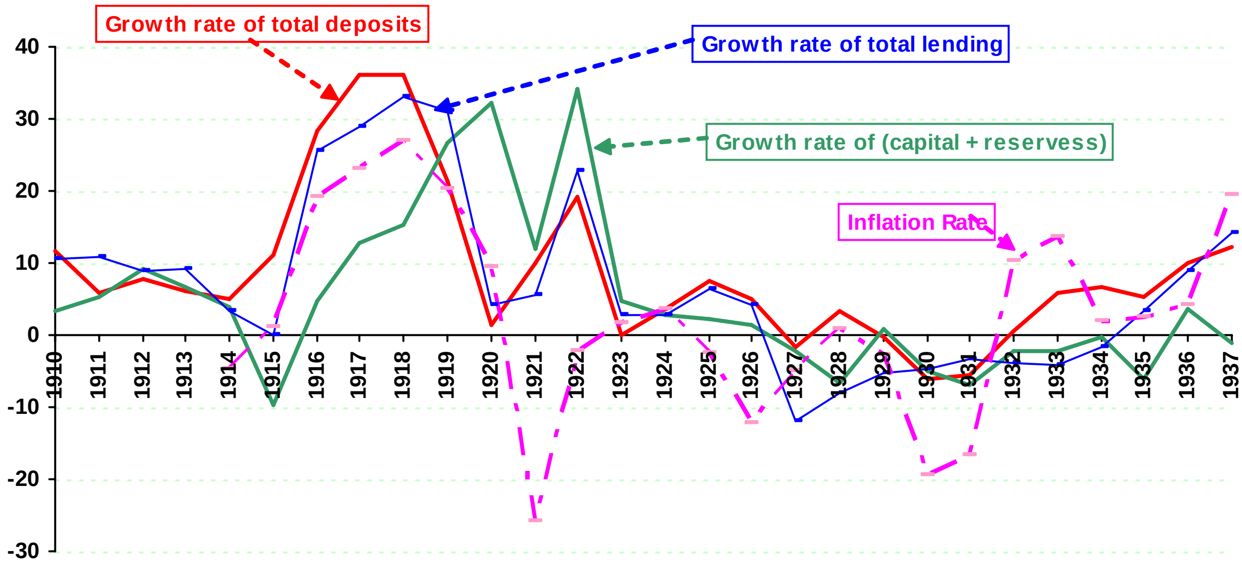
After the end of World War I in November 1918, the stock market declined for the same reason that it crashed in 1916 and because of the expected sharp decline of the shipping business in which many Japanese companies made profits during the war. The Japanese shipping and shipbuilding companies got into trouble causing trouble for their suppliers in all manufacturing industries and their banks. The Japanese economy went into a brief recession. Again, BOJ came to the rescue.

Soon after, the US economy expanded and Japanese exports of silk and textiles increased. The shipping industry recovered and the Japanese economy started to recover. The US removed its embargo on gold exports in September 1919 but Japan maintained its embargo. Private banks engaged in foreign exchange markets repatriated their stock of species and the money supply increased again. No one complained of the excessive liquidity and its effect on inflation and the competitiveness of Japanese industry since MOF refused, for political reasons, to lift the embargo on gold exports. In contrast, BOJ increased its discount rate because it was concerned about the consequences of the failure to reduce money supply.

BOJ was willing to raise the discount rate but it was also willing to support banks in difficulties in order to protect depositors and businesses, including banks. Given the lack of transparency in all businesses, including joint stock companies, this policy allowed moral hazard problems to fester. BOJ succeeded in stopping the growth in money supply without reducing permanently the growth in economic activity. The policy helped to reduce prices but nominal wages continued growing. The reduction in prices was not enough relative to that in the UK and US. Thus, unlike the US government, the Japanese government was not able to return to the gold standard at the prewar parity, without further reduction in prices. The return of the US to the gold standard in October 1919 precipitated the onset of the 1920 depression in the US. The 1920 depression in the US reduced US prices further and spread to the Japanese economy immediately. BOJ again rescued failed banks. Prices in Japan fell but they remained relatively high. Inouye (1931), former governor of BOJ, started a lonely campaign calling for the reduction of excess liquidity in the Japanese economy. However, for the next decade, BOJ will be busy trying to control damage from an endless stream of failed banks. This insured that BOJ and the government would be fully occupied with reducing a growing uncertainty resulting from the failure to deal directly with the moral hazard and the lack of transparency. The government policy implicitly implied that it could reduce the cost of capital only by protecting bank depositors and controlling the damage caused by the endless stream of bank failures.

Between 1914 and 1921, interest rates on loans increased by 2.5 percentage points reversing the secular downward trend that started with the adoption of the gold standard and the tremendous increase in the number of banks between 1890 and 1901. Interest rates on deposits also increased two percentage points. Of course, the inflation rate also increased. Between 1914 and 1920, the average inflation rate increased by 14 percentage points from 4% between 1890 and 1914 to 18%. Thus, during the war real interest rates on loans were negative. In 1916, the highest average interest rate on bank loans was seven percentage points lower than the inflation rate. Despite the agitation about high interest rates on deposits, the highest average real interest rate on bank deposits was -8%. As figure 10 shows, there was a large increase in the total capital of banks, their total deposits and their total lending during this period. The corresponding growth rates far exceed the inflation rate of the whole price index indicating that the real supply of capital has increased substantially. BOJ has succeeded wonderfully in lowering the cost of capital by lowering uncertainty to deposit holding and investment in industry and there was ample supply of it during the period 1914-1920. These developments had profound implications for the development of Japan's industry and its financial sector.

Figure 10
Growth rates of Total Capital, Total Deposits, and Lending (Ordinary Banks)



Source: Bank of Japan (1966), pp.198-201, Table 66

8. *The Rocking Twenties*

During World War I, estimates provided by Ohkawa @ al. show that real GDP may have increased by 33%. Between 1914 and 1919, the value of exports[49] tripled, the value of silk exports quadrupled, the value of cotton fabrics exports sextupled, the value of steel exports increased from almost nothing to ¥19 million, the value of textile machines exports tripled and the value of exports of vessels increased by a factor of eighty. The value of income received from abroad, especially mainly income from shipping and insurance services, more than quadrupled. During the prewar

[49] The values of exports are in current prices

period, 1910-1915, the average output of the shipbuilding industry was 125 vessels. In 1919, the output reached 516 vessels. The construction index increased from 58 in 1915 to 190 in 1920.

Over the five year period 1914-1919, the index of the prices of farm products and the price of silk cocoons tripled and the price of cotton yarn more than tripled. The price of rice per unit weight more than quadrupled increasing from ¥13 to ¥45.9 in 1919. However, real wages did not fare as well. Between 1914 and 1918, the real wage per day of carpenters decreased from ¥1.5 to ¥1.12 in 1918 and that of a daily worker decreased from ¥0.98 to 0.83 that of the female farm worker decreased from ¥0.52 to ¥0.4 and that of a female silk spinning worker decreased from ¥0.36 to ¥0.37. Nominal wages of all these workers increased at a brisk pace but they did not keep up with the wholesale price index, which doubled. This allowed profits to rise and caused the rice riots of 1918. After the riots, employers provided nominal wage increases that brought real wages in 1919 to their levels of 1914 except those of carpenters. Between 1914 and 1919, the average profit rate of the medium and large enterprises in all industries increased from 15% to 49% of paid in capital and dividends increased from 10% to 26% during the same period.[50]

Although everyone knew the war conditions were special, competition among Japanese producers and entrepreneurs resulted in a rush to take advantage of those conditions, especially of the high profit rates. The productive capacity of existing industries expanded rapidly and entrepreneurs created and entered new ones with the help of government, the development banks and BOJ. The increased diversification of exports testifies clearly to the diversification of the Japanese economy that occurred during the war period. During this period, the productive capacity of many industries increased rapidly and new industries (steel, chemical industry, and electric power generation) sprouted out. The average real capital investment of all industries was ¥274 millions during the prewar five year period 1910-1914.[51] It jumped to ¥916 millions during the 1915-1919 period, a threefold multiplication. In mining, the multiplication was three fold. It was more than twice in manufacturing, four folds in cotton spinning and six folds in shipping. The average ratio of investment to output in all industries jumped from 7.4% during the five years preceding the war to 21 % during the war.

Prosperity was everywhere but did not benefit every one and was precarious. Any rumor of an impending end to the war brought about a collapse of the stock market and commodity prices. The government with the help of BOJ would act swiftly to calm the markets and prevent the collapse of businesses and banks. The armistice of 1918 spelled out the end of the prosperous times. It produced dire consequences for the shipping industry, a major industry of its own and a major market of the young and burgeoning shipbuilding industry.

A lot of other economic activity depended on shipbuilding and on exports of services and commodities. A few firms and banks went bankrupt during the shallow 1919 recession in the US and Japan. The swift recovery of the US economy produced a substantial rise of imports of Japanese silk products. Japanese exports of cotton products held up well thanks to increased imports by China and India. These developments during 1919 helped to reverse partially the fall of exports of ships and shipping services. During the same year, the US government lifted its embargo on gold exports. The repatriation of some of the gold and claims accumulated in the US by private banks Japanese banks injected more liquidity in the Japanese economy and helped to ease the financial tightness in the country. The tightness was a consequence of a substantial increase in imports, especially of investment goods, and a significant slowdown of export growth of both services and commodities in 1919.

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50 Bank of Japan (1966),, p. 335

51 We used BOJ's wholesale price index to deflate nominal values (yens of 1910).

The first government based on parliamentary democracy and headed by a commoner[52] took office in early 1918. Based on the experience with the end of previous wars, the government expected a hangover from the end of a war. As usual, it announced an economic program to promote the armament industry, invest in the improvement of the infrastructure of transportation, communication and education and to promote industry through political jawboning to lower interest rates. At the end of 1918, MOF Takahashi invited all banks to implement seriously the low interest rate policy on bank deposits to which six large Tokyo banks agreed in 1902 and 1906. He urged them to introduce penalties to enforce the agreement.[53] Probably with Takahashi's prodding and blessing, major banks in the six largest cities reached an agreement in December 1918. This time around the cartel worked because it acquired a mechanism to enforce the ceiling. [54]

Inouye, governor of BOJ at the time, announced a new monetary policy designed to encourage exports in order to help industry achieve and maintain full utilization of the higher productive capacity built during the war. According to the new policy, BOJ started accepting as collateral for its loans a large variety of high grade securities. A bubble fever took hold of the country again following a similar bubble in the US. The bubble developed out of the banking, electric power generation and spinning industries. It was not limited to the expansion of existing firms. Newly created joint stock companies appeared everywhere. Speculation about the prices of their stocks and those of existing firms was rife. Prices of products rose fifty percent between the end of the war and the end of March 1920.

BOJ participated in the foray by supplying more credit to industry and failing to raise its discount rate appropriately for fear that the economy would nosedive. The US FED followed the same policy bur for a different reason. The treasury department of the US government requested the FED not to raise its discount rate to help it deal with the government budget deficit inherited from the war. The Japanese government was aware of the danger but decided that BOJ would not raise the discount. For the government was convinced that it is better to reduce its expenditures or induce a fall in exports and/or an increase in the imports of necessities in order to cool off the fever. The lifting of the gold embargo by the US government coupled with the low interest rate policy drained the gold reserves of the FED. This forced eventually the FED to raise its discount rate three times: the first time in December 1919 to 4.75, a second time to 6% on January 21 in 1920 and a third time in June 1920 to 7%. The US economy started slowing down in January and nosedived in July 1920. The wholesale price index in the US collapsed by 50% and the US economy went into a very sharp depression. The US and Japanese bubbles burst and Japanese exports fell. The wholesale price in Japan fell by 25% in 1920 leaving Japan high and dry relative to the US.

The Japanese bubble burst in April 1920. Exports did not have time to increase as hoped and inventories increased because of the bursting of the US bubble. Between 1919 and 1920, the volume and value of raw silk exports fell by 40%, the volume of cotton fabrics exports increased by 80% but the value fell by 19% and the total value of imports increased by 10%. Industrial output decreased, many businesses went bankrupt, one hundred banks experienced a run and twenty one of them closed their doors. Dividends payments decreased from ¥800 million in 1920 to ¥680 million in 1921 and ¥460 million in 1922.

The government and BOJ came to the rescue immediately. The government instructed Industrial Bank to make available to industry temporary funds by issuing debentures that the Deposit Bureau (Post Office Savings) would buy. Many companies helped themselves, including electric power companies and the Imperial Silk Company. The government created the latter to support the price of

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52 Hara T.

53 Yoshino, 1973, vol.4, pp 812-816

54 Mitsui Bank (1957), p. 380

silk after its collapse following the burst of the US bubble. By the end of 1920, BOJ provided ¥830 million worth of temporary loans to banks.

The burst of the 1919 US bubble may have been the catalyst of the burst of the bubble in Japan but the deep and short 1920-1921 depression in the US created another problem. The US wholesale price index fell by 50% between July 1920 and July 1921 but Japan's wholesale price index fell only by 25% between the end of 1920 and the end of 1921. Japanese exports lost competitiveness as government intervention kept the exchange rate relatively stable despite the fact that it had maintained the embargo on gold exports. The value of Japanese exports fell by 44% between 1920 and 1921.

An increase in government expenditures, particularly on shipbuilding, was one of the main components of the government policy announced in early 1919 and designed to help Japanese industry maintain full capacity utilization. This policy fit hand in glove with its military policy, which policy aimed to achieve full naval parity with the US. The 1921 Washington conference on limitation of armaments robbed the Japanese government of both of its hopes with dire consequences for economic stability. The conference final communiqué restricted the relative capital ship tonnages respectively to 5:5:3 for the US, UK and Japan. This restriction forced the Japanese government to reduce its military expenditures starting in 1922. Military expenditures fell by 18% in 1922 after increasing by 15% in 1921.[55] The average annual output of vessels dropped during the period 1921-1925 to 160 or by 40% relative to the previous five years period and dropped further to 100 or about 36% in the following five year period.

Government retrenchments in 1922 caused a deterioration of the economic environment. The construction index collapsed by about 18% in 1921 relative to its peak in 1920 remained moribund until 1925. At this time, it resumed its downward march until it lost by 1929 one third of its 1920 value. The index of agricultural production stagnated between 1920 and 1929. The Kanto (Tokyo) Earthquake of September 1923 added further damage. It destroyed lives, businesses and banks. Banks lost their collateral titles and timely payment of loans by destroyed businesses. In response, BOJ discounted all bills maturing before September 1925. The value of these bills came to ¥431 million of which BOJ financed 80%.[56] The government provided financial help through its three special banks -Hypothec Bank, Industrial Bank, and Yokohama Specie Bank- using deposits of postal savings and new issues of government and Hypothec Bank bonds. It seemed that the Japanese economy sunk into a chronic recession. Without active government and BOJ interventions, the economy would have sunk much deeper.

Between 1921 and 1931, the inflation rate of the wholesale price index was negative except in 1923, 1924 and 1928. It was 1.7% in 1923 and 3.6% in 1924 due to the earthquake and the resulting reconstruction effort. It took a breather and stabilized temporarily in 1928 when BOJ helped the banking system to recover from the 1927 banking crisis. The index of the prices of farm products started to fall in 1921. By 1929, the index fell to 40% of its 1920 level. The price of rice dropped by one third in 1921 recovered by 20% during the next four years and started to fall again until 1931 when it stabilized at about 50% of its 1919 peak level. The price of cocoons fell by 40% and the price of silk fell by 73% in 1920. They rose in 1922, fell in 1924 and rose again in 1925. Then they started a deep descent to end up in 1929 at levels lower than their respective levels in 1914.[57] In 1921, the price of cotton yarn collapsed to 60% of its 1920 peak. It fell another 5% in 1922,

[55] Bank of Japan (1966), p. 133

[56] Fuji Bank (1967), p81

[57] Nakamura (), p. 44.

stabilized in 1923 and recovered to about 75% of its 1920 level by 1925. It collapsed thereafter to reach half of its 1920 level in 1929 and one third of its 1920 level in 1930.[58]

Nominal wages failed to follow suit after 1920. They stabilized temporarily in some sectors then continued to increase until the end of 1924 at a much slower rate than they did before 1920. By this time and until the end of 1929, nominal wages in most sectors started to fall gently compared to the average rate of deflation of the wholesale price index. After 1929, when the government opted to return to the gold standard, nominal wages started to fall precipitously. The sharp difference between the behavior of prices and nominal wages allowed real wages to rise for the better of the 1920's decade, squeezing profits in some sectors and causing losses in others. Profit rates in the large and well managed companies fell from an annualized rate of 60% in the first half of 1920 to 15% in 1929. Dividend rates fell from an annualized rate of 35% in the first half of 1920 to 10% in 1929. The ratio of net profits to the sum of paid in capital and reserves in principal enterprises in all industries reached an overall peak of 25% in the first half of 1920 up from 8% in 1914. It started a steady decline in 1921 and fell to 5% in the in the first half of 1930. [59] Total investment in all industries fell from ¥5.1 billion in 1920 to ¥1 billion in 1924. It recovered ¥1.6 billion by 1926 and started to fall again to reach ¥1 billion again in 1929. It collapsed further by a half in 1930 after the return to the gold standard and remained at that level until the end of 1932.[60]

Between 1926 and 1929, the number of workers employed declined by 10%, the number of female workers declined by 17%, the real cash earnings of male workers increased slightly, the real cash earnings of female workers declined by 4%. Not all districts experienced stagnation; some experienced an increase in real cash earnings. The inflation rate was often negative spelling disaster for industrial concerns and their banks.[61] BOJ's wholesale price index was 1.678 in 1920. It decreased to 1.157 in 1926 and 1.075 in 1929. Yet, the nominal wage of a carpenter was 2.62 in 1920; it increased to 2.92 in 1926 and decreased to 2.78 in 1929. The total number of hours worked declined slightly. The Japanese economy has also experienced deep transformation since the Russo-Japanese war of 1904-1905. Shipping, shipbuilding and heavy industries developed during the war. After the end of the war, the shipping and shipbuilding industries fell on hard times along with the cotton industry, causing hardship in most other industrial sectors. The maladjustment of Japanese prices relative to those of other major western counties created more hurdles

From 1915 to 1920, wholesale prices in Japan, UK and US more than doubled. However, the wholesale price in Japan increased faster than in UK and US until 1920 and decreased at a slower rate between 1920 and 1925. Set both Japan and US wholesale price indexes equal to one in 1913. In 1920, the wholesale price index in Japan was 2.59 and that in the US was 2.21. The US wholesale price index in 1920 was 0.85 that of Japan. In 1921, the wholesale price index in Japan decreased to 2.0 but that of the US decreased to 1.39. The US wholesale price index in 1921 was 0.695 that of Japan. Finally, in 1925, the wholesale price index of Japan was 2.02 but the US wholesale price index was 1.48. The US wholesale price index in 1925 was 0.74 that of Japan.

Until early 1918, the US and Japan were on the gold standard. The US and then the Japanese government imposed an embargo on gold exports. The yen maintained its prewar exchange rate at about $49 for a 100 yen until early 1920. By the end of 1920, it fell to $48 for 100 yen despite the fact that Japanese prices increased by more than 15% relative to US prices thanks to the Japanese government support.

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[58] Bank of Japan (1966), p. 106 Table 31 and p90, Table 28

[59] Bank of Japan (1966), A hundred years, p. 335

[60] Bank of Japan (1966), pp350-352

[61] Bank of Japan (1966), A hundred years, p. 74

Since the ratio of US prices to Japanese prices fell to 0.695 in 1921, clearly Japanese producers incurred a substantial loss in their level of competitiveness. The value of exports tripled between 1915 and 1919. Between 1919 and 1921, the value of exports fell by 40%. Exports of goods recovered somewhat in 1922 but fell again, partly because of the 1923 Kanto (Tokyo) Earthquake. They recovered between 1924 and 1926 to reach their 1919 level. The extraordinary growth that exports of goods achieved during World War I was not repeated. In fact, there was not much growth of exports of goods relative to their level in 1919.

On the other hand, the war generated a brisk demand for the services of Japanese shipping and insurance companies. Income from exports of services rendered by Japanese shipping and insurance companies more than quadrupled between 1915 and 1919. The end of the war brought to an end the fast growth of exports of services. The corresponding income started to fall in 1920. In 1925, the value of exports of services was 55% of its value in 1919.

During the war, the favorable service and merchandise balances helped BOJ and the Japanese government to accumulate a substantial cushion of foreign reserves. After the end of the war, the service balance started to dwindle to the point that the current account turned into a deficit after 1920. After it generated surpluses consistently during the years 1915-1920, the current account balance turned into a chronic deficit. Before the war, Japan suffered from a chronic current account deficit. Japan was on the gold standard and the deficits were a drain on its species reserves. The continuous hemorrhage threatened to force Japan out of the gold standard, it was a nightmare for the ministry of finance (MOF). The governments of the early years of the 1920's feared that the return of deficits of the merchandise balance after 1918 and of the current account deficit after 1920 would result in a hemorrhage of species reserves if they lifted the gold embargo and returned to the gold standard at the old parity. In addition, they were not sure that there would be no more wars in the immediate future. The Siberia expedition that lasted until the end of 1922 and the famous China incidents reveal their true concern.[62] Thus, they preferred not to use the huge reserve cushion accumulated during the war to pay back Japan's foreign public debt nor to lift the embargo. Yet, from time to time, they attempted to support the exchange rate of the yen against the US dollar in an effort to stabilize it and reduce uncertainty and repeated their intention to return to the gold standard as soon as the exchange rate gets close to the level implied by the old parity.

Between 1919 and the end of 1923 the government was able to keep the exchange rate between the yen and the dollar close to its prewar level of 100 yen for 49.5 US dollar through gold exports and veiled hints of a speedy return to the gold standard. The reconstruction of Tokyo was a daunting task; it required a huge increase in imports and a significant loss of gold reserves. The yen started to weaken. The reconstruction effort dashed any hope for such a return and the exchange rate of the yen sunk to 100 yen for 38.5 US dollar in October 1924. By the end of 1925, the reconstruction effort was practically and the new government started again to support the exchange rate of the yen. Soon the 1927 crisis forced the government to give up its support and the yen depreciated.

This policy of supporting the exchange rate without an appropriate adjustment of domestic prices increased uncertainty and added to the economic malaise and political upheavals that faced the fledgling Taisho democracy during the nineteen twenties. The appropriate adjustment required further deflation that the governments decided to take in small doses as figure 10 illustrates because of the need to protect many banks large and small banks that failed. In addition to the bank failures during the 1920 depression, there were fresh bank failures during the mild run on banks in December 1922 and the Kanto (Tokyo) Earthquake exposed many others. Truthful to its mandate, BOJ hastened to help with a cushion of ¥220 million loan program in 1922 and more than ¥344 million in 1924. Along with this generosity, BOJ maintained discount rates on commercial bills

[62] This is known as the May 1919 (4-5) Movement in Beijing. Chinese students organized anti-Japanese demonstrations.

higher than 5%. As figure 2 shows, the lowest average nominal rate on bank loans was consistently higher than 8% during this period. With a negative inflation rate, the real cost of capital during this period was higher than 8%, Similarly, nominal interest rate on deposits remained higher than 5% and, naturally, real interest rates were higher. Therefore, it is not surprising that the combination of lack of transparency, excess capacity in many industries improper adjustment in domestic prices, and higher cost of capital produced dire consequences for small and large industrial firms and for their banks. This is in stark contrast to the negative real interest rates that prevailed during the previous six years period. The difficult conditions of their borrowers forced many banks to compete more aggressively for deposits and keep interest rates on deposits high, causing more damage and creating quandary for BOJ.

9. *To return or not to return*

Corresponding to the surge in investment during the war, there was a surge in the resources of the financial sector. Total investment between 1910 and 1919 was ¥10 billion. The financial sector resources increased by ¥14 billion and the increase in deposits of ordinary banks contributed ¥4.8 billion. Most of the banks, especially the big five banks, proceeded cautiously with their lending. Certain ordinary banks, other than the big five banks, overextended themselves in the intermediation process. They borrowed to supplement their resources in order to make additional loans or acquire securities.

The ratio of total lending plus security holdings of ordinary banks -other than the big five banks- to their total deposits had always been greater than 1.1. It was much greater at the turn of the century and reached 1.28 in 1920. Their paid in capital represented about 85% of their deposits in 1896. Due to a rapid expansion of deposits, this ratio fell to 30% in 1910 and 13% in 1919. This is an average; some individual banks did not maintain such a reasonable ratio. They became vulnerable because of their high ratio of lending plus security holdings to deposits.

The expansion of industrial capacity during the war period coincided with sluggish growth in international markets during the twenties. Consequently, many industrial concerns and their banks experienced financial difficulties. The big five banks had also a ratio of lending plus security holdings to deposits equal to 1.43 in 1896. However, they changed policy at the turn of the century. The ratio decreased to 1.14 in 1909 and increased to 1.22 in 1916 but decreased to 0.96 in 1919. The ratio of their paid in capital to deposits was about 20% in 1896. It declined to 15% in 1909 and 11% in 1920. That is, the balance sheets of the two groups of banks were not much different. Yet the big five city banks did not experience bank runs. Most of the other ordinary banks did not either, but some of them small and large did experience runs, especially after the 1920 depression.

As we have seen earlier, BOJ has always rescued the ordinary banks in trouble. This unwritten policy has created a moral hazard. Many ordinary banks grew overtly aggressive in their lending and in the competition for deposits. As case studies in the following section show, their portfolio of assets grew more illiquid over time. The period from 1915 to 1920 offered the aggressive banks a golden opportunity to expand business. The 1893 Banking Act that regulated banks until 1926 placed minimal restrictions on their lending activities. To expand their business or to avoid runs and bankruptcy, ordinary banks borrowed from BOJ. For ordinary banks other than the five big city banks, the ratio of borrowing from BOJ and other sources to deposits was relatively low in 1914 (7%). This ratio increased to 12.7% in 1919 and 13.6% in 1920. For the five big city banks, this ratio was close to 2%.

According to Inouye (1925), there were three major episodes of bank failures prior to 1926. The first episode occurred immediately after the Sino-Japanese War of 1895-96. The second episode occurred in 1907-1908 after the Russo Japanese War. The third episode occurred after the end of World War I in 1920. Inouye (1925) averred Japan had no serious banking laws that could have allowed the government or BOJ to act preemptively. The situation was similar to England with the exception that England relied on customs and tradition, a practice that the Japanese banking system lacked. He also noted that the US had free banking as well until the US government created the Federal Reserve Board (FED) in 1913. The US government endowed FED with a supervisory authority over member banks.

In contrast, Inouye (1925) noted, BOJ is the counterpart of FED but it had not acquired a supervisory authority because private interests owned half of its capital. This created a conflict of interest and prevented attempts to endow BOJ with supervisory powers similar to those of FED. For example in 1919, BOJ knew of the unsatisfactory conditions of the balance sheets of many banks. However, it was unable to do any thing to prevent further deterioration or to help those banks restore healthy balance sheets. MOF had some authority to inspect and force banks to take certain actions as allowed for by some amendments of the 1890 Bank Act. However, its powers were limited to the approval of bank establishment and foreclosures in case of flagrant and clear violations of the Banking Act. MOF didn't inspect in detail the business of a bank and actual inspections were of poor quality. However, it drew the attention of the relevant government authorities to the necessity to endow BOJ with prerogatives similar to those at the disposal of the US FED but to no avail.

Many government officials, including Takahashi, the famous MOF, thought that there was excessive competition among banks resulting in high nominal interest rates. This time around in the twenties, real interest rates turned positive and grew significantly larger than nominal interest rates because of the deflation that engulfed the world and Japan following the 1920 depression. Government officials attributed the high nominal interest rates to excessive competition among banks for deposits. They thought that competition itself was a result of a shortage of money. They concluded that the best way to lower interest rates was to raise the ceiling on the amount of convertible bank issues that BOJ can issue without a corresponding increase in its gold reserves. Inouye (1925) argued against this course of action. He noted that the money supply at the end of 1918 was ¥1.7 billion or more than five times its level of ¥300 million at the end of 1914.

According to Inouye (1925), the reason for the higher interest rates is the behavior of ordinary banks. During the war, they expanded their lending to industrial enterprises in the form of long term highly risky and illiquid loans. Many of the loans turned out to be nonperforming or irrecoverable. After the end of the war, many banks had no revolving free funds to lend. To meet their commitments many of these banks borrowed on the call market preventing a fall in interest rates. In 1923, the loans and discounts of ordinary banks amounted to ¥5.1 billion but their deposits amounted to ¥4.9 billion. Most loans had 3 year long maturities, often to a single business borrower. If the loan is not performing at maturity or is not repaid the bank could not sell the loan or the collateral. Since the collateral was often real estate, depositors would run on the bank, precisely during an economic crisis, causing a bank failure, or a steep fall in the price of real estate, if it can be sold at all. To meet depositors' demands banks borrow on the call loan market in the hope of surviving until the economic situation improves. Inouye (1925) cautioned against injecting more liquidity lest Japan falls into a hyper inflation. The abnormal expansion of 1919 caused a huge expansion in illiquid loans. During the war, the large increase in BOJ's species reserve resulted in a large increase in money credit. This was normal since economic activity also expanded rapidly and there was slack in the employment of resources. The expansion of loans in 1919 generated a trade deficit without an increase in reserves. The trade deficit triggered a panic. Normally, the deficit should have caused a fall in money supply. Instead, the money supply and credit expanded.

In addition, various industrial interests advocated a return to the gold standard at the prewar parity in order to escape instability of a flexible exchange rate. However, the government was aware that the return would initially compound the difficulties of the financial sector and worsen the trade account.

In response to the difficulties experienced by some banks and the sluggishness of economic growth after 1920, the government attempted to lift the embargo on gold exports several times during the twenties. The first attempt was in 1923. This attempt failed because the 1923 earthquake in Tokyo blasted a big hole in the banking system, revealing the weakness of some banks and the great vulnerability of many others. In the aftermath, many banks went bankrupt and the government faced a very heavy bill to rebuild Tokyo. It instructed BOJ to lend to the banks in trouble. BOJ's loans to the banks are known as the earthquake bills. A few large banks, such as Bank of Taiwan, did not repay the earthquake loans and eventually went bankrupt or the government reorganized them.

Before Japan could return to the gold standard at the prewar parity, the government was aware that it a reform of the financial (banking) sector was desirable because it must engineer a deep deflation, Tsuchiya argued that developments after the end of World War I required fundamental amendments to the 1890 Bank Act.[63] Following the 1920 depression, the Japanese economy entered a period of sluggish growth. During the 1920 depression, many banks closed their doors and bank failures continued until 1927. At the end of 1925, the Japanese economy and exports recovered from the earthquake thanks to the lower nominal exchange rate of the yen and the reconstruction projects. Soon a new government[64] started to prepare a return to the gold standard for the second time since 1920. It was convinced that the return would weed out weak financial and non financial institutions and rekindle fast economic growth. Perhaps, many remembered with nostalgia that a prosperous period followed the adoption of the gold standard in 1898. Everyone was concerned about the (real) high interest rates. The government was convinced that an appropriate reform of the financial system would lower the (*real?*) interest rate and make the system strong to withstand a return to the gold standard. The system needs to be strong to face up to the required additional deflation that would weed out weak businesses. Together the lower cost of capital through lower (*real?*) interest rate and reduced uncertainty, and the increased competitiveness would bring about faster economic growth in the depressed sectors of the Japanese economy.

10. Big is always strong or is it

The rocking twenties produced bank failures of relatively large banks and required heavy intervention of BOJ to save bank depositors and industrial enterprises. Between March 15 and April 22 1927, thirty two banks closed their doors permanently. One of them was a special bank, the famous Taiwan Bank. Taiwan Bank acted also as the central bank of Taiwan. It was a large bank. Another one is a savings bank (Akaji Saving Bank). The other (thirty) failed banks were ordinary banks, many of which had a paid-in-capital greater than one million yen. The thirty ordinary banks accounted for 8% of total deposits. Fifteenth Bank or the "nobles' bank" was one of the thirty two banks that failed. It was the fifth largest in terms of deposits and third largest in terms of loans. Here is a list of some of the other relatively large ordinary banks that failed in 1927. Ohmi Bank was the thirteenth largest in terms of deposits and eleventh in largest in terms of loans. Fujita Bank was the seventeenth largest in terms of deposits and fifteenth largest in terms of loans. Murai Bank was the twenty third largest in terms of deposits and twentieth largest in terms of loans. Furukawa Bank was

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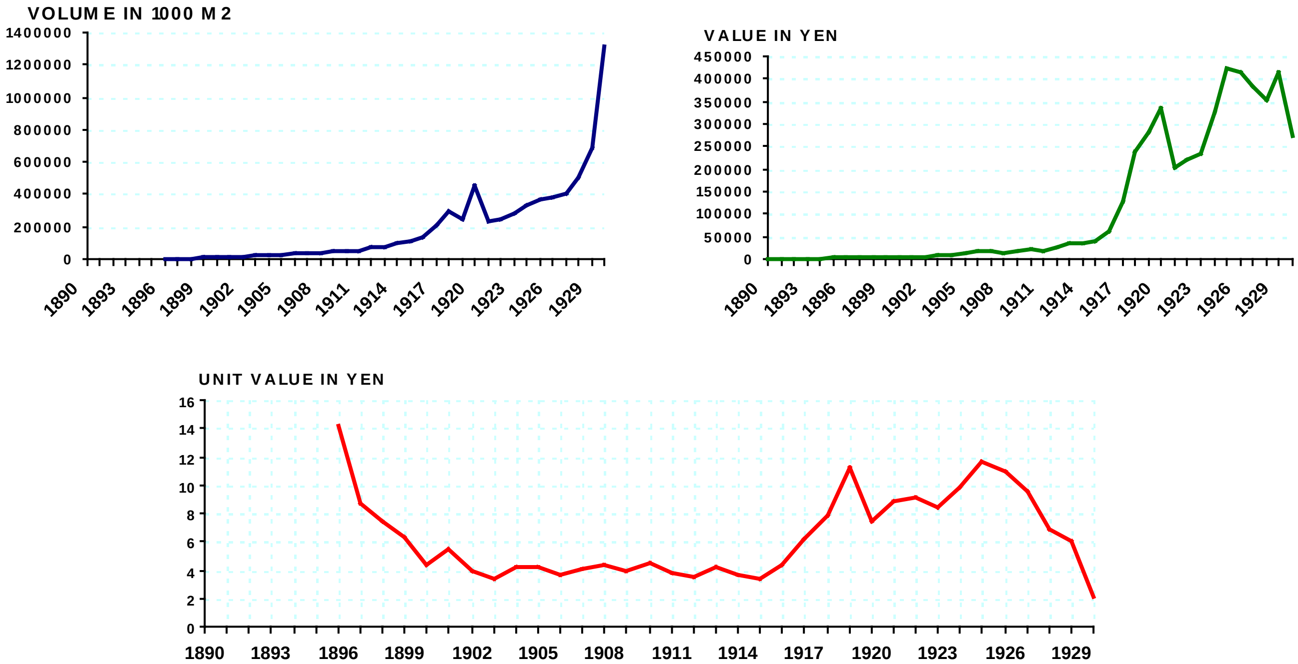
[63] Bank of Japan (1956), Vol. 18, pp. 1-16

[64] The Prime Minister was Wakatsuki and MOF was Hamaguchi.

the twenty second largest in terms of deposits and twenty first in terms of loans. Nakai Bank was the twenty seventh largest in terms of deposits and twenty sixth largest in terms of loans. Hōkoku Bank was the twenty ninth largest in terms of deposits and twenty fourth largest in terms of loans.[65]

Figure 11
Cotton Fabric Exports



Source: Bank of Japan (1966), pp, 282-285 Table 116

[65] Yamazaki (2000), p. 43. The following table, based on Yamazaki's data, shows the relative rankings of most of the thirty largest banks in 1926 by deposits and loans. Cells containing names of failed banks and corresponding data are shaded in creamy yellow. Most of these banks failed in 1927 or a few years later.

Ranking of largest banks in 1926

Deposits			Loans		
Rank	Bank name	Amount	Bank	Bank name	Amount I
			Central Bank	Taiwan Bank	545000
1	Yasuda Bank	571728	1	Yasuda	519893
2	Mitsui	439999	2	Mitsui	351047
3	Sumitomo	415910	3	Fifteenth	342313
4	First	366349	4	First	294353
5	Fifteenth	358904	5	Sumitomo	288441
6	Mitsubishi	311827	6	Mitsubishi	197514
7	34'th	264287	7	34'th	177258
8	Yamaguchi	240667	8	Yamaguchi	161088
9	Kawasaki	223549	9	Kawasaki	158384
10	Kashima	176949	10	Kashima	130973
11	Aichi	138315	11	Ohmi	123607
12	Hundredth	136654	12	Hundredth	114694
13	Ohmi	136543	13	Meiji	91679
14	Nagoya	118352	14	Osaka-Nomura	89691
15	Miji	117717	15	Fujita	77969
16	Kohnoike	106932	16	Nagoya	72585
17	Fujita	106338	17	Kohnoike	69995
18	Geibi	64999	18	Aichi	65825
19	Osaka-Nomura	64436	19	Tokai	64189
20	Nihon-Chuya	64313	20	Murai	54493
22	Furukawa	60129	21	Furukawa	48707
23	Murai	54449	24	Toyokuni	44048
27	Nakai	47640	26	Nakai	42127
29	Toyokuni	39716			

Not surprisingly, starting in 1920, Ohmi Bank experienced a significant increase in the number of nonperforming loans and a serious loss of deposits. In the 1923 earthquake, the bank lost three branches to fire and sustained large losses. Consequently, the number of nonperforming loans increased and deposits fell although the prices of cotton improved due to the depreciation of the yen. However, the improvement in the prices of cotton products was ephemeral and, in 1926, the average unit value of cotton exports started falling. After a brief holiday in 1924 and a temporary improvement in the average value of a unit of exports, the bank reopened with the assistance of BOJ and recovered. Due to the fall in the value of cotton exports, the bank collapsed in the 1927 crisis. It lost 51% of its deposits and closed permanently.

BOJ attributed the failure of Ohmi Bank to a high concentration of its loans into the cotton industry. Furthermore, the bank expanded its loans aggressively during World War I and granted loans with dubious collateral. Its balance sheet in 1927 was not healthy. Loans larger than ¥100 000 represented 57.9% of total loans. Forty one percent of these large loans went to a few borrowers who used the loans to finance investments in the cotton industry. The loans were long term and thus highly illiquid.

（2） *Murai Bank*[66]

The Murai family established an ordinary bank, Murai Bank, and a savings bank, Murai Savings Bank, in 1904 to help the family finance a tobacco business. In 1919, Murai Bank became a joint stock company with a paid-in-capital of ¥2 million and ¥70 million deposits. Murai Bank merged with Murai Savings Bank in 1921. The new Murai Bank had a paid-in-capital of ¥10 million.

The Murai family had a tobacco company, a trading company, a mining company and a real estate company. The trading company dealt in tobacco products, textiles, equipment and machinery, and paper printing products. In the 1920 depression, Murai Bank experienced serious difficulties. A significant proportion of its loans were long term loans and they were nonperforming. In 1922, the bank experienced a decline in deposits related to the failure of Ishii Sadashichi trading company. Fortunately, the decline in deposits was arrested and deposits recovered. Due to the 1923 earthquake, the bank was left with many large earthquake unpaid exchange bills. Therefore, deposits decreased again but the Ministry of Finance and BOJ were reluctant to press for its liquidation. At the end of 1924, the deposits recovered probably thanks to the Earthquake Bills Act, which instructed BOJ to discount qualified unpaid earthquake bills. The 1927 crisis was the straw that broke the camel back and Murai bank went into a permanent holiday.

In 1927, Murai Bank loans to the Murai family business represented 25.8% of its total long term loans and 14.4% of its total loans. The bank's large loans (greater than ¥100,000) to a few large customers (Tokyo textile and medicine companies) represented 41.5% of the total of its large loans. At the time of it bankruptcy, more than 60% of Murai Bank's loans were irrecoverable. Thus, we cannot attribute the failure of the bank to its small size or to the lack of diversification in economic activity that the bank’s loans financed or to the large size of its borrowers. More likely, a combination of factors was responsible for the failure of the bank. The most important were the inconsistency between the structure of its resources and the quality and structure of its loan portfolio, the heightened competition for short term deposits, and the heightened uncertainty of the rocking twenties , all spiced with a lack of transparency. The over capacity in some sectors of the Japanese economy, the return of the traditional competitors from the producers of western powers to world markets and the government flirting with a return to the gold standard at prewar parity were responsible for the heightened uncertainty during the rocking twenties.

[66] Bank of Japan (1969), p. 348-380

（3） Eighty Fourth National Bank[67] and Nakazawa Bank[68]

Originally located in the Ishikawa prefecture, its owners reorganized the bank in 1897 as an ordinary bank and moved its headquarters to Tokyo. At about this time the Nakazawa family acquired the bank. The bank had a paid-in-capital of ¥180,000 in 1897 and ¥2.3 million in 1927. The Ishikawa prefecture was famous in the production of raw silk and silk textiles. Under the Nakazawa family control, the bank was heavily involved in the finance of the production and trade of raw silk, silk textiles and sake. The Nakazawa family also established Nakazawa Bank initially as a savings bank with a paid-in-capital of ¥100,000. The family converted the bank in 1920 into an ordinary bank with a paid-in-capital of ¥2.5 million.

The loans of Eighty Fourth National Bank to the Nakazawa family increased substantially during World War I. Nakazawa Bank were perfect examples of an organ bank. The Nakazawa Family had business interests in sake, trading, navy procurements, security dealings, real estate, and Hokkaido lumber. In 1927, the Nakazawa Bank loans to the Nakazawa Family businesses represented 95% of its total loan portfolio.

During the 1920 depression, both banks experienced financial difficulties. The Nakazawa businesses suffered serious setbacks. The eventual decline of the price of silk during the second half of the twenties caused a significant increase in the number of non--recoverable loans of the two banks. The banks remained solvent until the 1923 Tokyo earthquake. The head office of Eighty Fourth National Bank burned down in the earthquake. Thanks to the earthquake bills, the bank was able to recover some of its losses. From September 1923 to the end of 1925, the bank lost deposits. The trend was reversed in 1926 and deposits recovered. Similarly, the deposits of the Nakazawa family fell to ¥4 million during the 1920 depression. During the period 1922- September 1923, the deposits recovered. The 1923 earthquake caused a reduction of deposits and loans and the bank's reputation was damaged. The number (size) of its earthquake bills was large. The 1927 financial crisis caused a substantial fall in deposits and a run on both bank causing them to close down permanently. About 95% of the Nakazawa Bank loans were non recoverable.

According to BOJ, the non-recoverable loans during the 1923-1925 were large (greater than ¥100,000) loans to the businesses of the Nakazawa family. In February 1926, loans to the businesses of the Nakazawa family represented about 19% of the total loans of the bank. More than 90% of the former loans were non recoverable. Large Loans to other large borrowers accounted for 44.7% of total loans. More than 54% of the former loans were non-recoverable. The loans to the businesses of the Nakazawa family and to larger borrowers amounted to ¥17 million; fifty per cent of them were unrecoverable. Hemp producers were the largest borrowers for a total of ¥1.18 million followed by textile and silk merchants for a total of ¥130000.

Here we have the case of two small banks owned by the same family. We may attribute their failure to their small size, which prevented diversification of risk. However, we note the smaller of the two banks was an organ bank for the Nakazawa family businesses. That is, the main propose of the bank was to finance investment in the family business and interests. Similarly, the larger of the two banks was also heavily involved in long term large loans to businesses of the same family. Large loans to a small number of borrowers accounted for more than 50% of the bank's portfolio. For a bank to maintain this structure of its loan portfolio, it must convince depositors to turn a blind eye on the risks involved and/or to be content with little knowledge about the portfolio. Given the frequent runs on banks, we cannot assume that the majority of depositors were irrational or that the transparency was adequate. The mystery is resolved once we know that BOJ always bailed out failed banks. We conclude that the problem lies in the lack of transparency and lack of supervision

67 Bank of Japan (1969), p. 380-397

68 Bank of Japan (1969), p. 398-406

blessed by the monetary policy of BOJ of offering implicit deposit insurance without the slightest concern about accountability. This policy is perfectly consistent with Matuskata's principle that cheap and abundant capital requires the provision of perfect assurance to small savers that their savings are secure. The following examples provide evidence that lack of transparency and accountability is not the sole privilege of small banks and the government extended Matsukata's principle to all banks with one exception.

（4） *Taiwan Bank*[69]

The Japanese government created Taiwan Bank following the promulgation of the Taiwan Bank Act in 1897. Taiwan Bank started business in 1899. It had three mandates. The first mandate was to promote the finance of Taiwan's commerce, industry, and public utilities. This mandate was in line with the Japanese government objective to promote the development of Taiwan and the foreign trade between Japan, South China and South East Asia. Ted The second mandate was to promote the financial and economic independence of Taiwan. The third mandate was to establish and operate a monetary system in Taiwan.

The bank started with ¥5 million paid-in-capital of which the government of Japan contributed ¥1 million. At first, silver and ¥5 million in government bonds backed up the note issue. In 1906, the Japanese parliament decided to shift Taiwan to a gold standard.[70] In 1910, its capital was increased to ¥10 million and it received an infusion of ¥10 million worth of government bonds.

Taiwan Bank operated as a central bank and as an ordinary bank. It engaged in deposit collection and investment finance. The business of the Taiwan Bank expanded rapidly during World War I. Its paid-in-capital plus accumulated reserves was ¥20 million in 1915, ¥30 million in 1918, and ¥60 million in 1919. The crisis of 1920 put a lid on the expansion of Taiwan Bank business. It soon appeared that some of its loans to the Suzuki group of companies were non recoverable. Taiwan Bank deposits also decreased. Although the Japanese economy recovered, Taiwan Bank continued to experience financial difficulties. At the end of 1922, the government of Japan decided to undertake a restructuring of the bank. It ordered a change in policy, which required the bank to concentrate on its core business of note issuing and the development of trade and finance. To help the bank change policy, the government injected ¥50 million.

The 1923 earthquake struck during the restructuring period. This catastrophe caused more troubles to the bank and damaged its credibility. In 1925, the capital of the bank was reduced from ¥60 million to ¥45 million. In addition to the reduction in capital, the government ordered the bank to use reserves to write off bad loans other than those to the Suzuki group. The loans to the Suzuki group were rolled over. During the earthquake debate in the Japanese parliament, the discussions revealed the deep connection between Taiwan Bank and the Suzuki group. The Japanese parliament ordered the liquidation of the Suzuki group and ordered Taiwan Bank to stop its lending to the group. However, the Suzuki loans continued to haunt the bank. Finally, on March 27, 1927, there was a run on the bank. The large banks recalled their call loans. The government of Japan ordered BOJ to rescue Taiwan Bank. BOJ replaced the large banks as the main lender. On April 18 1927, Taiwan Bank officially closed all its branches except those in foreign countries and stopped all payments.

Analysis of the causes of the financial difficulties of Taiwan Bank

According to BOJ, four basic causes are responsible for the debacle of Taiwan Bank.

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69 Bank of Japan (1969), pp. 398-406

70 With the prior approval of the Japanese parliament, Taiwan Bank can issue notes in excess of the amount permitted by its reserves.

Aggressive loan policy after the start of World War I

Before World War I, Taiwan Bank concentrated its loans in the areas of sugar production, sugar refining in Taiwan, and trading. During the war, Taiwan Bank expanded its lending to companies located in Kobe, Osaka and Tokyo. Between 1915 and 1918, the total value of its loans increased about six folds from ¥88 million to ¥457 million. After the armistice of 1918, there was a brief recession and short recovery in 1919. In 1920 a depression occurred. After the 1920 depression, other banks reduced their lending to the Suzuki group. Undaunted, Taiwan Bank continued to increase its lending to the group supplanting most of the other lenders.

Aggressive loan policy of the bank during World War I

The loans of ordinary banks increased on average three times during World War I. The loans of Chòsen Bank (Bank of Korea) increased six times. YSB increased three and half times. The loans of Taiwan Bank increased eight times. Most of those loans were to businesses located in Japan. Before World War I, Taiwan businesses accounted for 60% of Taiwan Bank total loans. After the end of World War I, they accounted for only 16% and businesses in Japan accounted for more than 50% of all loans.

Extreme Concentration and poor quality of Loans

There was an extreme concentration of loans to specific industries and companies due in part to the bank's mediocre screening process of borrowers. During the war, the Suzuki group of companies accounted for 40% of the bank’s large loans. By April 16 1927, the Suzuki group accounted for 90% of its large loans. Under the influence of political interests, Taiwan Bank made a large loan to the government of China that the latter never repaid. At the end of 1924, the total value of the outstanding loans of Taiwan Bank was ¥623 million excluding the political loan to China (¥93 million). Of this total, 65% or ¥405 million were loans to businesses located in Japan and 44% or ¥275 million were loans to the Suzuki group of companies. The Suzuki group of companies owed ¥396 millions of which 62% or ¥247 million were due to Taiwan Bank. Bill discounting, which are short term loans accounted for 60% or ¥375 million Most of the loans to Suzuki had no collateral or weak collateral such as securities of companies related to Suzuki.

Loss of Deposits

After the armistice of 1918, the deposits at Taiwan Bank declined sharply forcing it to rely on call loans. The decline was partly a consequence of the structure of Taiwan Bank deposits.

Taiwan Bank Summary of Balance sheet

	Amount End of in Millions of yen				As Percentage of total loans			
	1913	1918	1920	1924	1913	1918	1920	1924
Paid-in-capital plus accumulated reserves	10	31	45	52			8.9	6.9
Notes outstanding	10	19	16	33			3.1	4.4
Total Deposits	43	428	191	224			38	29.9

Source: Bank of Japan (1969), p. 218

As the table above shows, Taiwan Bank deposits increased sharply during World War I due a sharp increase in the deposits of other banks with Taiwan Bank. This was a result of the important role of Taiwan Bank in the trade between Japan and South Asia and China and the rapid expansion of trade with South Asia and China during the war period. As soon as the armistice was signed, this trade sagged and many banks withdrew their deposits. To cover its position, Taiwan Bank contracted call loans from the same banks and increased its capital. At that, time the solvency of the bank was not an issue. However, the resort to call loans caused a deterioration of the long term financial position of the bank. In 1924, the value of the non recoverable loans to the Suzuki group was ¥250 million or 90% of the bank's loans to the Suzuki group. Fifty five percent of the total value (¥716 million) of Taiwan Bank loans was unrecoverable in 1924.[71]

Restructuring

Efforts to restructure the bank started in 1922. The government of Japan provided a ¥15 million loan from the trust fund of postal savings and the transfer of Taiwan Bank loans with real estate collateral to Hypothec Bank in exchange for Hypothec Bank bonds of a value equal to ¥20 million. It also arranged for an immediate loan of ¥30 million from BOJ to Taiwan Bank and a ¥246 million loan made available by installments over a period extending until the end of 1924. This restructuring program was not successful and Taiwan Bank continued to suffer from the problem of nonperforming loans.

The government of Japan implemented a second restructuring program in 1925. It ordered Taiwan Bank to reduce its paid-in-capital from ¥52.5 million to ¥40 million to offset the write off of an equal amount of non-recoverable loans and to use its accumulated reserves to write off more non recoverable loans. BOJ helped Taiwan Bank by reducing the interest rate on its loans to the latter from 5% to 2%. Despite the large value of its nonperforming loans to the Suzuki group, Taiwan Bank did not write off any of these loans. By March 1924, Taiwan Bank had applied for ¥115 million of earthquake bills. Of these, 70% or ¥77 million were Suzuki group related bills. BOJ rediscounted ¥430 million of earthquake bills, 26.7% of them were Taiwan Bank bills. At the end of 1927, out of its total discounted bills, BOJ did not receive payments for ¥206 million, of which Taiwan Bank owed ¥100 million or 48% of the total still owed to BOJ. Taiwan Bank reimbursed only ¥15 million.

Because of the relative importance of the unpaid earthquake bills of Taiwan Bank, the government decided on March 15 1927 to write off the total amount of the outstanding earthquake bills. At that time, members of the Japanese parliament learned the full extent of the relationship between Taiwan Bank and the Suzuki group. This revelation stood in the way of any government attempt to rescue Taiwan Bank. At the beginning of the crisis, the government ordered a full investigation of the financial situation of Taiwan Bank. On April 5, the investigating committee submitted its report and recommended that the government prohibit Taiwan Bank from extending any further credit to the Suzuki group. It also recommended to the emperor to issue an order on April 18 1927 based on articles 8 and 70 of the constitution. The order would direct BOJ to make ¥200 million loan guaranteed by the government to Taiwan Bank. The Japanese parliament voted down the proposed order as unconstitutional because it is unfair in view of the many attempts by government to rescue Taiwan Bank and its close relationship to the Suzuki group. The prime minister and his cabinet of the time resigned. Taiwan Bank closed all its branches on April 18 1927. This sparked the second wave of bank failures in the 1927 crisis. The government imposed a three-week moratorium on deposit withdrawals in order to stem the panic and the Japanese parliament passed two laws. The first law directed BOJ to make special loans to banks in difficulties guaranteed by MOF up to a maximum of ¥500 million through discounting of one year or shorter bills.

The second law is a new law of Taiwan Bank. The new law instructed BOJ to give a one-year loan to Taiwan Bank not exceeding ¥200 million. It instructed Taiwan Bank to reduce its capital by two thirds and use this reduction, the new BOJ loan and its accumulated reserves to write off its non recoverable loans. The new law prohibited Taiwan Bank to lend anymore to businesses outside of Taiwan and required it to stop borrowing on the call loan market.

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[71] Bank of Japan (1969), p 225

It is instructive to summarize the financial support of BOJ and the government of Japan to Taiwan Bank. Taiwan Bank received a loam of ¥50 million from the trust fund of postal savings, ¥462.85 million from BOJ, and ¥34 million from BOJ under the1927 special loans law and ¥185 million loan under the new Taiwan Bank law. It had ¥212 million of unrecoverable loans to the Suzuki group. The total financial support was ¥761 million more than one time and half the total value of Mitsui Bank loans in 1930 and fifteen times the paid in capital of Taiwan Bank. The government knew about the precarious situation of Taiwan Bank since at least 1920 but the public except possibly the large city banks did not know. We cannot attribute the bank's failure to its small size nor to the extreme concentration of its loans alone. When other banks abandoned Suzuki, Bank of Taiwan moved in to supplant them. The government did not lift a finger to stop the bank. It turned a blind eye and was stingy in providing information to the parliament. Clearly, the government covered up the situation and encouraged lack of transparency about the true financial position of the bank and in which it indulged itself. The reason for the failure of Taiwan Bank is the lack of transparency coupled with the continued moral and financial support of the government.

（5） *Watanabe Bank*[72]

On March 7, 1927, the board of directors of Watanabe Bank requested a loan from BOJ to help the bank deal with a serious liquidity problem. BOJ refused. On March 14, the board of directors of the bank informed the minister of finance that the bank is closing its doors permanently because of insolvency. Watanabe Bank started in the 1870's as a national bank located in Tokyo with an authorized capital of ¥300 000. Its name was Twenty Seventh Bank. In 1900, it became an ordinary joint stock company with a paid-in-capital of ¥210 000. It expanded relatively fast during the period 1900-1920. Its paid-in-capital grew to ¥3 million in 1920. It also created an affiliated savings bank called Akaji Savings Bank.

Watanabe Bank catered to small individual depositors, individual borrowers, small merchants and small manufacturing firms. At the time they assumed control of the bank, the Watanabe family owned and operated factories of muslin and hemp manufacturing. During World War I, the family business expanded into real estate and developed a close business relationship with a large bank called Wakao Bank. Wakao Bank was involved in financing electric power generation and gas.

The textile industry experienced difficulties starting in 1920 and all through the twenties. The 1923 earthquake caused heavy damage to all the Watanabe family businesses. The loans of the Watanabe Bank were concentrated in the Watanabe family businesses. They had either no collateral or real estate illiquid collateral. In 1925, the total value of loans was ¥18 million of which ¥11 million were loans to the Watanabe related businesses with no collateral. Most of the financial resources of Watanabe Bank were non-Watanabe family deposits. In 1926, the bank had a paid-in-capital of ¥3.5 million and ¥1.5 million deposits of the Watanabe family businesses. Other deposits were ¥24 million in 1918, ¥37 million in 1926 and ¥37.8 million on October 31 1927.

In September 1927, the bank had ¥47 million of loans of which ¥35 million or 74% were loans to the Watanabe family related businesses with no collateral or weak collateral. Lack of transparency, lack of arms length treatment of borrowers and mismanagement of both family businesses and bank business were important factors that contributed to the eventual demise of Watanabe Bank.

[72] Bank of Japan (1969), p?

（6）Fifteenth Bank[73]

Established in 1877 by former samurai and noblemen with the help of their commuted pension funds, Fifteenth National Bank was the largest bank of the time. It had a paid-in-capital of ¥17 million equal to its total note issue in the form of a loan to the Meiji government. After 1880, Fifteenth Bank invested heavily in railroad (Nihon Railway Company). It changed into an ordinary bank in 1897 with a paid-in-capital of ¥18 million. In 1898, the policy of the bank changed with a change in its president. From exclusive reliance on own capital, Fifteenth Bank management started to compete for small savers deposits and opened many branches. It also proceeded to diversify its credit clientele to include commercial and manufacturing businesses. The bank's paid-in-capital increased to ¥22.5 million. The bank's policy underwent another major change in 1915. One of the sons of the famous finance minister, Prince Matsukata, became the president of the bank. Fifteenth Bank merged with three other banks during World War I: Naniwa Bank with a paid-in-capital of ¥11 million, Kobe Kawasaki Bank with paid-in-capital of ¥5 million and a third bank, its affiliate, with paid-in-capital of ¥2.75 million.

In 1920, Fifteenth Bank had a paid-in-capital of ¥100 million, deposits of ¥339 million and a loan portfolio of ¥314 million. Its market area spanned the Kanto (Tokyo) and Kansai (Osaka) regions. It now ranked as one of the five biggest banks of Japan. However, the quality of its management was not good. The merger with the other three banks made it worse. Often a merger means a loose alliance; each original company continues business as usual. Each of Fifteenth Bank and Naniwa Bank had a Matsukata son as a president. The Naniwa Bank made loans mostly to the Matsukata. The Matsukata family owned Kobe Kawasaki Bank, Kawasaki Shipbuilding Company and International Shipping Company.

The mergers were political marriages for the benefit of the Matsukata family. Shipbuilding and shipping businesses were prosperous industries during World War I. After the armistice, the shipping business declined and the Washington treaty limited the maximum number of warships that the Japanese navy can deploy. Consequently, the ship building industry and the shipping industry developed excess capacity with dire consequences for most of the Japanese heavy industry and particularly for Fifteenth Bank. Many of the bank loans become nonperforming. To deal with this problem, the management of Fifteenth Bank created a company called International Trust Company and transferred to it the non recoverable loans. In 1922, President Matsukata resigned. The 1923 earthquake destroyed many Tokyo branches of Fifteenth Bank and caused more liquidity problems. The financial situation of the bank worsened and the 1927 banking crisis was the last straw that broke the camel's back. On April 21 1927, there was a run on Fifteenth Bank that forced it to close down.

BOJ's Analysis of the causes of Bankruptcy of Fifteenth Bank

BOJ listed four factors that caused the bankruptcy of Fifteenth Bank.

Lack of risk diversification

The bank did not diversify its loan portfolio significantly away from the Matsukata family businesses to reduce risk. It concentrated its credit on loans to businesses owned or controlled by the Matsukata family. The bank collected short term demand and time deposits and used them to make fixed long term loans or acquire securities to finance investments in heavy industry. Its loan portfolio was illiquid relative to its deposits. Trade, Shipping, shipbuilding, steel, machine manufacturing were all related and procyclical industries. During World War I, they all experienced a boom and prospered approximately at the same time. After the end of the war, they all experienced a decline approximately at the same time.

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[73] Bank of Japan (1969), p?

Low quality loans

Most of the loans had no collateral or weak collateral. The total value of the loans of Fifteenth Bank was ¥296 million in 1926 of which ¥164 million or 55% had no collateral. The collateral of the rest of the loans was ships, real estate and securities. The securities were shares of Kawasaki shipbuilding and Kawasaki shipping companies. The merger with the other three banks weakened substantially the balance sheet of Fifteenth Bank. At the time of the merger, 1920, Naniwa Bank was bigger than Fifteenth Bank in terms of deposits and loans but its balance sheet was significantly weaker. Fifteenth Bank had ¥92 million of deposits and ¥52 million in cash and securities. Naniwa Bank had ¥185 million of deposits and ¥55 million in cash and securities. In theory, Fifteenth Bank had almost twice liquid reserves per dollar of deposits than Naniwa Bank, 0.56 vs. 0.3. Given the doubtful quality of the "liquid securities" and the moribund nature of the Japanese Stock markets, it is doubtful whether the financial position of Fifteenth Bank was better than that of Naniwa Bank immediately before their merger. Like Fifteenth Bank, Naniwa Bank also invested heavily in the corporate bonds of the Matsukata family businesses. Their merger therefore must have produced a new bank with poorer liquidity and transparency.

Kawasaki Shokò [74] acquired during the late eighteen eighties from the Meiji government shipbuilding yards in Kobe during the 1880's privatization of the government owned industrial companies. He also established an ordinary bank called Kobe Kawasaki Bank. The bank financed shipbuilding, shipping and foreign trade. During World War I, the bank prospered and expanded loans because of the fast growth of the shipbuilding and shipping industries and foreign trade. A weakness of the bank's balance sheet is that the total value of loans exceeded the sum of deposits and capital. In 1917, Kobe Kawasaki Bank became a joint stock company and Fifteenth Bank acquired half of Kobe Kawasaki Bank, just as the financial position of the latter deteriorated considerably following the end of World War I. In 1912, own resources of Kobe Kawasaki Bank represented 0.46 of total resources (deposits plus own resources). After the merger, May 1920, own resources represented 0.36 of total resources (deposits plus own resources). Not surprisingly, the 1920 downturn and the 1923 earthquake caused a lot of damage to the business of the now much bigger Fifteenth Bank. There was a significant increase in the proportion of its nonperforming and/or non recoverable loans.

Table 2

***Balance Sheet of Fifteenth Bank** (million of Yen)*

	1912	1920-1925
Liabilities		
Capital	18	40
Accumulated Reserves	3.5	8.7
Deposits	26.4	92.4
Current additions to reserves	1.	2.6
Assets		
Loans	28	76
Securities	23	39.4
Deposits at BOJ	0.1	4.
Cash	2.3	8.5

Source: Bank of Japan (1969), vol.24, p.478

During World War I, Fifteenth Bank competed aggressively in lending to Kawasaki Shipping, Kawasaki Shipbuilding, electric power generating, gas, sugar refining and foreign trade businesses

[74] Possibly a nobleman but we have no evidence to support this claim

under control of the Matsukata family. Theoretically, this expansion in loans represented a diversification of the bank's loan portfolio. However, the intimate relationship among the new customers and the owners of Kobe Kawasaki Bank and Fifteenth Bank removed any benefits form such diversification and intensified the lack of transparency. Usually, the loans had no collateral or weak collateral. Fifteenth Bank competed aggressively for deposits after its merger with the other three banks. Before the merger, relatively large individual deposits made up the bulk of its deposits. After the merger, Fifteenth Bank started to court small savers, especially after the total volume of its deposits fell relative to other large banks such as First Bank and the Zaibatsu banks (Mitsui, Yasuda, and Mitsubishi). As Table 2 shows, although the ratio of cash reserves (cash +deposit in BOJ) to deposits improved from 9% to 13%, the ration of securities holding to the sum of its securities holding and loans dropped from 45% to 34%. Given the quality of loans, the increased volatility of its deposits and the high proportion of long term loans, we conclude that its balance sheet did deteriorate.

Table 3

Loans and Deposits of Major Banks, (December 1926)

Bank	Deposits in millions of Yen	Loans in millions of Yen	Loans/Deposits ratio in %
Fifteenth Bank	368	370	100.3
Yasuda Bank	622	608	97.7
Mitsui Bank	455	384	84.4
Thirty Fourth Bank	290	243	84
First Bank	390	326	83.5
Sumitomo Bank	438	331	76.2
Yamaguchi Bank	246	175	71.25
Mitsubishi Bank	328	220	67.1

Source: Bank of Japan, (1969), p. 488

Because of its aggressive lending policy, the financial position of the bank as measured by the loan deposit ratio became less prudent than that of other banks of comparable size. Table 3 shows that in December 1927, Fifteenth Bank had the largest loan deposit ratio among the eight largest banks. The ratio is significantly larger than that of any other large bank except possibly Yasuda Bank's ratio. The amount of its loans is equal to that of its deposits.

High cost of capital

The 1920 depression and the 1923 earthquake exposed the poor quality of the bank's assets. This caused a flight of deposits to other large banks with a traumatic effect on the financial position of the bank. The bank's loans were mostly fixed long term loans or investments and hence illiquid while a sizable portion of its deposits were short term. Between the beginning of 1923 and the end of that year, deposits decreased from ¥362 million to ¥354 million while the total amount of loans increased from ¥345 million to ¥353 million. To attract and keep deposits the bank had to compete hard. Table 4 shows that it paid in 1926 an average interest rate of 10.2%, the highest interest rate on deposits paid by any bank of its size. The difference, of course, represents a risk premium.

Table 4
Interest rates paid on deposits (Cost of Capital) 1926

Bank	Deposits in millions of yen	Amount of interest paid in second half of 1926 in millions of yen	Average Interest Rate In %
Fifteenth Bank	368	18	10.2
Yasuda Bank	622	25	8.0
Mitsubishi Bank	328	12	7.6
Thirty Fourth Bank	290	9	6.2
Mitsui Bank	455	14	6.2
Sumitomo Bank	435	13	6.0
First Bank	390	9.8	5.0

Source: Bank of Japan, (1969), p. 487

Excessive number of Large size Loans

BOJ defined large loans as loans in excess of a half million yen to a single borrower. On May 27 1926, Fifteenth Bank had 81 large loans for a total of ¥267 million out of a total of ¥370 million or 68% of all loans were large loans. It had 24 loans of ¥2 million or more each for a total amount of ¥215 million. These loans accounted for 55 % of the total amount of the bank's loans. There was also a high degree of concentration of loans. The loans of Fifteenth Bank to Kawasaki Shipbuilding Company totaled more than ¥40 million or 11% of the bank's total loans. The loans of Fifteenth Bank to Tokiwa Trading Company totaled more than ¥37 million or 10% of the bank's total loans. Matsukata Family had a loan of ¥7 million and the total loans to Matsukata related companies represented more than 37% of total loans.[75]

Restructuring of Fifteenth Bank

Fifteenth Bank experienced a run after the end of the first wave of the 1927 financial crisis. It closed its doors On April 21 1927. Because of its size, its closure created a ripple effect on other weak large and small banks, which triggered the second wave of bank failure. The then Minister of Finance Takahashi proposed and executed a plan to restructure the bank. As a first step in the restructuring, BOJ provided an ¥80 million loan. The bank agreed to increase its paid-in-capital by

[75] During World War I, Kawasaki Shipbuilding prospered due to the excess demand for warships and for shipping services. Its paid-in-capital increased from ¥10 million to ¥20 million, its profit increased from ¥0.76 million to ¥19.34 million and its rate of dividend payments increased from 10% to 40%. Its president, K. Matsukata, was the son of the famous minister of finance and later a prime minister of the Meiji government. After the Armistice of 1918, the demand for ships and ship prices collapsed causing a very serious excess capacity in the shipbuilding sector. To deal with the excess capacity, Matsukata decided in 1919 to create Kawasaki Shipping, an international shipping company. This shipping company bought the ships built by Kawasaki Shipbuilding. Warship demand decreased again after the signing of the Washington treaty limiting Japan's arsenal of warships to one half that of UK. To get around the excess capacity created by this infamous treaty, Matsukata decided to diversify Kawasaki Shipbuilding business to include manufacturing of steel, airplanes, cars and machinery. To achieve this diversification, Matsukata increased the paid-in-capital of the company to ¥69.75 million in 1927 and ¥73 million in 1929 and he increased borrowing. Table 5 shows the contribution of credit markets to the expansion.

Table 5
Debt Structure pf Kawasaki Shipbuilding
Millions of Yen

Year	Corporate Bonds	Bills of Exchange	Bank Loans
1913	3.6	11.7	3.1
1924	44	42	-
1928	59	53	22.5

Source: Bank of Japan (1969), p.496

¥7 million through private subscription. It increased its paid in capital further by an additional ¥50 million to ¥100 million by incorporating its accumulated reserves of ¥34 million and the proceeds of the sale of some of its directors' private assets worth. Finally, it agreed to write off non recoverable loans by reducing its paid in capital from ¥100 million ¥20 million. When it reopened, the Ministry of Finance forced depositors to accept 0.7 yen for every yen of deposits. They had also to accept repayment of their deposits in nineteen installments of six months each. It took depositors ten years to recover seventy per cent of their deposits. They did not collect interest. This time around depositors paid for their oversight.

The experience of Fifteenth Bank shows that neither large size nor merger to increase size is sufficient to protect a bank against failure. Mergers of weak banks cannot create a strong bank. While a large size bank has a better opportunity to diversify its portfolio of assets, diversification through lending to weak businesses that lack transparency would only increase the chances of failure. Fifteenth Bank failed probably because the government protected its depositors who had no incentive to require transparency and the bank itself lacked transparency, merged with equally opaque banks that are organ banks and granted credit to the same equally opaque businesses. The lack of transparency forced the bank to pay a risk premium in terms of higher interest rates on deposits and to raise the cost of capital by diverting capital from protective and efficient users to inefficient opaque users of capital. Our next and final case study shows the importance of for the management of a bank to be transparent and accountable.

（7） *Mitsui Bank*[76]

The Mitsui family started its trading business in rice and clothing in 1683. Soon after, it started to provide loans to the central government and local governments. It had several branches, one in Yedo (Tokyo), one in Osaka and another one Kyoto. It also owned and operated a money exchange business to provide money exchange services among Yedo (Tokyo), which was on the gold standard and the commercial centers in Osaka and Kyoto, which were on the silver standard. During the Meiji revolution, the Mitsui family supported the Meiji leaders financially. The family provided also sizable gift loans to the young Meiji government that the family recovered eventually. In exchange for these favors, the Meiji government agreed to keep part of its deposits with the Mitsui exchange company and to appoint the financial arm of the Mitsui trading company as its financial agent. In the early eighteen seventies, the Meiji government pressured the Mitsui and Ono families to create First National Bank to encourage other private interests to create more national banks. Although the Mitsui family obliged, it preferred to create its own bank. In 1876, the family created its own bank, the Mitsui Bank.

Table 6
A Summary of Mitsui Balance Sheet
Millions of yen

Year	Assets			Liabilities	
	Securities	Loans	Bills Discounting	Deposits	Paid-in-capital
1893	6.5	6.3	2.8	16.7	3.0
1901	10.7	5.0	10.8	21.0	10.3
1911	19.7	35	39.3	84.2	23.2
1920	60.3	123.5	175	426.2	133.6
1930	217.5	401	35.5	666.1	174.2

Source: Mitsui Bank (1957), p.745

76 This section is based Mitsui Bank (1957)

At first, Mitsui Bank took over the financial services business that the Mitsui family used to provide to the central government. For many years, Mitsui Bank continued the tradition of the Mitsui family and emphasized the provision of financial services to the central government. It solicited and managed central government deposits and made loans to it. In early July 1891, a newspaper article criticized Mitsui Bank and First National Bank for having made loans of doubtful quality and BOJ rescued them. The news sparked a run on the Kyoto Branch of the Mitsui Bank from July 7 to July 9 1891. The Osaka branch of BOJ made a loan to Mitsui branch and rescued it. Shortly after, a relative of a famous advisor to the Meiji government, Nakamigawa, became the president of Mitsui Bank. Upon taking office, he changed radically the bank's policy and transformed into an investment bank. He rid the bank of heavy dependence on government business and pursued aggressively investment in securities of and loans to indusial companies, particularly Shibaura Manufacturing Company, now Toshiba, Ohji Seishi Company, a paper manufacturing company, Kanegafuchi Company, a cotton spinning company, and Hokkaido Mining and Railroad Company. However, the paid-in-capital of the bank continued to be an important source of funds on the liability side of the bank's balance sheet. We need more years.

Eventually, the increased emphasis on investment in industrial concerns made the bank relatively illiquid due to a significant increase of its long term commitments in the form of loans and securities. Investment in stocks and bonds accounted for 50% of its total assets in 1901. Another newspaper article appeared on April 6 1900 entitled "Mitsui Bank on the brink of insolvency, depositors take heed". The article contained information about a bad loan made by Mitsui Bank to Kanegafuchi and Ohji companies. At that time, Mitsui Bank was heavily involved in loans to industry, in particular to Mitsui Mining Co. The news started a run on the bank. Again, BOJ came to its rescue. This was the second run on Mitsui Bank and the second time that BOJ rescued it.

The run on the bank followed by Nakamigawa's death shortly after provided the impetus for a second radical change in the policy of Mitsui Bank. The new policy transformed the bank into a commercial bank. Underwriting of commercial loans and corporate and government bonds were more profitable and more liquid than investment in real estate and industrial loans and securities. To increase the pool of resources and stabilize it, the new management sold the bank's portfolio of stocks to its parent company Mitsui Gomei. Furthermore, it decided to discourage small deposits and pursue aggressively large depositors, large corporations and wealthy people. The underwriting of corporate and government bonds helped Mitsui Bank to borrow from BOJ taking advantage of BOJ's slightly inflationary and expansionary policy during the prewar period.

In agreement with its new policy, Mitsui Bank closed down small branches and focused its business on serving corporation and rich individual depositors. The brief boom in industrial activity after the Russo-Japanese war of 1905-1906 fit well the new policy of the bank. The new policy allowed it to take advantage of the boom by underwriting bond issues and by reducing its exposure to large long term loans and loans to small and medium size businesses.

The new policy allowed Mitsui Bank also to start dealing in credit guarantees and foreign exchange markets. As a member of an international consortium, Mitsui Bank underwrote the bonds of Kyoto City in 1907 for Ffrancs45 million in Paris. It entered with Barclay's Bank into a correspondence agreement. It maintained close business relations with Mitsui Bussan Trading Company, a major Mitsui family company. Mitsui Bank helped Mitsui Bussan with its network of foreign correspondents and the latter helped the former expand its foreign exchange business.

Mitsui Bank changed also its organization. It became a joint stock company in 1909 with a paid-in-capital of ¥2 million. Yet the Mitsui family retained complete ownership until it went public in 1919. Although it went public, outsiders not directly related to the Mitsui family controlled only 4% of the shares of Mitsui Bank. The outsiders are Hara and Kishimoto silk traders, Kuhara Mining Company and a few other individuals. The parent holding company Mitsui Gomei, itself entirely owned by the Mitsui family, retained 2/3 ownership of Mitsui Bank and the Mitsui family related companies owned the remainder of the shares or about 30%. The infusion of outside capital however small helped to force the bank's management to become more transparent.

In its effort to increase profits, Mitsui Bank and other large banks created the Interest Rate Cartel. The cartel's main goal was to secure an agreement of all large banks to fix a ceiling on interest rates paid on deposits. The cartel's main business was to monitor and prevent violations of the agreement. The cartel was a failure since there were frequent violations of the agreement. To circumvent the ceiling imposed on interest rates paid to depositors, individual members created special accounts that paid higher interest rates than the cartel's interest rate. They also competed by paying cash bonuses. Mitsui Bank (1957) prided itself for not participating in this competition and for respecting the interest rate ceiling. Consequently, the growth rate of Mitsui Bank deposits before and during the war was modest. During World War I, Mitsui Bank concentrated on lending to Mitsui Bussan in line with its new policy of commercial Banking. In 1918, Finance Minister Takahashi promoted interest rate fixing among large Banks and the cartel become more effective. Consequently, Mitsui Bank was more successful in the competition for deposits.

After the 1920 crisis and the 1923 earthquake, Mitsui Bank increased its lending and underwriting commitments to the electric power industry. In 1905, the bank undertook its first underwriting of a bond issue by Tokyo Electric Power. During World War I, the electric power generating industry grew fast due to a fast expansion of demand following rapid electrification of homes and industry. The electric power generating industry become still more profitable after 1923-24 when five large electric power generating companies merged and established monopolies covering most of Japan. President Ikeda of Mitsui Bank from 1909 to 1933 recognized quickly the great appetite of electric power generation for capital. He also considered the electric power generation industry a key industry for the future development of Japan. Accordingly, the bank expanded its underwriting of bonds of electric power companies and created a special department dedicated to this business. In 1926, this department helped electric power companies to float a foreign bond issue. While he was a member of the board of directors, Ikeda visited many advanced countries in Western Europe and in America to learn about bank management. After becoming president, he decided to restructure Mitsui Bank along the model of big English commercial banks. He promoted stable deposit taking and loan making. He emphasized financial intermediation and underwriting to profit from financing key industries. In order to maintain the bank's independence he proceeded to reduce discounting at BOJ. Following his prudent policy, the bank maintained abundant reserves; it avoided competition for deposits, and promoted demand deposits. The bank established stringent criteria of credit worthiness of existing and potential borrowers. It conducted serious investigation of the credit worthiness of new borrowers before making loans to them. This policy helped to prevent management from indulging in organ banking. Instead, Mitsui Bank emphasized lending to key industries such as the Cotton industry, foreign trade, foreign exchange dealings, electric power generation, railway industries, and gas distribution industries. In the same vein, Ikeda promoted short term financing of commerce but with limited success.

Mitsui Bank was not without its shortcomings. Before 1927, it had close relationship with Taiwan Bank and the Suzuki group of companies. It made large call loans to Taiwan Bank. Early in the nineteen twenties, Mitsui Bank realized that lending to Taiwan Bank and Suzuki group was highly risky. It started to reduce its exposure and by 1927, it reduced its call loans by ¥30 million. This did not prevent a run on its Kyoto branch in March 1927. At the end of 1927, Mitsui Bank participated with other large banks to create Showa Bank with paid-in-capital ¥ 10 million. Each of Mitsui Bank, Yasuda Bank, First Bank, Sumitomo Bank, and Mitsubishi contributed ¥1 million. The main purpose of the Showa Bank was to acquire failed banks during the 1927 crisis and take over their business.

Policy Analysis

Deposits policy

Mitsui Bank (1957) expanded its deposit business starting in 1890. Deposits increased by 81% between 1903 and 1906. The growth was due to the better quality of the bank's management. Stocks were very risky and savers liked the safety of time deposits at Mitsui Bank. Between 1906 and 1909, deposits increased by 89%, small business accounts increased by 12% and large business accounts decreased by 22.4%, Before 1907, Mitsui Bank paid relatively high interest rates to attract deposits. There was a depression at the end of 1907. Interest rates decreased. In 1910, eight large banks including Mitsui Bank formed a cartel to fix interest rates on time deposits at 4%. In 1912, economic conditions improved and competition for deposits grew fierce. Soon, members of the interest rate cartel, except Mitsui Bank, increased the number of its branches and increased interest rates on deposits twice (in January and November of 1912 respectively) beyond the ceiling level in violation of the cartel agreement.[77] Those banks also created special deposit accounts that pay higher interest rates to get around the interest rate ceiling fixed by the cartel. Mitsui Bank had the largest stock of time deposits in 1909. Ten years later, Mitsui Bank dropped to second rank in terms of deposits, right after First National Bank. Most likely, this was a consequence of its willingness to respect the cartel agreement and avoid competition.

During World War I, Mitsui Bank improved its ranking in terms of deposits and regained first position in 1920 mainly by attracting more deposit business of large companies.[78] Thanks to an increase in loans to companies, the bank was able to increase its deposit taking from those same companies. Unlike other banks, Mitsui did not increase its deposits thanks to mergers. For example, Yasuda Bank merged with some of its related banks and surpassed Mitsui in terms of loans and deposits. However, during the 1927 financial crisis, depositors shifted their deposits from risky and bankrupt banks to Mitsui Bank. This represented a testimony to Mitsui Bank's better and less risky management policy.

Loans policy

The decision in 1886 to reduce reliance on government business resulted in at first a weakening of the financial position of Mitsui Bank because of the consequent reduction of the lucrative lending business to the central government. The bank's business recovered in the latter part of the eighteen eighties thanks to the expansion of its loans to industry. It emphasized loans rather than short term discounting and overdrafts. However, most of the loans did not have collateral and a large share of the loans went to Mitsui related companies. After the end of the Sino-Japanese war (1895-96), there was a brief boom, and the Mitsui family manufacturing and mining businesses needed capital injections to expand. They called on and Mitsui Bank obliged, confident that it can rely on borrowing from BOJ. The boom came at an end and the economy went into a depression. The financial position of Mitsui Bank deteriorated seriously, which prompted a run on it. Mitsui Bank called on BOJ for rescue and the latter obliged. The Mitsui family learned quickly that their loan policy was at fault and abandoned the organ bank policy in favor of a new policy. The new policy transformed Mitsui bank from an investment bank into a hybrid commercial-investment bank.

After 1900, the cotton industry developed and financing trade in cotton became profitable. Mitsui Bank provided loans to Mitsui Bussan, the trading company of the Mitsui group of companies and to Kanebo Company, a member of the Mitsui group. Mitsui Bank participated also, although indirectly, in the finance of the development of the silk industry. It provided loans to Tonya (silk merchants), who turned around and lend the money to silk producers. It provided also loans to the coal mining industry including but not exclusively, to Mitsui Mining Company, Ohjiseishi Paper

[77] Mitsui Bank (1957), pp376-378

[78] Mitsui Bank (1957), p.380

Company, Toshiba Machinery Company, Suzuki Shoten, a trading company of the infamous Suzuki group and later to other companies in the latter group. At the beginning of World War I, there was a brief depression. In response, Mitsui Bank reduced its loans to borrowers unrelated to the Mitsui group of companies by 10% and increased its loans by approximately the same amount to Mitsui Bussan. This action helped Mitsui Bussan weather the brief depression.

Starting in 1915 and through the war, a great economic expansion occurred in Japan. The appetite for borrowing grew steadily leading to an explosion of the demand for loans by existing and new concerns. All banks including Mitsui Bank expanded their loans by multiple folds. After the war ended, a brief depression occurred and most large banks experienced a significant contraption in their loans, except Mitsui Bank and Fifteenth National Bank. Mitsui Bank had a solid loan portfolio. Electric power companies held a substantial proportion of its loans. The electric power industry continued to expand and experienced a boom in the nineteen twenties. Mitsui Bank expanded short term loans with collateral and reduced its portfolio of bill discounting. These measures enhanced the quality of its loans.

Many companies of the Suzuki Group, which eventually failed, did obtain large loans from Mitsui Bank. The bankruptcy of the Suzuki group companies caused Mitsui Bank to write off some loans but not those loans to Kobe Steel and some few other companies in the group who had a fair chance to recover. In early April 1927, Mitsui Bank had ¥8.8 million of loans to the Suzuki group that it had to liquidate or write off. Of these, ¥4.51 million had collateral and the remainder had no collateral. Mitsui Bank liquidated the collateral and recovered a part of those loans. At the end of 1927, Mitsui Bank wrote off the rest of the irrecoverable loans. It did not write off loans to Teikoku Jinken Company (synthetic fiber company), Kobe Seiko Company (Kobe Steel), and Nihon Shogio Company (a trading company). At the end of 1927, in total, Mitsui Bank had ¥30 million of outstanding loans to the Suzuki group.[79]

A large loan is a loan greater than 2.5 million. The amount of total large loans in 1930 was ¥260 million. The large loans represented approximately 60% of the Mitsui Bank loan portfolio of ¥460 million. As Table 7 shows, the electric based industries including railways accounted for half of large loans and close to one third of the bank's total loans. If we add the gas and oil companies, the Electric based or energy industries accounted for ¥159.6 million or more than one third of the bank's total loans. These were fast growing industries with a light exposure to cyclical fluctuations and competition. Large loans to companies directly related to the Mitsui family business represented less than 10% of the total amount of loans of the Mitsui Bank. This structure of loan portfolio attests to a high degree of prudence that Mitsui Bank enjoyed and helped to keep it solvent.

[79] Mitsui Bank (1957), pp. 400-420

Table 7
Structure of Mitsui Loans at the end of 1930 *(Millions of Yen)*

Total Electric Power Industry		86
Tokyo Electric Power Company	40	
Other Electric Power Companies	46	
Total Electric Railway Industry		51
Tokyo–Osaka Electric Railway Company	23	
Other Electric Railway Companies	28	
Trust and Holding Companies		21
Nomura Securities	8.2	
Other Companies	12.8	
Total Gas Companies		17
Tokyo Gas Company	5.4	
Total Mitsui Related companies		41
Mitsui Bussan Company	7.8	
Ohji Seishi Company	13	
Other Mitsui Zaibatsu Companies	20.2	
Other Companies		42
Suzuki Sugar Refining company	8	
A paper company	2	
An oil company	5.6	
Association of Silk Producers	10	
Other Companies	16.4	
Total Amount of Large Loans(38 companies)		260
Total of Outstanding Loans		430

Source: Mitsui Bank (1957) pp. 421-422

Portfolio of government bonds

Underwriting means in fact owning as Japanese banks rarely resell the securities they underwrote. Mitsui Bank participated in underwriting of government bonds since the first year of Meiji (1868). Before 1905, banks invested in stocks rather than corporate bonds because the latter did not exist. In 1905, the government allowed joint stock companies to issue bonds. By 1908, investment in corporate bonds exceeded that in corporate stocks.

During World War I, underwriting of corporate bonds exceeded that of local government bonds. Underwriting of corporate bonds increased substantially during the period 1925-1926 and the bank's management extended it to the issue of corporate bonds in foreign markets including London and New York. In 1928, the underwriting of corporate bonds by Mitsui Bank was the largest among all banks. Mitsui Bank amassed a well diversified portfolio of corporate bonds.

Lessons

Many factors lead us to believe that the success of Mitsui bank was largely due better transparency combined with better management. The bank's management is accountable to the parent holding company, Mitsui Gomei. The bank is a joint stock company with minor outside participation but significant participation of other companies owned by the Mitsui Gomei. The bank's loans to the other companies owned by the Mitsui Gomei represent only about 10% of its total loans. The quality of the bank's management is superior to most other banks. The latter allowed the bank to make up for relatively low level of transparency due to the morbid character of the stock market in Japan during the pre-World War II period. The management achieved a level of flexibility and foresight that enable it to extricate the bank on time from its heavy loans to the Suzuki group without sacrificing its loans to the promising ventures of the group. The management diversified the bank's portfolio of loans across economic sectors and companies and picked up the long term winners of companies in each sector. The better transparency allowed the bank to pay low a interest rate on its deposits as shown in Table 4, avoid runs and gain market share as it did after the 1927 financial crisis. Of course, its size enabled it to diversify both its loan portfolio and offer financial services other than lending. However, as the case of the Fifteen Bank and Taiwan Ban show, it does matters how a bank achieves a large size, and a large size without accountability and transparency is not enough. Invariably, the analysis of BOJ shows that failed banks lacked transparency and they contributed to tie up capital. BOJ's implicit deposit insurance encouraged banks that lacked transparency and their associated business customers and borrowers to survive and expand. World War I and the government shift in policy from emphasis on light industries to heavy industries helped to mask the need for them to improve transparency. The banks and businesses that lacked transparency were black holes absorbing capital and contributing to an increase in the cost of capital by competing for capital and creating a higher risk premium. In addition, the cases of the Fifteen Bank and Taiwan Ban show that diversification is of little import when there is a lack of transparency. Creating large banks by merging weaker ones is not a substitute for transparency.

11. The 1927 financial crisis[80]

During World War I and until 1920, The Japanese economy experienced an extraordinary expansion. During the 1920 recession, fifteen banks went bankrupt following runs on them. At the end of 1922, there were runs on city banks (Osaka and Tokyo banks). As Table 8 shows, there were bank failures every year between 1920 and 1929. This number culminated in 1927.

Table 8
Number of Bank Failures 1920-1929

Year	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929
Number of Failed Banks	15	6	16	18	13	9	8	45	12	7

Source: Bank of Japan (1969), Vol. 24 p.2, Introduction by Professor Tsuchiya

We can collect the factors that may have been responsible for the string of bank failures around three basic headings: those related to the internal basic weakness of some of the banks, those related to the Tokyo earthquake, and the moral hazard implicit in the monetary policy of BOJ and government relief programs.

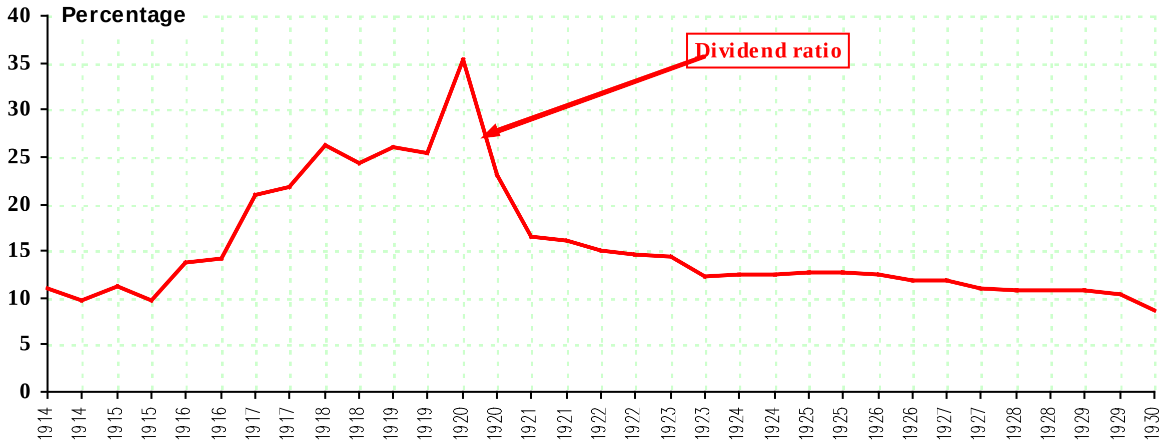
（1）*Basic weaknesses of some banks and government financial policy*

The extraordinary expansion during World War I and its immediate aftermath resulted in the creation of a lot of businesses small and large. Over-investment by non-financial institutions supported by over-loaning of financial institutions and bad management of some banks resulted in excessive risk taking by those banks. On the other hand, changes in the international competitive environment weakened Japanese businesses. The governor of BOJ announced in 1919 that his new policy would encourage exports to absorb the excess capacity created during the war. Following the 1923 earthquake, many industries in particular textiles, hemp, shipbuilding, and paper products experienced heavy losses. Other industries (cotton, cement, and flour milling) experienced serious reductions in profits. However, electric power, gas utilities, sugar refining and rubber industries were relatively profitable. The 1923 earthquake exposed the mismanagement and weak positions of certain banks and businesses.

Many banks made relatively large and long term loans of doubtful quality. Various factors encouraged ordinary banks to make such risky loans. In ordinary banks, term deposits accounted for 54% of total deposits compared to 34% in the case of member banks of the United States Federal Reserve System. To compete for deposits, banks had to pay higher interest rates on deposits. To pay the higher interest rates they needed to make long term loans at still higher interest rates. This led many banks to make risky loans of doubtful quality that promised to pay the higher interest rates. The special war time circumstances and the associated over-investment were ideal for such loans. Banks increased the number of their branches and ignored a cartel agreement of a low ceiling on interest rate on deposits.

[80] This section is based on Bank of Japan (1969) , vol.24 “ Business conditions from the earthquake of 1923 to 1927 Crisis”, Chapter .6, The 1927 Crisis,pp.1-111

Figure 12
Dividend ratio All Industries



Source: Bank of Japan (1966), Table 124, p.335

Another factor that contributed to make some banks weaker is the policy of high dividends in all industries as figure 12 shows. Many bank owners borrowed money to create or increase their bank's capital. Since they had to pay high interest rates and all industries paid high dividend rates, they required their bank to pay them high dividends rates too. This policy prevented banks from creating sufficient reserves against bad loans. The weak balance sheets of certain banks were also a consequence of the nature of the collateral of their loans. Twenty four percent of the banks' loans had corporate bonds collateral and twelve percent had stocks collateral. That is, thirty six percent of banks loans had securities as collateral. Twenty one percent had real estate collateral. Eight percent had stocks of commodities or ships as collateral. The rest, about thirty three percent had no collateral. The stocks collaterals are often stocks of businesses related to the owners of the bank. Ships, stocks of commodities and real estate lose a considerable portion of their value during a recession or a crisis. Thus, it is not surprising that some banks did experience runs on them whenever the economic environment of their borrowers deteriorates. [81]

In their pursuit of risky borrowers that promise to pay high interest rates, certain banks financed a total amount of loans that exceeded their deposits by a large margin. They funded the excess through loans from other ordinary banks and BOJ. At the end of 1926, the total amount of borrowing of ordinary banks from BOJ and the call market was ¥1.1 billion approximately equal to their total paid-in-capital.[82] The average cash reserve represented 7.5% of total deposits while banks in the UK and the US maintained respectively cash reserves that represented 21% and 10.4% of their total deposits. Secondary reserves made up of deposits in other banks and BOJ and call loans represented 9.8% of total deposits. Deposits in other banks and call loans are not really reserves especially during a general run on banks. Furthermore, the distribution of deposits loans and reserves are not identical across banks. This left the balance sheets of some banks weak while those of others remained strong.

Depositors' panics, journalists and media rumors and politicians mistakes compounded the problems of weaker banks. Economic crises, politicians' mistakes and the 1923 earthquake exposed the weaknesses of those banks resulting in runs on them and eventual bankruptcy.

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[81] Fuji Bank (1967) quotes similar distribution of collateral of banks loans. It does not distinguish between stocks and bonds. It seems that it calls both types of securities stocks.

[82] Fuji Bank (1967), p.85

（2）*Earthquake bills*

The 1923 earthquake destroyed most of Tokyo. Many businesses including banks suffered heavy losses. The damages sustained by banks included unrecoverable loans to destroyed businesses operating in the Tokyo area as well as records of loans, collateral, and bills of exchange. Since banks held a majority of exchange bills, the destruction of businesses on which those bills were drawn inflicted heavy losses on those operating in Tokyo or elsewhere. The exchange bills that could not be honored were the famous earthquake bills. BOJ estimated that the total value of earthquake bills was ¥2.1 billion. To relieve the financial stress on banks, the government instructed BOJ on September 27 1923 to discount the earthquake bills at a low discount rate. Banks must apply for discounting earthquake bills before March 24 1924.

Ninety-one banks applied for a total of ¥430 million. Only a few of them had registered for large claims. These were Taiwan Bank, Fujimoto Bill Broker Bank, Chòsen Bank, and Yasuda Bank. The claims of Taiwan Bank and Yasuda Bank amounted to 35% of the total claims. The ten biggest claims amounted to 70% of the total. There was also a high concentration of the corresponding debt. The relationship between Taiwan bank and the Suzuki group of companies illustrates the high degree of concentration of a single bank's loans. The Suzuki family built its business empire of sugar refining and camphor in Taiwan following the victory of Japan in the Sino-Japanese war. During World War I, the Suzuki family expanded its business into other industries and created the Suzuki Zaibatsu. They built the Kobe Steel manufacturing company and Teijin Textile with a total capital of ¥500 million. Taiwan Bank financed a large proportion of Suzuki's expansion. At the end of 1922, 53% of Suzuki's borrowing was from Taiwan Bank. At the end of 1924, 62% of Suzuki's borrowing was from Taiwan Bank. Taiwan Bank financed its loans to Suzuki through borrowing from other banks and on the call market.[83]

Suzuki and related businesses, Kuhara (later Hitachi group) businesses and Kokusai Kisen business accounted respectively for 16.6%, 5.1% and 1.8% of the total value of the debt corresponding to the earthquake bills. The government extended a few times the deadline for banks to repay the loans they obtained from BOJ in connection with the earthquake bills. The final deadline was December 31 1927. BOJ recovered only half of the total credits it extended to discount the earthquake bills. The Japanese parliament voted to declare the other half of the total value of the discounted earthquake bills in default. All those banks that defaulted did actually experience a run in either 1926 or 1927.

（3）*Moral hazard*

There were business downturns during the Meiji era often accompanied by banking crisis: 1890, 1897-98, 1900-1901, 1907-1908, and 1920. There were also major banking crisis without major business downturns. The 1927 crisis is one such banking crisis. On March 15 1927, the Japanese parliament gathered in a plenary session to discuss a proposal to extend the deadline for banks to repay their earthquake bills loans to BOJ. The minister of finance explained that the extension would help the Tokyo banks overcome their current financial difficulties. To bolster his argument, the minister erroneously declared that the Watanabe Bank has just become insolvent. His statement immediately triggered a run on the Watanabe Bank, Akaji Savings Bank, Murai Bank, Nakazawa Bank and Eighty-Fourth Bank. Soon the run extended to other weak banks. A second wave of runs on banks began on April 18 1927 when Taiwan Bank failed. It lasted until April 21 1927 when the government imposed a three week national moratorium on bank deposit withdrawals. Bank failure continued during the balance of 1927. By the end of 1927, forty five banks closed their doors.

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[83] Mitsui Bank (1957), p. 35

From March 26 to April 21 1927, bank deposits decreased by ¥600 million. Banks in the six largest cities lost ¥500 million of deposits. Bank deposits fell by 12.9%, in Tokyo, 11.8% in Osaka, and 5% in other cities. The April 22 1927 moratorium stemmed the bleeding. In order to protect the depositors of the bankrupted banks BOJ created a new lending facility. On April 25 1927, BOJ has extended more than ¥2 billion of loans through the new lending facility. This is a large amount given the fact the total amount of lending of BOJ on March 1, 1927 was ¥300 million and BOJ had about ¥1.1 billion of gold reserves in 1927. Compared during to the behavior of the US Fed during the early years of the great depression, BOJ's action represented an innovation in monetary policy. Probably, it helped the Japanese economy avoid a fall into a depression following the 1927 banking crisis.

Bank of Japan Notes and Loans in 1927

(Billions of yen)

Date	March 1	March 15	April 25	April 30
BOJ's Outstanding Notes	1.238	1.095	2.659	2.037
BOJ's ordinary Loans	0.271	0.184	2.056	1.446

Source: Bank of Japan, 1969, Vol. 24, p.46-48

The above table shows the decisiveness and timeliness of BOJ's response to the unraveling of the 1927 financial crisis. BOJ's outstanding notes doubled in the space of one month and ten days from the day the crisis erupted. Its loans to banks immediately jumped about six times.

（4） *Bank of Japan analysis of the causes of bankruptcy of banks*[84]

According to BOJ, there were five main causes of bank failures in the 1920's.

a) Excessive, heavy and reckless lending by many banks that were seduced by rapid economic expansion during World War I
b) Heavy concentration of loans of individual bank by region, industry and individual borrowers
c) Large loans by some banks to businesses owned by some of their directors or businesses related to those banks.
d) A substantial proportion of loans are without collateral or collateral of real estate and securities of companies created by those same loans. The latter collaterals were either illiquid or worthless during a recession.
e) A substantial proportion of the loans of some banks were long term loans. Those banks experienced repeated financial distress episodes after the onset of the 1920 depression, eventually causing significant losses of deposits. Bank managers and owners failed to restructure their banks, to increase capital and/or to improve the maturity structure of their loans. Rather they continued to pay high dividends and borrowed from the call market to bridge the gaps created by deposits losses.

[84] Bank of Japan (1969), Vol. 24, , pp.81-82

（5）*Synthesis*

A popular view among the public and government officials of the 1920's is that the 1920 depression and the 1923 Tokyo earthquake caused the 1927 financial crisis. Ishibashi (1930) a famous interwar journalist and immediate postwar prime minister disagreed. He attributed the crisis to the decision of the government at the end of 1925 to return to the gold standard at the prewar parity after the completion of the 1926 Bank reform that it initiated to prepare for the return. He argued that the decision caused an artificial 19.5% increase of the exchange rate of the yen vis-à-vis the US dollar during 1926.[85] Consequently, domestic prices fell, causing hardship to domestic producers and their banks.[86] Figure 10 bears out Ishibashi since it shows that the inflation rate was -12% in 1926.

The popular view is consistent with that of Ishibashi. The speculation activity that raised the exchange rate was the straw that broke the camel's back. The failure to deal with lack of transparency and the moral hazard associated with BOJ's monetary policy explains the fragility of some of the financial and non financial institutions. This fragility prompted the run on the insolvent banks. The 1920 depression and the 1923 earthquake exposed to the public the fragility of some financial and non financial institutions of the time. They also exposed the culprits but BOJ's monetary policy and government policy cover it up. The stubbornness of some of the governments to return to the gold standard at the prewar parity simply spelled out the dire consequences of the cover-up.

Although all ordinary banks operated under the same government financial policy, some of the large banks, e.g. Zaibatsu banks, prospered as the case study of Mitsui Bank in the previous section showed. Yet some other banks large and small went bankrupt. Like the case of many well managed Zaibatsu banks, the case of Mitsui Bank shows a clear separation of management and ownership. This forced the large Zaibatsu banks to be more transparent to the Zaibatsu holding company. In the case of the large and small banks that failed, there was no clear separation between ownership and management as BOJ's analysis above and the case studies in the previous section show. In the absence of appropriate government supervision, the lack of transparency combined with the implicit insurance offered by BOJ to depositors was fatal. The diversification of the loan portfolio of large Zaibatsu banks and business such as Mitsui's was not an accident. Nor was it a consequence of the size of the bank. The diversification of the Zaibatsu holding company itself and the interlocking of directors among the member companies of the Zaibatsu plus the separation of ownership and management forced more transparency and better financial performance. The fact that non bank member companies of the Mitsui Zaibatsu accounted for a small share of the Mitsui Bank loans shows clearly the importance of transparency and accountability for the success of the Zaibatsu banks.

The reckless lending by the likes of some of the large banks such as Taiwan Bank was not an accident. The moral hazard associated with a de-facto unlimited deposit insurance induced depositors to behave complacently. It encouraged banks and their borrowers to waste resources and mismanage certain banks and businesses. This was possible because of the lack of transparency, the lack of supervisory institutions and the lack of rules that would have forced banks and joint stock companies to behave responsibly. The de-facto deposit insurance became the official insurance when the Japanese parliament enacted the Bank of Japan Special Lending and Compensation Law in May 1927. The law directed BOJ to make special loans and discounts to any bank experiencing a run to enable it to meet deposit withdrawals. The law placed a maximum of ¥500 million on the total amount of loans and discounts and a maximum term of ten years on such loans.

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85 We will discuss his argument in detail below. See section entitled Criticism of the policy of the Hamaguchi government

86 Ishibashi (1930), pp. 579-581

The minutes of the 1926 financial committee that we shall analyze in the following section show that the lack of transparency and accountability and the moral hazard associated BOJ's policy increased uncertainty causing the cost of capital to remain high or to increase. Figure 2 shows that interest rates on postal savings deposits did decrease between 1877 and 1887 to about 4%, where it remained until 1897. During the Russo-Japanese war, it increased to reach 5% in 1907. Although it fell to 4.2 % in 1912, the fever of World War I expansion in industrial activity started it on gentle upward climb to reach again 5% in 1926. Similarly, after falling to a low of 4.6 % in 1912, the lowest interest rate on bank deposits increased to 6.4% in 1926. This rise in the nominal interest rates on relatively riskless assets coincided with a negative inflation rate starting with the onset of the 1920 depression.

Ⅲ Transition to Current Banking System

12. Surrogate measures for transparency

Transparency would improve management of banks, free up capital, reduce the number of bank failures, increase capital rotation and reduce the cost capital. We want to show that the government was aware of the lack of transparency and it preferred to reduce the risk of bank failure and interest rates mainly through bank mergers and direct interference instead of improving transparency in order to improve management.

（1）Government knew about lack of transparency and accountability

The government created the 1926 financial committee (1926 committee) to advise it on the subject of reform of the financial system. The 1926 committee found that many financial institutions have become a burden on the system. The balance sheets of some banks appear healthy. However, the profit they show was not a good indicator partly because they evaluate assets at their acquisition prices and partly because of inaccurate accounting practices.

The financial system consisted at that time of BOJ, Taiwan and Chòsen Banks, ordinary banks, or banks for short, savings banks, trust companies, government owned banks, i.e. YSB, Hypothec Bank, Industrial Bank, and prefectures' agricultural banks, insurance companies, stock and fixed securities markets, mutual credit companies and moneylenders. The members of the 1926 committee concentrated their attention on the banking system. Their mandate was to study and make recommendations about six issues: bank resources, quality of management, protection of depositors, banking supervision, protection of banks against excessive competition, and bank mergers. MOF provided the 1926 committee with background material, expertise and a proposed list of reforms and recommendations.[87] An important recommendation was a proposal of a new bank act. Eventually, after a certain number of amendments, this proposal became with certain amendments the 1926 Bank Act.

It appears from the minutes of the 1926 committee that poor management supported by lack of transparency and the monetary policy of BOJ were major contributing factors to the runs on banks. Members of the 1926 committee were aware of the fact that both small and large banks experienced runs and bank failures contributed significantly to a rise in the cost of capital. For example, despite the crawling and sometimes violent deflation during the decade of the nineteen twenties, BOJ was never able to reduce its discount rate below 5%, although everyone was concerned about the high cost of capital.

The president of the 1926 committee, Inouye, a former governor of BOJ and a famous future MOF, argued that protection of depositors is an important argument in favor of bank mergers. For this reason, he favored mergers of local banks with city banks to form large banks. According to him, local banks make loans to local businesses on the security of real estate, which is illiquid. This practice is highly risky. The capital tied up in these loans has a low turnover rate and the collateral is illiquid. This is not good for business. Merger of local banks with city banks will increase the

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[87] See introduction by Professor Tsuchiya in Bank of Japan (1956), pp 7-9

turnover rate of loans, improve the liquidity of the collateral, and reduce the risk faced by bank depositors.[88]

Inouye's comment concerning the need for mergers between local and city banks shows clearly that a major problem with banks was the lack of transparency, accountability and good governance, not excessive competition and size. The case studies of Taiwan Bank and Fifteenth Bank in the previous section corroborate this conclusion. So do the deliberations of the 1926 committee members about the clauses of the proposed act.

Article 1 of clause 6 of the proposed act encouraged each bank to make a clear report about its reserve position through internal inspection and research. In article 2 of clause 6, MOF committed itself to make available to every bank a form proper to it to help it record the position and composition of its reserves and its deposits including government bonds and call loans with collateral. Article 3 of clause 6 empowered MOF to request at its discretion at the end of the accounting period or at any other time all banks or a group of banks to provide it with a report about each bank's position and composition of reserves and deposits including information about reserve ratios. Article 4 of clause 6 encourages clearing houses and bank associations to promote research about methods to increase member banks reserves and improve self-governance. MOF promised that it would not publish specific information it obtains from individual bank reports. It would publish only information about aggregate deposits and aggregate reserves.

As some members of the 1926 committee argued, publishing the individual reports on reserves is suicidal. Presumably, the reports would help MOF to identify badly managed banks and exercise moral suasion on their managers to improve the reserve position of the bank. In fact, even this sort of transparency is difficult to enforce. MOF argued that a large number of banks, particularly local banks, do not keep any reserves. Thus, the proposed act does not allow government to impose a minimum required reserve ratio. MOF contended itself to include a clause that aims at encouraging banks to experiment with a chosen reserve ratio and learn about the benefits of maintaining appropriate reserves.

Normally, prudent management requires maintaining a certain reserve deposit ratio. MOF had evidence that many banks that experienced runs didn't keep enough reserves. However, MOF advised the 1926 committee that the enforcement of a minimum reserve ratio is next to impossible. In 1926, there were 1500 banks. Many are local or regional banks and it would have been a nightmare to enforce a minimum reserve ratio. MOF argued that the best way is to use moral suasion to convince banks to maintain a reasonable reserve ratio. One might understand that sometimes a well managed bank may not have enough reserves. However, when this becomes the rule for a bank rather than the exception, something is wrong with the management of the bank. Clearly, MOF's goal was to protect depositors and avoid a decline in the supply of capital or a rise in its cost for fear that this would slow down economic growth. The commitment of MOF not to publish the annual average reserve ratio of individual banks, even after taking appropriate measures, encouraged mismanagement and lack of transparency. Instead of lowering the interest rate, this policy helped to keep capital tied up in mismanaged businesses and contributed to keep the cost of capital from falling.

Clause 7 of the proposed new bank act shows the reluctance of the government to impose limitations on banks' lending and investment and improve bank governance. The clause requires each bank to audit its books. The auditor must send a report to MOF explaining the bank's position with respect to every borrower's business in either of the following situations. The value of the bank's total lending to the borrower exceeds 10% of the sum of the bank's capital and retained earnings. The bank's total holdings of the shares of the borrower's business, in the form of

[88] Bank of Japan (1956), Vol. 18, p. 177

ownership or collateral, exceeds 20% of that bank's paid in capital. On the basis of the auditor's report, MOF must offer proper advice to the bank.[89]

The main purpose of the clause was not to enforce a limit on a bank's lending to a single borrower. MOF knew that a large number of local banks routinely make loans to a single borrower the total of which exceeds 10% of the sum of their capital and retained earnings. It also knew that some banks held shares and bonds of a single corporation of a total value in excess of 20% of their capital.[90] It appears that the main purpose of clause 7 was for MOF to get the information and to advise those banks about appropriate measures to reduce their risk exposure. This advice would help improve governance of banks in good standing, such as Zaibatsu banks, but an advice does not force managers of other badly managed banks to improve governance.

Another piece of evidence shows the precarious position of many local banks. Although the main objective of Hypothec Bank was to make loans on the security of real estate financed by issue of long term bonds, it was not able to cater to the need of many local producers. Thus, government turned a blind eye on the poor quality of loan practices of local banks. A large number of the loans of local and small banks were mortgage loans. The collateral of mortgage loans was real estate. The loans were long term and exposed a bank, small or large, to excessive risk since an ordinary bank's deposits have a relatively short term maturity. The loans were illiquid because of the absence of an active thick market for them. Excessive fluctuations of real estate prices could cause loss of confidence in these banks and other well managed banks as well.

In clause 8, MOF proposed to limit those loans "in the future" to a total amount not exceeding the sum of paid in capital, retained earnings and 30% of total time deposits of a bank.[91] Despite the vagueness of this clause, the members of the 1926 committee objected to the clause. MOF assured them that it would not enforce the limit in the immediate future. Thus, the lack of transparency is serious but the government and the public represented by the commission members would not address it for fear it would kill the goose that is laying the golden eggs.

MOF proposed in clause 9 that, twice every fiscal year, the auditors of a bank must make reports about large loans as defined in clause 7 to important directors and high level of management. They also must make reports about the importance of the financial interest the bank holds in the form of ownership of shares or collateral in the form of shares of a single business, and the importance of nonperforming loans. The failure to make reports would result in an indefinite sanction against the bank or its auditors. Clearly, the intention behind the clause is good. However, the clause had no teeth. It does not disseminate even the limited information collected by auditors chosen by a bank's management itself.[92]

Interlocking directorship often muddied the waters of good governance further. In many cases, the directors of a bank were also directors of companies that are large borrowers from the bank. In the proposed bank act, MOF aimed at dissuading a bank's directors from participating in the management of businesses that borrow from the bank. MOF stated that it could not propose a prohibition of the practice because the interlocking was common. Furthermore, clause 10 of the proposed new Bank Act stated that, in principle, full time directors should not participate in the management of other businesses. If they must, they require MOF's approval. Violation of this

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[89] Bank of Japan (1956), Vol. 18, p213

[90] Most Zaibatsu banks were well managed and they were accountable to the Zaibatsu holding company. Furthermore, a Zaibatsu bank total lending to any one member company of the Zaibatsu does not represent more than 10% of the sum of the bank's capital and retained earnings. However, the total lending to all Zaibatsu member companies may exceed the limit. MOF argued that it may apply the clause to the bank's lending to the whole interest group. Since the clause does not impose any limitations on lending, MOF has a lot of flexibility in its role as an advisor.

[91] Bank of Japan (1956), Vol. 18, p. 216

[92] Bank of Japan (1956), pp. 404-405

clause is a subject of a light undefined penalty. To reduce bank exposure to risky investment, the proposed act prohibited banks from owning or operating other businesses. Of course, this was not enough to reduce bank risks since bank directors can also own the stock of other businesses and can participate in the management of other businesses. That is, the proposed act did little to remedy the situation. Bank management is still not independent of the management of business borrowers. Ordinary banks remained subject to normal bank risk amplified by risk of mismanagement of other nontransparent business.

To the credit of the government and the 1926 committee members, they promoted transparency and good governance in the case of savings banks despite the fact that they also succeeded in stifling competition among them. Matsukata's financial plan of Japanese economic development emphasized the need for stable money and fluid financial markets. In his opinion, this builds an economic environment that is conducive to a substantial increase in savings. The increase in savings is necessary to finance capital accumulation and improvement in technology.

In 1921, the government undertook a major overhaul of the 1890 Savings Banks Act and replaced it by a new one. Consistent with Matsukata's views, the 1921 Savings Banks Act viewed the goal of savings banks as the collection of small savings. The requirement in clause 4 of this act that a savings bank must invest a minimum of one third of its assets in government bonds was meant to earn the trust of small savers and encourage good governance.

The 1926 committee members proposed to amend clause 4 of the 1921 act to allow savings banks to invest in local government securities and bonds of special banks such as agricultural banks and Industrial Bank. To help them earn higher returns on their assets without taking additional risk, members of the 1926 financial committee urged the government to amend the act in various ways. The propose act would allow savings banks to act as an intermediary in the subscription of local and central government bond issues. It would allow them to make loans to local governments without collateral not exceeding the sum of one fifth of their capital and retained earnings. It would also allow them to make loans of less than ¥1000 with maximum maturity of two years if guaranteed by two people of good credit standing.[93]

An innovation of the 1921 Savings Banks Act was the requirements that a savings bank must be a joint stock company with a minimum capital of ¥0.5 million. Normally, a joint stock company would be more transparent if its shares are actively traded and if the stock market operated according to appropriate rules. Furthermore, the additional regulation of the composition of the portfolio of savings banks should have made risk averse depositors more comfortable with investing their savings in savings banks. As it tuned out, transparency was not popular neither among the owners of savings banks or among depositors.

In 1921, the 1890 Ordinary Banks Act governed the operation of ordinary banks. The 1890 Banking Acts were careful to spell out the difference between savings banks and ordinary banks. The objective of the 1890 Savings Banks Act was to maximize the amount of financial resources collected from small savers by explicitly protecting their savings and offering them a steady and possibly a low rate of return. The government amended the 1890 Savings Banks Act in 1921 to enhance the protection of the savers. The new 1921 Savings Banks Act imposed higher minimum paid in capital and more transparency requirements forcing changes in the assets in which a savings bank can invest. By contrast, the 1890 Ordinary Bank Act was more cavalier. It had a loose definition of a bank and did not have much restrictions on the assets in which a bank can invest. Furthermore, we know that BOJ essentially offered unrestricted deposit insurance and (ordinary) banks paid at least as high an interest rate as savings banks. The increased transparency that potentially could have resulted form imposing the joint stock form of organization on savings banks

[93] Bank of Japan (1956), pp. 520-532

was not possible and the requirement served another purpose, as we shall see shortly. Thus, savings banks converted themselves in droves into ordinary banks with the blessing of the depositors. A great exodus among savings banks occurred right after the 1921 Savings Banks Act took effect. Table 10 describes the exodus.

Table 10
Exodus of Savings Banks
Paid in capital and deposits are in millions of yen

Year	Savings Banks			Ordinary Banks		
	number	Paid in capital	Deposits	number	Paid in capital	Deposits
1921	636	326	1946	1327	1029	6444
1922	146	33	651	1794	1430	7800

These facts show that the government knew about the severe lack of transparency in the management of certain ordinary banks and businesses. The government was reluctant to impose a straight jacket on them as it did with savings banks allowing self selection to take place. Very risk averse depositors chose to stay with the few remaining saving banks. Most other depositors with the majority of saving banks that become ordinary banks in 1921 moved with their banks knowing that BOJ implicitly guaranteed the deposits. The sheer number of ordinary banks may have dissuaded MOF from imposing rules to improve transparency. Our conclusion is that MOF thought that there are substitute measures that could reduce the risk of bankruptcy and lower the cost of capital. This line of thinking shaped the entire industrial policy of the government of Japan for a long time to come.

（２） *Stifling of competition to reduce risk of bank failures*

The members of the 1926 committee considered many measures to reduce the risk of bank failures. However, in their proposal of a new bank act, they chose to promote the principle of bigger is better as a panacea for all the woes of the banking system.[94]

MOF clarified in clause 1 of the proposed act the definition of a bank. A bank is a deposit taking institution and uses its financial resources including deposits to discount bills of exchange, to deal in foreign exchange markets and to make loans. Institutions other than banks cannot take deposits but a bank can have subsidiary trust companies. Before 1926, some large city banks had engaged in brokerage and underwriting of stock and corporate bond issues. Due to the lack of transparency, it appears that some committee members suspected that this activity might increase the risks for depositors. MOF assured them that it would decide whether each individual bank that engaged in such business could keep it. If MOF is convinced that these activities do constitute a major business of a bank then MOF would order the bank to divest itself of the business or stop taking deposits and forsake banking. Many large city banks did engage in government and corporate bonds underwriting. MOF argued that this was not their major business and MOF would allow them to continue underwriting.[95]

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[94] Bank of Japan (1956), Vol. 18 p. 1-416
[95] Bank of Japan (1956), Vol. 18 p. 70

This definition and the discussions following it made it clear that some committee members did wish to induce banks to improve transparency by denying them the opportunity to invest in the securities or be the financial arm of a business. It seems that clause 2 of the proposed act reinforces this conclusion. Indeed, clause 2 of the proposed act required banks to become joint stock companies. In realty, the government wanted to use this clause to force banks to apply the principle "big is strong". Clause 3 of the proposed act reinforced this policy and required banks outside of Tokyo and Osaka to have a minimum capital of ¥1 million yen and banks inside Tokyo and Osaka to have a minimum capital of ¥2 million. All banks must convert to a joint stock company with a capital greater than ¥1 million within five years or else close down

Recall that the president of the 1926 committee, Inouye, was in favor of creating large banks through mergers of rural and city banks to protect depositors. MOF reinforced the argument. It asserted that a small number of large banks, unlike a large number of small banks, could maintain closer contacts among themselves and with BOJ, a contact that allows them to overcome temporary liquidity problems. Another major argument put forward in favor of large banks is the increasing size of Japanese firms and possibly the change in the industrial structure of the Japanese economy. The development of heavy industry, utilities and chemical industry needed the creation of large firms. Large banks are necessary to provide large loans and financial services to the large firms.[96]

A majority of committee members in the final report disagreed with the opinion that large banks would suck money out of local areas and invest them in large cities. They provided three reasons:

a) Since the start of World War I, the average size of business has increased. Large business concerns usually locate their headquarters in large cities where they raise capital from large city banks. They have local branches operating in local areas and they often raise some of their capital from local branches of large city banks. A system of large banks would invest more in local areas through their lending to large concerns and their local branches than local banks do.

b) When large city banks develop local branches, they have a lending policy similar to local banks. They lend at lower interest rates than local banks (no data given) because they lend to businesses with high credit worthiness. Committee members think that this is proof that local branches of large city banks contribute to the reduction of interest rates in local areas.

c) Finally, committee members believed that starting in the mid twenties, many local banks started to lend to borrowers in large cities due to the scarcity of local business opportunities for which they could make loans.

Some committee members objected to the clause because it would be difficult for small banks to convert itself into a large bank. MOF responded that small banks could merge to satisfy the minimum capital requirement. Some members of the 1926 committee argued that such mergers would result in a flight of savings from local areas to large cities, leaving the former short of funds. This may lead to bankruptcy of local industries and a decay of local communities. Merger between local and city banks favor large trading houses and large city industries. MOF promised that it would not allow mergers it suspects would suck funds out of local economy to large cities. MOF promised to promote mergers of local banks in the same locality to encourage the investment of local funds in local industries. If the merger of all small banks in some locality is not sufficient, MOF proposed to allow then to merge with a large city bank.

[96] Although the committee passed an amendment that extended the period of compliance to seen years, the final act allowed a five year period for compliance for all banks except banks, which are located in small communities of population size less than 100,000 and have a capital less than ¥250,000. The final act allowed them a 10 year period to comply.

The driving force behind the push for the creation of big banks seems to have been a drastic reduction in the number of banks in order to reduce competition among banks and not to promote transparency and accountability. True, the number of banks was large and many had small paid in capital. According to MOF, there were in 1926 70 banks in Tokyo that must raise their capital to ¥2 million or more and 620 banks outside of Tokyo and Osaka that must raise their capital to ¥1 million or more. However, MOF advocated bank mergers of small banks operating in the same small locality but not across localities. The deliberation of the 1926 committee members about the amendment of the 1890 Savings Banks Act provides further evidence that the preferred solution to bank failures was to stifle competition.

Members of the 1926 financial committee recommended maintaining the 1921 Savings Banks Act and strengthening it in various ways. They noted that a large number of small banks are more apt to compete more intensively against each other than a small number of large banks. This created excessive competition and hence a need for additional regulations of savings banks. The 1926 committee members recommended that the government amend clause 1 of the 1921 Savings Banks Act to allow only one savings bank per prefecture and make an effort to convince all savings banks in every prefecture to merge into one single large bank. In addition, they proposed the government amends clause 3 of the act to prohibit a savings bank of one prefecture to open branches in other prefectures to solicit deposits.

The record of savings banks failures being less severe than that of the ordinary banks, one can conclude safely that the goal of applying the principle of “big is strong” was not to improve the management of banks but rather to stifle competition. In reality, rather than concur with the opinion of the architects of the 1921 Banking Act, owners of savings banks preferred competition and converted in droves their banks into ordinary banks. (See Table 10)

A committee member noted that recently (after the 1920 depression) both small and large banks experienced difficulties. His observation is consistent with the evidence from the case studies in the previous section. He argued raising the level of minimum capital would not necessarily prevent bank failure. Besides, competition would force banks with small capital and the joint stock model would allow them to increase their capital continuously until each bank's capital would naturally come to exceed ¥1 million. Thus, there was no need to impose such a high minimum capital requirement. MOF responded that the majority of banks that experienced troubles are small banks. We note that MOF's argument is inadequate since it used in its comparison absolute numbers rather than proportions of failed banks in the two categories of small and large banks.

If there was any doubt about government intentions, clause 12 of the proposed act must have dispelled them. In line with the government’s concern about excessive competition, clause 12 required MOF’s approval for the creation of a new branch or agency. Not only strong is good but strength should not be wasted on competition.

（３）*Administrative Guidance as a solution to poor transparency*

The members of the 1926 financial committee wrote a final report on the system of ordinary banks.[97] Among other issues, the report describes the major factors responsible for bank failures. There are too many small banks with small capital. Many of them don’t maintain adequate reserve ratios. They invest heavily in owner’s related business and long term credit with real estate collateral. There was no serious and independent auditing of their accounts or proper supervision of their lending.

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[97] Bank of Japan (1956), pp. 556-564

The report summarized also the major proposed reforms. The main business of ordinary banks is to collect short term deposits and they should confine their lending activities to commercial loans and real bills discounting. Small and medium size Japanese banks need to establish prudent lending practices and improved management. The members of the 1926 committee argued that the reforms if implemented would protect depositors and owners alike. Before 1926, ordinary banks participated in financing agricultural and industrial projects. In particular, local ordinary banks engaged themselves heavily in real estate credit. They filled a vacuum due to the late development of financial institutions that could specialize in such credit. However, local ordinary banks are not equipped to deal in such markets. Hence, the restriction imposed in the definition of an ordinary bank in the proposed new banking act by the members of the 1926 Committee.

The members of the 1926 committee agreed that ordinary banks should have a wide perspective and freedom to act. They believed that the government should not add more regulations to improve transparency. Instead of additional regulations, ordinary banks needed administrative guidance to encourage them to improve their investment portfolios. Government would use administrative guidance to convince ordinary banks to abstain from owning or managing other business and to limit their business to deposit taking and provision of commercial loans and real bills discounting.

Similarly, the report did not recommend the imposition of a required reserve ratio. Rather, it recommends the use of administrative guidance to convince local banks to maintain a 10% reserve ratio, city banks to maintain a 12% reserve ratio and Osaka and Tokyo banks to maintain a 15% reserve ratio. Qualify for reserves; cash on hand, deposits in BOJ directly or through other banks, call loans and government bonds owned by the bank itself. [98] To improve transparency, the report encouraged each bank to report to MOF twice a month (on the 15th and 30th) the financial situation of its balance sheet and the list of its reserves instruments.

The report points out that in Europe and the US, the trend is towards the creation of large scale organizations. These large businesses need large scale banks. Thus, the members of the 1926 committee recommended that Japanese banks must increase their scale of operation. This would strengthen their power of competition in the international trade of Japanese products. This would also smooth financial intermediation between local areas and large cities to help integrate financial markets in Japan and increase capital mobility. While there is a need for the creation of more large banks this does not mean that medium and small banks have no economic function to perform. The Japanese economy needs large scale business companies as well as medium and small scale producers. Thus, there is also a need for small and medium size banks. This is inconsistent with the principle "big is strong" with limited competition but the report proposes to remedy the lacunae in the reform proposal by promoting the creation of common people's financial institutions including credit cooperatives, credit unions and savings banks.

Clearly, we can credit the member of the 1926 financial committee with the mapping of a drive designed to consolidate the large number of banks that exited in 1926 into a small number of large banks. The basic aim was to lower the cost of capital by reducing competition among banks and promoting better management of businesses and banks. Administrative guidance, solidarity among the larger banks and BOJ's implicit deposit insurance would help improve management and eliminate negative side effects of limited competition and limited transparency.

（4）*Reform of financial markets to reduce interest rates*

It was evident to members of the 1926 financial committee that interest rates in Japan were higher than in the US or Europe and noted that domestic interest rates were higher in 1925 and 1926 than

[98] The call loans must have a 60 day maturity or less.

during 1916 and 1917, (see figure 2),. The members of the 1926 financial committee argued that the fundamental reason was the scarcity of financial resources in Japan. The combination of higher government expenditures and the reconstruction effort after the 1923 Tokyo earthquake have drained out some financial resources and World War I and the 1920s depression caused bank failures. The 1926 committee members were of the opinion that these events have caused an increase in risk and contributed to tie up financial capital in long term investment reducing the turnover rate of financial capital. Capital has become illiquid and risk has increased causing interest rates to rise.

The 1926 committee members recommended a general policy to government that would reduce interest rates: reduce government expenditures, redeem national debt with the resulting surplus, liquidate failed banks and failed non financial institutions, encourage common people to save and implement their proposed reform of the banking system. They also proposed reforms to financial markets aimed at lowering interest rate without considering the other beneficial effects of well functioning security markets on transparency and corporate governance.[99]

They suggested the creation of a market for bills of exchange. The government experienced with a market for banker's acceptances towards the end of World War I. A Banker's acceptance is a promise by an importer to pay his bank within a certain number of months a certain amount of money in exchange for the bank's paying immediately the foreign supplier in foreign currency the value of the imports. When the bank sells the promise at a discount, it guarantees the payment by the importer. At the maturity date, the importer pays the holder of the bank acceptance presumably after he sold his imported goods. If the importer fails to pay, the bank pays the holder of the banker's acceptance. The committee members proposed developing a similar market for bills of exchange. The government experienced also with a market for bills of exchange but without much success. One reason the market did not develop was that the bills had no bank guarantees and there were many abuses.

Many small business owners would sign reciprocal bills of exchange, which they discount at banks or sell on the market. This practice was prevalent in the silk industry. Members of the 1926 financial committee did not consider these bills as "real" bills. To eliminate the bogus bills of exchange, the 1926 committee members suggested making banker's acceptances out of normal good quality bills of exchange. The latter would become "real" bills. This would help sift out the risky and worthless bills and develop a market for the reliable ones. Once appropriate corresponding financial markets develop, banker's acceptances and stamped bills would qualify for reserves. This was important because many merchants and creditors had no experience dealing in such markets. The market for exchange bills was thin also because foreign exchange bankers' acceptance bills were the exclusive domain of a few large banks in addition to BOJ and YSB, Yokohama Species Bank (1931).

To promote the market for real exchange bills and banker's acceptances the 1926 committee members proposed that BOJ should discount banker's acceptances at a lower rate and stop making special loans to the few large banks with a license to deal in foreign exchange. To insure that it acts prudently in transforming real bills into banker's acceptances, a bank should not provide its guarantee for a total amount exceeding one half of the sum of its capital and reserves and its total engagement to a single drawee (issuer) should not exceed one fifth of the sum of its capital and reserves. Clearly, such markets had little chance to develop because of the lack of transparency that prevents the separation of prudent from non prudent banks.

An increase in the supply of high quality bills of exchange relative to low ones would help to separate the two kinds and would reduce the average rate of discount. Similarly, an increase in the

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[99] Bank of Japan (1956), pp. 574-580

volume of high quality bonds would lower the average yield. Thus, it is desirable to encourage an increase in the supply of both good quality exchange bills and bonds to reduce the interest rate on competing good quality financial instruments.

The proposed reform of the financial (banking) system would also help to reduce interest rates because it would promote depositors confidence and encourage common people to save. Many people believe wrongly that BOJ could lower the interest rate by increasing money supply through an increase in the ceiling on the guaranteed issue. The 1926 committee members recognize that the decrease in the interest rate would be temporary. Without an increase in savings, this policy would lead to an increase in the inflation rate and eventually to an increase in the interest rate. Thus, an increase in the money supply is not the appropriate solution to the problem of high interest rates.

The reform of the financial system including the improvement of the quality of credit instruments is the appropriate course of action to prepare for a return to the gold standard. Only after the return to the gold standard and the resumption of substantial economic growth would it be possible to raise the ceiling on the guaranteed issue.

Often, BOJ made special loans to the government in order to rescue various industries. In many cases, these loans prevented a credit crunch, possibly a crisis, and an increase in interest rates. However, there are also cases in which the interest rate did not decrease. Thus, BOJ and government should be more prudent in the future. The members of the 1926 committee recommended that the government should maintain a balanced budget by reducing government expenditures and BOJ should be more prudent in making rescue loans. Special loans of BOJ to rescue failing banks encourage them to continue to make long term illiquid and risky loans. The illiquidity of loans forces banks to borrow to meet their normal turnover of deposits creating an excess demand for short term loans. In addition, the illiquidity of loans exposes them to a greater risk of becoming irrecoverable or nonperforming. The greater risk requires these banks to pay a premium on their borrowing. The excess demand and the premium cause interest rates to rise in general. BOJ's rescue policy encourages waste of capital and causes higher interest rates. Rather, BOJ should assist in the development of a market for bills of exchange, which would contribute to lower interest rates.

The 1926 committee members noted that BOJ didn't change the discount rate as frequently as do the Bank of England and the US FED. To help reduce interest rates, all financial institutions (banks, trust companies) should adjust their interest rates on deposits in the same proportion following the lead of BOJ. To help more funds move more quickly, BOJ should open more branches in order to open up communication channels between city banks and local banks and reduce interest rates.

Another cause of the higher interest rates is the waste of financial capital by badly managed banks. Korean Bank and Taiwan Bank are large and badly managed banks. They have been raising funds through call loans with no collateral; their appetite for cash was insatiable. Consequently, they created a continuous excess demand that financial markets can eliminate only by keeping interest rates high. Being government owned, they accepted to pay higher interest rates and they could always borrow. A necessary step to reduce interest rates is to liquidate the two banks and reform the call market.

An analogous argument holds for ordinary banks and their business clients that continue to experience chronic difficulties. BOJ's ever readiness to rescue these banks is equivalent to readiness to rescue their business clients. These banks also borrow on the call market to keep themselves and their business clients afloat. Liquidation of these businesses and banks would reduce the demand for loans and would contribute to lower interest rates. Committee members appreciate the progress made to liquidate some insolvent businesses and repay some nonperforming loans. However, in 1926, there remained a sizable volume of nonperforming loans causing lender banks to borrow more. This state of affairs prevented interest rates from falling. The sooner the government liquidated those banks, businesses and loans, the better the chances the interest rate would fall.

The members of the 1926 committee noted the high dispersion of interest rates between large cities and local areas. Increased communication would reduce the spread and lower the average interest rate. Large banks would help to improve communications. Local banks are prone to offer long term loans for real estate financing. These loans are inconsistent with deposit taking. They are risky and they contribute to rising interest rates. Hypothec Bank is better suited to supply these loans. Clear separation and demarcation of credit markets would help to improve management of risk and lower interest rates. Merger of banks would help to create large banks. Large banks operate in wider economic environments and can avoid heavy reliance on real estate financing loans. Large banks can monitor better the management of the businesses of their borrowers. It is as if the 1926 committee members think that larger banks are a close substitute to improved transparency. Thus, they recommended that BOJ and government should encourage bank mergers.

Theoretically, the business of trust companies is to monitor the management of businesses that borrow from private investors. However, it turned out that many trust companies offer money trust accounts that are rather similar to time deposits. These accounts paid annual dividends in excess of 7%. These high dividend rates prevented a reduction of interest rates. Bond yields did not fall below 7%. Although BOJ reduced its discount rate in April 1925, interest rates on bank deposits did not decrease due to the high dividend rate on money trust accounts. The members of the 1926 committee recommended that ordinary banks should co-manage trust businesses or to limit trust companies businesses to monitor the management of business borrowers. This would reduce their competition to large banks.

Currently, the government uses postal savings deposits to finance its own budget deficit or public projects. To help reduce interest rates, the government should use time deposits in postal savings to provide long term financing to industry. The best way to achieve this goal is for the government to invest some of these funds in the bonds issued by Industrial Bank or Hypothec Bank. During the 1920's, MOF used some of the postal savings deposits to rescue failed banks.

Credit Unions have developed recently. They started in farming areas and spread to cities. Their management is not sound. They provide long term fixed loans and compete directly with local ordinary banks. They paid higher interest rates on deposits than do banks. Until 1926, they were under the supervision of the ministry of agriculture. In order to improve their management, MOF should take over their supervision. Proper management and supervision would contribute to restrain competition with local ordinary banks and lower interest rates.

（5） *Critique*

Clearly, the government was aware that the lack of transparency was a major cause of the high cost of capital and reduced mobility and supply of capital. In addition, it is clear that the government knew that the development of adequate financial markets was crucial for lowering the cost of capital and increasing its supply. Yet, it stopped short of adopting clear guidelines to improve transparency, which was crucial to the achievement of those goals. Instead, it settled for a substitute policy. This policy enshrined the principle that in financial markets "big is strong" in taking care of itself and in promoting good management of itself and that of non financial institutions. To take care of possible negative side effects of the policy, BOJ would continue to offer, albeit reluctantly, implicit deposit insurance and MOF would offer administrative guidance.

13. Bank mergers, transparency, and the principle of "Big is Strong"

One of the recommendations of the 1926 financial committee was that the government should encourage bank mergers. Another recommendation was to raise the minimum capital of a bank to ¥1 million. This recommendation amounted to an obligation for small banks to merge. The main rationales were to create strong banks and to reduce competition in view of reducing interest rates.

The institute of financial research published in 1935 a study[100] of mergers over the period 1896-1936. The period 1927-1932 witnessed a great decrease in the number of banks. The number of banks decreased by 59% from 1577 in 1927 to 650 in 1932. Mergers account for a large proportion of the decline. Among 1082 that engaged in merger negotiations during the period 1927-1932, 668 banks disappeared.[101]

During the free banking era 1890-1901, the number of banks increased rapidly. It reached a peak of 2395 in 1901. Most of them were small local banks created by entrepreneurs to finance their new enterprises, better known as organ banks. The government had a laisser-faire policy designed to encourage the industrialization of Japan through the creation of small manufacturing enterprises in the light industries such as textiles. In 1896, following a petition by Tokyo banks, the government became concerned about the "instability" of many small banks established hurriedly by inexperienced people. The Tokyo banks and the government were afraid that the instability of the small banks would damage the credibility of the whole financial system. In other words, the lack of transparency of some banks may damage permanently the domestic sources of capital. In 1896, the government sought to resolve this lack of transparency by promulgating the fires Bank Merger Law" to encourage the creation of large banks out of small well managed and poorly nontransparent banks. This law had no teeth and the number of banks doubled between 1896 and 1901. Thus, the government decided first to impose in 1901 a minimum capital of ¥500000 for new banks and raised it to ¥1 million in 1911 for new banks operating in large cities. Finally, it decided not to license anymore banks and to encourage mergers.

After the financial crisis of 1900-1901, the government encouraged (forced) mergers between insolvent banks and other banks as a condition for rescuing the former. The government followed this policy since then; voluntary mergers were not common. Nevertheless, the number of banks decreased by 9.6% from 2385 in 1901 to 2157 in 1913. The consolidation trend by merger continued between 1913 and 1919 under government prodding, although, sometimes it was initiated voluntarily. Some mergers were a result of a deliberate action by some large banks that started to finance large industrial projects in heavy industry or utilities. For example, in 1916 First National Bank, one of the largest banks, merged with Kyoto Commercial and Industrial Bank. Yasuda Bank merged with ten of its local correspondent banks (1923)

Merger activity changed drastically after 1920. Between 1921 and 1932, 1915 banks engaged in merger negotiations. Most of these negotiations occurred after 1926. The major factor was pending bank failures. Usually, BOJ would rescue the failing banks by giving those loans and by encouraging them to merge with other banks. In 1924, MOF started a campaign through administrative guidance to "encourage" mergers of local banks. After 1927, the new 1927 Bank Act raised the minimum capital to ¥1 million, for the express purpose of forcing bank mergers. Soon, MOF became actively involved in providing administrative guidance to encourage (force) small banks, to merge in order to remain in business. In October 1927, MOF audited 490 recalcitrant small banks. The auditing of all banks was long overdue but to limit it to those small banks was a

[100] Institute of Financial Research (1935)
[101] Institute of Financial Research (1935), p. 626

proof that MOF did not intend to use auditing to improve transparency. Fuji Bank (1967) noted that MOF refused to allow small banks to increase their capital by new subscriptions and forced them to merge to form large banks.[102] As Goto (1982), cited by Fletcher (1999), put it, the aim was not to force mergers but to convince managers of small banks of the need for mergers.

In 1928, out of 1420, there were 809 ordinary banks with paid in capital less than the required minimum of ¥l million.[103] They had to merge to raise their paid in capital in order to comply with the 1927 Banking Act. The majority of bank mergers took place among banks in the same locality with a few exceptions. There were only four or five cases of mergers among city banks and local banks. The government established Showa Bank to liquidate and reorganize ten large and medium size banks that failed during the 1927 financial crisis. First National Bank absorbed Furukawa Bank. Three large banks merged in 1933 to form Osaka Sanwa Bank (paid in capital ¥107 million). These two last mergers occurred for strategic reasons unrelated to the 1927 financial crisis. By the end of 1932, only eight banks had a paid in capital less than the minimum required by the new 1927 Bank Act. The number of ordinary banks decreased from 1344 in 1919 to 538 in 1932. The number of savings banks decreased from 657 in 1919 to 87 in 1932

The great depression of 1930-1932 caused great damage to local businesses with deleterious consequences for local banks. To survive, local banks started to invest more of their funds in securities issued by large city banks since many depositors moved their deposits to large city banks. The economic events of the 1920's and early 1930's assisted by the merger recommendations of the 1926 financial committee strengthened the financial position and market share of large Banks, especially the big five city banks. The big five city banks (Mitsui Bank, Mitsubishi Bank, Sumitomo Bank, Yasuda Bank and First National Bank) increased their market share in deposits from 24% to 40% in 1932. Definitely, free banking was dead and for the wrong reasons.

MOF imposed many mergers through administrative guidance. The performance of large merged banks was often worse than the performance of independent small local banks. The rate of profit decreased and the mergers caused small business to experience troubles financing their projects, Institute of Financial Research (1935). In general, the management of (formed out of mergers of badly managed) banks deteriorated. Their non performing loans remained non-performing with no liquidation in sight.[104] Big was not strong or more efficient, it was weaker. The transparency problem remained and competition was slain.

The reduction of competition in the banking sector through merger started earlier in the agricultural sector promoted by administrative guidance. Early in the Meiji era, the central government created Hypothec Bank and required local governments to create one agricultural bank in every prefecture. Forty six agricultural banks were created. Hypothec Bank and the agricultural banks made loans on the security of real estate collateral. Hypothec Bank financed its loans through bond issues. The agricultural banks financed their loans through borrowing from Hypothec Bank. This arrangement raised costs to agricultural banks. They must charge higher interest rates on their loans relative to mutual credit societies, which made loans without collateral. Agricultural banks couldn't lend to mutual credit societies and their direct loans carried higher interest rates to the detriment of local (agriculture) industry. Thus, they remained moribund. In 1921, the Japanese parliament passed the Merger Act between Hypothec Bank and the agricultural banks. The actual merger took a long time to complete. By 1929, Hypothec Bank absorbed twenty-seven agricultural banks. This is another instance of absorbing through mergers.

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102 Fuji Bank (1967), p. 98

103 Institute of Financial Research (1935) p. 652

104 Fuji Bank (1967), p. 97. The words in parenthesis in the previous sentence are ours.

One might have expected that the merger movement would have resulted in an increase in the average number of branches per bank. The average number of branches increased from 3.5 in 1925 to 10 by 1932. However, the total number of branches increased only by 10% between 1925 and 1932. It increased between 1925 and 1930 by 22% and fell afterward by 15%. BOJ's documents attribute the decline between 1930 and 1932 to three factors:

a) During the depression of 1930-1932 in Japan, some banks failed. MOF reorganized them, merged them to form a smaller number of banks, and advised them against creating branches.

b) The big city banks did increase the number of their branches over the period 1901-1925 in order to increase deposits, especially after 1927 banking crisis. Between 1927 and 1931, the reputation of local banks deteriorated and the branches of city banks experienced financial difficulties resulting in withdrawal of deposits. The branches experienced also an increase in unit costs of deposits. On the other hand, deposits in city banks headquarters increased and their liquidity improved. There was also a great difference between the economic environment of local areas and large urban areas. Interest spreads between the two kinds of areas were substantial and it was difficult for large city banks to do business in local areas through their local branches. Thus, they preferred to do business in local areas through representations. Since their local branches were not profitable and they had no need to compete for deposits, large city banks reduced the number of their branches.

c) The new 1927 Bank Act discouraged branching through administrative guidance based on the recommendations of the 1926 financial committee. After the enactment of the 1927 Bank Act, government used administrative guidance to encourage the merger of local banks and discouraged mergers of city banks with local banks, probably to prevent the drainage of local rural financial resources to help finance investment in urban areas. After a merger, the government persuaded through administrative guidance the new larger bank not to open branches in order to reduce (so called) excessive competition in preparation for introducing a policy of regulated interest rates on deposits.

The thirteen large city banks had 959 branches and representatives in 1928 and 928 in 1932. The reduction was due to a reorganization of the failed banks that formed Showa Bank. By comparison, Barclay Bank, one of the largest banks in the UK, alone had 2070 branches. In 1932, the largest five city banks in the UK had 854 branches each.[105]

Thus, the main goal from encouraging mergers was to restrict competition so that the cartel among banks would eventually succeed in forcing a lower interest rate on deposits. No significant improvement in management or transparency has materialized. The hope was that a lower interest rate on deposits is enough to lower the cost of capital. As figure 2, although the lowest interest rate on deposits fell from their peaks in 1926 to 5% in 1930, they remained equal or greater than their historical lows of 5%. The lowest nominal interest rate on loans remained higher than 8% even during the depth of the depression in 1930 and the inflation rate was negative until the end of 1932. It was -19.5% in 1930 and -16.8% in 1931.

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[105] Institute of Financial Research (1935), pp.682-687

14. The fateful 1930 decision to return to the gold standard

It was common currency among politicians and commoners to attribute the 1927 financial crisis to the fallouts of the 1920 depression and the 1923 Tokyo earthquake. BOJ's policy towards failed banks helped failed banks and businesses to avoid liquidation and postpone the day of reckoning. Politicians and other interest groups argued that the 1929 decision to return to the gold standard would force the hand of the government, preventing it from rescuing inefficient banks and businesses. Regardless of whether it was a wise decision or not, the actual return ended a decade of indecisiveness and lack of transparency in government economic policy. The terms of the return spelled heavy consequences for the social and economic order in Japan and perhaps the rest of the world during the following two decades.

（1）*The indecisiveness of governments*

There are many events that happened during the twenties that could explain the various governments indecisiveness about the return to the gold standard and the elimination of the moral hazard in the banking and industrial sectors. One of the events is a natural disaster and the others were probably a consequence of the various governments own making. Let us review the main events of the decade.

Japan's merchandise balance produced surplus between 1915 and 1919 for a cumulated total of ¥1.2 billion. Japan's services balance generated another ¥1.9 billion. Thus, the current account balance generated ¥3.1 billion over the same period. Most of the accumulated surplus was in the form of deposits in foreign currency in the UK and US or credit because of the embargo on gold exports imposed by the belligerent countries. By the end of the war, Japan turned into a major creditor. BOJ and the government ended up holding the accumulated foreign assets by exchanging them for convertible paper yen. The money supply ballooned and inflation accelerated. At first, this inflation didn't hurt the competitiveness of Japanese industry because its foreign competitors experienced also a high inflation rate during the war. On September 12, 1917, Prime Minister Terauchi of Japan imposed an embargo on gold exports that made it illegal to export gold without a license from MOF. He also allowed the yen to float against other currencies. At first, the government imposed the embargo for national security reasons following a similar embargo by other belligerent countries including the U.S., Ishibashi (1929).

After the floating in September 1917, the Japanese yen soared since there were no gold movements to settle the imbalances. Furthermore, the Japanese government did not intend to allow Japan to become a capital exporter. The government did encourage private businesses and banks to invest in allied countries government bonds but the total investment at the end of 1919 was a meager ¥ 0.14 billion. In contrast, the government accumulated ¥ 1.0 billion and BOJ 0.7 billion worth of foreign reserves in 1919.

In November 1918, the exchange rate of ¥ 100 jumped up to US$ 52 1/8 on the Tokyo market. The war ended at this time and everyone expected the US to lift its embargo, which it did in June 1919. Ishibashi (1929) argued that the government could have returned in 1919 to the gold standard with free capital mobility at the old parity without disturbing markets. The Japanese economy could have avoided the abnormal expansion and excessive imports from the middle of 1919 to the spring of 1920. In fact, Ishibashi (1929) urged the government in 1919 to lift the embargo but the Minister of Finance, Takahashi, explained that the government needed the embargo to continue because of a government decision to wage a war (the infamous "excursion in Siberia") against the Soviets and expected another war to start in Asia. Ishibashi (1929) argued that he had information the Japanese army needed the foreign reserves (gold) to wage such a war (perhaps, in China). He also asserted that the opportunity window closed at the end of 1920. The goal of the foreign exchange policy of the Japanese government had become the accumulation of gold and the minimization of its loss at "any cost". Governments of various stripes maintained that a return to the gold standard must be at the old parity or not at all. Given the return of recurrent trade deficits, the return on those terms would automatically cause a great loss of gold. This would bring about a fall in money supply and a recession. The military faction of the government cannot accept a loss of gold and the civilian faction cannot accept a recession given the new political reality of a burgeoning democracy ushered in at the end of the war.

Ishibashi (1929) pointed out the fundamental flaws of the policy. The policy did not prevent the outflow of gold. It is not the fear of lifting the embargo that caused the outflow. Rather, it is the trade deficit, due to the government attempts to prevent the depreciation of the yen, which caused it. Had the government allowed the exchange rate of the yen to fetch its equilibrium value, the exports of gold would cease, and the money supply and prices would not need to fall relative to real GDP.[106]

Many governments took office during the period 1918-1926. They followed largely inconsistent policies. Some of them resisted the depreciation of the yen, and some allowed it. Some proclaimed their goal of a return to the gold standard (at the old parity), some prepared for it, and others denied it. Meanwhile the total trade deficit between 1920 and 1926 reached ¥2.016 billion. It was financed by ¥ 356 million credit obtained from foreign suppliers, a ¥688 million sale of gold and an increase of ¥972 million in new foreign debt. The sale of gold was necessary to keep the yen from depreciating. Every time, the government stopped selling gold, the yen depreciated.

Between 1918 and June 1922, the official policy was a commitment to the embargo and a benign neglect of the exchange rate.[107] The merchandise account deficit during this period accompanied a depreciation of the yen. MOF did little to prevent the depreciation vis-à-vis the US dollar. After the change in government in June 1922, the exchange rate policy changed. The goal of the new policy was to restore the exchange rate with the US dollar back to its prewar value, while maintaining the embargo. Once the restoration is completed, it is possible to return to the gold standard at the old parity since the US did the same in 1919. Immediately after the government put the policy into effect, the stock of gold reserves started to fall since the government started to ship out gold to prop up the exchange rate.

At the time of the change in policy, the controversy about the return to the gold standard heated up. BOJ and MOF pointed out that the Japanese domestic price index is much higher than those of the US and UK.[108] Furthermore, at the current exchange rate of the Japanese yen, Japanese prices were higher than the prices in the other two countries. The inconsistency between relative prices and the exchange rate created a trade imbalance.

According to Ishibashi (1929), there were three methods to correct the imbalance. The first method was to lift the embargo and return to the gold standard at the old parity. This would cause a decrease in the species reserve and the money supply and a fall in the price level to the correct level. The second method is to keep the embargo and allow the exchange rate of the yen to fall. Domestic and foreign prices would become equal when expressed in the same currency. BOJ and government would not lose reserves and the economy would not have to suffer a deflation although domestic borrowers from abroad and foreign investors in Japan would suffer a once for all loss. The third method is to enforce the embargo and engineer a fall in money supply to bring down domestic

106 Ishibashi (1929), p. 378

107 During this period, Takahashi, was successively Minister of Finance and Prime Minister

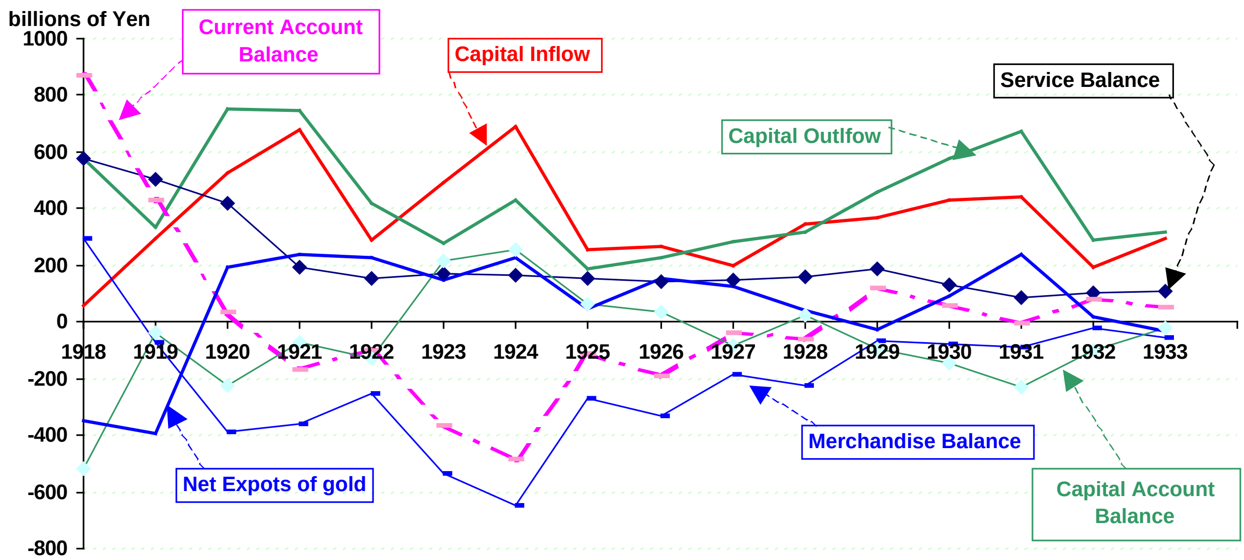
108 Setting the price index in all three countries equal to 100 in 1913, the Japanese price level was 182 in 1922. The corresponding price index level of US was 158 and that of UK was 165, Ishibashi (1929), p.382.

prices in line with the UK and US prices at the old parity. Ishibashi (1929) noted that all three methods are costly because the market exchange rate has depreciated with respect to its par value. However, the first method was the most popular among those participating in the debate.

In February 1922, the Washington conference about naval forces parities among the major western nations and Japan established a balance of power among them that Japanese military leaders regarded as unfair. However, the Japanese government felt that the conference settlement has removed a major cause of another war. Thus, there was no more rationale for maintaining the embargo on gold exports. The government decided to prepare for an eventual return to the gold standard and removal of the embargo. [109]

Formerly, the government considered the portion of its stock of species and that of BOJ held outside of Japan as part of the reserve against BOJ's note issues. The new government policy excluded this portion and used it to prop up the exchange rate of the yen. The new policy proposed also to replace small denomination notes with coins, probably because there was no need to maintain a gold reserve against coins. Finally, the policy proposed to reduce the domestic price level through redemption of a certain amount of BOJ's notes.[110] The goal of the policy was to raise the exchange rate of the yen in terms of US dollars to its prewar level. It turned out that between September 1922 and April 1923, the exchange rate increased from US $47 to US $49 per ¥100 but the deficit of the merchandise account continued to increase as figure 13 shows. The money supply stopped growing, prices went down and twenty-eight banks experienced a run.[111] In September 1923, the Kanto (Tokyo) Earthquake leveled off Tokyo and brought the policy and the government to an abrupt end.[112]

Figure 13
Balance of Payments



Source: Bank of Japan (1966), pp.180-181, table 115 and pp. 302-308, table 119

109 T. Kato was Prime Minister

110 This element of the policy is similar to the redemption policy that Matsukata implemented in 1880, on the heels of which the Matsukata deflation followed

111 However, there was a tepid expansion in economic activity

112 Ishibashi (1929), p. 383

The reconstruction effort after the earthquake caused the deficit of the merchandise account to worsen during 1924 as shown in figure 13. The gold reserves of Japan decreased significantly and the new government abandoned the goal of returning to the gold standard[113] and allowed the yen to depreciate. By the end of 1924, ¥100 exchanged for US $38.5, the lowest exchange rate of the yen since 1870. The reconstruction of Tokyo and the depreciation of the yen stimulated economic activity for a while.

Another government took over in June 1924.[114] The goal of its policy was not to lift the embargo but to resist the depreciation of the yen. It suspended the Gold Standard Act of 1897 in November 1924, probably to enable MOF to intervene in foreign exchange markets at a price different from that implied by the act. Member banks of the Tokyo and Osaka clearing association urged the government to reduce its expenditures and borrowing and to stop further depreciation of the yen. Of these two recommendations, the government implemented only the second one. It resumed the active use of reserves to support the yen. The yen stopped depreciating and started to appreciate. Concerned with the "general economic stagnation", the relatively high domestic prices and the trade account deficits the Japanese economy has experienced since 1920, the opposition party introduced in parliament a motion to lift the embargo and return to the gold standard. The motion was defeated. However, MOF resumed in January 1925 payment of species out of government reserves held abroad to settle balance of trade deficits. In September 1925, MOF began specie exports out of government reserves held inside Japan. By February 1926, ¥25 million worth of gold were exported. The yen appreciated steadily helped by speculators who became convinced the government would soon lift the embargo and return to the gold standard at the prewar parity. To calm down markets, MOF announced publicly on February 20, 1926 that the government has no intention to return to the gold standard. To make its announcement credible it stopped government sales of gold.[115] Nevertheless, the yen continued to appreciate and reached US $48.08 per ¥100 in August 1926. The resiliency of the yen anticipated and it was consistent with the accession to power of a new government with a clear policy committed to the lifting of the embargo and the return to the gold standard in the near future.[116] The new MOF had a reputation of being in favor of a return to the gold standard. He declared that the return to the gold standard required the government to reform the financial sector and clean up the fiasco (mayhem) of the earthquake bills.[117] MOF formed the 1926 financial committee in October 1926 to advise government on these matters. At the same time the new government resumed gold shipments. These actions confirmed that the speculators were correct.

In October and November 1926, the exchange rate of the yen in Tokyo reached the peak of US $49 for a ¥100. It took 1926 financial committee until February 1927 to come up with a reform proposal. Meanwhile the financial situation of many local and city banks deteriorated significantly thanks to the appreciation of the yen. A major bank, Watanabe-Akaji Bank, experienced serious liquidity problems in March 1927. Grilled by questions of opposition parties in parliament, the MOF made a major blunder announcing that the bank was bankrupt. This announcement triggered a run on the bank. The run sparked the 1927 financial crisis causing chaos in the foreign exchange market and turmoil in economic activity.

The 1927 financial crisis forced the resignation of the government and the abandonment of the return to the gold standard. A new government took office, dismantled the previous government's

[113] Kiyoura was the Prime Minister and Katsuta was Minster of Finance

[114] In this government, the Prime Minister was K. Kato and MOF was Hamaguchi.

[115] Hamaguchi was MOF.

[116] In January 1926, a new prime minister, Wakatsuki, took over but MOF, Hamaguchi, continued in office until June 1926. Kataoka became MOF in September 1926. He is the main proponent of the new policy.

[117] The new MOF was Kataoka.

policy and allowed the yen to float. The new MOF (famous Takahashi) repudiated publicly the implicit or explicit commitments of the previous government to the lifting of the embargo. With the help of BOJ, the new government rescued failed banks and businesses regardless of the quality of their management. It also prohibited gold exports without a license to prevent speculation against the yen. On April 10, 1927, twenty-two days after the onset of the crisis, the money supply was ¥1.2 billion. Two weeks later, the money supply swelled to ¥2.6 billion. Because the money supply doubled in two weeks, the government had no choice but to allow the yen to float. The exchange rate of the yen against the US dollar fell by about 12% between March 1927 and March 1928. The fall of the exchange rate stemmed the depression tide and the economy turned around. By the end of 1927, the situation stabilized and renewed pressures built up again to force the government to return to the gold standard. In the spring of 1928, the controversy about the return to the gold standard heated up again among large city banks.

Due to a political mishap in July 1929, the government changed. The party that championed a return to the gold standard and was in power immediately before the 1927 financial crisis returned to power to form the Hamaguchi government.[118] The Hamaguchi government resumed the implementation of the economic policy that Hamaguchi initiated prior to the 1927 crisis when he was MOF. It had a clear policy and was determined to implement it immediately.

（2）*Position of the Hamaguchi government*

The policy of the Hamaguchi government called for the reduction of government expenditures and government debt, the reorganization of the industry, and the return to the gold standard at prewar parity in January 1930. The rationale for this kind of return is fourfold. The first major rationale was the classical argument in favor of a fixed exchange rate. However, this argument does not justify a return at the prewar parity. The government adduced the following additional rationales. First, the government figured that if it doesn't return to the gold standard, it feared that the recurrent deficit of the balance of trade would eventually exhaust Japan's stock of species. A certain minimum amount of reserves was necessary because, soon, the government had to pay off debt contracted during the Russo-Japanese war in 1905 or refund it. The government must also find other sources to finance the deficit once it run out of reserves. It was not easy to borrow in New York and London, because of the credit squeeze initiated by the Federal Reserve Board in the US, which caused higher interest rates in international markets. Foreign banks and financiers informed the Japanese government that they couldn't underwrite bond issues on its behalf if Japan does not return to the gold standard. Furthermore, the Bank of International Settlements required its members to adopt the gold standard and the financial committee of the League of Nations recommended also to its members to return or adopt the gold standard.

Second, a return to the gold standard at the old parity would cause a rationalization of industry and increase productivity. Many small and medium size businesses suffered from poor management. They could not compete in foreign or domestic markets because their productivity was low. The government argued that the return to the gold standard would weed out these businesses and cause the remaining businesses to increase productivity. This shock therapy required a return at the old parity because at this parity domestic prices of imports are lower than current prices of domestic products. According to Ishikawa (1968), the Hamaguchi government deliberately chose this therapy knowing that it will instantaneously raise the exchange rate of the yen. The world economy was in an expansion when the think tank of Hamaguchi's party decided to return to the gold standard.

[118] Hamaguchi was MOF before the 1927 crisis. While MOF he favored a return to the gold standard at the prewar parity. In the new government that took office in July 1929, Hamaguchi was prime minister and Inouye was MOF

When the Hamaguchi government returned the country to the gold standard, the rest of the world was sinking into the deep and long great depression. The therapy shock operated with vengeance.

Third, a return to the gold standard at the old parity would mop up the excess liquidity in the economy. While he was an independent scholar during the twenties, the new MOF Inouye argued that the Japanese economy had been suffering from excess liquidity since the beginning of World War I. According to him, the persistent excess liquidity caused after the end of the war economic instability, deficits of the merchandise and instability of the exchange rate of the yen. The adjustment mechanism of the gold standard required that gold would flow out of the country with higher prices. The excess liquidity caused higher prices, which produced the trade deficit. Normally these trade deficits would cause the exchange rate to fall below the gold exporting point. Gold would flow out and money supply would fall causing a fall in prices and the elimination of the excess liquidity. Inouye did not call explicitly for a return to the gold standard at the old parity before he became MOF in July 1929. Nevertheless, upon taking office he became instantly the main architect of the return to the gold standard and the staunchest defender of keeping Japan on it.

Inouye was BOJ's governor a few times before. Of course, he must have known that he could have mopped up the excess liquidity by reducing money supply as Matsukata did in 1881. Ishikawa (1968) pointed out that BOJ's power to control bank reserves was limited. Large city banks had excess reserves worth ¥300 million but BOJ couldn't sterilize them by raising the required reserve ratio because the 1927 Banking Act did not impose any reserve ratio. However, that was not the only way to solve the excess liquidity problem. Allowing the exchange rate of the yen to fall would have. Banks used the excess reserves to speculate on the foreign exchange market, correctly betting the government will eventually return Japan to the gold standard at the old parity.[119]

BOJ's policy of rescuing failed banks is partially responsible for the excess liquidity. BOJ was not able to redeem most of the special loans to the failed banks in the 1927 financial crisis. The deadline for closing the special loans facility was May 1928. At this date, the amount of special loans outstanding was ¥644 million.[120] In April 1929, only ¥90 million was repaid. At the end of 1931, only an additional ¥23 million were repaid.

In sum, the aim of the policy of the Hamaguchi government was ambitious. In one stroke, it wanted to reduce excess liquidity, weed out weak businesses and banks, reduce prices, stabilize the exchange rate restore the competitiveness of Japanese producers, stimulate exports, eliminate the deficit of the merchandise balance, reduce interest rates and reinvigorate the Japanese economy. The policy eschewed the issue of the lack of transparency, the weakness of many ordinary banks and financial institutions, and the moral hazard problem associated with the monetary policy of BOJ's monetary policy. As we show presently, this policy was consistent with the opinion of powerful business and financial groups that the return to the gold standard would achieve some of these goals.

（3）*Public Support for the return to the gold standard*

Several interest groups urged the government publicly to return to the gold standard. In March 1928, the Club of Tokyo Banks urged a return to the gold standard and the president of Kanebo Cotton Spinning Company argued strongly in favor of the return. In October 1928, the association of lumber importers, members of the East-West Clearing Association of Banks, and the Japanese Chamber of Commerce urged the government to lift the embargo on gold exports immediately. In January 1929, when the Minseito party members who formed the new government were in the

[119] Ishikawa (1968), p. 205
[120] Goto (1970), p. 196, Table 86.

opposition, they published a ten point political platform. One of the main points was a commitment to the lifting of the embargo. At the end of May 1929, the Nikkeiren (Japanese federation of employers associations) asked MOF to clarify his foreign exchange policy. The resignation of the government in power in July 1929 opened the door for the ascension of the Minseito party to power with a clear policy aimed at lifting the embargo and the return to the gold standard.

Exporters (importers) gained (lost) during a depreciation of the yen but lost (gained) during an appreciation of the yen. Both groups felt that fluctuations of the exchange rate are costly and preferred a fixed exchange rate. Businesses in the silk industry claimed they are victims of the fluctuations in the exchange rate.

Here is the argument of the members of the clearing association as stated in their declaration of October 22, 1928. The lack of resolve of the government to return to the gold standard for the past several years caused wide fluctuations in the exchange rate of the yen. This has caused in turn substantial damage to concerned businesses and people. Now that the reorganization of the economy is underway, we have a better way to bring the international trade of Japan into balance. The major foreign countries have returned to the gold standard already. However, Japan continues to operate under abnormal conditions. The government cannot delay the return beyond the date of the start of the exporting season for silk reeling products. Without a clear commitment to the return speculators would cause great damage to the government species reserve. It is better to return when the market exchange rate reaches the level consistent with the old par value. To make this possible, the government must reduce its expenditures and its debt. Commerce, industry, finance and the public must save more in order to prevent further increases in money supply.[121]

The arguments of the Chamber of Commerce contained in its petition to the Prime Minister and MOF was the same as the argument of the members of the clearing association.[122] Members of the chamber are aware of the side effects of an increase in imports that would damage domestic industry. They are prepared to help control the damage. The chamber asked the representatives of the silk industry about the best time of the year to return to the gold standard. The reply was May 1929. The ebb (low level) of raw silk exports occur during May. After May, the raw silk harvest starts and a return at this time would hurt producers since the price of silk in yen would drop due to the higher exchange rate of the yen implied by a return at the old parity.

Producers of raw silk buy silk cocoons in the spring and fall. At these times, imports are high and the exchange rate is low, thus the price of cocoons is high as local raw silk producers compete with exporters of cocoon. Processing cocoons takes time, when the raw silk they produce is ready for exports, imports are low and the exchange rate of the yen is high. Thus, the price of raw silk in yen is low. Producers of raw silk are squeezed and sustained heavy damage because of the fluctuation of the yen's exchange rate. Furthermore, when the exchange rate of the yen is low, experience shows that the price of silk in New York is also low. Hence, the raw silk industry does not benefit from a low exchange rate. When the yen appreciates, the price of raw silk in New York doesn't increase proportionately. Thus, in Japan, the price of silk in yen falls. During 1925-1926, the raw silk industry sustained a greater damage from exchange rate fluctuations than from the 1923 earthquake. Thus, the raw silk industry would benefit from a fixed exchange rate.

Raw silk producers buy cocoons from farmers. The department of agriculture informed MOF that the producers of raw silk would pass on the lower price of raw silk exports to farmers if the return to the gold standard at the old parity occurs before they buy the cocoon in early spring (March). If the return occurs after the beginning of June, the raw silk producers would make a one time loss,

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[121] The vocal proponent of the association is Mitsui's Ikeda. The association is composed mainly of large city banks, Bank of Japan (1968.a), Volume 20, p. 280 and p. 43.

[122] Bank of Japan (1968), p. 43-44.The date of the petition is October 25, 1928.

especially if they keep substantial inventories to smooth out sales. Their inventories are lowest in March. In general, the return to the gold standard would also reduce fluctuations in the price of silk and thus it would benefit the raw silk producers.[123] They would suffer no loss.

If the general price level is unaffected by the return to the gold standard, farmers would suffer in the long run. Of course, if all prices fall immediately and in the same proportion farmers would not suffer much. To minimize their initial loss, the return should occur at the end of November after they sell their fall harvest. The department of agriculture argued that farmers would suffer anyway from the fall in the price of silk if the prices of the other products don't fall in the same proportion. It recommended that the return should be in early March. Farmers would have sold their last crop before the return at the higher parity. Raw silk producers would not suffer since this is the period with the lowest levels of inventories.

We note that the silk producers and the agriculture department were concerned only about the timing of the return not about the desirability of the return. This seems very strange but, in fact, it was not. Concerned about the loss of markets of silk during the late twenties due to the appearance of rayon 'artificial silk', the government enacted in 1929 the 'Silk Price Stabilization Financing Indemnity Law'.[124] The law mandated the government to pay up to ¥30 million indemnity for losses resulting from loans secured by raw silk. The lack of opposition of raw silk processors to the return at the old parity despite the fact that everyone knew, including MOF Inouye, of the cost to the silk industry is quite understandable. The 1929 law protected them and they needed not worry about lack of transparency. The laws did not cover the producers of cocoons, i.e. the farmers. The framers were conspicuously absent by their lack of representation. The return, which meant to clean up badly managed business, would clean them dry but would pass over those silk processors who are not transparent and who are delinquent in paying their bank loans. Similarly, it is easy to understand the strong support of the return at the old parity by the president of Kanebo Cotton Spinning Company. Such a return would lower the domestic price of cotton products because the cotton spinning companies imported all their raw cotton from the United States.

Banks argued that the return to the gold standard and the lifting of the embargo would reduce the risks of fluctuations in exchange rates. They urged the government to reduce its budget deficit and its debt because government deficits depress financial markets. They also urged the government to reduce the growth rate of money supply and reform the economy. According to a study by Yokohama Species Bank (1931), the banks wanted a reduction of the gap between the higher domestic interest rates on deposits and the corresponding US interest rates. Figure 2 shows that the post office paid more than 4% on deposits in 1926 and the lowest bank rate on deposits was 6.25%. With a fixed exchange rate, they could borrow at the lowest or lend at the highest in domestic or international markets.

The 1926 financial committee emphasized the need to consolidate banks and create large banks through the merger of small banks. The rationale was that large banks are less prone to mismanagement and they are able to withstand better fluctuations in economic activity. Nevertheless, the government passed the Special Lending and Compensation Law in May 1927. The law directed BOJ to extend to banks experiencing a run loans and discount facilities beyond the regular limits. The new law fixed the upper limit for total loans as ¥500 million for terms not exceeding ten years. De-facto, this law represented a deposit insurance and contributed to make the problems of moral hazard and lack of transparency more severe. Despite the promulgation and implementation of the 1927 Bank Act and some of the reforms recommended by the 1926 financial committee, some banks continued to experience financial distress. BOJ provided more money

[123] Bank of Japan (1968.b), Vol. 22, p. 411-413.
[124] Fuji Bank (1967), p. 113

through more loans to rescue those banks and MOF started the drive to create large banks through mergers of failed banks with each other or with other healthy banks. The 1927 crisis and the drive by MOF to "convince" small banks to merge shook depositors' faith in small ordinary banks. Many of them moved their deposits away from small local banks to large city banks, savings banks and postal savings accounts. Total deposits in ordinary banks other than the five largest increased between 1926 and 1929 by 2%. During the same period, the growth rate of total deposits in the five largest banks was 45% and that of total deposits in postal savings was 76%. The five largest banks (Mitsui, Mitsubishi, First National Bank, Sumitomo, and Yasuda), postal savings, money trust funds, and savings banks gained market share at the expense of many ordinary banks. The share of the five largest banks increased from 15.7% in 1926 to 18.8% in 1929.

The large Zaibatsu banks had found themselves with excess liquidity they could not invest domestically. The shakeup and lack of confidence in the domestic producers other than the enterprises in which their group had financial interest caused by the 1927 crisis made the large Zaibatsu banks reluctant to lend more domestically. To try to increase their domestic lending would rekindle competition among themselves in the domestic loan market and would lower interest rates on domestic loans. The increased deposits in large banks accumulated into large excess liquidity causing interest rates to fall, starting in 1927. At the time, interest rates in the United States and other major financial centers started to rise thanks to the booming economic activity in the United States of America. The Federal Reserve Board in the United Sates started to raise its discount rate in the beginning of 1928 from 3% to bring it to 6% just before the depression started. Many large corporations in Japan found it profitable to refund their short term bank loans through the issue of long term bonds.[125] The large banks wanted to take advantage of interest rates differentials between Japan and major international financial centers. Thus, the large city banks clamored for a fixed exchange rate in order to be able to move liquidity freely between Japan, the US and UK financial markets to arbitrage interest rates without taking undue risk.[126] As if to make sure of the return to the gold standard, the banking organizations in Tokyo and other large cities pledged to help MOF Inouye to maintain the return. Inouye lived to denounce publicly the Zaibatsu banks for doing the opposite of what they pledged.

（4）*Criticism of the policy of the Hamaguchi government*

The government decision to return to the gold standard at the old parity didn't go unchallenged. If the return to the gold standard turned out to be a catastrophe, it was not for the lack of a prior understanding of its consequences. One of the strongest critics of the government's exchange rate policy during the period 1920-1932 was Ishibashi.[127] Ishibashi (1929) criticized the exchange rate policies followed during the whole decade of the 1920's. Using a purchasing power parity argument, he calculated that the exchange rate between the US dollar and Japanese yen should have been US $40.69 for ¥100 at the end of 1924.[128] The exchange rate consistent with the prewar parity was US $49 for ¥100. Ishibashi (1929) argued that the MOFs of the time raised artificially the exchange rate during 1926 from US $38 to US $49 for ¥100 and caused a decline in the general price level (See figure 10). Their objective from the artificial appreciation of the yen was to prepare the country for a return to the gold standard at the prewar parity as soon as possible.[129] The artificial appreciation of the yen and the retrenchment policy of these governments precipitated the 1927

125 Yokohama Species Bank (1931), pp.97-135

126 Fuji Bank (1967), p. 110

127 Ishibahi was a journalist during the twenties. He became prime minister after World War II.

128 Ishibahi (1929), p. 397. The average exchange rate was $44.63 and the price indexes were 100 Japan and USA during the month of July 1914. In 1924, the price indexes were 182.7 and 149.8 respectively in Japan and USA.

129 The two MOFs are Hamaguchi and Kataoka.

financial crisis. According to Ishibashi (1929), had the 1927 financial crisis not occurred, the Japanese economy would have fallen into a depression since MOF would have returned Japan to the gold standard at the prewar parity. He attributed the 1927 financial crisis to the exchange rate policy of the various (Minseito) governments (especially, the policies of previous MOFs,).

Similarly, six months before the new prime minister took office in July 1929, Ishibashi (1930) asked him for the reasons the government would not create a committee to advise it on the question of the return to the gold standard as the UK government did in 1920.[130] The future prime minister replied because the previous governments did not create such a committee.[131] Ishibashi (1930) pointed out that a committee could have helped the government escape pressures of special interest groups and lay down a program to prepare the Japanese economy for the return the gold standard. He advised the future prime minister to create the committee but without success. The future MOF, Inouye, argued that only the silk and cotton industry would suffer from a return to the gold standard at the old parity. Ishibashi (1930) replied that almost everyone would suffer. Evidence from the stock market shows the index of mining stocks decreased from 107 in July 1929 to 72 in May 30, 1930 and the index of stock prices for ten industries (cotton, hemp, paper, shipbuilding, sugar, cement, fertilization, woolen manufacturers) dropped from 100 to 69 or 31% during the same period.[132]

Ishibashi (1929) pointed out that an immediate return in 1929 to the gold standard at the prewar parity would raise the exchange rate by 10% above the level achieved in early 1929 and 20% above the rate implied by the purchasing power parity. He pointed out that the UK government spent four years preparing for a return to the gold standard in 1925. Furthermore, the UK government had a credible reason for the return at the old parity. The UK economy derived substantial income from financial intermediation in international financial markets. London was the largest international financial market in the world and New York was challenging its supremacy. Furthermore, the pound sterling was an international reserve used in most international transactions. The UK government feared that the London financial market would lose its business to New York if UK did not return to the gold standard at the old parity.

Obviously, Ishibashi (1929) argued, the Japanese yen is not an international reserve and there is no international financial center in Japan. To return to the gold standard at the old parity within a short period will only precipitate another crisis. In contrast, under a flexible exchange rate regime, the exchange rate would adjust to suit any price level. Returning to the gold standard at the corresponding exchange rate would stabilize prices and the exchange rate. There were two alternative strategies to return to the gold standard. One strategy is to follow a strategy similar to that followed by the UK government. The government would reduce the money supply gradually causing a gradual decrease in domestic prices and a corresponding appreciation of the yen until it reaches the prewar level. At this time, the government locks in the exchange rate and returns to the gold standard at the old parity. This strategy requires patience and commitment to achieve credibility.

A second strategy is to calculate the equilibrium exchange rate level that is consistent with the purchasing power parity relative to the U.S. Allow the yen to depreciate in terms of the US dollar to reach the equilibrium exchange rate. Then return to the gold standard at the parity that is consistent with the equilibrium exchange rate. The first strategy would cause a mild but possibly a long recession but the second one would not. Ishibashi (1929) recommended the second strategy.[133]

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130 This was prime minister Humaguchi, Ishibashi (1930), p.571

131 Ishibashi (1930), p.573

132 Ishibahi (1930), pp.576-577

133 Ishibashi (1929), p. 299

During 1926, the Hamaguchi government caused the Japanese economy to go through a deflationary experience. The Hamaguchi government applied the same strategy starting in July 1929. Yet the economy was still ill equipped to deal with the consequences of the policy, Ishibashi (1930). After lifting the embargo on January 11, 1930, the government adduced evidence that the Japanese economy was ready for the return to the gold standard at prewar parity. Ishibashi (1930) refuted the evidence point by point.

The new government argued that thanks to its policy the exchange rate of the yen recovered to reach its prewar level, which is consistent with the old parity.

Ishibashi (1930) explained that this recovery was due to the speculative buying of the yen in anticipation of the return to the gold standard. Ishibashi's argument is unassailable. Speculators started buying the yen as soon as the new government took over in July 1929.[134] *Applying his blueprint for the preparation to the return, MOF Inouye bought ¥220 million worth of gold that speculators paid for their speculative yen purchases.*

Imports have decreased and exports have increased during the second half of 1929. Therefore, the government argued, there will be no hemorrhage of gold after the return.

Ishibashi (1930) countered that importers (exporters) reduced (increased) their purchases (sales) from (to) abroad in anticipation of the higher exchange rate after the return to the gold standard.[135]

The general price level decreased. The government was confident that domestic prices would fall in line with foreign prices without too much adjustment costs.

Ishibashi (1930) countered that prices must fall when the exchange rate is higher. Consumers anticipated the fall in prices as the iron law of the gold exchange standard works its wonders. Thus, they postponed their purchases and demand for all products decreased causing a fall in domestic prices.

The government argued that it succeeded in arranging a credit line of ¥100 million in New York and London. In addition, the government bought foreign bonds held by Japanese corporations paying for them in yen and selling them in foreign currency. It added the sale proceeds to its specie holdings outside of Japan.

Ishibashi (1930) countered that this was only propaganda that would not stem the tide.[136]

The government announced in November 1929 that it would return to the gold standard on January 11, 1930. Ishibashi (1930) noted that the government was scared of criticism in the parliament and hurried to make the announcement when the parliament was not in session.[137] The advantage of the gold standard is real when government cannot adjust or fear bad consequences of adjusting the money supply and returns at the parity implied by the prevailing exchange rate. Without the gold standard, there is a great danger that the government and the banking system would abuse their power to create paper money.

Another famous critique of the decision to return to the gold standard is famous MOF Takahashi. He argued that it was not appropriate for Japan to return to the gold standard in 1929. There was a deficit of the merchandise account of more than one hundred million yen. Thus, a return to the gold standard would cause a hemorrhage of gold. To avoid the hemorrhage, the government must prepare the country before returning to the gold standard. Takahashi recommended that the government should encourage consumption of domestically produced products in order to reduce

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134 Ishibashi (1930), p. 572

135 Ishibashi (1930), p. 588

136 Ishibashi (1930), p. 588

137 Ishibashi (1930), p. 588-589

imports. The current government policy emphasizes reduction of government expenditures and consumption in order to increase national savings. As long as there is a trade deficit, it will be in vain to increase savings and it would not be possible to return to the gold standard, Takahashi (1929).

Takahashi (1929) argued rather than return to the gold standard prematurely, it is better to encourage people to consume more domestically produced products and less imported products. The greater demand for the products of domestic producers would increase their income and encourage them to produce more, lower unit costs and improve quality. Financial institutions would channel more resources to investment in domestic projects and reduce interest rates, which would encourage more investment. In this way, consumers, producers and financial institutions would cooperate to develop domestic industry and increase the mobility of capital. This strategy would provide every citizen with a purpose. Takahashi noted that France, Belgium and Germany suffered economic hardships. They reduced government expenditures and made efforts to balance the government budget. They also encouraged consumption of domestic products. Their balance of trade and their reputation on international credit markets improved.

He pointed out that the decision to return to the gold standard depends on the situation of a country. Some European countries depend on the importation of foreign capital to develop their industries. These countries encouraged consumption of domestic products and balanced their governments' budgets. Japan does not suffer from the lack of capital. Japan needs only to encourage consumption of domestic products to pull its economy out of the moribund condition it is suffering at the end of the twenties.

（５）*Implications*

We have shown that for the better part of the 1920-1930 decade, various governments were not transparent and they were indecisive. We have also presented evidence that decision makers in the financial and non financial sectors believed that BOJ's implicit deposit insurance policy created a moral hazard. The evidence shows also that government indecisiveness and the moral hazard created problems of increased uncertainty, excessive liquidity, excessive fluctuations in the exchange rate and fostered lack of transparency in the management of weak financial and non financial institutions. Further evidence shows that two prominent people, a journalist and a long time finance minister had opposed a therapy of a big bang solution and explained its high cost. Our understanding is that their arguments were not water tight. The argument did not deal with the two major issues of moral hazard and lack of transparency. Returning to the gold standard at the parity consistent with the current purchasing power of the yen, as Ishibashi (1920) proposed, was not enough although it was the correct action to take, if return there must be. The failure to deal with the moral hazard and the lack of transparency was the missing link. With the indecisiveness of the government and the fluctuations of the exchange rate there was no more need to subject the weak financial and non financial institutions to further pressures of the gold standard iron fist to weed them out. Freeing the capital market from the likes of Suzuki and Taiwan Bank would have contributed to a substantial decrease in the cost of capital, the excessive liquidity and it would have stabilized the exchange rate. Dealing with the two major culprits of moral hazard and lack of transparency head on was the appropriate addition to Ishibashi's argument to make it prevail. We understand that Takahashi's solution did not commit Japan to a return to the gold standard and did not need credibility in the ability of the government to maintain any fixed exchange rate. Yet, for his solution to work, it required the specification of a mechanism to tackle the two problems head on. Similarly, without dealing with the two problems, a return to the gold standard as Ishibashi recommended would not have been credible. We show in the following section that the return at the old parity was not credible either.

15. *Immediate aftermath of the return to the gold standard*

The arguments of Ishibashi and Takahashi were not sufficient to sway the government decision, nor did the abrupt change in the world's economic condition in October 1929. Adamantly, the Hamaguchi government returned Japan to the gold standard in January 1930.

Although the yen's exchange rate reached its prewar level in January 1930, the performance of many other indicators didn't bode well for the government decision to return to the gold standard. The wholesale price index dropped from 221 in July 1929 to 201 in January 1930 and 160.8 in December 1930.[138] The annualized inflation rate was -15% between July 1929 and January 1930, -21.6% from January 1930 to December 1930 and -6% between December 1930 to December 1931. By the end of 1931, the price index stabilized. Ishikawa (1968) attributed the deflation partly to the new foreign exchange rate policy and partly to spillover effects of the worldwide great depression. Regardless of the relative importance of the two causes, the deflation brought with it a depression. The start of the worldwide depression coincided with the Japanese government decision to return to the gold standard. MOF, Inouye, was aware of the start of the depression long before the date fixed to return to the gold standard. Yet, he decided to implement the government decision as announced despite advice to the contrary. He defended his decision arguing that the depression is temporary. His prediction was patently wrong.

The reduction of government expenditures amplified the effects of the worldwide depression and the Japanese deflation. Faithful to the election platform of his party, Prime Minister Hamaguchi started to reduce government expenditures on the day he took office in July 1929. His aim was to reduce government debt by generating government budget surpluses. During the 1920-1930 decade, government debt ballooned from ¥2.7 billion in 1919 to ¥5.7 billion in 1928.[139] The real debt burden increased faster since the rate of inflation was negative during most of the period. The increase in the debt was due to the recurrent recessions in economic activity, failed banks, reconstruction of Tokyo after the earthquake, and the foreign policy of Japan in Asia. The reduction of government debt was necessary to convince speculators that the government's commitment to remain on the gold standard is credible given that the return will require further deflation and an increase in the real debt burden. The Hamaguchi government figured that the reduction in government debt would have beneficial effects on interest rates and the cost of capital. This would help the Japanese economy jump out of its 'mediocre' growth performance that Inouye referred to as a chronic recession and rise to match its exceptional performance during World War I. Unfortunately, as predicted by government critics, the opposite happened.

Soon, the Japanese economy was in the grips of the worldwide depression and the governments' planned deflation. During 1930, electric power generation declined by 18%, coal consumption dropped by 9%. The supply of crude oil declined 15%. The output of cotton yarn decreased 22%. Silk exports dropped 13%, especially after March 1930. The output index of paper products declined from 109 in September 1929 to 95 in December 1930. The output index of fertilizer decreased from 111 in July 1929 to 77 in December 1930. The output index of steel declined from 119 in May 1929 to 59 in December 1930.

The price index of rice futures decreased from 29.40 in June 1929 to 17.77 in December 1930. The spot price of silk decreased from ¥1356 per unit of measure in January 1929 to ¥625 in December 1930. The spot price of cotton yarn per unit of measure in January 1929 decreased from ¥254 to ¥140.5 in December 1930. The price of cotton futures per unit of measure decreased from 234.5 to

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138 Ishikawa (1968), Table 6, p. 218, index value was 100 in October 1901.

139 Ishikawa (1968), pp. 193-194 and Table 21 p.225

120.7 in December 1930. The index of stock prices decreased from 104 in June 1929 to 68.8 in December 1931.

After January 1930, employment indexes turned down. The employment index was 100 in 1926, 91.7 in December 1929 and 75.6 in December 1930. Female employment suffered more than male employment. The male employment index was 99 in June 1929 down from 100 in 1926. It was 97.6 by the end of December 1929 and 84.7 by the end of December 1930. The female employment index was 100 in 1926, 83.1 by the end of December 1929 and 66.8 by the end of December 1930. The index of nominal wages fell, but the fall was relatively sluggish compared to the fall in prices. The price of silk fell by more than fifty percent between January 1929 and December 1930. Thus, the real wages in the silk industry increased substantially. In December 1929, real wages of full time workers started falling but the fall was relatively small.

Table 11
Wages of Full time workers

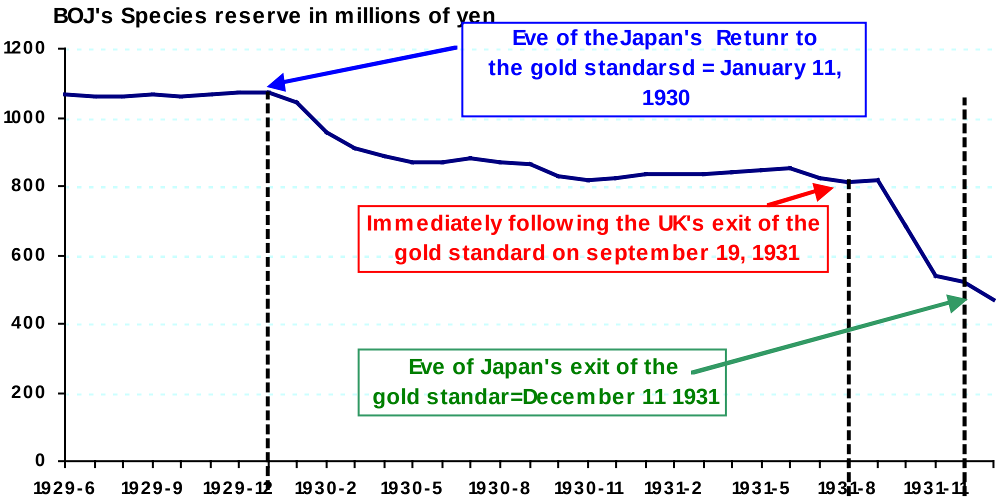
	Nominal Wage		Real Wage
	Male	**Female**	**All industries**
1926	100	100	100
June 1929	98.5	97.4	104.7
December 1929	98.4	96.8	104.3
December 1930	93.7	91.3	95.6

Farmers suffered heavily due to the decline in the prices of silk and rice. There was a bumper crop in 1930, which contributed additional hardship to the farmers. Although there was a poor crop during the following year, the price of rice remained depressed. The fall in the prices of cocoon and silk caused financial difficulties to farmers. The fall in the price of silk and wages hurt small farmers severely. They relied on revenues from their sales of silk cocoons and wages of their daughters in the small firms of the textile cottage industry to supplement their incomes. Since the foot soldiers in the army were sons of farmers, it is easy to understand the political consequences that unfolded during the following decade of the indiscriminate weeding out of 'inefficient' businesses through the return to the gold standard.

Both exports and imports declined in 1931 and 1932, but the current account deficit decreased. Most export and import competing industries had small or medium size firms. Logically, an unexpected domestic deflation assisted by a world wide depression should cause many small and medium size businesses to close doors regardless of their respective level of efficiency, throwing many workers out of jobs. Since most of these firms relied on debt directly or indirectly through their directors, their failure translated into a failure of banks. In 1930, seventeen banks closed their doors. In 1931, 12 banks imposed a temporary stop on withdrawals, 31 banks almost closed their doors and fifty seven experienced financial difficulties. Local banks suffered and many failed. Hypothec Bank took over the bad loans of the failed banks.

These failures added to the sting although most depositors recovered their deposits and moved them to postal savings or large banks. The liquidity of large banks increased, adding to the temptation to move funds abroad. Large businesses protected themselves by forming cartels under the guidance and with the encouragement of government (administrative guidance). Indeed, the Hamaguchi government enacted in 1931 the famous 'Important Industries Control Law' to strengthen cartel activities resist falls in prices of those industries. One might think this was just the antithesis of the return to the gold standard. Not really, the government must have believed that only small and medium size firms needed rationalization, the prices of their products would make up for the deficiency. This was not the only inconsistency. The rise in unemployment forced the Hamaguchi government to increase government expenditures on makeshift projects. The fall in tax revenues convinced it to start borrowing again reversing its policy of debt reduction.[140] Yet, the price level must continue to fall. Bank of Japan note issues contracted by 13.7% between September 1929 and September 1930 and another 6% by September 1931.[141] The relatively mild reduction in the money supply compares favorably with the huge capital outflows related first to the cashing in of speculators capital gains and later to their build up of new speculative positions anticipating the failure of the return.

Figure 14
BOJ's species reserve during Japans' brief return to the gold standard



Ishikawa (1954) p. 239-240

As figure 14 shows, the species reserve fell in about the same proportion as the money supply between January 1930 and August 1930. The attack in the opposite direction against the yen after the announcement of the UK exist from the gold standard left no more doubt about the credibility of the Hamaguchi government. The species reserve of BOJ fell by another 42%. The difference between the behavior of the money supply and the species reserve is a result of the fact that BOJ and the government could not stand the pressures to rescue failed businesses. They essentially acknowledged that one couldn't deal with the lack of transparency by the brute force of an indiscriminate weeding out using a macro mechanism. In addition to the sale of gold the government used up its line of credit in New York and the gold it purchased at the end of 1929 from those speculators who anticipated the return of Japan to the gold standard

MOF Inouye supported by banking interests argued that the government must stay the course for two reasons. Staying the course was important for the credibility of the government commitment to remain on the gold standard. The reduction of the money supply would soon drain out liquidity for forward purchases of gold. That could have been the case if the money supply fell in the required proportion but money supply decreased only by 6% during the last six months of 1931. The contradictory actions taken by the government, the heavy losses of reserves and international developments destroyed the credibility of the government staying the course.

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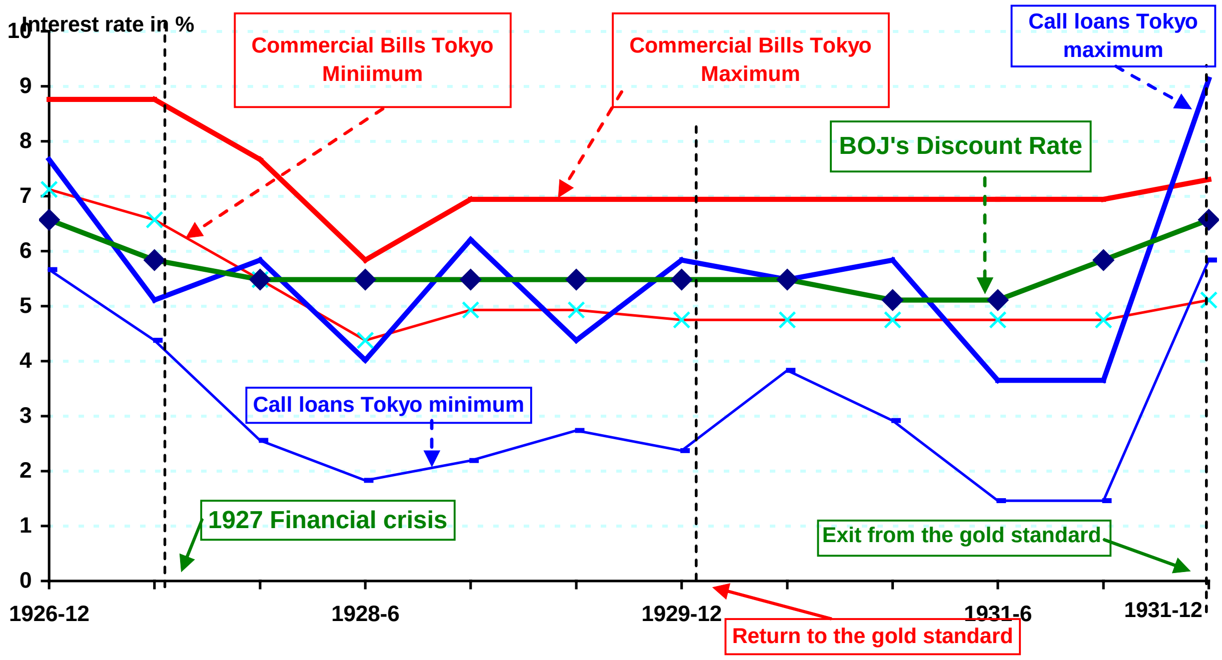
[140] Fuji Bank (1967), p.112

[141] Bank of Japan (1966), p. 170, Table 55

In June 1931, Austria's credit Anstalt defaulted throwing Austria in a crisis. The crisis spread to Germany and then to London because Germany borrowed heavily in the London financial market. The London financial market experienced huge capital outflows and the British pound came under heavy speculative pressure. The British government decided to go off the gold standard on September 21, 1931 and the Manchurian war between Japan and China began on September 18 1931. These events together with the dwindling of its stock of species reserves and the loss of credibility in its ability to keep Japan on the gold standard brought down the Hamaguchi government and convinced the new government of Japan to leave the gold standard on December 13, 1931.

Figure 15
Interest rate on commercial bills and call loans Tokyo



Ishikawa (1954) and Bank of Japan (1966) p. 257, table 110

Deposits in all ordinary banks including Zaibatsu banks fell ¥9213 million in 1929 to ¥8174 million at the end of 1931 but their loans decreased from ¥7313 million in 1929 to ¥6074 million. The 1927 financial crisis caused deposits in the five large Zaibatsu banks to increase by 45% between the end of 1926 and the end of 1929. During the same period their total domestic lending increased only by 10%. There was no change in their deposits but their total domestic lending increased by 5% from the end of 1929 to the exit of Japan from the gold standard at the end of 1931. The deposits in the five large banks increased by ¥972 million between the end of 1926 and the end of 1929 and did not change between the end of 1929 and the end of 1931. Their total lending increased ¥200 million between the end of 1926 and the end of 1929 and ¥108 million between the end of 1929 and the end of 1931. [142]

The 1927 financial crisis caused deposits in the other ordinary banks to decrease by 15% between the end of 1926 and the end of 1929. During the same period their total domestic lending decreased by 27%. Their deposits decreased further by 17% and their total domestic lending decreased further by 13.5% from the end of 1929 to the exit of Japan from the gold standard at the end of 1931. The

[142] Ishikawa (1968), Table 47, p.215-249

deposits in other ordinary banks decreased ¥950 million between the end of 1926 and the end of 1929 and ¥1059 million between the end of 1929 and the end of 1931. Their total lending decreased ¥1971 million between the end of 1926 and the end of 1929 and ¥717 million between the end of 1929 and the end of 1931. The other ordinary banks large or small, badly or well managed, bore the burden of the adjustment. Their liquidity improved between the end of 1926 and the end of 1929 but lost 30% of the improved liquidity between the end of 1929 and the end of 1931 because of the failure of many of them during this latter period. [143].

All ordinary banks, as a whole, experienced an increased in liquidity but they didn’t invest it, especially the large five banks, domestically for fear of increased competition during a poor economic environment causing a decrease in interest rates and a corresponding decrease in profits, Fuji Bank (1967). This excess liquidity contributed little to reduce the short term interest rates on domestic loans. As figure 15 shows, short term interest rates fell significantly after the 1927 financial crisis, primarily because of the reduction in BOJ’s discount rate in 1927 and its vast infusion of liquidity to save the failing banks. Figure 15 shows also that the effect of the return to the gold standard on nominal short tem interest rates was insignificant. They responded more to the discount rate of BOJ than to the shock therapy of the return to the gold standard. Thus, the return to the gold standard and the associated deflation (see figure 10) has actually caused real interest rats to rise.

The return to the gold standard did not solve the problem of the lack of transparency or the moral hazard associated with the implicit deposit insurance policy, It didn’t lower the real cost of capital either despite the heavy toll it exacted.

16. Damage control and final solution

The amount of BOJ notes outstanding decreased by ¥303 million from ¥1.739 billion in March 1928 to ¥1.436 billion at the end of 1930. This corresponds to a decrease of ¥113 million in special loans outstanding and ¥231 million of BOJ species reserves. A decrease in BOJ’s reserves financed most of the reduction in liquidity.[144] This fact has probably affected adversely the credibility of the government of Japan to keep the country on the gold standard. This was not the only factor. Many other factors combined to cause the failure of the return.

Since 1920, BOJ followed an easy monetary policy in response to various adverse shocks. A vivid example is the 1927 financial crisis. BOJ granted, with government guarantees, many special loans causing a ballooning of the money supply. The other two major shocks were the 1920 depression and the 1923 earthquake. In every crisis, including the latter three, BOJ behaved responsibly as a modern central bank would behave. However, there was a major side effect of this policy. Every bank and every depositor was practically certain that BOJ would rescue any bank that fails. Hence, banks never hesitated to continue pumping funds in the failed businesses of their borrowers. The financial system and the banking system in particular had always a weak spot.

For an economy to work properly under the gold standard, the financial system must be strong enough to withstand deflation. The weak spots in the financial system made it difficult for BOJ to keep up with the deflation that occurred in the major competitor countries, especially the US and UK. A few Japanese governments allowed deflation to occur while they tried to prevent a depreciation of the yen by allowing limited gold exports. However, there was still a significant gap

[143] *Ibid*

[144] Ishikawa (1968), Table 47, p.239

between Japanese domestic prices and US prices at the end of 1929 when calculated at the prewar parity. At the end of 1929, the whole price index in Tokyo was 163, 133 in London, and 134 in New York while they were all 100 in 1914. Had the government returned the economy at parity implied by the exchange rate at the end of 1925 of about 41 US dollar for 100 yen, the Japanese economy would have at least avoided further downward adjustment in prices.

Ishikawa (1968) argued that, in order to deal with the balance of trade problems encountered during the nineteen twenties, it was enough for the government to reduce its expenditures and reduce the money supply. It was not necessary to impose an additional burden of raising the exchange rate of the yen by opting to return to the gold standard at the old parity. He pointed out that choosing the parity implied by the exchange rate prevailing at the end of 1928 would not have involved a depreciation of the yen and the loss of credibility as to the government ability to keep Japan on the gold standard once it returned to it. He implied that those foreign (New York) banks who advised the government of Japan to return at the old parity to enable it to refund the old foreign loans were wrong.

（1） *Failure of the return to the gold standard*

True, some Japanese governments of the 1920's were aware of the weaknesses of the financial system, in particular the banking system. One of the governments implemented a reform by rewriting the banking act. However, the new 1927 Bank Act did not deal with the main cause of the weakness, i.e., the lack of transparency in the management of ordinary banks and their relationship with their borrowers. The authors of the new bank act assumed that "big is strong". As we have shown above this was not true. While the five large city banks were well managed, many other large ordinary banks were not. A deflation would cause damage to some businesses that in turn were bound to pull down with them the badly managed creditor banks. The foreign exchange market participants were aware of the fragility of the financial system and inferred that the government will not be able to withstand the onslaught of the deflation caused by the return at the old parity.

The stubbornness of MOF Inouye compounded the problem. He shrugged away the seriousness of the worldwide depression that started before the date that his government fixed to return to the gold standard. He assured his critics that the world depression would be short lived. The credibility of the return to the gold standard at the old parity was further damaged when, in July 1930, six months after the return to the gold standard, the opposition party, Seiyùkai, urged the (Minseito) government to re-impose the embargo and devalue the yen. Furthermore, certain interest groups (cotton industry, Zaibatsu banks) that urged the government to return Japan to the gold standard did not keep their promise to support it after the return. Ishikawa (1954, pp 213-214) blames these interest groups including large banks for undermining the credibility of the government commitment.

BOJ had a comfortable cushion of gold species reserves before the return. Large city banks exported ¥308 million of gold in 1930 and ¥420 million in 1931. Since August 1930, large species outflows resumed. A survey by BOJ asked the reason for exporting gold. Most exporters answered it was to repay loans from abroad. We suppose that most of the loans were contracted to buy the yen before the return to the gold. That is, during 1929, speculators sold the yen short.

After the UK left the gold standard in September 21, 1931, a burst of speculative purchases of US dollars by Japanese nationals occurred. BOJ and YSB attempted to stem the tide for about one month using the line of credit secured in New York by the government at the end of 1929. The two banks combined sold ¥400 million worth of US dollars. An additional factor that increased the drain on BOJ's reserves is the additional demand to repay loans contracted more than twenty years earlier in foreign exchange markets. These events destroyed the credibility of the government staying the course.

Table 12
Interest rates

Discount rate	September 1929	December 31, 1929	December 31, 1930
FED (USA) discount rate	6.5	4.5	2
Bank of England	6.5	5	3
France	3.5	3.5	2.5
Germany	7.5	7.0	5.0
Japan BOJ's discount rate	5.4	5.4	5.1

At the start of the gold hemorrhage, BOJ could not increase interest rates to stem gold exports because the Japanese economy was sinking into a depression thanks to the combined effect of 20% appreciation of the yen and the worldwide depression. The US Federal Reserve Board had lowered its discount rate to 2% by the end of 1930. As the following table shows, BOJ couldn't lower its discount rate much because it was afraid it would cause more capital outflows. As table 12 shows, like Germany, Japan was stuck with relatively higher interest rates.

Table 13
Balance of payments in millions of yen

	1927	1928	1929	1930	1931
Current account balance	-39.1	-63.1	119.6	57.0	-4.0
Trade balance	-186.9	-224.3	-67.6	-76.0	-88.0
Capital account balance	-86.4	25.0	-93.0	-132.0	-232.0
Gold exports	36.3	0.35	0.0	308.6	419.9
Errors			-26.6	-233.6	-183.9

Faced with a significant loss of credibility after the exit of the UK in September 1931, BOJ decided that it couldn't even settle for a neutral interest rate policy. In order to strengthen the credibility of the government's commitment, BOJ resumed its gold sales. In addition, BOJ raised its discount rate to 5.84% on October 5, 1931. It raised it again to 8.57% in November 1931 without success in stemming the gold outflow. BOJ's species reserve decreased to ¥730 million by the end of 1931. The creation of cartels in various industries prevented prices from falling but nominal wages fell. This reduced the incentive to increase productivity.

Another factor that contributed to the loss of credibility was a widespread disagreement about economic and fiscal policy among political and military leaders. The latter refused to reduce military expenditures, forcing the (civilian) government to reduce expenditures in other areas by a greater amount and casting doubt on the ability of the government to stay the course. Furthermore, the start of the Manchurian war crippled the government. Once the war got out of control, it was impossible for the government to concentrate its attention on economic issues.

When UK's Churchill decided, against the advice of Keynes, to deflate over a period of four years starting in 1921 in order to prepare the UK's return to the gold standard, he knew he had a social security cushion to help the unemployed. He also had the benefit of a prospering US economy and an efficient financial structure. In contrast, Japan's Inouye had all cards stacked against him. Japan did not have a social security cushion to help deal with the side effects of the deflation and the rest of the world was sliding into a serious depression. Protectionist forces in the rest of the world regained their power, especially in the US, blocking the gold standard mechanism that is supposed to reward Japan for its loyalty. The lack of social security blocked automatic stabilizers from reducing the severity of the blow of deflation. Finally, despite the promulgation of the new 1927 Banking Act and the active administrative guidance to force bank mergers, the weak banks remained weak. Thus, Inouye had to deal with the consequences of this weak financial structure. Given these serious odds, BOJ could not continue to rely on free market forces to stem the hemorrhage. At last, it imposed limitations on credit to banks that engage in gold exports or purchase US dollars. The return to the gold standard was doomed. On December 11, 1931, the (Minseito) government, under Prime Minister Wakatsuki resigned. The opposition party formed a new government. Its job was cut for it, repair the damage and bring the economy back on its feet.

（2） *Damage Repair*

The core of Takahashi's economic policy was to encourage industrial development by monetary and fiscal policy. Unlike Matsukata in 1880, Takahashi was not concerned about the internal credit worthiness of the yen. His concern was to bring the economy out of the depression. His premise was that Japanese people did not need the gold standard because they had confidence in the yen, (Fukai, 1938). Fukai (1938) advised Takahashi to maintain the purchasing power of the yen because price stability was important for economic development. After exit from the gold standard, the government should assign monetary policy the goal to promote equilibrium between (increased) productivity and (stability of the) currency.

The floating of the yen after the exit from the gold standard allowed it to depreciate by 60% to US $ 14 ¾ for a ¥100 by the end of 1932. To prevent further declines the government succeeded in passing various laws designed to limit capital outflows. The most stringent ones were passed in March 1933 giving the government full control of the foreign exchange market. It also allowed the government to control imports presumably through quotas and tariffs. This was a clear reversal of the free trade policy followed since the Meiji era. Subsequently, the exchange rate stabilized. The depreciation helped exports for awhile but retaliations of the UK and US governments prevented further increases in exports, and the depreciation did not improve Japan's balance of trade. However, domestic prices stopped falling. They started to increase but sluggishly afterwards because of the damper the UK and US governments placed on their imports through their hefty increases in tariffs. It took private domestic activity awhile to respond to increases in government expenditures initiated by the government after the exit from the gold standard. In March 1933, the US government decided to exit the gold standard and the Japanese government decided to fix the exchange rate of the yen in terms of the British pound.

At the end of 1931, the financial situation was tight. The volume of BOJ's outstanding notes has fallen by 17.3% between December 1929 and December 1931 or ¥223 million. The decline was a consequence of the ¥630 million export of gold, cushioned by an increase in BOJ's lending to support or prevent the failure of ordinary banks. At the same time, BOJ increased the discount rate twice in the second half of 1931 in a futile attempt to stem capital outflows. After the exit from the gold standard, the first step of MOF Takahashi was to relax the monetary situation in order to stimulate demand and instill confidence. From March 1932 to August 1932 BOJ decreased its discount rate to 4.1% in an attempt to seduce banks to borrow from the central bank.[145] Due to the severity of the depression, BOJ experienced little increase in borrowing. This seems to corroborate Keynes' claim of the existence of a liquidity trap.

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145 Takahashi reduced also the tax on emergency increases in note issues above the ceiling of note issue paid by BOJ from 5% to 3%. He also abolished tax on BOJ's profits.

Fukai (1938, pp. 637-643) explained Takahashi's policy. Takahashi attached more weight to encourage industry and reverse the decline in money supply. This would reverse the decline in the interest rate. Takahashi was careful not to lose control of money supply and proceeded cautiously. He increased the ceiling on note issues without a corresponding increase in the species reserve from ¥120 million to ¥1000 million He exempted BOJ from the tax on money supply creation in excess of the ceiling in case of emergency. He did not favor the previous policy of rescuing weak industries. Rather, he encouraged expanding industries and productivity increases by actively increasing aggregate demand.[146]

Traditionally, BOJ used commercial paper discounting as an instrument to control the growth rate of money supply. Takahashi allowed BOJ to underwrite the issue of new government bonds. The goals of his policy were to restore the money supply to its level prior to the lifting of the embargo and stimulate aggregate demand through lowering of the interest rate and the underwriting of government bond issues to finance the Manchurian war He considered the underwriting of government bond issues as temporary. Once the economy recovered and financial markets eased, he asked BOJ to resell government bonds and stop underwriting new government bond issues. The government expanded the war in China in 1937 and reversed Takahashi's decision after his death in 1936. It instructed BOJ to underwrite again government bond issues to finance the expanded war in China. A temporary measure became a permanent policy.

BOJ reduced its discount rate from 6.57% in November 1931 to 3.66% in 1933. Eventually, market interest rates fell following the lead of the discount rate. However, Takahashi did not believe that BOJ could control the interest rate indefinitely and reduce it to any level it wants. He believed savings is the ultimate source of financing investment. Thus, BOJ's underwriting of government bonds must stop once the economy recovered. The fall in the exchange rate of the yen by more than fifty percent after the exit helped to revive exports. Takahashi did not believe either that the depreciation of the yen was the cure for the depression. However, he did subscribe to the idea that there must be control on capital flows. His government passed a law that allowed BOJ to control the foreign exchange market.

Although the large city banks of Tokyo, Osaka and Nagoya created a syndicate to underwrite new issues of government bonds, they hesitated to underwrite because of a low level of public confidence in an economic recovery. War expenditures by the central government increased substantially after the start of the Manchurian war. The government ordered BOJ to underwrite its new bond issues designed to finance the war and spent the proceeds creating more income, a forerunner action of Keynesian remedies for depression. Economic activity responded positively and confidence improved. This is a perfect proof that fiscal policy during a depression cannot work without money creation. The improvement in confidence made it possible for BOJ to siphon off the extraordinary 33% increase in note issues because of its initial underwriting by reselling the new government bonds to the public. The financial market absorbed the sales easily without much increase in the interest rate. The resale of the new government bond issues was a result of Takahashi's commitment to the principle that BOJ's underwriting is a temporary measure. This temporary underwriting strategy was a precursor of the introduction of open market as an instrument of BOJ's monetary policy. Henceforth, BOJ did not have to rely on banks and private sector borrowing to conduct its monetary policy.

Now BOJ can control the yield on government bonds at least in the short run. The direct underwriting of government bond issues helped to reduce the yield on government bonds from 5% to 4%. MOF can now influence interest rates and reduced the interest rate on postal savings deposits. Through administrative guidance now more effective with the help of the banks cartel,

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[146] Fukai (1938), pp. 637-643

MOF caused interest rates on deposits to decrease from 4.7% in 1931 to 4.2% in 1932 and 3.7% in 1933. In 1937, BOJ's discount rate decreased to 3.3% and the banks cartel reduced the interest rate on deposits to 3.3% in April 1937.[147] MOF's control over financial markets is nearly complete.

Aware of the German experience in the 1920's, Takahashi instructed BOJ to resell most of the new bond issues that it underwrote. Table 14 shows that by 1935, BOJ resold 85% of the total amount of new bonds issued after the exit form the gold standard.

Thus, it is not surprising that inflation pressures remained relatively benign during Takahashi's tenure. BOJ used also open market operations to flatten the yield curve. It tried to reduce interest rates across the interest rates spectrum in an attempt to revive investment. Interest rates fell in line during the first half of 1933. However, after July 1934 interest rates started to rise. This was due to an increase in expected inflation because prices started rising at the beginning of 1932. Takahashi acted immediately to reduce government expenditures. He felt the economy was close to full employment at the end of 1935.

Table 14
Temporary underwriting issue in millions of yen

Year	**Issue**			**BOJ's underwriting**		**Resale**
	New	**Refund**	**Total**	**amount**	**%**	**amount**
1932 Nov-Dec	200	0	200	200	100	16
1933	1162	53	1213	1115	92	789
1934	660	256	916	701	77	900
1935	780	268	1048	751	72	655
Total	**2802**	**577**	**3379**	**2767**	**82**	**2360**

Source: Bank of Japan (1948), p. 25

At the end of 1936, Takahashi planned to stop the easy money policy. He was unable to implement his new program because he was assassinated on February 26 1936. After his death, a military government took over and continued the easy money policy supplemented by extensive controls. The military government enacted the famous "Temporary financial act" in September 1937 and a series of additional decrees aimed at giving it complete control over economic activity through control of financial markets. The tightening grip culminated by the proclamation of the "Nation's Total Mobilization Act" in March 1938. The act provided the military government with control over both financial resources and business activity. Henceforth, all financial institutions needed government permission to make loans exceeding ¥100,000 yen. The government classified businesses in four categories according to a priority list that favored industries involved in the production of military equipment. Producers of military equipment have first priority on bank loans, followed by businesses producing for exports. Third in priority are industries closely related to military activity.

In addition, the military government acquired control on the issue of corporate bonds and stocks. Producers of military equipment have first priority and so-called critical industries have second priority over issue of bonds and stocks. The commercial law placed a limit equal to the value of paid in capital on the maximum amount of bonds a company can issue. The 1938 Mobilization Act allowed companies in critical industries to issue twice the maximum amount allowed by

[147] Fukai (1938), p. 646

commercial law. Industrial Bank has the third priority over issues of bond subject to a maximum of ¥1 billion with half of the issue guaranteed by government. The government directed Industrial Bank to provide capital in priority to critical industries. It also encouraged people to limit their expenditures to essential needs and save the rest of their income to purchase government savings bonds.

(３) *Inouye's Blunder and the dawn of financial repression*

The decade of the 1920's heralded a watershed in Japanese economic policy. Various governments tried many times to return the country to the gold standard in the hope that the return would force badly managed businesses to close down, reduce competition for short term funds, free up capital, reduce risk and lower the real cost of capital. Yet, those same governments were also unwilling to let bank depositors down for fear that this would reduce savings and the supply of capital. At the same time, those same governments were unwilling to accept a return at the parity implied by the current exchange rate and price levels despite the fact that there was ample warning and understanding of the high social and economic costs of a return at the old parity. This understanding explains partly the indecisiveness of those governments. Inouye (1931), who led Japan into its fateful return to the gold standard in January 1930, provided additional reasons and explained some of the costs of the indecisiveness.

The continuing deficit of the merchandise account after the end of World War I was a serious concern for most Japanese governments of the 1920's. They feared a return to the gold standard would plunge the economy into nightmares of recurrent current account deficits as it happened during the pre World War I decade. Those governments who intended to return Japan to the gold standard waited for a "revival of trade" to effectuate the return. Inouye (1931) argued that this procrastinating strategy created additional uncertainty and a fertile field for gambling that speculators were quick to exploit. He described vividly such a speculative episode in 1925. Speculators caused significant fluctuations in the exchange rate of the yen hurting some industries and helping others alternatively. He pointed out that the fluctuations of the exchange rate caused serious damage to the main stays of Japan's exports, the silk and cotton industries. According to him, the surplus of the merchandise account during the war was the exception to the rule that Japan's imports of merchandise must exceed its exports. As figure 13 shows, although there was a continuing but dwindling surplus of the balance of services, the current account balance showed a continuous deficit between 1920 and 1928. Inouye (1931) argued that waiting for a "revival of trade" was a wishful thinking causing indecision and the resulting speculators attacks that are bleeding Japan of its stock of foreign currency and gold reserves. Thus, he recommended that Japan should start preparing for lifting the embargo on gold exports immediately (May 1926) and return promptly to the gold standard at the old parity. In his opinion, the preparation required building up the credibility of the government intention to return and building up a reserve of foreign currency or gold outside Japan by allowing BOJ to buy gold or foreign reserves from the speculators and invest it in New York or London. He conceded that this return at the old parity would hurt the silk industry and "the productive industry of Japan" and would cause a deflation. In his opinion, these costs are natural and the return has its advantages. It would eliminate the excess liquidity due to capital inflows generated by speculation and would stabilize the exchange rate with its long term beneficial effects on investment and economic activity in Japan, Inouye (1931, p. 180).

He thought that getting rid of speculation about the exchange rate of the yen should be the top priority of the economic policy of the Japanese government. As he put it, "A rise in the (*exchange*) rate (*of the yen*) by all means, but stability, stability is what we want", Inouye (1931, p. 172). He was aware of the brilliant analysis of Ishibashi and the negative effects of the return at the old parity on employment and economic activity, especially in the silk industry. He deplored the trend of increasing tariff barriers in Japan and the rest of the world and the increase of imports and reduction of exports that the return to the golden fetters would impose. Yet, he advocated removal of tariffs and restrictions on capital flows. He probably thought that the lack of transparency, the weakness of some financial and non financial institutions and the moral hazard of the monetary policy of BOJ were all of second order. Furthermore, he probably thought that he had a solution to the negative effects of the return since he proffered a way to "revive trade", reverse the trend of the current account balance and avoid the loss of gold and the fall in employment.

During the war, Japan has acquired a comparative advantage in the "deep sea carrying trade". The export of this service during and immediately after the war produced for Japan handsome returns. After 1920, the gold and foreign currency revenues from this trade declined steadily due to intensified competition and a fast ageing of the Japanese fleet thanks to purchases of a large number of old foreign owned vessels. To rebuild the comparative advantage of Japan in this lucrative trade, he recommended imposing a tax on imports of old vessels to modernize the merchant fleet. This would force the Japanese shipping industry to order the construction of new and better vessels to help it regain its competitive edge. In turn, the increase in the competitiveness of the shipping industry would eventually eliminate the deficit of the current account. The increased output of ships would revive the rest of the economy and cushion the impact of the return to the gold standard.[148]

After years of preaching in the wilderness, the providence smiled on Inouye finally in 1929. The Hamaguchi government adopted his plan of the return, except in few details. As he advocated, the government did mean business this time and took an irrevocable decision to return at the old parity. Unfortunately, the return coincided with the start of the great depression. Instead of wiping out speculation, the return inflamed and fanned it. The irrevocable decision was not enough to bolster the credibility of the government decision and BOJ lost nearly half of its comfortable gold reserve to speculators. Instead of reducing, it increased the nominal and real interest rates. Instead of eliminating the mismanaged and weak businesses, the golden fetters destroyed the small farmers as well as mismanaged and better-managed businesses. Deflation is colorblind; it does not distinguish between the innocent and the culprit.

Inouye's analysis of the exchange rate policy of the 1920's on the basis of which he advocated and eventually executed his plan of a return to the gold standard was brilliant. However, he underestimated the length of the worldwide depression and the associated costs of the deflation that he knew would arise. His underestimation was a consequence of his and the Hamaguchi government unwillingness to deal directly with the lack transparency of some financial and non financial institutions and the concomitant moral hazard of an implicit deposit insurance. It is to the credit of Matsukata, fifty years earlier, that he sought and achieved stability of the value of Japanese money first by improving the transparency of monetary and fiscal policy, creating a transparent central bank and imposing prudence in government affaires. Only fifteen years afterwards, did he "return" Japan to the gold standard. Perhaps, Inouye's obsession with strengthening the credibility of government's resolve after years of indecision and the enormous effort required to improve transparency convinced that the return to the gold standard at the old parity was the only feasible solution. The intensity of the speculative attacks distracted him from applying the second leg of his therapy, that of reviving the shipbuilding industry.

After the sudden end of Inouye's experience of flirting with the gold standard without proper tools, his successors re-imposed the embargo on gold exports, floated the yen and applied an expanded version of the second leg of Inouye's policy. They obviated the need for transparency by imposing complete control of interest rates and financial flows. Banks had to merge to create large units and

[148] Inouye did not have time or the opportunity to apply this policy. To pull the Japanese economy out of the jaws of the 1930-1932 depression caused in part by Inouye's fatal policy of returning Japan to the gold standard, his successors, MOF Takahashi and the military governments after him, adopted the same idea, the first to stimulate economic activity and the second to prepare for war.

work according to the principle of “one for all and all for one”. There emerged the convoy system of financial institutions and the dawning of financial repression in Japan the triumph of administrative guidance that will hold sway for the next seventy five years.

Conclusions

After a lengthy period of leaning by doing, the early Meiji government realized that a transparent monetary policy and accountable governments were prerequisites for achieving those goals. To expiate its early age sins, it slashed government expenditures, generated a deflation and moved its budget into surplus. It used budget surpluses to redeem the excess supply of paper yen. Then it created a central bank with a clear mandate and a clear monetary policy rule. With the help of some fortuitous circumstances, it was able to adopt the gold standard. The adoption imposed on the government transparency in monetary policy and prudence in fiscal policy. Instead of going along with the rest of the world by allowing a mild deflation, BOJ adopted a slightly inflationary but transparent monetary policy. One of the goals of the stabilization of the value of the currency and the creation of the central bank was to increase the supply of capital and lower its cost. The stabilization of the value of the currency and the creation of appropriate financial and non-financial institutions would instill confidence and encourage low-income people to save contributing to a continuous increase in the supply of capital.

The Meiji government became also aware that the appropriate financial and non-financial institutions must also be transparent and accountable. Thus, it encouraged the creation of joint stock companies and promulgated two bank laws in 1890. It also created the Tokyo stock market, which remained unfortunately embryonic, unable to promote transparency or play a significant role of intermediation. The 1890 Savings Bank Act required savings banks to cater to small savers and to be relatively transparent and it restricted the range of assets in which they can invest. In contrast, the 1890 Ordinary Bank Act required no transparency and imposed no restrictions. However, in an effort to maximize the growth rate of the domestic supply of capital and lower the cost of capital, the law creating BOJ had implicitly instructed BOJ to provide implicit deposit insurance.

Our study of the monetary policy of BOJ provided evidence of the existence of moral hazard associated with the implicit deposit insurance provided by BOJ. Our analysis of the case studies and the minutes of the deliberation of the 1926 financial committee provided evidence that some banks and associated businesses suffered from lack of transparency and BOJ always bailed out their depositors. The combined evidence supports our main hypothesis that the banking acts and the monetary policy of BOJ encouraged lack of transparency in some financial and non-financial institution and prevented a fall in the cost of capital.

Soon after the promulgation of the 1890 bank acts, entrepreneurs created savings banks and ordinary banks by the hundreds in a few years. Our case studies show that some of those entrepreneurs created ordinary banks (so-called organ banks) to support their non-financial ventures. Self-selection, helped with BOJ’s monetary policy of unconditional support to depositors, operated neatly to separate risk from non risk averse depositors. The risk averse preferred the savings banks and the majority of the depositors preferred the ordinary banks. The implicit deposit insurance offered by BOJ created a moral hazard problem making it difficult for the better managed Zaibatsu banks to compete for deposits and helped keep interest rates from falling below 10%. Thanks to the implicit deposit insurance, the lack of transparency of some ordinary banks and some of their associated borrowers did not deter depositors. Soon the government had to cap the number of banks and prohibited the creation of new ones. That was the beginning of the end of free banking.

Before World War I, the gold standard forced BOJ and the government to face up to the twin problems of lack of transparency and moral hazard. The government's preferred solution was mergers. When banks fail, MOF requires them through administrative guidance to merge with each other or with other banks. Wars in which Japan participated actively on the field or on the supply lines helped to mask the problems and save the day. World War I helped MOF and BOJ to postpone the day of reckoning and catapulted the Japanese economy into the age of heavy industries. This development created more non-transparent, large and small, financial and non-financial institutions. They prospered during the war and some of them limped thereafter behind the curtain of the principle of 'big is strong' under the protection of freshly erected tariff walls, Inouye (1931). Interest rates fell for nearly two decades after the creation of BOJ. They stopped falling at the turn of the nineteenth century, reflecting a risk premium due to the failure of solving the twin problems of lack of transparency and the moral hazard associate with the monetary policy of BOJ.

Near the end of World War I, the Japanese government imposed an embargo on gold exports following a similar move by the US government. The lifting of the US embargo a year after the end of the war, at the cost of a deflation in the US, plunged its economy into a depression. This required a deflation in Japan of the same order of magnitude in order for Japan to return to the gold standard at the prewar parity. However, neither BOJ nor the government wanted to face up to the necessity of dealing with the twin problems or accepted to allow Japanese prices to adjust far enough. Regardless, The Japanese economy went into a depression in 1920 with a relatively mild deflation and the Japanese government refused to lift the embargo. The policy of benign neglect helped to cushion the blow and the Japanese economy recovered along with the US economy but the gulf between the Japanese and US prices deepened. Given the ever-standing problems of lack of transparency, moral hazard and worldwide political instability, the gulf in prices contributed to a worsening of the current account, a growing malaise about the performance of key light manufacturing industries, and government indecisiveness.

The rising tide of protectionism in Japan and the rest of the world, the continued deflation and the gulf between Japanese prices and US prices exposed the hidden problems of the lack of transparency and moral hazard even more. We provide evidence taken from the brilliant analysis of Ishibashi (1929, 1930) and the minutes of the 1926 financial committee and BOJ's own analysis that the governments of the period knew all too well about the two problems and the appropriate solutions. Yet, the solution proposed by some of the governments was a return to the gold standard at the prewar parity conditional on "trade revival" but assisted by administrative guidance that emphasized mergers to create large financial institutions. This solution did not work, the trade never revived permanently and the Tokyo earthquake didn't help. Governments and private interests revived the idea to return to the gold standard (at the prewar parity) every time exports improved thanks to the waning of government support of the yen and the weakening pressures to return to the gold standard. The revival ignited speculative attacks on the yen, making it more difficult for the light competitive industries, the main stay of Japanese exports, to recover completely,

The added exchange rate risk, created by the indecisiveness of governments, brought home emphatically and persistently the need for the government to abandon its old policy of benign neglect of the transparency problem and the promotion of the principle of 'big is strong'. In its 1927 financial reform, the government of the time missed a great opportunity to impose transparency and enable the stock market to perform its function properly. Instead, ignoring unassailable economic arguments to the contrary, the last government of the 1920's decade took an irrevocable decision to return to the gold standard at the prewar parity in order to eliminate badly managed business and revive economic activity in the light industries sector. This was equivalent to using a sledgehammer to kill a fly perching on a fragile valuable diamond. All the arguments of the opponents of the return to the gold standard at the prewar parity turned out to be correct. This time around, the speculators, including the Zaibatsu bank managers who lobbied the government to return to the gold standard, used the arguments of the opponents of the return to speculate against the yen. BOJ lost control over the banks thanks to its policy of unconditional insurance, which the government sanctioned in 1927 by passing a law that made the insurance of deposits and support to failing business an obligation of BOJ. To protect businesses against falling prices and the substantial reduction of the money supply, the government encouraged cartelization of heavy industries. By returning to the gold standard at the prewar parity, it wanted prices to fall to rationalize domestic industries and help then regain their competitiveness. Yet, it actively helped to form cartels to prevent prices in oligopolistic industries from falling, leaving the competitive light industries and farmers to shoulder the burden of falling prices. The result was a catastrophe. The real cost of capital remained high and the credibility of the government to stay on the gold standard was lost. Perished were many well-managed small and medium businesses along with some badly managed businesses as well as single owner businesses, including farmers. BOJ, for once since its inception, had tight golden fetters that prevented it from bailing out many failed businesses, guilty or innocent alike.[149]

The government that returned the country to the gold standard collapsed after two years and a half in office during which it plunged the economy into a deep depression. The new government repudiated the gold standard immediately, allowed the yen to float freely. It initiated an expansionary fiscal policy supported by an expansionary monetary policy, adopted an industrial policy favoring the creation of cartels and price fixing in oligopolistic industries, including interest rate in banking, and instituted controls on capital inflows and outflows. Out of the bruised economy, emerged almost the same financial institutions some of them beset with the same problems as before. The new government favored the same principle of ‘big is strong’ bolstered by financial repression, credit rationing and stronger administrative guidance. Suddenly the problems of high cost of capital, lack of transparency and moral hazard vanished out of existence.

Did administrative guidance and the policy of encouraging the formation of big financial and non financial institutions solve the transparency and moral hazard problems? We think not. Did administrative guidance lower the real cost of capital and increase its supply. According to the empirical evidence we presented, the answer is yes for a while thanks to financial repression.

[149] Fuji Bank (1967), p. 113

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